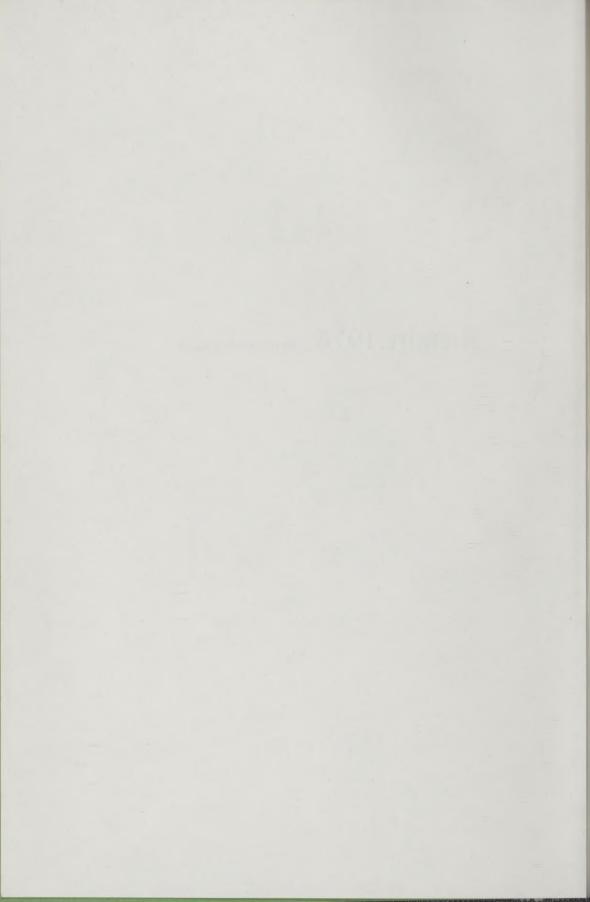




Britain 1976 An official handbook





Britain 1976 An Official Handbook

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The front cover shows an artist's impression of the Great Seal of the Realm which is affixed to State documents, such as treaties and charters; the back cover shows the Great Seal affixed to Magna Carta in 1215.

Introduction

Britain 1976 is the twenty-seventh official handbook in the series prepared and revised each year by Reference Division of the Central Office of Information with the co-operation of other government departments and of many national organisations. The handbook is widely known as an established work of reference and is the mainstay of the reference facilities provided by the British Information Services in many countries. It is available overseas in a limited free edition and is on sale throughout the world.

This 1976 edition, which covers events up to September 1975, gives a factual account of the administration and the national economy of Britain. It describes the activities of many of the national institutions, both official and unofficial, and shows the part played by the Government in the life of the community.

The handbook does not claim to be comprehensive, nor does it attempt to cover Britain's participation in Commonwealth or world affairs. The factual and statistical information it contains is compiled from official and other authoritative sources, and, while most sections of the book relate to Britain as a whole, facts and figures for England, Wales, Scotland, and Northern Ireland are also given separately when relevant.

Readers who require more detailed information should consult the *Annual Abstract of Statistics* and the *Monthly Digest of Statistics*, issued by the Central Statistical Office, and also other government publications and standard works of reference, some of which are listed in the bibliography towards the end of the handbook.

Reference Division Central Office of Information, London September 1975 (moduloom)

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1 The Land and the People

THE PHYSICAL BACKGROUND

Britain, formally known as the United Kingdom of Great Britain and Northern Ireland, constitutes the greater part of the British Isles, a group of islands lying off the north-west coast of Europe. The largest islands are Great Britain (comprising the mainlands of England, Wales and Scotland) and Ireland (comprising Northern Ireland and the Irish Republic). Off the southern coast of England is the Isle of Wight and off the extreme south-west are the Isles of Scilly; off north Wales is Anglesey. Western Scotland is fringed by numerous islands and to the far north are the important groups of the Orkneys and Shetlands. All these have administrative ties with the mainland, but the Isle of Man in the Irish Sea and the Channel Islands between Great Britain and France have a large measure of administrative autonomy and are not part of England, Wales, Scotland or Northern Ireland.

England has a total area (including inland water) of 50,335 square miles (130,367 sq. km.); Wales has a total area of 8,016 square miles (20,763 sq. km.); Scotland, including its inhabited islands has a total area of 30,414 square miles (78,773 sq. km.); Northern Ireland has a total area of 5,452 square miles (14,120 sq. km.). Together, these countries constitute the United Kingdom of Great Britain and Northern Ireland (or Britain), with a total area of 94,217 square miles (244,021 sq. km.). The total land area of the United Kingdom (excluding inland water) is 93,026 square miles (240,936 sq. km.): England, 50,053 (129,637); Wales, 7,968 (20,638); Scotland, 29,799 (77,179); and Northern Ireland, 5,206 (13,483).

When studying British statistics it should be noted whether they refer to England as defined above, to England and Wales (considered together for many administrative and other purposes), to Great Britain, which comprises England, Wales and Scotland, or to Britain (the United Kingdom) as a whole. United Kingdom statistics and other data sometimes include the Isle of Man, 227 square miles (588 sq. km.), and the Channel Islands, 75 square miles (194 sq. km.), which strictly are not part of the United Kingdom but are dependencies of the Crown.

The latitude of 50° North cuts across the southernmost part of the British mainland (the Lizard Peninsula) and latitude 60° North passes through the Shetland Islands. The northernmost point of the Scottish mainland, Dunnet Head, near John o' Groats, is in latitude 58° 40'. The prime meridian of 0° passes through the old observatory at Greenwich (London), while the easternmost point of England is nearly 1° 45' East and the westernmost point of Northern Ireland is 8° 10' West. It is just under 600 miles (966 km.) in a straight line from the south coast to the extreme north of mainland Britain and about 300 miles (483 km.) across in the widest part. Owing to the numerous bays and inlets no point in Britain is as much as 75 miles (121 km.) from tidal water.

The seas surrounding the British Isles are everywhere shallow-usually

less than 50 fathoms (300 feet or 91 metres)—because the islands lie on the continental shelf. To the north-west along the edge of the shelf the sea floor plunges abruptly from 600 feet (183 metres) to 3,000 feet (914 metres). These shallow waters are important because they provide excellent fishing grounds as well as breeding grounds for fish. The North Atlantic Current, the drift of warm water which reaches the islands from across the Atlantic, spreads out over the shelf and its ameliorating effect on the air is thus magnified. The effect of tidal movement is also increased by the shallowness of the water.

Geology and Topography Despite their small area, the British Isles contain rocks of all the main geological periods. In Great Britain the newer rocks, which are less resistant to weather and have thus been worn down to form low land, lie to the south and east, and the island can therefore be divided roughly into two main regions, lowland Britain and highland Britain.

In lowland Britain the newer and softer rocks of southern and eastern England have been eroded into a rich plain, more often rolling than flat and rising to chalk and limestone hills, but hardly ever reaching a thousand feet (305 metres) above sea level. Its boundaries run roughly from the mouth of the Tyne in the north-east to the mouth of the Exe in the south-west.

Highland Britain comprises the whole of Scotland (including the hills and moors of southern Scotland as well as the mountains of the Scottish Highlands, which extend from the Forth-Clyde valley to the extreme north-west), the Lake District in north-west England, the broad central upland known as the Pennines, almost the whole of Wales, and the south-western peninsula of England coinciding approximately with the counties of Devon and Cornwall. Highland Britain contains all the mountainous parts¹ of Great Britain and extensive uplands lying above one thousand feet (305 metres). This high ground, however, is not continuous but is interspersed with valleys and plains. Geologically the mountains and hills consist mainly of outcrops of very old rocks (archaean and palaeozoic), while the upper strata in the valleys and plains are mainly more recent (carboniferous age) and similar to those in the northern and western parts of lowland Britain.

These carboniferous strata are rich in minerals and include the coal measures which were the foundation of Britain's industrial expansion. The outcrops and shallow seams of coal which have now largely been exhausted were found on the edge of the plains and up the valleys leading to the high land. Most of the present deep coal workings underlie the fertile lowlands.

Towards the end of Britain's long geological history, when the ancestors of present-day man had already settled in the country, came the great Ice Age during which, at one period or another, ice caps and ice sheets extended approximately as far south as the Bristol Channel and the Thames valley. The ice naturally accumulated on the higher ground and swept from the mountains of Scotland, northern England and Wales any loose rock or soil which had previously been formed, so that, when the ice eventually disappeared, the hills stood out as barren rocky areas, while a thick mantle of glacial debris—boulders, boulder-clay, sands and gravels—lay distributed widely over the lower ground. The ice had blocked up previous drainage channels and left large lakes, which have since gradually dried up, leaving deposits of sand, silt and mud, often affording soils of great fertility.

In Ireland, where the solid rocks are covered deeply by the debris left by

¹ The highest peaks are: in Scotland, Ben Nevis, 4,406 feet (1,342 metres); in Wales, Snowdon, 3,560 feet (1,085 metres); and in England, Scafell Pike (in the Lake District, Cumbria), 3,210 feet (978 metres).

the ice sheets, the great central plain has large boggy areas, due to interruption of the previous natural drainage. The mountains and hill masses¹ are irregularly placed around central lowlands; the rocks of Ireland are of the same types as the highland zone of Great Britain, and in the higher parts the moorland vegetation resembles that of the higher parts of highland Britain.

Britain's complex geology is one of the main reasons for its rich variety of scenery and the stimulating contrasts found within short distances, particularly on the coasts. The ancient rocks of highland Britain often reach the coast in towering cliffs; elsewhere the sea may penetrate in deep lochs, as along much of the west coast of Scotland. Bold outstanding headlands are notable features in other parts of the varied coastline: the granite cliffs of Land's End; the limestone masses and slates of the coast of south-west Wales; the red sandstone of St. Bees Head on the Cumbria coast; and the vertically jointed lavas of Skye and the island of Staffa in the Inner Hebrides. Even around lowland Britain there are striking contrasts. In some parts the soft, white limestone-the chalk-forms white cliffs as at Dover and in the Needles off the Isle of Wight; while other parts of the south and south-east coastline have beaches of sand or shingle. The eastern coast of England between the Humber and the Thames estuary is for the most part low-lying, and for hundreds of years some stretches of it have been protected against the sea by embankments.

The marked tidal movement around the British Isles sweeps away much of the sand and mud brought down by the rivers and makes the estuaries of the short British rivers² valuable as natural harbours.

Britain has a generally mild and temperate climate. It lies in middle latitudes to the north-west of the great continental land mass of Eurasia, but the prevailing winds are south-westerly and the weather from day to day is controlled mainly by a succession of depressions from the Atlantic which, moving in a generally easterly or north-easterly direction, pass over or near the British Isles. The climate is subject to frequent changes but to few extremes of temperature. Although it is largely determined by that of the eastern Atlantic, occasionally during the winter months easterly winds may bring a cold, dry, continental type of weather which, once established, may persist for many days or even weeks. During the summer months the Azores high pressure system usually extends its influence north-eastwards towards north-west Europe, and the depressions take a more northerly course, often passing entirely to the north of the British Isles.

In Britain, south-westerly winds are the most frequent, and those from an easterly direction the least; such winds occur about one-third as often as southwesterlies although easterly winds are appreciably more frequent in the spring than at any other time of the year. In hilly country, wind direction may differ markedly from the general direction owing to local topography. Winds are generally stronger in the north than in the south of the British Isles, stronger on the coasts than inland, and stronger in the west than in the east. The strongest winds usually occur in the winter; the average speed at Lerwick, Shetland Islands, varies from about 19 m.p.h. (31 km.p.h.) in January to about 14 m.p.h. (23 km.p.h.) in August, while at Kew Observatory, on the western outskirts of London, the average speed varies from about 10 m.p.h. (16

Climate

Winds

¹ The highest peak in Northern Ireland is Slieve Donard, 2,796 feet (852 metres). ² The longest rivers in England—the Severn and the Thames—are only about 220 and 210 miles (354 and 338 km.) long respectively.

km.p.h.) in January to about 7 m.p.h. (11 km.p.h.) in August. The stormiest region is along the north-west coast with over 30 gales a year; south-east England and the east Midlands are the least stormy, with gales occurring on about 2 days a year inland and on some 15 to 20 days on the Channel coast.

Temperature

Near sea level in the west of Britain the mean annual temperature ranges from 8° C. (47°F.) in the Hebrides to 11°C. (52°F.) in the extreme south-west of England; latitude for latitude it is slightly lower in the east. The mean monthly temperature in the extreme north, at Lerwick (Shetland), ranges from 4°C. (39°F.) during the winter (December, January and February) to 12°C. (54°F.) during the summer (June, July and August): the corresponding figures for the Isle of Wight, in the extreme south, are 5°C. (41°F.) and 16°C. (61°F.). The average range of temperature between winter and summer varies from 7°C. to 12°C. (45°-54°F.), being greatest inland in the eastern part of the country. During a normal summer, the temperature occasionally rises above 27°C. (81°F.) in the south, but temperatures of 32°C. (90°F.) and above are infrequent. Extreme minimum temperatures depend largely on local conditions, but -7° C. (20°F.) may occur on a still, clear winter's night, -12° C. (10°F.) is rare, and -18° C. (0°F.) or below has been recorded only during exception-ally cold periods.

The British Isles as a whole have an annual rainfall of over 40 inches (1,016

mm.), while England alone has about 34 inches (854 mm.). The geographical distribution of annual rainfall is largely governed by topography and exposure to the Atlantic, the mountainous areas of the west and north having far more rain than the lowland of the south and east. Between 150 and 200 inches (3,810 and 5,080 mm.) of rain fall on the summits of Snowdon and Ben Nevis during the average year, whereas some places in the south-east of England record less than 20 inches (508 mm.). Rain is fairly well distributed throughout the year,

Rainfall

Sunshine

Visibility

Soil and Vegetation but, on the average, March to June are the driest months and October to January the wettest. A period of as long as three weeks without rain is exceptional, and is usually confined to limited areas. In successive years, however, remarkably contrasting weather conditions are sometimes experienced. The distribution of sunshine over Britain shows a general decrease from south to north, a decrease from the coast inland, and a decrease with altitude. During May, June and July—the months of longest daylight—the mean daily duration of sunshine varies from five hours in north-west Scotland to eight hours in the Isle of Wight; during the months of shortest daylight—November, December and January—sunshine is at a minimum, with an average of half an hour a day in some parts of the Highlands of Scotland and in the Peak District

In fine, still weather there is occasionally haze in summer and mist and fog in winter. Fogs have become less frequent and less severe in recent years as a result of changes in fuel usage and the operation of clean air legislation.

(Derbyshire) and two hours a day on the south coast of England.

Many parts of the surface of highland Britain have only thin, poor soils, with the result that large stretches of moorland are found over the Highlands of Scotland, the Pennines, the Lake District, the mountains of Wales and in parts of north-east and south-west England. In most areas the farmer has cultivated only the valleys and the plains where soils are deeper and richer; villages and towns are often separated by uplands with few if any habitations.

With the exception of a few patches of heath and forest, almost the whole

of lowland Britain has been cultivated, and farmland covers the area except where there are urban and industrial settlements. Elaborate land drainage systems have been developed through the centuries to bring under cultivation the fertile soil of the low-lying fenland of Lincolnshire and part of East Anglia.

With its mild climate and varied soils, Britain has a diverse pattern of natural vegetation. When the islands were first settled, oak forest probably covered the greater part of the lowland, giving place to extensive marshlands, forests of Scots pine on higher or sandy ground and perhaps some open moorland. In the course of the centuries the forest area was progressively diminished and, in spite of planting by estate owners in the eighteenth and nineteenth centuries and the establishment of large forests by the Forestry Commission in the past 50 years, woodlands now occupy only about 8 per cent of the surface of the country. The greatest density of woodland occurs in the north and east of Scotland, in some parts of south-east England and on the Welsh border. Yet much of Britain appears to be well wooded because of the numerous hedgerows and isolated trees. The most common trees are oak, beech, ash and elm and, in Scotland, pine and birch.

There are various types of wild vegetation, including the natural flora of woods, fens and marshes, foreshores and cliffs, chalk downs and the higher slopes of mountains; the most widespread is that of the hilly moorland country, which consists mainly of heather, grasses, gorse and bracken, with cotton grass in the wetter parts. Most of Britain, however, is agricultural land, of which over a third is arable and the rest pasture and meadow, a varied seminatural vegetation composed of indigenous grasses and flowering plants.

Farming land is divided into fields by hedges, stone walls or wire fences and, especially in the mixed farms which cover most of the country, presents a pattern of contrasting colour. The cool temperate climate of Britain and the even distribution of rainfall ensure a long growing season; streams rarely dry up, grassland is green throughout the year with many wild flowers from spring to autumn; in most years there is scarcely a month in which some flowers may not be found in hedgerows and sheltered woodland glades.

Fauna

The fauna of the British Isles is, in general, similar to that of north-western Europe, though there are fewer species. Some of the larger mammals, including the wolf, the bear, the boar and the reindeer, have become extinct; but red deer, protected for sporting reasons, flourish in the Scottish Highlands and on Exmoor in the counties of Devon and Somerset, roe deer are found in Scotland and in the wooded areas of southern England, and fallow deer (which are probably not indigenous) have been introduced into parks and are wild in some districts. The badger, a nocturnal animal, is rarely seen; there are foxes in most rural areas, and otters are found along many rivers and streams. Both common and grey seals may be seen on various parts of the coast, though not usually in the same localities. Smaller mammals include mice, rats, voles, shrews, hedgehogs, moles, squirrels (the imported grey more numerous than the native red), hares, rabbits, weasels and stoats.

About 460 species of birds have been recorded in the British Isles. Some 200 species breed; the rest are regular migrants to, or pass through, the country, or are casual stragglers. Visitors to Britain are often struck by the abundance, variety and tameness of song birds in towns and villages. The pigeon, blackbird and chaffinch are widely distributed but sparrows usually predominate near houses. London and some other large towns have huge flocks of starlings which congregate to roost on buildings, especially in winter. Most species of birds have maintained their numbers over the last few decades, owing to their

success in adapting themselves to man-made surroundings, and in London there has been an increase in the number of species breeding as a result of the improvement in the environment brought about by anti-pollution measures. Some large birds, on the other hand, have tended to decrease, but several species, such as the osprey and the ruff, have re-established themselves after disappearing from Britain in the nineteenth century.

Many species of gulls and other sea birds nest around the coast, and gulls may regularly be seen feeding far inland; some nest in inland sites such as gravel pits and sewage farms. The drainage and reclamation of marshlands have diminished the natural habitat of ducks, geese and other aquatic birds, but the survival of such species is largely assured on the nature reserves and bird sanctuaries which have recently been established on an increasing scale. Nearly all British wild birds are protected; the principal exceptions are those considered injurious to agriculture and birds shot for sport in the open season.

About 30 kinds of freshwater fish are found; salmon, trout, pike, roach, dace and perch being widely distributed. Stocks of trout, rainbow trout (an introduced species), carp, tench and roach are frequently supplemented by introductions for angling purposes. In a number of rivers measures to control pollution have resulted in fish becoming more numerous. In the Thames in London, for example, where 80 species of fish have been found, conditions are now thought to be suitable for salmon to enter the river.

Reptiles and amphibians are few. The former are represented by three species of snakes, of which only the adder is venomous, and three species of lizards, including the snake-like slow-worm. The amphibians are represented by three species of newts and five species of frogs and toads. Most British reptiles and amphibians are indigenous but at least one, the marsh frog, has been recently introduced from Europe. There are no snakes in Ireland.

There are more than 21,000 different kinds of insects, most of them small, in the British Isles. Among the largest are the rare swallowtail butterfly (3 to 4 inches or 8 to 10 cm.) and the stag beetle $(2\frac{1}{2}$ inches or 6 cm.). The insect fauna in Britain is less varied than that of continental Europe and lacks a number of common European species. With modern methods of pest control, extensive insect damage to crops or timber and serious outbreaks of diseases spread by insect vectors are not common in Britain but there is some anxiety among naturalists that chemical protection against insects may be reducing the population of creatures which feed on them, and of their predators in turn. These and other effects of agricultural chemicals on wild life are the subject of special safeguards.

THE DEMOGRAPHIC BACKGROUND

The people who now inhabit Britain are descended mainly from the people who inhabited the area nine centuries ago. The last of a long succession of invaders and colonisers from Scandinavia and the continent of Europe were the Normans, a branch of the Norsemen or Scandinavian Vikings who, after settling in northern France, intermarrying with the French, and assimilating the French language and customs, crossed to England and conquered it in 1066.

Obviously it is not possible to estimate the relative importance of various early peoples—pre-Celts, Celts, Romans, Anglo-Saxons and the Norsemen, including the Danes—in the ancestry of the present English, Scots, Welsh and Irish. Over most of England and the lowlands of Scotland the language which soon came to predominate was English, mainly a marriage of Anglo-Saxon and

Norman-French, while the use of Celtic languages persisted in Wales, Cornwall, the Isle of Man, the highlands of Scotland and in Ireland.

The available records do not enable any precise estimates to be made of the size of population or of the extent or direction of population movement until the beginning of the nineteenth century. It is believed, however, that at the end of the eleventh century the population of Great Britain was about 2 million, while at the end of the seventeenth century a reasonable contemporary estimate put the population of England and Wales at $5\frac{1}{2}$ million and that of Scotland at about 1 million. The main factor in this gradual growth of population was a slow natural increase, the rate of which was retarded in Britain, as in all countries before the development of medical science, by high death rates and, in particular, by very high infant and maternal mortality. Immigration from the continent of Europe has been an influence at certain times and immigration from Commonwealth countries more recently.

From the beginning of the nineteenth century, information about the British people—their number, sex, age, geographical distribution, births, deaths, marriages, occupations, language and family structure—is relatively plentiful and reliable. Most of it is derived from two main sources: the regular flow of vital statistics (that is, statistical information based on statutory registration of births, marriages and deaths) and the periodic censuses of population.

The compilation of complete records of births, marriages and deaths is carried out by registrars of births and deaths, some of whom also act as registrars of marriages. In England and Wales there are some 500 superintendent registrars in charge of registration districts and nearly 1,150 registrars in charge of sub-districts. Registrars and superintendent registrars are appointed either by the councils of counties or of metropolitan districts and in London by the borough councils. They act under the instruction of the Registrar General for England and Wales, who is also director of a central government department, the Office of Population Censuses and Surveys, whose functions include regulating the registration of births, deaths and marriages, the planning and carrying out of population censuses, and the compilation and analysis of population and vital statistics. There are corresponding authorities and similar arrangements in Scotland, Northern Ireland, the Channel Islands and the Isle of Man.

Since 1801 and until 1971 censuses of the people of Great Britain have been taken regularly every ten years, except that there was no census in 1941 because of the second world war. The latest full census covering Britain was taken in April 1971. Censuses were taken throughout Great Britain (on a sample basis) and Northern Ireland in 1966.

Total Population

In mid-1974 the estimated home population of Britain (excluding the populations of the Isle of Man and the Channel Islands) was 55,970,000 compared with 53,885,000 in mid-1964, 38.2 million in 1901, and 10.5 million (in Great Britain) in 1801. The main causes of this great increase in numbers were a progressive reduction in death rates and a continuance of high birth rates into the beginning of the twentieth century.

Britain's population density was approximately 594 persons per square mile (229 per sq. km.) in mid-1974, but in England there were approximately 922 persons per square mile (356 per sq. km.), and in Greater London 11,756 persons per square mile (4,538 per sq. km.).

Future Growth

Since 1971 there has been a decline in the rate of population growth. However,

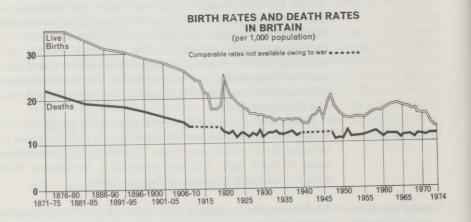
Vital Statistics and Population Censuses

on the basis of mid-1974 population estimates and of present trends in birth and death rates and migration, the increase in population is expected to continue, reaching 56.7 million in 1984, 58.5 million in 1994, 59.7 million in 2004 and 62.2 million in 2014. This represents an average growth rate of 0.2 per cent a year over the whole period.

Growing public concern about the effects of an increasing population on an already densely populated island led to proposals for a policy on population matters. In 1971 the Government set up a Population Panel following recommendations made by a House of Commons Select Committee. In its report the panel endorsed the main recommendations of the select committee for an official attitude on population and for comprehensive family planning services as an integral part of the National Health Service. Provisions for family planning advice and help within the framework of the National Health Service have gradually been extended so that a free service is now available to all (see p. 140). In 1974 the Government announced that it proposed to give higher priority to survey and research work to study fertility, mortality and migration, in an attempt to discover more about the factors which have caused the recent decline in the rate of growth of population in the United Kingdom. The Lord Privy Seal has been given ministerial responsibility for monitoring and co-ordinating further developments in population matters.

Birth and Death Rates

For most of the nineteenth century the annual birth rate was over 30 per thousand of the population, and the annual death rate was just over 20 per thousand. Both birth and death rates fell over the last 20 years of the century, but natural population increase changed little.



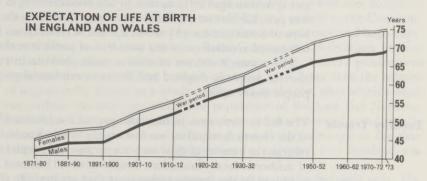
These fertile years, with their comparatively high death rates in all age groups, produced a population of low average age. But when death rates in all age groups fell by an average of about a third, as they did between 1880 and 1910, the results were a very low general death rate, which helped to maintain the population increase in spite of a fall in the birth rate, and a gradual increase in the average age of the population. By the 1930s the birth rate had fallen to less than half the nineteenth century rate. The population continued to increase slowly, but its average age rose more rapidly.

Owing to the changing age composition, the general death rate has remained

Population Policy

nearly stationary since 1920 at around 12 per thousand of the population though death rates have continued to fall heavily in every age group, particularly among pre-school children, school children, and adults in their thirties and forties, with a consequent lengthening of the expectation of life from about 48 years at birth for a boy born in 1901 and 52 years for a girl, to 69 years at birth for a boy born in 1971–73 and 75.2 for a girl.

The continuous fall in the number of births and birth rates ceased in 1933 and for the rest of the 1930s remained at about 15 per 1,000 population. During the second world war the birth rate began to rise and reached a temporary post-war peak of 20.7 per thousand population in 1947. It receded to slightly above the pre-war level in the early 1950s, but from 1956 onwards began to rise again, reaching a peak of 18.8 per thousand in 1964. It has since fallen particularly sharply, reaching 13.3 per 1,000 population in 1974. The proportion of illegitimate births, which reached a peak of 9.1 per cent of all live births in 1945, the end of the second world war, fell between 1945 and 1955, when it reached 4.5 per cent; since then it has risen, and was about 8.7per cent in 1974.



Mortality Causes The causes of the decline in mortality include better nutrition, rising standards of living, the advance of medical science, the growth of medical facilities, improved health measures, better working conditions, education in personal hygiene, and the smaller size of the family, which has reduced the strain on mothers and enabled them to take greater care of their children.

Mortality from acute infectious diseases and from tuberculosis, and infant and maternal mortality have declined very sharply. Mortality from the main acute infectious diseases of childhood is less than a two-hundredth and mortality from tuberculosis is about one-fifty-fifth of the rate prevailing in the mid-nineteenth century. The infant mortality rate (deaths of infants under one year old per thousand live births) has fallen from 142 in 1900–2 to 17.2 in 1973 and maternal mortality from 4.71 per thousand live births in 1900–2 to 0.14 in 1973. The reported mortality from some of the illnesses of middle and old age, such as cancer of the lung and heart diseases, has risen during the twentieth century, and this rise, though exaggerated by the improvement in diagnosis, is at least partly real. Medicine has not yet discovered effective measures to combat some of these illnesses and improvement in positive health does not always bring increased immunity or resistance to them.

Total births of boys naturally exceed those of girls by about 6 per cent, but stillbirth rates and mortality rates at almost all ages are higher for males, so

that in nearly all countries—and in Britain since records began—women preponderate among the elderly and outnumber men in the total population. There are nearly 106 females to every 100 males in Britain. Formerly women outnumbered men in every age group from adolescence onwards. Recently, however, the fall in stillbirths and infant mortality has reduced the influence of these factors on sex ratio so that the age at which women begin to outnumber men has advanced and is now about 45. On the other hand, the lengthening of the expectation of life, which has been rather more marked for women than for men, has increased the preponderance of women among the elderly—there are now some 18 women over 70 years old to every 10 men and made it a weightier factor in the sex ratio of the whole population.

Marriage and Divorce Over the past 30 years the proportion of the population of Great Britain who are or have been married has risen from about 52 per cent in 1939 to 59 per cent in 1973, while the proportion of single persons in the population aged 15 years or over has fallen from 33.3 per cent to 22.5 per cent. This change has been due mainly to an increase in marriage rates among men and women in their late teens and early twenties; whereas in 1939 only 33.8 per cent of young women aged 20 to 24 were or had been married, in 1973 the percentage was 59.1. Earlier marriage has led to a large increase in the number of children born to women under 30 years of age and in recent years has contributed to a substantial acceleration of the total flow of births into the population.

There were 8 decrees of divorce made absolute in 1973 for every 1,000 married people in England and Wales; a substantial proportion of divorced people marry again.

Fertility Trends The fall in birth rates in the latter part of the nineteenth and the early part of the twentieth centuries was due mainly to a decline in the size of the family (that is, the number of children born per married couple) caused by the spread of deliberate family limitation. Couples married just over a hundred years ago produced on the average rather more than six liveborn children. The decline seems to have set in with those married in the 1860s, and the average family size for Great Britain fell to less than 2.1 for those married in the decade 1934-43. There has since been some increase, and the average family size of women marrying in the 1950s is about 2.3 liveborn children, although recently married women have delayed child bearing.

The generation of girls born about 1840, and married mostly between 20 and 30 years later, had about 40 per cent more children than were needed to replace the original generation, while those born at the beginning of the present century had only about 70 per cent of the number of children needed for replacement. Since then the figure has been rising again and seems likely to exceed full replacement with the generation born during the second world war. The rise has been due mainly to the increased proportion of women getting married and of children surviving to adult life.

Age Distribution The effect of the fall in the birth rate beginning in the latter part of the nineteenth century was to reduce the ratio of children and old people to adults of working age. This ratio was at a minimum in 1930. After 1936 the number of children leaving school for work fell sharply owing to the drop in the birth rate after 1921, but the population aged over 64, born during an era of high fertility and representing successive generations of steeply rising numbers, increased very rapidly; the population aged over 40 was also increasing relatively faster than that between 15 and 40. The higher birth rates

after 1942 arrested the compensating fall in the number of children and further reduced the proportion of people of conventional working age.

Because of this high proportion of the young and the old in the present population, which is expected to increase still further, and the growing numbers of young people continuing in full-time education, there is a special need to make the best use of national human resources, both by placing those available for work in suitable employment and by introducing technological improvements and wider training in order to raise productivity. At the time of the 1971 census 92 per cent of men and 55 per cent of women between 15 and normal retirement age (65 for men, 60 for women) in Great Britain were economically active in remunerative work (this includes those temporarily out of work or sick). In addition some 19 per cent of men and nearly 13 per cent of women over normal retirement age were still economically active. At the other end of the scale, some 30 per cent of young people between 15 and 20 were continuing their education (in 1971, 15 was the school-leaving age; it was raised to 16 in 1972).

From the beginning of the nineteenth century until the 1930s the balance of migration was markedly outward. Between 1815 and 1930 well over 20 million people left Britain for destinations outside Europe, mainly in the Commonwealth and the United States. Many emigrants later returned and large numbers of Europeans, mainly Russians, Poles, Germans and Hungarians, entered Britain. Nevertheless, the net loss by migration from Britain's present area amounted to some 4 million between 1871 and 1931. Since then the balance of migration for Britain as a whole was inward until 1967, after which a small net outflow has been recorded. The population of Scotland and Northern Ireland has been characterised by a net outward movement of population to countries overseas as well as to England and Wales, although in the year ended mid-1974 a net gain in population by migration into Scotland was recorded.

There have been two main periods of net inflow into Britain since 1931. The first was in the years 1931 to 1940 when emigration was very low, many former emigrants returned, there was considerable net immigration from the Irish Republic, and extensive immigration from Europe, including about a quarter of a million refugees seeking sanctuary in Britain. The second, from the 1950s, resulted from a large increase in net immigration from Commonwealth countries, particularly West Indian countries, India and Pakistan. In the three years 1960-62 total net immigration amounted to some 388,000 people, about three-quarters of them from the Commonwealth. It was in these circumstances that the Government introduced the Commonwealth Immigrants Act 1962, which gave it power to restrict the number of people from the Commonwealth and, in principle, the Irish Republic who did not have citizenship of the United Kingdom and Colonies and who might immigrate into Britain without assured prospects of employment or adequate means of self-support. The Commonwealth Immigrants Act 1968 extended immigration control to citizens of the United Kingdom and Colonies who had no close links with Britain: broadly speaking, those neither born, naturalised, adopted or registered in Britain nor having a parent or grandparent who was. The Immigration Act 1971, which replaced this earlier legislation, provides a single system of control over Commonwealth citizens and foreign nationals entering Britain. It confers a right of abode-and exemption from control-on citizens of the United Kingdom and Colonies who are connected with Britain by birth, adoption, naturalisation or registration or are children or grandchildren of such persons,

Migration

on citizens of the United Kingdom and Colonies from overseas who have been resident in Britain for a continuous period of five years, and on Commonwealth citizens with a parent born in the United Kingdom. Those having this right of abode are known as 'patrials'. In general, others wishing to enter Britain for employment must hold work permits (see p. 342). Exceptions are Commonwealth citizens with a grandparent born in Britain, certain permitfree categories, and nationals of European Community countries. The dependants of work permit holders and of those who may enter without work permits may also be admitted.

The net emigration from the United Kingdom to Commonwealth countries in 1974 was 67,400 and to foreign countries 17,800. Some 19,400 work permit holders and 5,100 dependants entered Britain from overseas countries in addition to 68,900 Commonwealth citizens and foreign nationals accepted for settlement. Over the same period residence permits were granted to some 11,300 nationals of European Community countries. (For welfare of immigrants see p. 147.)

Under the British Nationality Act 1948, persons born in the United Kingdom, the Channel Islands, the Isle of Man, a ship or aircraft registered in the United Kingdom, or a territory which is still a colony, are, with insignificant exceptions, citizens of the United Kingdom and Colonies by birth. Citizenship may also be acquired: by descent from a father who is himself a citizen otherwise than by descent and, in certain specified circumstances, from a father who is a citizen by descent only; by registration, for citizens of Commonwealth member countries or of the Irish Republic, for minor children and for women married to citizens of the United Kingdom and Colonies; in consequence of an adoption order; and, for aliens, by naturalisation. The requirements for naturalisation include five years' residence in the United Kingdom or Colonies or five years' Crown service, good character, a sufficient knowledge of English and the intention to reside in the United Kingdom or a colony or to remain in Crown service. The requirements for registration are similar except that most Commonwealth and Irish citizens settled in Britain by 1st January 1973 have the right to be registered after completing five years' ordinary residence without satisfying any other requirement. Some 70,000 persons acquired citizenship by naturalisation and registration in 1974.

A citizen of the United Kingdom and Colonies does not forfeit his citizenship by acquiring or possessing the nationality or citizenship of another country (although he can lose it automatically if the territory from which he derives it becomes independent); nor does a woman who is a citizen of the United Kingdom and Colonies lose her citizenship by marriage to a foreign national. Indeed, a citizen cannot be deprived of his citizenship against his will except in very exceptional circumstances (for example, if he has obtained naturalisation or registration as a citizen by fraud). Any man or woman who is a citizen is, however, at liberty to renounce citizenship if he or she possesses or acquires the nationality or citizenship of another country.

Citizens of the other independent Commonwealth countries are, in United Kingdom law, British subjects or Commonwealth citizens and, as such, enjoy full political and civic rights if resident in Britain.

In England, Wales, Scotland and Northern Ireland, English is the language predominantly spoken. In Wales, however, Welsh, a form of British Celtic, is the first language of the majority of the population in most of the western counties and was spoken by 21 per cent of the population aged three years and

Nationality

Language

over (some 542,400 people) at the time of the 1971 census. The Welsh Language Council, an official body, promotes the use of the language. The Welsh Language Act 1967 affirms the equal validity of Welsh with English in the administration of justice¹ and conduct of government business throughout Wales. In Scotland some 88,000 persons in 1971, mainly in the Highlands and western coastal regions, were able to speak the Scottish form of Gaelic. A few families in Northern Ireland still speak the Irish form of Gaelic. The Manx and Cornish varieties of Celtic are no longer effectively living languages, although, in the Isle of Man, Manx is used in addition to English for certain official pronouncements.

English is spoken throughout the Channel Islands, but a Norman-French *patois* is still also spoken there by some people. French is still the official language of Jersey, used for ceremonial and official procedure; both French and English are used in the courts. In Guernsey, however, English is now used for almost all official proceedings.

| | | 1901 census | 1931 census | 1961 census | 1971 census | 1974 mid-year estimate |
|-------------------------|-----------------------------|----------------------------|---------------------------------------|----------------------------|----------------------------|------------------------------|
| England | Persons | 30,509 | 37,359 | 43,461 | 46,018 | 46,436 |
| | Males | 14,714 | 17,839 | 21,012 | 22,355 | 22,602 |
| | Females | 15,795 | 19,520 | 22,448 | 23,663 | 23,833 |
| Wales | <i>Persons</i> | 2,019 | 2,593 | 2,644 | 2,731 | 2,759 |
| | Males | 1,014 | 1,294 | 1,292 | 1,328 | 1,339 |
| | Females | 1,004 | 1,300 | 1,352 | 1,404 | 1,421 |
| Scotland | Persons | 4,472 | 4,843 | 5,179 | 5,229 | 5,226 |
| | Males | 2,174 | 2,326 | 2,483 | 2,515 | 2,513 |
| | Females | 2,298 | 2,517 | 2,697 | 2,714 | 2,714 |
| Total Great Britain | Persons Males Females | 37,000 17,902 19,098 | 44,795 21,459 23,337 | 51,284 24,787 26,497 | 53,979 26,198 27,781 | 54,422 26,454 27,968 |
| Northern Ireland | Persons Males Females | 1,237 590 647 | $1,243^{b}$ 601^{b} 642^{b} | 1,425 694 731 | 1,536 755 781 | 1,547 766 781 |
| Total United Kingdom | Persons Males Females | 38,237 18,492 19,745 | 46,038 22,060 23,979 | 52,709 25,481 27,228 | 55,515 26,952 28,562 | 55,970 27,220 28,749 |
| Isle of Man | Persons | 55 | 49 | 48 | 56 | 56 |
| | Males | 25 | 22 | 22 | 26 | 26 |
| | Females | 29 | 27 | 26 | 30 | 29 |
| lersey | Persons | 53 | 50 | 64 | 73 | 72 |
| | Males | 24 | 23 | 31 | 35 | 35 |
| | Females | 29 | 27 | 33 | 37 | 37 |
| Guernsey and | Persons | 43 | 43 | 47 | 53 | 53 |
| Associated | Males | 21 | 21 | 23 | 25 | 26 |
| Islands | Females | 22 | 22 | 24 | 27 | 28 |

TABLE 1: Populations 1901-74^a

thousands

^{*a*} Figures may not add up to the totals shown because of rounding. ^{*b*} Estimates.

¹ Summary trials in Wales are normally held entirely in Welsh in Welsh-speaking areas and, in the predominantly English-speaking areas, with the ordinary interpretation machinery. In the Crown Courts facilities for simultaneous translation are being improved.

Distribution of Population The population of England is, and has been for centuries, greater than that of all other parts of Britain. The distribution of the British population by country, as enumerated by censuses in 1901, 1931, 1961, and 1971 (or nearest possible estimate) and estimated in 1974, is shown in Table 1, which also gives figures for the Isle of Man and the Channel Islands. The populations of England, Wales, Scotland and Northern Ireland were in every case greater in 1961 than in 1931 and in 1931 than in 1901, and they rose again between 1961 and 1974. The high rate of increase in England is partly due to migration from the other three countries.

Geography, history and economic factors have given rise to the differences between the four countries and to an uneven distribution of the population within them. Table 2 shows the areas and populations of the metropolitan and non-metropolitan counties and standard regions of England and Wales,

| | Area ^a | | | |
|---|--|---|--|--|
| | square miles | square km. | Population (estimate) | |
| England (counties) | | | (thousands) | |
| Greater London and Metropolitan Counties Greater London Greater Manchester Merseyside South Yorkshire Tyne and Wear West Midlands West Yorkshire Non-Metropolitan Counties | $\begin{array}{r} 3,302\\ 610\\ 497\\ 250\\ 602\\ 208\\ 347\\ 787\\ 47,035\end{array}$ | $\begin{array}{r} 8,553\\ 1,580\\ 1,287\\ 648\\ 1,560\\ 540\\ 899\\ 2,039\\ 121,820\end{array}$ | 18,857 7,168 2,718 1,603 1,317 1,190 2,780 2,082 27,579 | |
| England (Standard Regions) East Anglia East Midlands Northern North-West South-East South-West West Midlands Yorkshire and Humberside | $\begin{array}{c} 4,851\\ 6,024\\ 5,946\\ 2,821\\ 10,511\\ 9,207\\ 5,024\\ 5,954\end{array}$ | 12,565 15,601 15,400 7,306 27,223 23,846 13,013 15,420 | $\begin{array}{c} 1,758\\ 3,719\\ 3,127\\ 6,593\\ 16,955\\ 4,206\\ 5,181\\ 4,897\end{array}$ | |
| Wales Non-Metropolitan Counties | 8,017 | 20,765 | 2,759 | |
| Scotland Central Clydeside conurbation Cities and burghs Landward areas | 301 508 29,906 | 779 1,316 77,457 | 1,658 3,659 1,568 | |
| Northern Ireland Total | 5,452 | 14,120 | 1,547 | |

TABLE 2: Population Distribution Mid-1974

^a Areas relate to boundaries as constituted in April 1974.

of the urban and rural areas in Scotland, and of Northern Ireland. Table 3 gives figures of some of Britain's largest towns and cities. About half the British population lives in a belt across England with south Lancashire and West Yorkshire at one end, and the London area at the other, having the industrialised Midlands at its centre. Other areas with large populations are

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the central lowlands of Scotland; north-east England from north of the river Tyne down to the river Tees; south-east Wales; the Bristol area; and the English Channel coast from Poole, in Dorset, eastwards. Less densely populated areas are the eastern fringes of England between the Wash and the Thames estuary, and the far south-west. Most of the mountainous parts of Britain, including much of Scotland, Wales and Northern Ireland and the central Pennines in northern England, are very sparsely populated.

These differences in average density between different regions have been widening. Though in most places the population has been increasing, there have been local differences in the rate of increase. Many places in the Midlands and south-east England, some south-coast areas and some of the most prosperous parts of northern England, Wales and Scotland have had increases well above the average national rate, while remote country areas in northern England, Wales and Scotland and some coastal resorts have had relatively small increases. The differences result from the combined effect of natural increase in almost all areas and net migration towards the expanding employment opportunities of the Midlands and south and towards certain retirement areas, mainly on the south coast.

Urban Dispersal

Throughout Britain the population is predominantly urban and suburban, although there may be access to large parks, commons and other expanses of open country within the urban area. Table 2 shows the distribution of the people of Britain between areas of a generally urban and areas of a generally rural nature (many of the non-metropolitan counties in England and Wales, however, contain areas of urban population).

During the nineteenth century the labour demands of newly developing industry drew great numbers from the countryside; by the end of the century three-quarters of the British population was living in towns and the large conurbation was already the dominant type of British community. During the twentieth century the suburbs of the towns in these population centres have continued to spread and merge. Over one-third of the population lives in Greater London, the metropolitan counties, and the Scottish conurbation of Central Clydeside (centred on the city of Glasgow). The centres of the metropolitan counties are the cities of Manchester (Greater Manchester), Liverpool (Merseyside), Sheffield (South Yorkshire), Newcastle upon Tyne (Tyne and Wear), Birmingham and Wolverhampton (West Midlands), and Leeds and Bradford (West Yorkshire).

There has been a recent decline in the numbers of people living in inner urban areas, balanced or surpassed by the increase of population in and beyond the outer suburban fringes (limited in certain areas by the 'green belt' policy where little development is permitted). This applies most strikingly to London, also to the outer areas of the West Midlands and Merseyside conurbations and to such towns and cities as Bristol, Derby, Liverpool, Norwich, Oxford, Portsmouth and Sheffield.

Factors in the further dispersal of the last few years have been the spread of car ownership, expansion in public transport serving journeys to work, private property developments to meet the demand for housing, and planned transfers of population to the new towns around London, Glasgow, the West Midlands and Merseyside and to selected expanding towns near to the great cities.

The extent to which people in Britain move about the country for work, housing or study purposes is shown by the finding that 10.7 per cent of residents in Great Britain in 1966 had changed their address in the preceding

Mobility

year and 33 per cent in the previous five years; 4.2 per cent had moved between England and Scotland or Wales, or from one region to another, during 1961-66.

| | Area ^a | | Population | |
|---|---|---|---|--|
| | square miles | square km. | mid-1974 (estimate) | |
| Greater London Birmingham Glasgow Liverpool Manchester Sheffield Leeds Edinburgh Bristol Belfast Coventry Nottingham Bradford Leicester Kingston upon Hull Cardiff Wolverhampton Stoke-on-Trent Plymouth Derby Sunderland Newcastle upon Tyne Southampton Portsmouth | $\begin{array}{c} 609\cdot8\\ 80\cdot6\\ 61\cdot4\\ 43\cdot6\\ 42\cdot5\\ 70\cdot9\\ 63\cdot5\\ 52\cdot5\\ 42\cdot3\\ 25\cdot1\\ 31\cdot4\\ 28\cdot7\\ 39\cdot9\\ 28\cdot2\\ 27\cdot4\\ 30\cdot9\\ 28\cdot2\\ 27\cdot4\\ 30\cdot9\\ 26\cdot6\\ 35\cdot8\\ 30\cdot6\\ 30\cdot1\\ 20\cdot0\\ 17\cdot4\\ 18\cdot9\\ 14\cdot4\end{array}$ | $\begin{array}{c} 1,580\\ 209\\ 159\\ 113\\ 110\\ 184\\ 164\\ 136\\ 110\\ 65\\ 81\\ 74\\ 103\\ 73\\ 71\\ 80\\ 69\\ 93\\ 79\\ 78\\ 52\\ 45\\ 49\\ 37\end{array}$ | $(thousands) \\7,168 \\1,086 \\816 \\561 \\561 \\561 \\748 \\450 \\419 \\374 \\335 \\288 \\461 \\287 \\279 \\285 \\268 \\258 \\251 \\217 \\293 \\297 \\213 \\200$ | |

TABLE 3: Population of Some Major Towns and Cities Mid-1974

^a Areas relate to boundaries as constituted in 1974.

SOCIAL LIFE

This section gives some points of general interest about the structure of households and social habits in Britain as a background to the information given in later chapters of the handbook, in particular those on housing, transport and environmental planning. Leisure activities are described in Chapter 23.

The way of life of the people of Britain has been changing rapidly throughout the twentieth century. Underlying causes include a lower birth rate, longer expectation of life, earlier marriage, widening educational opportunities and technical progress, particularly in communications and transport. The changes can be roughly classified as changes in the structure of households, in housing and environment, in the pattern of living and in social attitudes. The following account applies primarily to Great Britain. Many of the same factors are at work in Northern Ireland but their effect is modified both by the earlier background of life in the Province and the emergency situation of recent years. The Structure of Households

There were at the time of the 1971 population census some 18.2 million households in Great Britain. The majority of people (some 97 per cent) live in private households (in families or on their own). The remainder include such people as residents in hotels, people in hospital, in the armed services and in educational or other institutions. Most people marry in their twenties (women in their early twenties and men in their middle twenties), some 90 per cent being married by the time they are 30. There were approximately 27.5 million married people at the time of the 1971 population census and of these about 25 million were estimated to be married couples living together in some 12.5 million separate families containing some 46 million people, the remainder living either on their own or with other persons or families, except for a small number living in institutions. Of the 12.5 million families, nearly eight million, comprising 32 million people, contained a married couple and their children or grandchildren. There werc, in addition, 1.2 million families consisting of one parent living with children or grandchildren. About half of these, most of them women, were bringing up between them about one million dependent children. The rest were living with adult children or grandchildren.

The average size of households has continued to fall progressively, from over four persons in 1911 to 3·1 in 1961 and 2·9 in 1971. It is estimated that in 1971 17·1 per cent of households consisted of one person only, 31·3 per cent of two, 19·4 per cent of three, 18 per cent of four and 14·2 per cent of five or more. However, about half of the small households (one or two persons) contained a person over 60 years old while the other half consisted in large measure of young, often recently married couples, without children and of young people who had left home to live on their own during the first years of their employment and increasingly during the last stages of their education. Relatively few people in their middle years lived in small families without children.

Over 80 per cent of the households in Britain live in houses and only about 18 per cent in flats or rooms. In the centre and inner areas of large towns and the inner streets of smaller towns and villages, terrace houses, most of them built in the early years of the present century and many improved to modern standards with the aid of government grants, still provide accommodation for about 30 per cent of households. More recent inner urban housing development is mainly the conversion of large old houses into flats, or the construction of blocks of flats or maisonettes, usually of not more than four or five storeys. Very few tall blocks are now being built, though there was a certain amount of tall building in the 1960s.

The main housing development of the past 50 to 60 years, however, has been suburban. More than half Britain's families now live in houses, grouped in small terraces, or semi-detached or detached, usually of two storeys with gardens, and providing two main ground-floor living rooms, a kitchen, from two to four bedrooms, a bathroom, and one or two lavatories—the sizes needed to meet the needs of the average married couple while they are responsible for growing children. From 1919 to 1939 such houses were often located along main roads, a pattern which became known as 'ribbon development'. More recently the pattern has tended to change to one of housing in estates set back from the main thoroughfares with more attention given to amenities such as health centres and community centres which provide for various activities, often run by associations of the residents. Standards of new housing have improved considerably in recent years and many more houses now have modern conveniences. It is estimated that in 1972 over

Housing and Environment

89 per cent of households in Great Britain had exclusive use of a bath or shower, that 95 per cent had sole use of a lavatory and that 37 per cent were centrally heated. About 93 per cent of all new dwellings built by local authorities in England and Wales in 1973 had central heating. At the same time improved housing design and greater use of labour-saving equipment and materials have combined to lighten the burden of housework. Nearly nine households in ten have a vacuum cleaner, more than two in three a washing machine, three out of four a refrigerator, one in three an electric food mixer and nearly all an electric iron. An increasing, but still comparatively small, number have a dish-washing machine, deep freeze and tumble drier. Probably less than five per cent of households employ any regular paid help and less than half of one per cent in England and Wales have a resident servant. Some households get help through the local authority home help service because of particular need, for example, if there is an invalid or elderly person in the house or because the mother is having her baby at home. People in full-time work benefit, among other things, from launderettes with extended opening hours and from shops, particularly supermarkets, which stay open later at least one evening a week.

Over half of all families now own their own dwelling (usually a house), though half of these home owners still have further repayments of mortgages to make. Most of the other households rent an unfurnished house or flat either from a local authority (an increasing trend) or from a private landlord (a falling trend). Though many people, perhaps 20 per cent of all heads of households, seem to stay nearly all their lives in the house into which they moved on marriage, there are always a number of individuals and whole families (perhaps between six and nine per cent of families each year) changing their homes for a variety of reasons. Much of this movement is to another house in the same or a neighbouring area, but there are certain patterns of movement to new areas, for example, the drift away from very remote rural areas and from the centres of large towns towards suburbs and rural areas accessible to towns and the movement of people on retirement into country and seaside—particularly the south and south-east coasts.

Increasingly housing and services in the modern environment are based on the assumption that families will have cars. New housing estates are often some distance from public transport and from work places, schools and the main shops. Over half of all households and about two-thirds of the households owning their own home have a car while nine per cent have two or more cars. By mid-1974 there were nearly 14 million cars licensed on the roads in Great Britain compared with 5.5 million in 1960.

The spread of car ownership is also one of the main reasons for the largescale urban reconstruction and road development programmes which are being carried out. In general, towns and cities are being altered to accommodate more traffic and house more people; experiments are being tried in remodelling town centres with pedestrian precincts; by-passes help to reduce traffic in city centres. In addition to new roads and motorways, more reservoirs are needed to supply the growing demand for water and more lines to carry electric power for the growing volume of appliances.

In modern industrial society in a densely populated country there is much scope for conflict between the need for communal facilities and the desire to preserve existing beauty or places of historic interest, and between potential users of a new service and people whose way of life is threatened by the need to accommodate it. As a result the activities of the established amenity societies, such as the National Trust and the Council for the Protection of Rural England, are being supplemented to a growing extent by those of groups formed expressly to safeguard the amenities of a particular area and to give publicity to the views of the people they represent.

Growing public concern about the dangers both to health and to the natural environment which can be caused by the disposal of industrial and human waste, by exhaust fumes and by the rising volume of noise is reflected in the appointment by the Government of a standing Royal Commission on Environmental Pollution, a Clean Air Council and an Advisory Council on Noise. Voluntary societies include the National Society for Clean Air, the Noise Abatement Society and the Council for Nature.

The Pattern of Living

Most people have considerably more free time, more ways in which to spend it, greater choice of occupation and higher real incomes than had previous generations. Agreed hours of full-time work are usually from 35 to 40 hours a week although many manual workers actually work somewhat longer because of voluntary overtime work while the hours worked by women and girls average somewhat less. It was estimated, from a study in the London metropolitan area, that in 1970 a married man aged thirty to forty-nine spent nearly 50 hours a week on paid work and travel to work, nearly ten hours on household tasks, three on non-work travel, 74 on eating and sleeping and nearly 32 on leisure. Women working full time spent on average only 40 hours each week at their work (and travel to it) and 23 hours at household tasks, three hours on non-work travel, 76 hours on eating and sleeping and nearly 26 hours on leisure. Women working part time and women not in paid work spent respectively 12 and 22 additional hours a week on household tasks.

Almost all full-time employees are entitled to a paid holiday each year in addition to public holidays. The proportion receiving a minimum of three weeks' holiday a year has substantially increased to nearly 95 per cent of all employees by the middle of 1974. The majority of employees work a five-day week. Britain, however, has fewer public holidays than nearly all other European countries.

In the last decade average earnings have risen more than prices. The increased diversity of market products and greater spending power have permitted a much freer expression of individual taste for everyone. Styles in clothes, for example, vary more according to age group than according to income group or occupation. The real incomes of manual workers, especially unskilled workers and young people under 18 years old, have risen both in absolute terms and in relation to the incomes of non-manual workers. According to a study published in 1975, the proportion of married couples and single people over 18 without any financial assets had declined from nearly a third in the early 1950s to almost one-tenth in 1974.

The weakest groups economically in an age of inflation are retired people wholly or mainly dependent on static or non-indexed pensions or fixedinterest investments, households on supplementary assistance, households in which the father is dead or absent, and low-wage earners with a number of young children. If these groups and the richest four per cent of householders are excluded, an average pattern for the distribution of household expenditure can be calculated which is not very different from the average expenditure patterns of households of different structures and income levels, though it cannot of course take account of idiosyncracies of individual households. The main differences of expenditure patterns of those with more money are the increased amounts for restaurant meals, cars and holidays.

The general pattern of expenditure has been changing. Expenditure on food now accounts for a smaller share of total consumer expenditure than it did ten years ago. Increases have taken place, however, in expenditure on motor vehicles, housing, alcoholic drink, recreation and entertainment. The proportion of expenditure on clothing and footwear has fallen. At the same time there have been noticeable changes in the types of clothes worn, for example, the growing range of leisure clothes, the more adventurous styling in men's wear, and the large turnover in mass-produced fashions for young people, with frequent changes of style which have also reflected the impact on taste of foreign travel and of immigration from Asia, Africa and the West Indies.

The general level of nutrition is high. The movement towards a greater use of convenience (including frozen) foods, and imported foods in the 1960s, has been partly offset by a reversion to a slightly less-expensive diet. Increases in meat and fish prices have resulted in greater demand for poultry. Cheese and vegetables, other than potatoes, are among the foodstuffs consumed in greater quantities than a decade ago while the consumption of bread and flour has declined. Regional differences in the consumption of certain foods occur, for example, more butter is eaten in Wales than elsewhere and the Scots eat more biscuits and cakes. Tea remains the most popular beverage, but many more people are drinking coffee, including 'instant' coffee, than before. The consumption of considerable quantities of sweets and chocolate (some eight oz.—226.8 gr.—a person a week) remains a notable feature of British eating habits.

Many more people are now interested in 'good food', both traditional English and exotic dishes. Restaurants providing the national dishes of other countries are to be found throughout Britain; Chinese restaurants predominate but there are also many which specialise in Indian and Italian food. While the traditional fish and chip shops remain popular, their facilities have been supplemented by other 'take-away' shops offering a wide variety of dishes. Interest in cooking has also widened and menus have become more imaginative, helped by better equipped kitchens, cookery journalism, including television demonstrations, and a great variety of recipe books. Beer is the most popular alcoholic drink in Britain, consumption per head in 1974 being nearly 201 pints; but increased affluence and tastes acquired abroad have increased the demand for wines, spirits and liqueurs—during the 1960s sales of wines nearly doubled and consumption increased by nearly 54 per cent between 1971 and 1974, from 7·8 pints to 11·9 pints a head a year.

The gradual reduction of class differences has continued throughout the twentieth century. The old middle-class way of life with its resident servants has almost entirely disappeared. Big town houses have mostly been converted into flats, offices or nursing homes, while country estates have become schools, rehabilitation or recreation centres or wild-life parks. The proportion of the working population in non-manual occupations is growing and an increasing number of people in professional or managerial occupations are the children of manual workers. More and more people of every occupation and a wide range of economic levels follow a way of life which is broadly similar-the compact, convenient house on a housing estate; the car that maintains the link with work-places, schools and shops; the evening hours watching television; the weekend devoted to car cleaning, gardening, 'do-it-yourself' decoration and maintenance of the home, hobbies, recreation and outings. There may often also be animals as pets (dogs, cats, hamsters, and budgerigars), for sport (greyhounds and racing pigeons) or for ornament (tanks of tropical fish).

Aspiration to a broadly similar way of life is shared by many members of the immigrant communities who have settled in Britain since the 1950s though, as new arrivals, sometimes with a poor command of the English language or none at all, they may face problems of limited employment opportunities and inadequate housing. Evidence of immigrant cultures can be seen in the urban areas where most of them have settled—national dress worn by many Asian women, Indian films, Asian food shops, market stalls with West Indian fruit and vegetables—and many schools have adapted their curricula to allow host and immigrant communities better to understand each other's traditions. The needs of immigrant children for language training are being met in special centres run by the education authorities, of workers, increasingly, in colleges of further education and in the factories themselves, and of Asian women in groups run by local community relations councils and other voluntary organisations.

The greatest social changes have been in the lives of women. During the twentieth century there has been a dramatic shortening of the proportion of a woman's life devoted to the care of children. A woman marrying at the end of the nineteenth century would probably have been in her middle twenties, and would be likely to have seven or eight children of whom four or five survived to the age of five. By the time the youngest was 15 she would have been in her early fifties and would expect to live a further 20 years, during which custom, opportunity and health made it unusual for her to get paid work. Today women marry younger and have fewer children. Usually a woman's youngest child will be 15 when she is 45, and she can expect to live another 35 years and is likely to take paid work until retirement at 60. Even while she has the care of children, her work is lightened by household appliances and convenience foods. This significant change in women's life pattern has only recently begun to have its full effect on women's economic position. Up to about 20 years ago some 85 per cent of girls left school at the minimum age of 15 and most of them took a full-time job. However, when they married, they usually left work at once and often never returned to it. Thus, single women, nearly half of them under 25, formed some 56 per cent of the female labour force. Today the school-leaving age is 16, many girls stay at school after that age, and though women tend to marry younger, more married women stay at work at least until shortly before their first child is born. Very many more subsequently return to full- or part-time work. Such changes have led to a new relationship in marriage, with the husband accepting a greater share of the burdens and satisfactions of family life, and with both partners sharing more equally in financing and running the home according to their respective capacities and interests. However, in spite of these major social changes and in spite of the removal of practically all sex discrimination in political and legal rights, the British Government believes that tradition and prejudice still handicap women in their working careers and personal lives. Accordingly, during 1975, proclaimed by the United Nations as International Women's Year, a Sex Discrimination Bill was introduced into Parliament prohibiting discrimination against women or men on the ground of their sex.

Social Attitudes The changed position of women and the changing attitude of society towards their position is part of a more general change in social attitudes. Over the past 20 years there has developed a more informed tolerance of deviant behaviour and an unwillingness to penalise individuals with particular problems. This new spirit of toleration is reflected, for instance, in the

growing popular sympathy for the difficulties of the unmarried mother and in the passing of new laws on such matters as abortion, divorce and homosexuality. Similarly, changes in the law applying to young offenders reflect the view that it is unreasonable to treat children who have broken the law as fundamentally different from children in trouble of other kinds.

This liberalising trend is balanced by a recognition that, in some areas, restrictions on certain freedoms must be extended in the interests of society as a whole—hence legislation on race relations and the control of dangerous drugs and firearms.

Relationships between the generations are also undergoing considerable change, with the result that there is today a greater readiness on the part of children and young people to criticise traditional institutions and to seek more influence in shaping society. This desire for personal involvement is manifest not only among those prepared to demonstrate for or against certain courses of action and to bring pressure on the responsible authorities, but also among the increasing numbers of young people who offer their services to help the old, the disabled, the illiterate, and others in need.

2 Government

GENERAL SURVEY

The United Kingdom is a monarchical State. It is one of the independent members of the Commonwealth,¹ all of whose members recognise the Queen as head of the Commonwealth, and a member nation of the European Community which includes all the major powers of Western Europe and over 80 per cent of its population (see p. 77).

The origins and traditions of the United Kingdom are to be found in each of its four component parts: England, Wales, Scotland and Northern Ireland. England was united as a kingdom a thousand years ago, and Wales became part of the kingdom during the middle ages. The thrones of England and Scotland were dynastically united in 1603, and in 1707 legislation passed in the two countries provided for the establishment of a single Parliament of Great Britain with supreme authority both in England and Wales and in Scotland. Ireland had had links with the kingdom of England since the thirteenth century, and in 1800 the creation of the United Kingdom was completed by a union joining the Irish Parliament to that of Great Britain. In 1922 Southern Ireland (now the Irish Republic) became a self-governing country. The six counties of Northern Ireland had in 1920 been given their own subordinate Parliament, and voted to remain within the United Kingdom. Present arrangements for the government of Northern Ireland are described on page 58.

The United Kingdom Parliament at Westminster in London—with an elected chamber comprising members from English, Scottish, Welsh and Northern Ireland constituencies—therefore represents people sharing very varied backgrounds and traditions. It has ultimate authority for government and law-making, but administrative arrangements have developed in such a way as to take account of the particular needs of different areas.

Devolution

England and Wales on the one hand and Scotland on the other have different systems of law, a different judiciary, different education systems, different systems of local government and, for most domestic matters, different government departments. In Scotland departments are grouped under a Secretary of State (see p. 55), and in the administration of Welsh affairs there is a considerable measure of devolution under a Secretary of State (see p. 55).

To build on this existing devolution of decision making from London, the Government is proposing the establishment of elected assemblies for Scotland and Wales. The assemblies would meet, initially at least, in Edinburgh and Cardiff respectively. The Scottish assembly would have law-making powers within areas for which separate Scottish legislation already exists (for example, housing, health and education) and the Welsh assembly would assume certain powers over delegated legislation. The assemblies would also

¹ The other members are: Canada, Australia, New Zealand, India, Bangladesh, Sri Lanka, Ghana, Malaysia, Nigeria, Cyprus, Sierra Leone, Tanzania, Jamaica, Trinidad and Tobago, Uganda, Kenya, Malawi, Malta, Zambia, The Gambia, Singapore, Guyana, Botswana, Lesotho, Barbados, Mauritius, Swaziland, Tonga, Western Samoa, Fiji, the Bahamas, Grenada and Papua New Guinea. Nauru is a special member, participating in functional activities but not in meetings of Heads of Government.

take over some executive functions. Membership would be on the same system as membership of the United Kingdom Parliament. There would be a block grant to the assemblies which would take into account local needs and the desirability of some uniformity of standards in all parts of the United Kingdom. Allocation of the grant among different services would be a matter for the assemblies.

The establishment of the assemblies would not, however, detract in any way from the overriding interest of all British people in the determination of United Kingdom policies as a whole. The United Kingdom Parliament and central Government ministers would remain fully responsible for overall British interests; Scotland and Wales would retain their present representation in Parliament; and there would continue to be Secretaries of State for Scotland and Wales to act as full members of the Government forming United Kingdom policies.

Consultations are taking place in the regions of England to see whether there is a case for devolving further decision-making powers from London (existing devolution includes a series of economic planning councils and boards). (For arrangements in Northern Ireland, see p. 58.)

Ministerial responsibility for devolution policy is held by the Lord President of the Council, a senior member of the Cabinet. He is assisted by other ministers, and works in collaboration with the Secretaries of State for Scotland and Wales. At official level a new unit within the Cabinet Office works closely with divisions of the Scottish and Welsh Offices, and reports to the Lord President.

Channel Islands and Isle of Man The Channel Islands and the Isle of Man (which are Crown dependencies, not part of the United Kingdom) have their own legislative assemblies and systems of local administration and of law, and their own courts. At the same time, they have a special relationship with the United Kingdom because of their proximity to it and the antiquity of their connection with the Crown. The United Kingdom Government is responsible for their defence, their international relations and, ultimately, their good government.

The Constitution The United Kingdom constitution is formed partly by statute, partly by common law and partly by precepts and practices, known as conventions, which have never been codified and are not directly enforceable in a court of law, but which, nevertheless, have a binding force as rules of the constitution. Because the constitution is not contained in any document, because it can be altered by the passing of an Act of Parliament or by general agreement to vary, abolish or create a convention, it can the more readily be adapted to changing political conditions and ideas without serious disturbance to existing organs and forms.

The organs of government in the United Kingdom constitution are readily distinguishable although their functions often intermingle and overlap. They are:

- 1. the legislature, which consists of the Queen in Parliament, and is the supreme authority in the realm (see p. 28);
- 2. the executive, which consists of: (a) the Government—that is the Cabinet and other ministers of the Crown, who are responsible for initiating and directing national policy (see p. 41); (b) government departments, most of them under the control of ministers and all staffed by civil servants, which are responsible for administration at the national level (see p. 44); (c) local

authorities, which administer and manage many services at the local level (see p. 66); and (d) public corporations which may be responsible for the operation of particular nationalised industries (see p. 197) or of a social or cultural service, for example, and which are subject to ministerial control in varying degrees; and

3. the judiciary, which determines common law and interprets statutes, and is independent of both the legislature and the executive (see p. 94).

THE MONARCHY

The monarchy is the most ancient secular institution in the United Kingdom. Its continuity has been broken only once in over a thousand years; and, in spite of interruptions in the direct line of succession, the hereditary principle upon which it was founded has never been abandoned. The royal title in the United Kingdom is: 'Elizabeth the Second, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith'. The form of the royal title is varied for the other member nations of the Commonwealth of which the Queen is Sovereign, to suit the particular circumstances of each.

The seat of the monarchy is in the United Kingdom. In the Channel Islands and the Isle of Man the Queen is represented by a Lieutenant-Governor. In the other member nations of the Commonwealth of which the Queen is Sovereign, her representative is the Governor-General, who is appointed by her on the advice of the ministers of the country concerned and is wholly independent of the United Kingdom Government. In the United Kingdom dependencies the Queen is usually represented by Governors who are appointed by the Crown, having various executive and legislative powers, and are responsible to the United Kingdom Government for the good government of the countries concerned.

The title to the Crown derives partly from statute and partly from common law rules of descent. Lineal Protestant descendants of Princess Sophia (the Electress of Hanover, grand-daughter of James I of England) are alone eligible to succeed, and although succession is not bound to continue in its present line, it cannot now be altered other than by common consent of the member nations of the Commonwealth of which the Queen is Sovereign. Rules of descent provide that the sons of the Sovereign are in order of succession to the throne according to their seniority; if there are no sons, the daughters succeed in order of their seniority. When a daughter succeeds, she becomes Queen-Regnant and the powers of the Crown are vested in her as fully and effectively as though she were a king. By convention, the consort of a king takes the rank and style of her husband; the converse, however, does not apply and the constitution has never attached any special rank or privileges to the husband of the Queen-Regnant although in practice he may fill an important role in the life of the nation.

There is no interregnum between the death of one Sovereign and the accession of another. Immediately on the death of his or her predecessor the new Sovereign is proclaimed at an Accession Council to which all members of the Privy Council are summoned. The Lords Spiritual and Temporal, the Lord Mayor, aldermen and other leading citizens of the City of London, and the High Commissioners in London of the member nations of the Commonwealth are also invited to attend.

Succession, Accession and Coronation

The coronation of the Sovereign follows the accession after an interval of possibly a year or more. The ceremony has remained much the same in substance for over a thousand years although the details have frequently been modified to bring it into conformity with the customs of the time. The coronation service is held at Westminster Abbey in the presence of representatives of the Lords, the Commons and all the great public interests in the United Kingdom, of the Prime Ministers and leading members of the other Commonwealth countries and of representatives of foreign States.

The Queen is the personification of the State. In law, she is the head of the executive, an integral part of the legislature, the head of the judiciary, the commander-in-chief of all the armed forces of the Crown and the temporal 'governor' of the established Church of England. In practice, as a result of a long evolutionary process during which the absolute power of the monarchy has been progressively reduced, the Queen acts on the advice of her ministers which she cannot constitutionally ignore. She reigns, but she does not rule. The United Kingdom is governed by Her Majesty's Government in the name of the Queen.

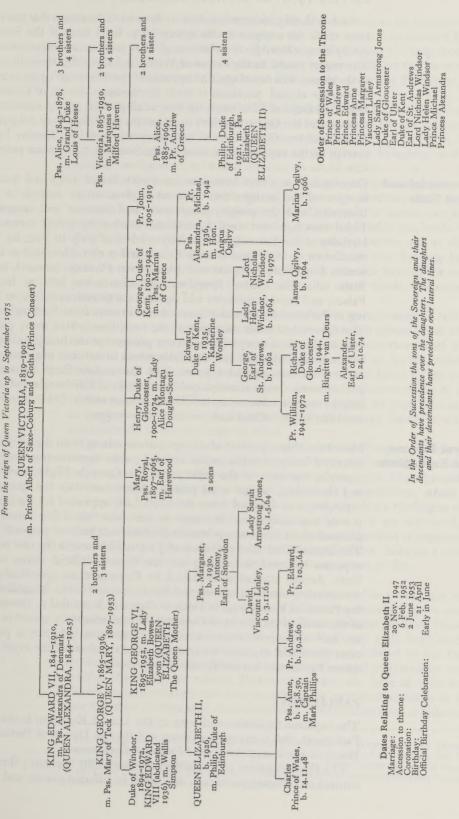
Within this framework, and in spite of a trend during the past hundred years towards assigning powers directly to ministers without any necessity for royal intervention, there are still important acts of government which require the participation of the Queen. These include the summoning, prorogation and dissolution of Parliament; giving Royal Assent to Bills passed by both Houses of Parliament; making appointments to all important State offices, including those of government ministers, judges, officers in the armed forces, governors, diplomats and all the leading positions in the established Church of England; conferring peerages, knighthoods and other honours1; and remitting all or part of the penalty imposed on a person convicted of a crime. An important function is the appointment of the Prime Minister. This is normally automatic, and the Queen must invite the leader of the political party commanding a majority in the House of Commons to form a government. If, however, no party has a majority, or if the majority party has no recognised leader, the Queen must select a Prime Minister, and can consult anyone she wishes. In international affairs, the Queen as Head of State has the power to declare war and make peace, to recognise foreign States and governments, to conclude treaties and to annexe or cede territory.

With rare exceptions (such as in the appointment of the Prime Minister) these and other acts involving the use of 'royal prerogative' powers are nowadays exercised by government ministers who are responsible to Parliament and can be questioned about a particular policy. The law does not require Parliament's prior authority before such powers can be exercised, but Parliament has the power to pass legislation to restrict or abolish a prerogative right.

Ministerial responsibility for the exercise of powers by the Crown does not however detract from the importance of the Queen's participation in the smooth working of government. She holds meetings of the Privy Council, gives audiences to her ministers and other holders of office at home and overseas, receives accounts of Cabinet decisions, reads dispatches and signs innumerable State papers; she must be informed and consulted on every aspect of the national life; and she must show complete impartiality.

Acts of Government

¹ Although most honours are conferred by the Queen on the advice of the Prime Minister, a few are conferred on her personal selection—the Order of the Garter, the Order of the Thistle, the Order of Merit and the Royal Victorian Order.



The Royal Family

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Such is the significance attached to these royal functions that provision has been made for a regent to be appointed to fulfil them if the Sovereign is totally incapacitated (or is under the age of 18 years on accession to the throne). The regent would be the Prince of Wales, and thereafter those in succession to the throne who are of age. In the event of the Sovereign's partial incapacity or absence abroad, provision is made for the appointment of Counsellors of State (the Duke of Edinburgh, the four adult persons next in succession to the Crown, and the Queen Mother) to whom the Sovereign may delegate certain royal functions. Counsellors of State may not, however, dissolve Parliament (except on the express instructions of the Sovereign), or create peers.

Ceremonial has always been associated with British kings and queens, and, Ceremonial and in spite of the changes that have taken place in the outlook of both the **Roval Visits** Sovereign and the people, many traditional customs and usages remain. Royal marriages and royal funerals are marked by public ceremony. The birthday of the Sovereign is officially celebrated early in June by Trooping the Colour on the Horse Guards Parade and is also celebrated as Commonwealth Day. State banquets take place when a foreign monarch or head of State visits the United Kingdom; investitures are held at Buckingham Palace; and royal processions add significance to such occasions as the opening of Parliament, when the Queen drives in state from Buckingham Palace. The Queen and other members of the royal family visit many parts of the United Kingdom every year, and their presence at the inauguration of scientific, artistic, industrial and charitable works of national importance ensures nation-wide interest and support. The Queen pays State visits to foreign governments, always accompanied by the Duke of Edinburgh, and undertakes lengthy tours in other countries of the Commonwealth. Other members of the royal family pay official and private visits overseas.

More than three-quarters of all expenditure arising from the official duties of **Roval Income** the royal family is borne on the votes of public departments-including, for and Expenditure example, the costs of the royal yacht, the Queen's Flight, travel by train and the upkeep of the royal palaces. Apart from this the Queen's public expenditure is financed from the Civil List, approved by Parliament; her private expenditure as Sovereign is met from the Privy Purse; and her personal expenditure as a private individual from her own personal resources. The annual Civil List provision of $f_{1,4}$ million covers the cost of staff and expenses incurred in carrying out the Queen's official duties as head of State. Annual allowances approved by Parliament are specifically made to certain other members of the royal family, but not to the Queen's eldest son, the Prince of Wales, who as Duke of Cornwall is entitled to the net revenue of the estate of the Duchy of Cornwall (he has voluntarily agreed to surrender one half of the revenue to the nation). In addition, £85,000 is provided to meet the official expenses incurred by some members of the royal family for whom Parliament has not specifically provided.

PARLIAMENT

The supreme legislative authority in the United Kingdom is the Queen in Parliament, that is to say, the Queen and the two Houses of Parliament—the House of Lords and the elected House of Commons.

The three elements of Parliament are outwardly separate; they are constituted on different principles; they work in different places; and they meet

together only on occasions of symbolic significance such as the coronation, or the State opening of Parliament when the Commons are summoned by the Queen to the House of Lords. As a law-making organ of State, however, Parliament is a corporate body and cannot legislate without the concurrence of all its parts (except in the case of Bills passed under the Parliament Acts 1911 and 1949).

The Parliament at Westminster can legislate for the United Kingdom as a whole, or any of the constituent countries separately, or for any combination of them. It can also legislate for the Channel Islands and the Isle of Man, which are Crown dependencies and not part of the United Kingdom, and have subordinate legislatures¹ which legislate on island affairs.

Because it is not subject to the type of legal restraints imposed on the legislatures of countries with formal written constitutions, Parliament is virtually free to legislate as it pleases: generally to make or unmake any law; to legalise past illegalities and make void and punishable what was lawful when done and thus reverse the decisions of the ordinary courts; and to destroy firmly established conventions or turn a convention into binding law. If both Houses agreed, it could even prolong its own life beyond the normal period without consulting the electorate. In other words, Parliament is sovereign.

In practice, however, Parliament does not assert its supremacy in this way. Its members bear in mind the common law which has grown up in Britain throughout the centuries and act as far as possible in accordance with precedent and tradition. Moreover, although the validity of an Act of Parliament that has been duly passed, legally promulgated and published by the proper authority cannot be disputed in the law courts, no Parliament would be likely to pass an Act which it knew would receive no public support. The system of party government in Britain ensures that Parliament legislates with its responsibility to the electorate in mind.

On 1st January 1973, when Britain acceded to the European Community, the provisions of the European Communities Act 1972 (passed by Parliament) applying the Treaty of Rome became operative (see p. 77). These provide for various types of Community legislation, including regulations, which take direct effect in member countries, and directives, which are binding as to the result achieved upon each member State to which they are addressed, but allow the national parliaments to choose the form and method of implementation. Under the Treaty of Rome the national parliaments delegate a number of their members to sit in the European Parliament (see p. 80).

The Meeting of A Par Parliament tion o

A Parliament (in the sense of a parliamentary period) has a maximum duration of five years, but may be, and nearly always is, dissolved, and a general election held, before the end of this term. The maximum life may, however, be prolonged by legislation passed in the usual way (this happened for example during the two world wars). Dissolution is ordered by the Queen on the advice of the Prime Minister, by means of a royal proclamation which, besides dissolving the existing Parliament, orders the issue of writs for an election, and announces the date on which the new Parliament is to meet (not less than 20 days after the dissolution). The proclamation is followed as

¹ The legislatures of the Channel Islands (the States of Jersey and the States of Guernsey) and the Isle of Man (the Tynwald Court) consist of the Queen, the Privy Council and the local assemblies. It is the duty of the Home Secretary, as the member of the Privy Council primarily concerned with island affairs, to scrutinise each legislative measure before it is submitted to the Queen in Council.

soon as practicable by the issue of writs in each constituency to cause an election to be held on the day named.

The life of a Parliament is divided into sessions. Each usually lasts for one year-beginning and ending most often in October and interspersed with 'adjournments' at night, at weekends, at Christmas, Easter and the spring holiday and during a long summer recess starting late in July or early in August. The average number of 'sitting' days in a session is about 160 in the House of Commons and about 125 in the House of Lords. At the start of each session the Queen's speech in the House of Lords outlines to the members of both Houses the Government's broad policies and proposed legislative programme. Each session is terminated by prorogation, a prerogative act which appoints the day of meeting in a new session (on rare occasions Parliament has been dissolved without prorogation), and a short speech is made on behalf of the Queen summarising Parliament's work during the past session. Parliament then 'stands prorogued' until the new session opens. Whereas an adjournment does not affect uncompleted business, the effect of a prorogation is at once to terminate nearly all parliamentary business, so that all public Bills not completed in the session lapse, and must be reintroduced in the next unless they are to be abandoned.

The House of Lords The House of Lords consists of the Lords Spiritual and the Lords Temporal. The Lords Spiritual are the Archbishops of Canterbury and York, the Bishops of London, Durham and Winchester, and 21 other bishops of the Church of England, according to their seniority as diocesan bishops. The Lords Temporal may be sub-divided into (1) all hereditary peers and peeresses of England, Scotland, Great Britain and the United Kingdom who have not disclaimed their peerages under the Peerage Act 1963, (2) all life peers and peeresses created by the Crown under the Life Peerages Act 1958, and (3) those Lords of Appeal in Ordinary who are appointed to assist the House in the performance of its judicial duties and who remain members of the House after their retirement. Hereditary peerages carry with them a right to sit in the House of Lords (subject to certain statutory disqualifications), provided the holder is 21 years of age or over, but anyone succeeding to a peerage may, within 12 months of succession, disclaim that peerage for his or her lifetime. Disclaimants lose their right to sit in the House of Lords but they gain the right to vote at parliamentary elections and to offer themselves for election to the House of Commons. No hereditary peerage has been conferred since 1965.

Not all peers with a right to sit in the House of Lords attend the sittings of that House. Those who do not wish to attend may apply for leave of absence for the duration of a Parliament.

Peers who frequently attend the House of Lords (the average daily attendance is about 270) include elder statesmen and others who have spent their lives in public service. They receive no salary for their parliamentary work, but they are entitled to travelling expenses from their homes to the Palace of Westminster and (with the exception of the Lord Chancellor, the Lord Chairman of Committees, the Law Lords and any member in receipt of a salary as the holder of a ministerial office) they may claim payment for expenses incurred in attending the House (except for judicial sittings).

The House of Lords is presided over by the Lord Chancellor, who takes his place on the woolsack as *ex officio* Speaker of the House. In the absence of the Lord Chancellor his place may be taken by a deputy speaker appointed by the Crown or a deputy chairman appointed by the House or, if neither a deputy speaker nor a deputy chairman is present, by a speaker chosen by the

Lords present. The first of the deputy speakers is the Lord Chairman of Committees, who is appointed each session and takes the chair in all committees, unless the House otherwise directs. The permanent officers include the Clerk of the Parliaments, who is responsible for the records of proceedings including judgments and for the promulgation of Acts of Parliament; the other Clerks at the Table; the Gentleman Usher of the Black Rod, who is also Serjeant-at-Arms in attendance upon the Lord Chancellor; and the Yeoman-Usher who is Deputy Serjeant-at-Arms.

The House of Commons The House of Commons is a representative assembly elected by almost universal adult suffrage and consists of men and women from all sections of the community. There are 635 seats in the House of Commons (516 for England, 36 for Wales, 71 for Scotland, 12 for Northern Ireland).

General elections are held after a Parliament has been dissolved and a new one summoned by the Sovereign. If a vacancy occurs in the House as a result of the death or resignation¹ of a member, or as a result of his elevation to the House of Lords, a by-election takes place. Members are paid an annual salary of $\pounds 5,750$ and an allowance of $\pounds 3,200$ a year for secretarial and research expenses. They also have a number of other allowances, including travel allowances, a supplement for London members and, for provincial members, subsistence allowances. A select committee is considering the present support facilities available to private members, in particular those relating to research assistance.

The chief officer of the House of Commons is the Speaker, who is elected by the members to preside over the House. Other parliamentary officers of the House are the Chairman of Ways and Means, and one or two deputy chairmen who act as Deputy Speakers; these officers are elected by the House on the nomination of the Government and, like the Speaker, neither speak nor vote other than in their official capacity.

Permanent officers of the House (that is, those who are not members of Parliament) include the Clerk of the House of Commons, who conducts the business of the House in the official departments under his control and is charged with such matters as keeping the records, endorsing Bills and signing orders, and the Serjeant-at-Arms, who attends upon the Speaker, executes the orders of the House and is responsible for domestic staff arrangements.

Parliamentary Electoral System For electoral purposes the United Kingdom is divided into constituencies, each of which returns one member to the House of Commons. To ensure equitable representation, four permanent Boundary Commissions (for England, Wales, Scotland and Northern Ireland) make periodic reviews of constituencies and recommend any redistribution of seats that may seem necessary in the light of population movements or for some other reason. The most recent reorganisation of constituency boundaries was approved by Parliament in 1970, and the elections of February and October 1974 were fought on the revised boundaries.

The law relating to parliamentary elections is contained principally in the Representation of the People Act 1949 as amended by the Act of 1969. Under the provisions of these Acts, election to the House of Commons is decided by

¹ If a member wishes to resign from the House, he may apply either for what is technically an office of profit under the Crown (Bailiff of the Chiltern Hundreds and Steward of the Manor of Northstead), but to which, in fact, no remuneration attaches, or for a directorship by government nomination in a commercial company which is an ordinary trading concern.

secret ballot in which British subjects (except members of the House of Lords) and citizens of the Irish Republic are entitled to vote provided that they are 18 years old or over, and are not subject to any legal incapacity to vote. Those eligible to vote in any constituency are those who are annually recorded on a register of electors for the constituency as resident in that constituency on a date fixed by statute. Each elector may cast one vote, normally in person at a polling station, although members of the armed forces, Crown servants of the United Kingdom and staff of the British Council employed overseas, and wives or husbands of such persons, if resident overseas with their married partners, may vote by proxy. Voting by post, or in certain cases by proxy, may also be allowed if the voter cannot attend in person because of physical incapacity or the nature of his work or on grounds of religious observance. British subjects who are on the electoral register and who are temporarily abroad on business may vote by proxy if they cannot return in time for polling day; those who are away on holiday cannot vote.

Voting is not compulsory, but of about 40 million people entitled to vote in the elections of February and October 1974 some 78.7 per cent and 72.8 per cent respectively cast their votes. The candidate who polls the most votes in any constituency is elected; an absolute majority is not required.

Anyone, man or woman, who is entitled to vote and who has reached the age of 21 can stand for election, except clergy of the Church of England, the Church of Scotland, the Church of Ireland and the Roman Catholic Church, undischarged bankrupts and certain other people holding offices of profit under the Crown. This last category includes holders of judicial office, civil servants, members of regular armed forces or the police service, members of the legislature of any country or territory outside the Commonwealth, and Government-nominated directors of commercial companies which are ordinary trading concerns. A candidate is usually a member of one of the main national political parties, although smaller political parties or less formal groupings also nominate candidates, and individuals may be nominated without party support.

The conduct of elections, including the manner in which candidates can be nominated for election, is likewise governed for the most part by provisions of the 1949 and 1969 Acts. The maximum sum of money that a candidate may spend on his election campaign is $\pounds_{1,075}$, plus $\pounds_{0.06}$ for each eight electors in a borough constituency and $\pounds_{0.06}$ for each six electors in a county constituency. A candidate may send by post (free of postal charge) an election address to each elector in his constituency. All other expenses, apart from the candidate's personal expenses, must be covered by the statutory sums.

The party system, existing in one form or another since the seventeenth century, is an essential element in the working of the constitution.

The present system is based upon the existence of organised political parties, each laying rival policies before the electorate. Whenever there is a general election or a by-election, the parties may put up candidates for election; any other citizen who wishes may also stand. The electorate then indicates, by its choice of candidate at the poll on election day, which of the opposing policies it would like to see put into effect.

The percentages of votes cast for the main political parties in the October 1974 general election and the resulting distribution of seats in the House of Commons are given in Table 4.

The party which wins the majority of seats (although not necessarily the majority of votes) at a general election, or which is able to command a majority

The Party System

of supporters in the House of Commons, usually forms the Government. By tradition, the leader of the majority party is appointed as Prime Minister by the Sovereign; and its most outstanding members in the House of Lords and the

| Party | % of Votes Cast | Party | Members Elected |
|------------------------------------|--------------------------------------|--|------------------------------|
| Conservative35-Liberal18-Others6-0 | 39·3 35·8 18·3 6·6 100·0 | Labour Conservative Liberal Scottish National United Ulster Unionist Plaid Cymru (Welsh Nationalist) | 319 276 13 11 10 |
| | | Social Democratic and Labour (Northern Ireland) Independent (Northern Ireland) The Speaker | 3 1 1 1 |
| | | | 635 |

 TABLE 4: Percentages of Votes Cast, and Members Elected in the October

 1974 General Election

House of Commons receive ministerial appointments on the advice of the Prime Minister. The largest minority party becomes the official Opposition with its own leader¹ and its own council of discussion or 'shadow Cabinet'; while the members of any other parties or any independents who have been elected may support or oppose the Government according to their party's or their own view of the policy being debated at any given time. On occasions no party succeeds in winning an overall majority of seats in the House of Commons; then a minority government or a coalition might be formed.

The effectiveness of the party system in Parliament rests upon the fact that to a considerable extent Government and Opposition alike are carried on by agreement: that is to say, the opposition agrees that the Government must govern and therefore accepts its decisions; and the Government agrees that the opposition should criticise and therefore sets time aside for that criticism to be heard. The detailed arrangements of government business are settled, under the direction of the Prime Minister and the Leader of the House, by the Government Chief Whip in consultation with the Opposition Chief Whip. The Chief Whips together constitute the 'usual channels' often referred to in the House of Commons when the question of the possibility of finding time for debating some particular issue is discussed. The direction of the business of the House is primarily the responsibility of the Leader of the House, and it is his duty to provide all reasonable facilities for the House to debate matters about which it is concerned.

Outside Parliament, party control is exercised by the national and local organisations. Inside Parliament, it is exercised by the Chief Whips and their assistants (chosen within the party) whose duties include keeping members informed of forthcoming parliamentary business, maintaining the voting strength of their parties by ensuring the attendance of members at important

¹ The Leader of the Opposition in the House of Commons receives an annual salary for that post, as well as a parliamentary salary; in the House of Lords the Leader of the Opposition receives an annual salary.

debates, and conveying upwards to the party leadership the opinions of their back-bench members. The Government Chief Whip in the House of Commons is Parliamentary Secretary to the Treasury; of the other Government Whips, three (one of whom is deputy Chief Whip) are officers of the Royal Household, five hold titular posts as Lords Commissioners of the Treasury and six are paid Assistant Whips. Salaries are likewise paid to the Chief Opposition Whip and his counterpart in the House of Lords, and to two of the Assistant Whips for the Opposition in the House of Commons. The Government Whips in the House of Lords hold offices in the Royal Household and sometimes act as spokesmen for the Government in debates.

Annual financial assistance from public funds helps opposition parties in Parliament to carry out their business. It is limited to parties which had at least two members elected at the last general election or one member elected and a minimum of 150,000 votes cast. The formula is: £,500 for every seat and f 1 for every 200 votes, up to a maximum of f 150,000. A committee is examining whether public funds should be made available to political parties for their work outside Parliament.

The main functions of Parliament are (1) to pass laws regulating the life of The Functions the community, (2) to take formal action, cast in legislative form, to make of Parliament available finance for the needs of the community and to appropriate the funds necessary for the services of the State, and (3) to put relevant facts and issues before the electorate. By custom, Parliament is also consulted before the ratification of certain international treaties and agreements (in spite of the fact that the making of treaties is a royal prerogative exercised on the advice of the Government and, in theory, is not subject to parliamentary approval).

Parliamentary procedure is largely based on custom and precedent, supple-Parliamentary mented by standing orders governing details of practice in each House.¹ The Procedure system of debate is much the same in the two Houses: for instance, every matter is determined upon questions put from the chair or woolsack and resolved in the affirmative or negative, as the case may be; and members speak from wherever they have been sitting and not from a rostrum. The main difference is that in the House of Lords the office of Speaker carries with it no authority to check or curtail debate, such matters being decided by the general sense of the House, whereas in the Commons the Speaker has full authority to give effect, promptly and decisively, to the rules and orders of the House. He must guard against abuse of procedure or any infringement of minority rights, and he has a discretion whether to allow or disallow any closure motion (that is, a motion to end discussion so that the matter may be put to the vote). He has certain powers to check irrelevance and repetition in debate, and to save the time of the House in various other respects. In case of grave disorder he can adjourn the House or suspend the sitting on his own initiative.

Voting in the House of Commons is carried out under the direction of the Speaker, and it is his duty to pronounce the final result. If an equal number of votes is cast for and against the motion under debate, the Speaker must give the casting vote, but he does so only in accordance with rules which preclude an expression of opinion on the merits of the question.

The procedure on voting in the House of Lords is similar to that in the House of Commons, except that the Speaker or chairman has an original, but no casting, vote-the House of Lords being generally governed by the prin-

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¹ A major review of parliamentary procedure is planned.

ciple that unless there is a majority in favour the question is decided in the negative. When the House is sitting judicially (see pp. 84 and 90) the question is put in such a way that, if the votes are equal, there is no interference with the judgment under appeal.

The House of Commons has agreed on criteria for the establishment of a compulsory register of members' pecuniary interests. Members with a direct pecuniary interest in a matter before the House must abstain from voting in connection with it, though in order to operate as a disqualification the interest must be immediate and personal, and not merely of a general or remote character. In any proceedings of the House or in transactions with other members or with ministers or civil servants, members must disclose any relevant pecuniary interest or benefit.

All proceedings of either House are public, except on extremely rare occasions; the minutes (in the House of Commons called Votes and Proceedings and in the House of Lords, Minutes of Proceedings) and the speeches (The Official Report of Parliamentary Debates, *Hansard*) are published daily. The records of both Houses from 1497, together with the parliamentary and political papers of certain past members of the Houses, are available to the public in the House of Lords Record Office. Parliamentary proceedings are not transmitted on television, but following a four-week experiment in 1975 involving radio broadcasting of House of Commons proceedings the Government is to make proposals for broadcasting on a permanent basis.

The law undergoes constant reform in the courts as established principles are interpreted, clarified or refashioned to meet new circumstances, but substantial changes are the responsibility of Parliament and the Government through the normal legislative process.

Draft legislation takes the form of a parliamentary Bill. Most Bills are public Bills involving measures relating to public policy, but there are also private Bills which deal solely with matters of individual, corporate or local interest. Public Bills can be introduced either by a Government minister or by a 'private member' of either House of Parliament who does not hold office in the Government. Most public legislation is in fact drafted on behalf of ministers, and has the support of the Cabinet before being presented to Parliament by the appropriate minister.

In the modern legislative process, before a Government Bill is finally drafted, there is normally considerable consultation with, for instance, professional bodies, voluntary organisations and other agencies interested in the subject-matter of the proposals, such as major interest groups and 'pressure' groups which aim to promote a specific cause.¹

Public Bills can first be introduced in either House. As a rule, however, Bills likely to raise political controversy go through the Commons before the Lords, while those of an intricate but uncontroversial nature often pass through the Lords first. A Bill with a mainly financial purpose must be introduced in the Commons, and a Bill involving taxation or the spending of public money must be based on resolutions agreed to by the House, often after debate, before it can be introduced. If the main object of a Bill is to create a public charge, it can only be introduced by a Government

Legislative Proceedings

¹ Proposals for legislative changes are sometimes set out by the Government in 'White Papers' which may be debated in Parliament before the introduction of a Bill. From time to time 'Green Papers' are published setting out for public discussion major ministerial proposals which are still at the formative stage.

minister, which gives the Government an important degree of control over legislation.

At the beginning of each session private members of the Commons ballot for the chance to introduce a Bill during time specially allocated for private members' Bills; the first 20 are successful. A private member may also present a Bill after question time on notice given, or seek leave to introduce a Bill under the 'ten minute rule' which allows two speeches, one in favour of and one against the measure, after which the House decides whether to allow the Bill to be brought in. Private members' Bills do not often proceed very far, but a few become law. If one secures a second reading, the Government usually introduces any necessary money resolution. Private members' Bills may be introduced in the House of Lords at any time, without notice, but the time that can be given to them in the Commons is strictly limited.

The process of passing a public Bill is similar in both Houses of Parliament. The Bill receives a formal first reading on introduction, it is printed, and after a while (between one day and several weeks depending on the nature of the Bill) it is given a second reading after a debate on its general principles and merits. In the Commons a non-controversial Bill may be referred to a second reading committee to recommend whether it should be taken as read a second time. After a second reading in the Commons, a Bill is usually referred for detailed examination to a standing committee (see p. 37). If the House so decides, the Bill may be referred to the whole House sitting in committee. The committee stage is followed by the report stage, during which previous amendments may be altered and new amendments incorporated. At the third reading a Bill is reviewed in its final form. In the Commons this stage is taken without a debate unless there is a motion in the name of six members that the question 'be not put forthwith'—a procedure of which substantial use is made.

After the third reading the Bill is sent from the Commons to the Lords where it goes through broadly the same stages. Similarly a Bill which starts in the Lords and is passed by that House is then sent to the Commons for all the stages there. Amendments made by the second House must be agreed by the first, or a compromise reached, before a Bill can become law.

Most Bills introduced and passed in the Lords pass through the Commons without difficulty because of their non-controversial nature. However, should any Lords Bill be unacceptable to the Commons it would not become law because no debating time would be allotted to it-at least until a new Government came into office. The Lords, on the other hand, cannot prevent a Bill insisted upon by the Commons from finally becoming law. In the normal course of events they either accept a Commons Bill without changes, or they amend and return it for consideration by members of the other House, who frequently agree to the amendments made. In practice, the Lords pass without amendment such financial Bills as the Finance Bill, which authorises taxation, or the Consolidated Fund or Appropriation Bill, which authorises national expenditure. A Bill that deals only with taxation or expenditure must become law within one month of being sent to the Lords, whether or not they have agreed to it, unless the Commons directs to the contrary. The Lords can delay a non-financial Commons Bill for about 13 months. The limitations on the power of the Lords are based on the belief that the principal legislative function of the non-elected House nowadays is to act as a chamber of revision, complementing the elected House of Commons and not rivalling it.

When a Bill has passed through all its parliamentary stages, it is sent to the Queen for royal assent, after which it is part of the law of the land and

known as an Act of Parliament. The Sovereign's power to refuse assent has not been exercised since 1707.

Private Bills, which can be promoted by people or organisations outside Parliament, go through substantially the same procedure as public Bills, but most of the work is done in committee, where proceedings follow a semijudicial pattern: the promoter must prove the need for the powers or privileges he seeks, and objections on the part of the opposing interests are heard. Both parties may be legally represented.

The system of delegated legislation, which is used to relieve pressure on parliamentary time, empowers ministers and other authorities to regulate administrative details after a Bill has become an Act. In order to minimise the risk that powers thus conferred on the executive might supersede or weaken parliamentary government, they are normally delegated to the Queen in Council or to authorities directly responsible to Parliament, that is, to Government ministers, government departments for which ministers are responsible, or to organisations whose regulations are subject to confirmation or approval by ministers who thereby become responsible to Parliament for them. Moreover, the Acts of Parliament by which particular powers are delegated normally provide for some measure of parliamentary control over legislation made in the exercise of these powers, for instance, by reserving to Parliament the right to confirm or annul the orders themselves. Certain Acts also require direct consultation with organisations which will be affected thereby before rules and orders (in the form of statutory instruments) are made.

A joint committee of both Houses checks the technical propriety of statutory instruments, and a standing committee of the House of Commons considers their merits.

Either House may resolve itself into a committee, known as a committee of the whole house, to consider Bills in detail, clause by clause, after their second reading. A committee of the whole house is presided over by the Chairman of Ways and Means (the Chairman of Committees in the House of Lords) or a deputy chairman.

House of Commons standing committees include those which examine public Bills at the committee stage and, in certain cases, at the second reading and report stages; two Scottish standing committees; the Scottish Grand Committee; the Welsh Grand Committee; and the Northern Ireland standing committee. Ordinary standing committees have no distinctive names, being referred to simply as Standing Committee A, B, C, and so on. Each has between 16 and 50 members with the balance of the parties reflecting as far as possible that in the House as a whole. The Scottish Grand Committee, which comprises all 71 Scottish members and ten to 15 others, considers the principles of Scottish Bills referred to it at second reading stage, the Scottish estimates and other matters relating exclusively to Scotland. The Welsh Grand Committee, with all 36 Welsh members and up to five others, considers the annual report for Wales and other subjects concerning Welsh affairs. The Northern Ireland committee considers matters relating specifically to the province. An experimental standing committee has been set up to consider English regional affairs.

Select committees are generally set up, by either House, to help Parliament with the control of the executive by examining some aspect of administration

Delegated Legislation

Parliamentary Committees

Standing Committees

Select Committees

and reporting to the House. They may be appointed as occasion demands or, as 'sessional' select committees, at the beginning of a session. On rare occasions a parliamentary Bill is examined by a select committee (a procedure additional to the legislative process). Select committees are constituted on a party basis, in proportion to party strength in the House.

Sessional select committees in the Commons include committees on public accounts, expenditure, privileges, services, nationalised industries, the Parliamentary Commissioner for Administration and European Community secondary legislation. The Committee of Selection and the Standing Orders Committee have duties relating to private Bills, and the Committee of Selection also chooses members to serve on standing committees. 'Specialist' select committees not necessarily appointed regularly include those on science and technology, race relations and immigration, and overseas development.

In the House of Lords there are sessional committees on the European Community, standing orders, personal Bills, procedure, offices, privileges, leave of absence, selection and the Appeal and Appellate Committees.

The two Houses may agree to set up joint select committees, and joint committees are also appointed in each session to deal with measures of the General Synod of the Church of England, Consolidation Bills and delegated legislation.

In addition to the official committees of the two Houses there are several important party organisations or committees. The Conservative and Unionist Members Committee, popularly known as the 1922 Committee, consists of the back-bench membership of the party. The Parliamentary Labour Party, is a corporate body comprising all members of the party in both Houses; when the Labour Party is in office a liaison committee acts as a channel of communication between the Government and its back-benchers in both Houses; when the party is in opposition the Parliamentary Labour Party is organised under the direction of a Parliamentary Committee.

Parliamentary Control Control of the Government in power is exercised in the final analysis by the ability of the House of Commons to force the Government to resign either by passing a resolution of 'no confidence' or by rejecting a proposal which the Government considers so vital to its policy that it has made it a 'matter of confidence'. A number of opportunities for a searching examination of government policy by both the Opposition and the Government's own backbenchers are provided in parliamentary procedure. In the House of Commons such opportunities include:

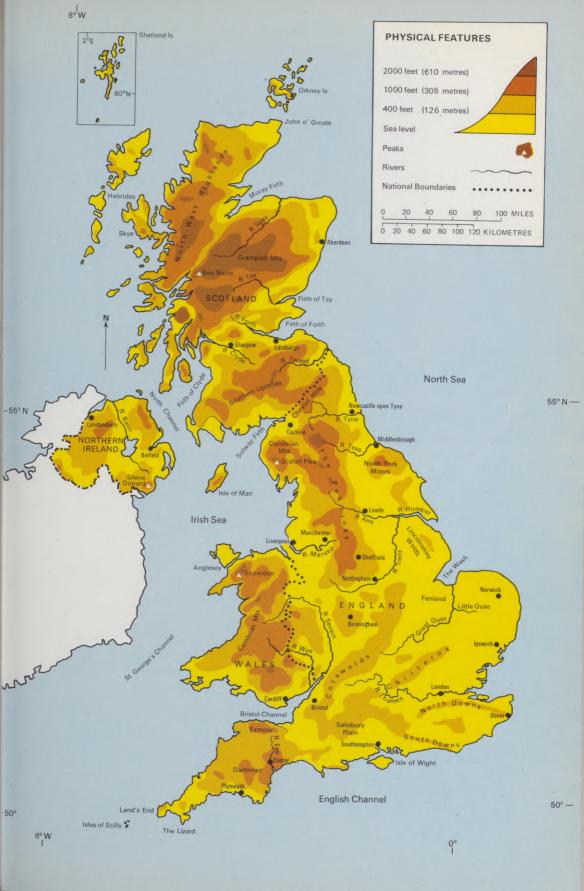
1. Question time, which is an hour of parliamentary time on Monday, Tuesday, Wednesday and Thursday during which ministers, in rotation, answer questions put to them on matters for which they are responsible. So much parliamentary time is devoted to scheduled public business that questions are regarded as one of the best means of eliciting hitherto unpublished information about the Government's intentions, as well as an effective way of airing, and possibly securing some redress of, grievances brought to the notice of members by their constituents. (Another means available to members is by way of the Parliamentary Commissioner for Administration—see p. 39.)

2. The right of members to use motions for the adjournment of the House to initiate discussions on constituency cases or matters of public concern. There is a half-hour adjournment period at the end of public business; and immediately before the adjournment for each recess (Christmas, Easter,

Joint Committees

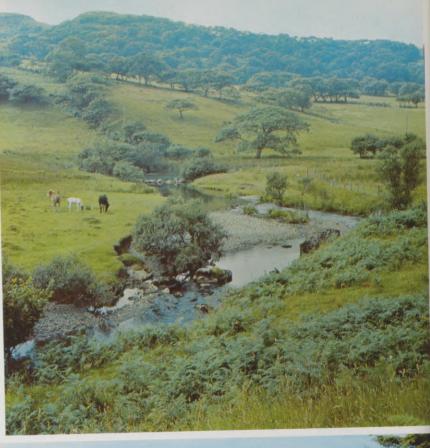
Committees

Party



The Countryside

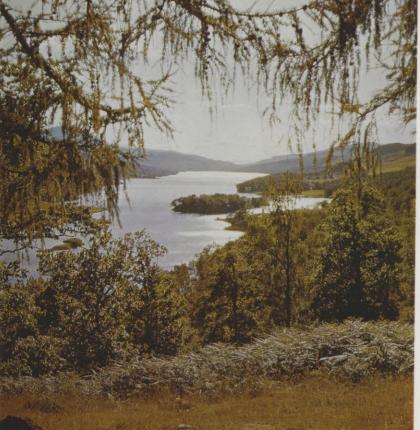
Pennant Valley, Gwynedd, Wales.



The Lake District, Cumbria, England.







Loch Tummel, Tayside, Scotland.

Sea Training

The Merchant Navy's National Sea Training School at Gravesend, Kent, is claimed to be the world's largest and most modern establishment for ratings. Courses include instruction in:

Right: Cargo handling. Below left: Steering a ship. Below right: Catering.







spring and the summer) a whole day is spent discussing matters raised by private members. Moreover, if a member wishes to discuss a 'specific and important matter that should have urgent consideration' he may, at the end of question time, ask leave to move the adjournment of the House. If the Speaker accepts the terms of the motion, he asks the House for leave for it to be put forward. Leave can be given unanimously, or if 40 or more members support the motion, or if fewer than 40 but more than ten support it and the House (on a vote) is in favour. Once leave has been given, the matter is debated for three hours, usually on the following day.

3. The 29 'supply' days each session, which were formerly used to discuss details of proposed government expenditure, and which are nowadays, in practice, time for the Opposition to choose subjects for debate (scrutiny by small committees has been found more apt for detailed expenditure proposals.

Procedural opportunities for criticism of the Government also arise during the debate on the address in reply to the Queen's speech at the beginning of a session, during debates or motions of censure for which the Government gives up part of its own time, and during debates on the Government's legislative proposals.

Certain opportunities for criticism of the Government are also provided in the House of Lords at question time and during debates on specific motions.

The involvement of Parliament, and more particularly the House of Commons, in the management of the revenues of the State and payments for the public service is described in Chapter 17, Finance.

Arrangements have been made in both Houses of Parliament to keep members informed about European Community developments, and to enable them to scrutinise and debate matters which are to be decided in Community institutions. These include the provision of Community documents and explanatory memoranda, oral ministerial statements and reports, special allocation of parliamentary time for debates and questions, and the establishment of select committees (one in each House) to identify important Community proposals.

The Parliamentary Commissioner for Administration is an independent statutory officer whose function is to investigate complaints of maladministration brought to his notice by members of the House of Commons on behalf of members of the public. His powers of investigation extend to actions taken by central government departments in the exercise of their administrative functions, but not to policy decisions (which are the concern of the Government and can be questioned in Parliament). Certain administrative actions also outside his jurisdiction include matters affecting relations with other countries and the activities of British officials outside the United Kingdom.

In the performance of his duties, the Parliamentary Commissioner has access to all departmental papers, and reports his findings to the member of Parliament who presented the case. The Parliamentary Commissioner reports annually to Parliament and may submit such other reports as he thinks fit. A select committee considers these reports.

Parliamentary Privilege

Each House of Parliament enjoys certain rights and immunities designed to protect it from unnecessary obstruction in carrying out its duties. These rights apply collectively to each House and individually to each member. For the Commons the Speaker formally claims from the Crown 'their ancient

Parliamentary Commissioner for Administration

and undoubted rights and privileges' at the beginning of each Parliament. These include freedom of speech in debate; freedom from arrest; and the right of access to the Crown, which is a collective privilege of the House. Further privileges include the right of the House to control its own proceedings (so that it is able, for instance, to exclude strangers if it so wishes); the right to pronounce upon legal disqualifications for membership and to declare a seat vacant on such grounds; and the right to penalise those who commit a breach of its privileges.

The privileges of the House of Lords include: freedom of speech in debate; freedom of access to the Sovereign for each peer individually; and the right to commit for contempt. These privileges are not formally claimed by the Speaker as in the House of Commons; they exist independently.

THE PRIVY COUNCIL

Until the eighteenth century, the Sovereign in Council, or Privy Council, was the chief source of executive power in the State. As the system of Cabinet government developed, however, the Privy Council became less prominent. Many of its powers were transferred to the Cabinet as an inner Committee of the Privy Council, and much of its work was handed over to newly created government departments, some of which were originally committees of the Privy Council. Nowadays the Privy Council is responsible for advising the Sovereign to approve Orders in Council, of which there are two kinds, differing fundamentally in constitutional principle: those made by virtue of the royal prerogative, such as Orders approving the grant of royal charters of incorporation; and those made under statutory powers, which are the highest form of delegated legislation. It is an accepted principle that members of the Privy Council attending meetings at which Orders in Council are made do not thereby become personally responsible for the policy upon which the orders are based; this rests with the minister responsible for the subject matter of the order in question, whether or not he was present at the meeting.

The Privy Council also advises the Crown on the issue of royal proclamations, some of the most important of which relate to prerogative acts (such as summoning or dissolving Parliament) of the same validity as Acts of Parliament. The Privy Council's own statutory responsibilities, which are independent of the powers of the Sovereign in Council, include powers of supervision over the registering bodies for the medical and allied professions.

Apart from Cabinet Ministers, who must be Privy Counsellors and are sworn of the Council on first assuming office, membership of the Privy Council (which is retained for life) is accorded by the Sovereign on the recommendation of the Prime Minister as an honour to persons who have reached eminence in some branch of public affairs in any country of the Commonwealth. There are usually about 330 Privy Counsellors. The whole Privy Council is called together only on the death of the Sovereign or when the Sovereign announces his or her intention to marry.

Committees of the Privy Council There are a number of Privy Council committees whose meetings differ from those of the Privy Council itself in that the Sovereign cannot constitutionally be present. These advisory committees may be prerogative committees, such as those which deal with legislative matters submitted by the legislatures of the Channel Islands and the Isle of Man and with applications for charters of incorporation; or they may be provided for by statute as are those for the universities of Oxford and Cambridge and the Scottish universities.

The Judicial Committee of the Privy Council is the final court of appeal from the courts of the United Kingdom dependencies, courts of independent members of the Commonwealth which have not elected to discontinue the appeal, courts of the Channel Islands and the Isle of Man, and certain other courts, some professional and disciplinary committees and church sources.

The administrative work of the Privy Council committees is carried out in the Privy Council Office under the Lord President of the Council, a senior Cabinet minister. He is assisted by a Minister of State and a Parliamentary Secretary, and has special responsibility for devolution policy (see p. 24) and other work relating to the development of political institutions.

HER MAJESTY'S GOVERNMENT

Her Majesty's Government is the body of ministers responsible for the administration of national affairs.

The Prime Minister is appointed by the Crown, and all other ministers are appointed by the Crown on the recommendation of the Prime Minister.

The majority of ministers are members of the House of Commons. However, the Government must be fully represented by ministers in the House of Lords as it requires spokesmen of standing to expound its policy and justify its actions to that House. The Lord Chancellor is always a member of the House of Lords.

Composition

The composition of the Government is subject to variation from time to time, both in the number of ministers and in the titles of some offices. The creation of a paid ministerial office with entirely new functions requires legislation, but the abolition of an office, the transfer of functions from one minister to another, or a change in the designation of a minister may be effected by Order in Council. Functionally ministers may be classified under the following heads:

Prime Minister The Prime Minister, who is also First Lord of the Treasury and Minister for the Civil Service. The head of the Government became known as the Prime Minister during the eighteenth century. The unique position of authority enjoyed by the holder of this office derives from his ability to command a majority in Parliament and from his power to submit his own choice of ministers to the Sovereign and to obtain their resignation or dismissal individually. Nowadays, by convention, the Prime Minister always sits in the House of Commons.

It is the duty of the Prime Minister to inform the Sovereign of the general business of the Government; to preside over the Cabinet; and to exercise a general supervision over departments, settling departmental differences and approving important departmental decisions where reference to the Cabinet is not required. The Prime Minister speaks for the Government in the House of Commons on the most important topics and answers questions on its general administration.

The Prime Minister's other responsibilities include making recommendations to the Sovereign for the appointment of Church of England archbishops, bishops and deans and the incumbents of some 200 Crown livings, as well as for appointments to high judicial offices, such as the Lord Chief Justice, Lords of Appeal in Ordinary, and Lord Justices of Appeal. He also advises the Crown on appointments of Privy Counsellors, Lord-Lieutenants and certain civil appointments, such as Lord High Commissioner of the General Assembly of the Church of Scotland, Poet Laureate, Constable of the Tower, and some

university appointments which are in the gift of the Crown. The Prime Minister makes similar recommendations for appointments to various public boards and institutions, such as the British Broadcasting Corporation, as well as to various royal and statutory commissions. He likewise makes recommendations to the Sovereign for the award of many civil honours and distinctions and of Civil List pensions (awarded to people who have achieved eminence in science and the arts and who are in some financial need) and selects the trustees of certain national museums and institutions.

A specialist unit advises the Prime Minister on domestic policy matters.

Departmental Departmental ministers, who are in charge of government departments. The holders of these offices (most of whom are in the Cabinet) are known as 'Secretary of State' or 'Minister', or they may have a special title, as in the case of the Chancellor of the Exchequer (who is responsible for the Treasury and a number of sub-departments). There may also be some ministers who are in charge of a department not represented in the Cabinet, who are responsible, under a Secretary of State, for a particular part of the activities of the department concerned.

Non-Departmental Non-departmental ministers, who include the holders of various traditional offices—the Lord President of the Council, the Chancellor of the Duchy of Lancaster,¹ the Lord Privy Seal, the Paymaster General—and from time to time Ministers without Portfolio. Sometimes these ministers have few or no departmental duties and are thus available to perform any special duties which the Prime Minister may wish to entrust to them.

Lord Chancellor and Law Officers The Lord Chancellor holds a special position, being a Minister of the Crown with departmental functions and also head of the judiciary in England and Wales. The four Law Officers of the Crown are: for England and Wales, the Attorney General and the Solicitor General; for Scotland, the Lord Advocate and the Solicitor General for Scotland.

Ministers of State Ministers of State who are usually appointed in a subordinate capacity to government departments in which the work is particularly heavy or complex and where it involves frequent travelling abroad. It is possible for a Minister of State to be given a place in the Cabinet and to be paid accordingly.

Junior Ministers Junior ministers, who generally have the title of Parliamentary Secretary or, where the senior minister is a Secretary of State, Parliamentary Under Secretary of State. The primary function of most junior ministers is to relieve their senior ministers of some of their burden by taking part in parliamentary debates, answering parliamentary questions, and assisting in departmental duties. In certain cases, however, they may be given responsibility, directly under the head of the department, for specific aspects of the department's work. The Parliamentary Secretary to the Treasury and the other Lords Commissioners of the Treasury are in a different category as Government Whips (see p. 33).

Ministerial Salaries Ministerial salaries range from £5,500 a year for junior ministers and £7,500 to £9,500 for more senior ministers to £13,000 for Cabinet ministers. The Prime Minister receives £20,000 a year. Salaries are under review.

¹ The Duchy of Lancaster is an inheritance which, since 1399, has always been enjoyed by the reigning Sovereign; it is kept quite apart from his or her other possessions and is separately administered by the Chancellor.

The Prime Minister and ministers in the House of Commons also have parliamentary salaries of $\pounds_{3,000}$ ($\pounds_{3,700}$ for non-Cabinet ministers) and allowances paid to all members of the House. The Lord Chancellor receives $\pounds_{20,000}$ a year, $\pounds_{2,500}$ for his speakership of the House of Lords.

The Cabinet

The Cabinet is composed of about 20 ministers personally selected by the Prime Minister and may include the holders of departmental and nondepartmental offices. Its origins can be traced back to the informal conferences that the Sovereign held with his leading ministers, independently of the Privy Council, during the seventeenth century. After the Sovereign's withdrawal from an active role in politics in the eighteenth century, and the development of organised political parties stimulated by successive extensions of the franchise from 1832 onwards, the Cabinet assumed its modern form.

The functions of the Cabinet are: the final determination of the policy to be submitted to Parliament; the supreme control of the national executive in accordance with the policy agreed by Parliament; and the continuous coordination and delimitation of the authority of government departments. The exercise of these functions is vitally affected by the fact that the Cabinet is a group of party representatives, depending for its existence upon the support of a majority in the House of Commons.

The Cabinet meets in private and its proceedings are strictly confidential. Its members are bound by their oath as Privy Counsellors not to disclose information about its proceedings. The Official Secrets Acts forbid the publication of Cabinet as well as of other State papers (although after they have been in existence for 30 years they may be made available for inspection in the Public Record Office) and a resigning minister desiring to make a statement involving disclosure of Cabinet discussions should first obtain the permission of the Sovereign through the Prime Minister. From a practical point of view, this secrecy is essential in the interests of full and frank discussion, which can be maintained only if there is no risk of publicity for every statement made and every point conceded. A committee is considering the principles which should govern the publication by former ministers of memoirs and other works relating to their experience as ministers.

In normal times the Cabinet meets for a few hours once or twice a week during parliamentary sittings, and rather less frequently when Parliament is not sitting. Additional meetings may be called by the Prime Minister at any time if a matter urgently requiring discussion should arise. To keep the amount of work coming before the Cabinet within manageable limits, a great deal of the work of the Cabinet is carried on through the committee system, which involves the reference of any issue either to a standing Cabinet committee or to an *ad hoc* committee composed of the ministers primarily concerned. The committee then considers the matter in detail and either disposes of it or reports upon it to the Cabinet with recommendations for action. Ministers not in the Cabinet are called to attend its meetings when matters affecting their departments are under discussion; they may also be members of Cabinet committees.

The Secretary of the Cabinet and senior officials of the Cabinet Office attend meetings of the Cabinet and its committees as appropriate. A record is kept of the conclusions and of the main points made in discussion.

Ministerial Responsibility Ministerial responsibility means both the collective responsibility which ministers share for the policy and actions of the Government and the individual

responsibility of ministers to Parliament for the work of their departments.

The doctrine of collective responsibility, which was fully accepted by the middle of the nineteenth century, means that the Cabinet is bound to offer unanimous advice to the Sovereign, even when its members do not hold identical views on a given subject. Consequently it means that the policy of departmental ministers must be consistent with the policy of the Government as a whole. In principle, once the Government's policy on a particular matter has been decided, each minister is expected to support it, unless he chooses to resign, as he is free to do if he cannot agree with his colleagues on a matter of general policy or on a single major issue.¹

The individual responsibility of a minister for the work of his department means that, as political head of that department, he is answerable for all its acts and omissions and must bear the consequences of any defect of administration, any injustice to an individual or any aspect of policy which may be criticised in Parliament, whether he is personally responsible or not. Since the majority of ministers are members of the House of Commons, they are available to answer questions and to defend themselves against criticism in person. Departmental ministers who are in the House of Lords must be represented in the Commons by someone qualified to speak on their behalf, usually a Minister of State or a Parliamentary Secretary.

Departmental ministers normally decide all matters within their responsibility, although on important political matters they will usually wish to consult their colleagues collectively, through the Cabinet or a Cabinet committee. Any decision by a departmental minister binds the Government as a whole.

The responsibility of ministers for their departments is an effective way of bringing government under public control, for the knowledge that any departmental action may be reported to and examined in Parliament discourages the taking of arbitrary and ill-considered decisions.

On assuming office ministers must resign directorships in private and public companies. In all other respects they must order their affairs in such a way that there is no conflict between their public duties and their private interests.²

GOVERNMENT DEPARTMENTS

Government departments are the main instruments for giving effect to government policy when Parliament has passed the necessary legislation. They may, and frequently do, work with and through local authorities, statutory boards, and government-sponsored organisations operating under various degrees of government control.

A few departments have existed for over 200 years. Many more have come into existence during the past half-century to match the widening scope of government activity. The election of a party of a different political complexion does not necessarily affect the number or general functions of government departments, although a radical change in policy may be accompanied by some organisational change.

¹ In the unique circumstances of the 1975 referendum on European Community membership (see p. 77), the Cabinet decided that government ministers who did not feel able to accept and support the Government's recommendations about membership could in general support and speak in favour of the different conclusion in the referendum campaign.

² A Royal Commission was established in 1974 to inquire into the standards of conduct in public life in Britain.

The work of some departments, for instance, the Ministry of Defence, covers the United Kingdom as a whole. Other departments, for instance, the Department of Employment, cover England, Wales, and Scotland, but not Northern Ireland; others, such as the Department of Education and Science and the Department of the Environment, are mainly concerned with affairs in England. There are separate departments for Scotland and Northern Ireland, and there is also a separate department with responsibility for affairs in Wales.

A department is usually headed by a minister. Certain departments in which questions of policy do not normally arise are headed by a permanent official, and a minister with other duties is responsible for them to Parliament. For instance, the minister in charge of the Civil Service Department is responsible for the Central Office of Information, Her Majesty's Stationery Office, and the Department of the Government Actuary; and Treasury ministers are responsible for the Board of Customs and Excise, the Inland Revenue, the Department for National Savings and a number of small departments including the Treasury Solicitor's Department, the Royal Mint, and the National Debt Office. Generally, departments receive their funds directly out of money provided by Parliament and are staffed by members of the Civil Service (see p. 60).

Internal Organisation

Departments differ in size and in the volume, type and complexity of their work. Since each department makes its own arrangements for discharging its duties, there are variations in internal organisation. Most departments, however, have certain features in common: for instance, the minister of a major department is likely to have at the head of his officials a permanent secretary, sometimes assisted by one or more second permanent secretaries, and also one or more deputy secretaries, and a varying number of under-secretaries and assistant secretaries. Usually major departments also have a principal finance officer and a principal personnel and organisation officer. Many departments also have their own legal advisers or solicitors, economists, statisticians and their own information divisions. The Government Statistical Service, which includes the Central Statistical Office (CSO), the Business Statistics Office (BSO), the Office of Population Censuses and Surveys and the statistics divisions of the major departments, provides a service of statistical information and advice. Each department is responsible for compiling statistics relating to its own policy area and publishing them, usually through its own publications. Information about individual industries is published by the BSO in Business Monitors. Comprehensive statistical publications are produced by the CSO.

Some departments maintain a regional organisation, and some that have direct contact with the public throughout the country also have local offices.

Advisory Bodies

Many government departments are assisted by advisory councils or committees (several hundred in all) which undertake research and collect information, mainly to enable ministers to ascertain informed opinion before coming to a decision involving a legislative or executive act. In some cases there is a statutory obligation on a minister to consult a standing committee, but usually advisory bodies are appointed at the discretion of the minister concerned because he feels the need for their advice.

The membership of the advisory councils and committees varies according to the nature of the work involved, and may include civil servants and representatives of varying interests and professions—for instance, industrialists,

trade unionists, university and industrial scientists, educationists, lawyers and local government councillors and officers.

In addition to these standing advisory bodies, there are ad hoc committees which the Government frequently sets up to examine and make recommendations on specific matters. For certain important inquiries Royal Commissions, whose members are selected on the grounds of their wide experience and diverse knowledge, may be appointed (by royal warrant). Royal Commissions examine written and oral evidence from government departments and interested organisations and individuals, and on this evidence submit recommendations. The Government may accept the recommendations in whole or in part, or it may decide to take no further action or to delay action. Inquiries may also be undertaken by departmental committees, appointed by the head of the appropriate department.

The following pages provide an outline of the principal functions of the main **Distribution** of government departments. They are arranged in alphabetical order, except for the Cabinet Office, the Civil Service Department, and the Treasury (which, in view of their central positions, are placed first) and the Scottish and Northern Ireland departments (which are grouped at the end of the section). Further information on the work of departments is given in later chapters under the relevant subject headings.

> The Cabinet Office, headed by the Secretary of the Cabinet, under the direction of the Prime Minister, comprises the Cabinet Secretariat, the Central Policy Review Staff, the Central Statistical Office and the Historical Section.

The Cabinet Secretariat serves ministers collectively in the conduct of Cabinet business. It operates as an instrument in the co-ordination of policy at the highest level. Functions of the office include circulating the memoranda and other documents required for Cabinet or Cabinet committee business, preparing agenda for meetings of the Cabinet and its committees, recording their discussions and circulating the minutes, keeping in touch with the progress of action on decisions, and safeguarding the security of documents.

The Central Policy Review Staff advises ministers collectively on major issues of policy.

The Central Statistical Office co-ordinates the statistics collected by departments and produces statistics needed for central economic and social policies and management, such as the national accounts, balance of payments, financial statistics and measures of output. It is responsible for a number of statistical publications.

The Historical Section of the Cabinet Office is in the process of completing the official histories of the second world war, and is responsible for the preparation of official histories of certain peace-time events.

The Civil Service Department is under the control of the Prime Minister as Minister for the Civil Service, with responsibility for the day-to-day work of the department delegated to a senior minister. The department's Permanent Secretary is also the official head of the Home Civil Service.

The department is responsible for personnel management in the Civil Service, which includes policy and central arrangements for recruitment, training (including the Civil Service College), promotion, general career management, catering, welfare and retirement. It is also responsible for the size and deployment of manpower, for pay, pensions, and conditions of service in the Civil Service, and for the co-ordination of pay and pension policies in the public

Functions

The Cabinet Office

The Civil Service Department

sector as a whole. The department's further responsibilities include the development and application of new systems and techniques in the field of management and administration; the provision of a central management services consultancy for the Civil Service as a whole to deal with management subjects and techniques such as organisation and methods and operational research; and central planning, procurement and co-ordination of data processing in government.

The Civil Service Commission, which is responsible for the recruitment of civil servants, forms part of the Civil Service Department. In matters concerned with recruitment policy, the commissioners are responsible to ministers in the normal way, but in the selection of individuals for appointment, they act under Order in Council and are completely independent of ministers.

The Office of the Parliamentary Counsel is responsible for the drafting of all Government Bills, except Bills or provisions of Bills extending exclusively to Scotland, which are handled by the Lord Advocate's Department. The office drafts all financial and other parliamentary motions and amendments moved by the Government during the passage of Bills; advises departments on questions of parliamentary procedure; and attends sittings (and committees) of both Houses. In addition the Parliamentary Counsel draft subordinate legislation when specially instructed, and advise the Government on legal, parliamentary and constitutional questions falling within their special experience.

Nominally the heads of the Treasury are the Lords Commissioners: the First Lord of the Treasury (always the Prime Minister), the Chancellor of the Exchequer and five junior Lords. In practice, the Lords Commissioners never meet as a board and their responsibilities are carried by the Chancellor of the Exchequer assisted by the Paymaster General, the Chief Secretary to the Treasury, the Financial Secretary and a Minister of State. There is also a Parliamentary Secretary to the Treasury, who is the Chief Government Whip in the House of Commons.

The Treasury is the government department primarily responsible for the development of Britain's overall economic strategy. Its Public Services Sector is responsible for controlling aggregate public expenditure and for most of the individual public expenditure programmes; the Domestic Economy Sector is concerned with fiscal, monetary and counter-inflation policies, and with the Treasury's contribution to industrial policies, including control of public expenditure on industry and agriculture; the Overseas Finance Sector is responsible for balance of payments policies, the management of Britain's foreign currency reserves, international monetary questions, financial relations with other countries and the aid programme; and the Chief Economic Adviser's Sector is responsible for the preparation of short-term and medium-term economic forecasts and for specialist advice on broad economic policies.

The Ministry of Agriculture, Fisheries and Food The Ministry of Agriculture, Fisheries and Food is responsible in England and Wales for administering government policy for the agriculture, horticulture and fishing industries. Directed by the Minister of Agriculture, Fisheries and Food (who is assisted by a Minister of State and a Parliamentary Secretary) its functions include the administration, in co-operation with the Intervention Board for Agricultural Produce (see p. 48), of the agricultural support system as modified by the adoption in 1973 of the Common Agricultural Policy of the enlarged European Community. The ministry also

The Civil Service Commission

Parliamentary Counsel Office

The Treasury

administers schemes such as those designed for the control and eradication of animal and plant diseases and for the improvement and drainage of agricultural land; and it exercises responsibilities relating to applied research and development. In addition it is concerned with the safety and quality of food and with food hygiene, including standards of its composition, labelling and advertising, food additives and contaminants; and it has certain responsibilities for ensuring public health standards in the production and handling of basic foods in cargoes, stores and slaughterhouses. These measures are being harmonised with European Community legislation. The ministry has overall responsibility for questions of food supply, is the sponsor-department for the food and drink industries and also acts as agent of the Department of Prices and Consumer Protection for the detailed administration of subsidies on food. A number of the functions relating to agriculture and fisheries in Wales are

A number of the functions relating to agriculture and instance in the secretary of State for Wales. In the joint responsibility of the minister and the Secretary of State for Wales. In regard to the operational control of certain diseases of animals the ministry's responsibilities extend to Scotland.

The ministry maintains relations with other Commonwealth and foreign countries and participates in certain of the activities of a number of international organisations concerned with agriculture, fisheries and food, such as the Food and Agriculture Organisation of the United Nations, and the Organisation for Economic Co-operation and Development.

The Intervention Board for Agricultural Produce was set up under the European Communities Act 1972. An executive department subject to the direction and control of ministers responsible for agriculture, the board is responsible for the implementation in the United Kingdom of the market support arrangements and certain other aspects of the European Community's Common Agricultural Policy provided for under the guarantee section of the European Agricultural Guidance and Guarantee Fund.

The primary work of the Board of Customs and Excise is to collect and administer the customs and excise duties, including value added tax, imposed from time to time in the annual Finance Acts or by other legislation, and to advise the Chancellor of the Exchequer on any matters connected with them. The board is also responsible for preventing and detecting evasion of the revenue laws.

The board undertakes, for other departments, a wide range of non-revenue agency work, for instance, the enforcement of prohibitions and restrictions on the import and export of certain classes of goods, exchange currency control, and the compilation of United Kingdom overseas trade statistics from customs import and export documents. Parliamentary responsibility for the board's work is exercised by Treasury ministers.

The Ministry of Defence The Ministry of Defence is the government department responsible for defence policy and for the control and administration of the three armed services— Navy, Army and Air Force (including the procurement of defence equipment). The Secretary of State for Defence is in charge of the department, assisted by a Minister of State. Three Parliamentary Under Secretaries of State are severally responsible for each of the three armed services.

The Department of Education and Science The Department of Education and Science promotes education generally in England and post-school education in Wales. It is responsible for the Government's relations with universities in Great Britain, and it fosters the progress

The Intervention Board for Agricultural Produce

The Board of Customs and Excise

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of civil science both in Britain and in collaboration with other countries. The department also has responsibilities relating to the library service, support for the British Library and the administration of the Victoria and Albert and Science Museums in London.

The Secretary of State for Education and Science is assisted by a Minister of State and a Parliamentary Under Secretary of State, while the minister responsible for the arts, who is also a Parliamentary Under Secretary of State, deals with policy on the promotion of the arts and on libraries and museums.

Among the matters relating to the development of school and post-school education for which the department has responsibility are the broad allocation of resources for education, the capital programmes for the building of new schools and other institutions, the supply, training and superannuation of teachers, and the basic standards of education. The department works in cooperation with local education authorities whose duty it is to provide and run the schools and colleges in their areas. Its relations with the universities are conducted through the University Grants Committee. Activities concerning civil science are discharged through five research councils: the Medical Research Council, the Agricultural Research Council, the Natural Environment Research Council, the Social Science Research Council and the Science Research Council. On questions of scientific policy an advisory board for the research councils advises the Secretary of State.

The Department of Employment The Department of Employment is generally responsible for Britain's manpower policy and deals with the payment of unemployment benefit, the repayment of income tax to unemployed workers, the collection and publication of statistics on labour and industrial matters, relations with the International Labour Office, and representation on employment and related matters at sessions of other international bodies. The Secretary of State for Employment is assisted by a Minister of State and two Parliamentary Under Secretaries of State. Members of the Advisory, Conciliation and Arbitration Service, the Manpower Services Commission and the Health and Safety Commission (see Chapter 16) are appointed by the Secretary of State for Employment.

The Department The Department of Energy is concerned with the development of governof Energy ment policies for the supply and use of all forms of energy. It discharges functions connected with the nationalised coal, gas and electricity industries; it is responsible for the Atomic Energy Authority; and is the sponsoring department for the nuclear power and oil industries. It is also responsible for the policy for the development of off-shore oil and gas resources in the British sector of the continental shelf; and deals with the international aspects of energy problems, including relations and co-operation with oil-producing countries. It is the co-ordinating and sponsoring body for energy conservation policy, in addition to implementing measures not falling directly to any other department. The department also encourages the development of new sources of energy, being assisted by the Energy Technology Support Unit at Harwell, Oxfordshire. The Secretary of State for Energy is supported by a Minister of State and two Parliamentary Under Secretaries of State, one of whom is concerned with the development of oil and gas from the North Sea.

The Department of the Environment

ent The Department of the Environment, under a Secretary of State, is responsible in England for a wide range of functions relating to the physical environment in which people live and work.

The Secretary of State is concerned primarily with the strategic issues of

policy and priorities, including public expenditure, which determine the operations of the department as a whole. He is assisted by three senior ministers.

The Minister for Planning and Local Government is responsible for statutory and regional planning; development control; land policy; commercial property; new towns; local government structure and finance; water and sewerage; minerals; and countryside policy.

The Minister for Transport is responsible for roads; transportation policy; ports; railways; freight movement; road and vehicle safety; and urban transport.

The Minister for Housing and Construction is responsible for the policy and finance of the housing programme; the construction industries; and the Property Services Agency (which provides nearly all Government common services relating to land, property, buildings and furnishings).

A Minister of State has special responsibilities for sport and recreation and the control of pollution, and there are four Parliamentary Under Secretaries of State.

The department is also concerned with the conservation of historic towns and buildings and ancient monuments, and research into roads, building, hydraulics, fire prevention and the uses of timber.

The Export Credits Guarantee Department, which is responsible to the Secretary of State for Trade, provides protection to exporters, merchants, investors and banks against overseas credit risks by export credit insurance policies which cover exporters against the main risks of not receiving payment; by guarantees to banks financing export trade which provide an acceptable security; and by insurance which covers new investments against risks of expropriation, blocked remittances, or war.

The use of the department's services is optional, premiums being charged at rates which enable the department to be run as a self-supporting business.

The Foreign and Commonwealth Office

Export Credits

Guarantee

Department

The Foreign and Commonwealth Office provides, mainly through diplomatic missions, the means of communication between the British Government and other governments and international governmental organisations for the discussion and negotiation of all matters, including economic issues, falling within the field of international relations. In particular the department is responsible for alerting the British Government to the implications of developments overseas; for protecting British interests overseas, including commercial interests; for protecting British citizens abroad; and for explaining British policies to, and wherever possible cultivating friendly relations with, governments and peoples overseas. The department is also responsible for the discharge of British responsibilities in the associated States (mainly for defence and external affairs) and dependent territories. In the dependent territories, each of which has its own internal administration, the British Government is finally responsible for good government and for the relations between these territories and other countries.

The Secretary of State for Foreign and Commonwealth Affairs is assisted by three Ministers of State and three Parliamentary Under Secretaries of State. He is the United Kingdom representative in the Council of Ministers of the European Community.

The Department of Health and Social Security The Department of Health and Social Security is responsible in England for the administration of the National Health Service; the social services provided by local authorities for the elderly and handicapped, socially deprived families,

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and children in care; and for certain aspects of public health, including hygiene. Throughout Great Britain it is responsible for the payment of benefits and collection of contributions under the national insurance and industrial injuries schemes and the payment of family allowances. The department is concerned in making reciprocal health and social security arrangements with other countries and in the administration of European Community social security regulations for immigrant workers. It also represents the United Kingdom in the World Health Organisation.

Through its Supplementary Benefits Commission the department is responsible for determining awards of non-contributory benefits and Family Income Supplement, for reception centres, and for assessing the means of people applying for legal aid. The department also has responsibilities in connection with pensions and welfare services (including in some cases the provision of medical and surgical treatment) for war pensioners in the United Kingdom, the Channel Islands and the Isle of Man, and, through its various agencies, for United Kingdom war pensioners living in other countries.

The department is headed by the Secretary of State for Social Services who is assisted by two Ministers of State and two Parliamentary Under Secretaries of State (one of whom has special responsibilities for disabled people).

The Home Office deals with those internal affairs in England and Wales not assigned to other government departments. The Home Secretary is the channel of communication between the Crown and the public, and between the United Kingdom Government and the Governments of the Channel Islands and the Isle of Man. He exercises certain prerogative powers of the Crown, of which the most important are the prerogative of mercy and the maintenance of peace. He is concerned with: the administration of justice; criminal law; the treatment of offenders; probation; the prison service; public morals and safety; the police, fire and civil defence services; immigration and nationality; community relations; and community and urban programmes. He also deals with the broad questions of national broadcasting policy.

Other Home Office responsibilities include: receipt and submission of addresses and petitions to the Queen and preparation of presentations to Parliament; preparation of patents of nobility for peers, and formal proceedings for the granting of honours; requests for the extradition of criminals; scrutiny of local authority by-laws; grants of licences for scientific experiments on animals; exhumation and removal of bodies; firearms and dangerous drugs; general policy on liquor licensing laws; gaming and lotteries; coordination of government action in relation to the voluntary social services; and special duties concerning equal opportunities for women.

The Home Secretary is assisted by two Ministers of State and a Parliamentary Under Secretary of State.

The Department 7 of Industry g

The Department of Industry, under a Secretary of State, is responsible for general industrial policy, both national and regional. Particular functions include sponsorship of private industries; provision of technical services to industry as a whole; and oversight of industrial development and finance. The department exercises government policy in relation to aerospace and industrial research and development (including supervision of industrial research establishments). It is responsible to Parliament for the Post Office Corporation.

The department's regional offices also serve the Department of Trade, the Department of Energy and the Department of Prices and Consumer Protection.

The Home Office

The Secretary of State for Industry is assisted by two Ministers of State and a Parliamentary Under Secretary of State.

The Central Office of Information The Central Office of Information is a common service department which produces information and publicity material, and supplies publicity services required by other government departments which are responsible for the policy expressed in its work. In the United Kingdom, it conducts government, press, television and poster advertising, produces booklets, leaflets, films, television material, exhibitions, photographs and other visual material, and distributes departmental press notices. For the Foreign and Commonwealth Office it supplies British information posts overseas with press, radio and television material, books, graphics, magazines, reference services, films, exhibitions, photographs, display and reading-room material; and manages schemes for promoting the overseas sale of British periodicals and newspapers. It provides exhibition services (except for trade and cultural exhibitions); and it organises tours (other than those sponsored by the British Council and the British Overseas Trade Board) for visitors officially invited to Britain. There are nine regional information offices in England, which provide services for the home departments and assist the overseas services by the provision of material and by arranging tours for overseas visitors; similar services are supplied on a mutually agreed basis by the information staffs of the Scottish, Welsh and Northern Ireland Offices.

The Board of Inland Revenue administers the laws relating to income tax, corporation tax, capital gains tax, stamp duty, capital transfer tax, petroleum revenue tax, and the proposed development land tax and certain other direct taxes, and advises the Chancellor of the Exchequer on any matters connected with them. It is also responsible for the valuation of real property for such purposes as compensation for compulsory purchase and local rates in England and Wales.

> The Law Officers of the Crown for England and Wales-the Attorney General and the Solicitor General-appear on behalf of the Crown in important civil and criminal proceedings and in proceedings before international tribunals such as the international court at The Hague and the European Commission and Court of Human Rights at Strasbourg. The Attorney General is the senior legal adviser to the Government. He has the ultimate responsibility for the enforcement of the criminal law and his consent is necessary before proceedings for a number of criminal offences can be commenced; the Director of Public Prosecutions is subject to his superintendence. Legal proceedings for the enforcement of public rights and on behalf of the interests of charity are conducted in his name and the functions of the Queen's Proctor, who has certain duties connected with the operation of the divorce laws, are exercised under his direction. The Attorney General is also spokesman for the Lord Chancellor in the House of Commons on matters affecting the administration of justice. The Solicitor General is subject to the authority of the Attorney General, with the same rights and duties. The Law Officers, who are leading barristers and are always members of the House of Commons, are assisted, particularly in parliamentary work, by a Parliamentary Secretary. Their office has a small professional staff.

The Lord Chancellor's Office

The Chancellorship is a legislative, judicial and executive office held by an eminent ex-member of the judiciary or of the Bar and carrying Cabinet rank. In addition to his functions as Speaker of the House of Lords and Custodian

The Board of **Inland Revenue**

The Law **Officers'** Department

of the Great Seal, the Lord Chancellor is the minister primarily responsible for the administration of the courts and of the law. The Home Secretary has important responsibilities in respect of the criminal law but the Lord Chancellor appoints magistrates and recommends to the Crown most other appointments to the judiciary in England, Wales, and Northern Ireland. His responsibility for the courts and for their administrative staff is exercised through six regional (or circuit) offices and their sub-offices.

The Lord Chancellor is responsible for law reform, for appointing the members of the Law Commission, and for presenting the commission's reports to Parliament. He is also concerned with court procedure.

In addition, the Lord Chancellor is a leading member of the Judicial Committee of the Privy Council; he appoints the chairmen of certain administrative tribunals in England and Wales, and (with the Secretary of State for Scotland) the members of the Council on Tribunals; and he is responsible for the administration of the Judge Advocate General's Department,¹ the department of the Official Solicitor² and the Public Record Office (which preserves, and provides access to, the national archives).

The Department The Department for National Savings is responsible for the administration of the National Savings Bank, National Savings Certificates, British Savings Bonds, Premium Savings Bonds, Government Bonds and stocks on the National Savings Stock register and the contractual savings scheme, SAYE. The head of the department is the Director of Savings, who is answerable to the Treasury.

> The Ordnance Survey is responsible for the surveying and mapping of Great Britain. This includes geodetic surveys and associated scientific work, topographic surveys and the production of maps at appropriate scales from these surveys. The department also undertakes a considerable amount of agency work for other departments, particularly the Ministry of Defence, and for the Institute of Geological Sciences and the Land Registry. Parliamentary responsibility for the Ordnance Survey is exercised by ministers of the Department of the Environment.

Subject to the overall responsibility of the Secretary of State for Foreign and Commonwealth Affairs (as Minister of Overseas Development), overseas development functions are the responsibility of a Minister of State in the Foreign and Commonwealth Office who is assisted by a Parliamentary Under Secretary of State.

The separate Ministry of Overseas Development is responsible for Britain's policy of financial and technical assistance to developing countries. It is concerned with the aid programme as a whole and its detailed composition. The provision of financial assistance includes both grants and loans (the latter mostly interest-free since 1965); technical assistance comprises the supply of British experts and equipment, the training of overseas personnel, and the support of research and advisory services.

for National Savings

Ordnance Survey

The Ministry of Overseas Development

¹ The Judge Advocate General's Department advises the Secretary of State for Defence and the Defence Council on legal matters arising out of the administration of military

law, and reviews the proceedings of army and air force courts martial. ² The Official Solicitor is concerned with the interests of minors and people with a mental disability involved in proceedings in the High Court, who would otherwise not be represented. In addition he protects the interests of people committed to prison for contempt of court, acts as Receiver for people with a mental disability, and can be appointed as Judicial Trustee in complex and disputed trusts.

The Paymaster General's Office The Paymaster General's Office acts generally as a banker for government departments other than the Boards of Inland Revenue and Customs and Excise, for which separate arrangements exist. Money granted by Parliament is transferred (in such sums as may be required from day to day) from the Exchequer account to the account of the Paymaster General at the Bank of England. Most departmental payments are made by means of payable orders drawn on the Paymaster General's Office; their recipients obtain payments through the commercial banks, whose accounts at the Bank of England are in turn reimbursed by the Paymaster General's Office.

The department is also responsible for the regular payment of many public service pensions.

The Office of Population Censuses and Surveys The Office of Population Censuses and Surveys, whose director is also the Registrar General for England and Wales, is concerned with the regulation of civil marriages, the registration of births, marriages and deaths in England and Wales, and control of the registration services. Its work also includes the preparation and publication of reports on vital, medical and demographic statistics, taking the periodical census of the population, and, through the Social Survey Division, conducting research into the attitudes and circumstances of individuals through direct contact with members of the general public on a sample basis, or of particular groups.

The Department of Prices and Consumer Protection The Department of Prices and Consumer Protection is responsible for general policy and legislation on prices. It also deals with consumer affairs, covering consumer protection, home safety, consumer credit, and standards, weights and measures. The department carries out government policy in relation to monopolies, mergers and restrictive practices; it is responsible to Parliament for the Price Commission, the Office of Fair Trading and the Metrication Board; and it is the sponsoring department for the National Consumer Council. The Secretary of State for Prices and Consumer Protection is assisted by a Minister of State and a Parliamentary Under Secretary of State.

The Department of the Procurator General and Treasury Solicitor

The Treasury Solicitor provides a common legal service for a large number of government departments in England and Wales. The duties of his department include instructing Parliamentary Counsel on Bills and drafting subordinate legislation, representing other departments in court, and giving general advice on the interpretation and application of the law. The department undertakes a considerable amount of conveyancing connected with the transfer of property, administers residuary estates (estates undisposed of by will) of certain deceased persons, and deals with the outstanding property and rights of dissolved companies. The Statutory Publications Office is staffed and controlled by the Treasury Solicitor, who reports annually on its work to the Statute Law Committee (a body appointed by the Lord Chancellor from among the judiciary and legal profession in Great Britain).

Some government departments are wholly dependent on the Treasury Solicitor for their legal work; some have their own legal staffs for a proportion of the work and draw on the Treasury Solicitor for special advice and, often, for litigation and conveyancing; others, whose administrative work is based on or deals with a code of specialised law or involves a great deal of legal work, have their own independent legal sections.

The Treasury Solicitor is also the Queen's Proctor (an officer who has certain duties in connection with the divorce laws).

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Her Majesty's **Stationery Office**

of Trade

The Welsh Office

Her Majesty's Stationery Office (HMSO) is the central purchasing organisation responsible for supplying the home and overseas public service with paper, printing, binding, books, periodicals, office supplies, and office machinery. The department also provides services, such as duplicating, addressing, photocopying, micro-copying, distribution and repair of office machinery.

As publisher for Parliament and the Government, HMSO produces a wide range of printed matter in its eight printing works and through private printers under contract. It operates six binding works, two of which are involved in the repair of manuscripts from national archives. Official publications are sold by government bookshops in London, Edinburgh, Manchester, Belfast, Bristol, Cardiff and Birmingham, and through agents in Britain and overseas. HMSO is also the United Kingdom agent for European Community publications, and for those of the principal international organisations. The Controller is Queen's Printer of Acts of Parliament, and the copyright of all British Government documents is vested in him

The Department of Trade is responsible, under a Secretary of State, for The Department general overseas trade policy, commercial relations and tariffs, including those aspects of relations with the European Community. It sponsors the work of the British Overseas Trade Board in export services and promotions, overseas finance and planning. In addition, it is responsible for matters arising from companies legislation, supervision of the insurance industry, the insolvency service and the work of the Patent Office. Other responsibilities include civil aviation, marine and shipping policy, tourism, the hotel and travel industries, the newspaper industry and the film industry. The Secretary of State for Trade is assisted by two Parliamentary Under Secretaries of State.

> The Secretary of State for Wales, a Cabinet minister, has for some years had full responsibility in Wales for ministerial functions relating to child care, health, housing, local government, primary and secondary education, town and country planning, new towns, water and sewerage, roads, forestry, tourism, national parks and historic buildings, and shared responsibility for the administration of urban grants to areas of acute social deprivation, and (with the Minister of Agriculture, Fisheries and Food) for agriculture in Wales. He has direct ministerial responsibility in Wales for selective financial assistance to industry, and exercises a general responsibility for Welsh economic development. This aspect of the Secretary of State's work is to be strengthened by the planned establishment of a Welsh Development Agency, responsible to him, with important industrial and environmental functions. The Secretary of State is assisted by two Parliamentary Under Secretaries of State. He has certain responsibilities relating to the national library and the national museum.

> The Welsh Office maintains close and continuous working relationships with the government departments mainly concerned with economic and social planning through the Welsh Planning Board and Welsh Council. The Welsh Office is centred in Cardiff; there is also a small ministerial office in London.

SCOTLAND

Scotland has its own system of law and a wide measure of administrative autonomy. The Secretary of State for Scotland, a United Kingdom Cabinet minister, has responsibility in Scotland (with some exceptions) both for the formulation of policy and for its execution in such matters as agriculture and fisheries, education, local government and environmental services, social

work, health, housing, roads and certain aspects of shipping and road transport services. He is also responsible for a range of other functions from police and fire services to sport and tourism. At ministerial level he is assisted by two Ministers of State and two Parliamentary Under Secretaries of State.

The United Kingdom Government's administrative functions arising from these responsibilities are carried out principally by five Scottish departments based in Edinburgh and known collectively as the Scottish Office. A management group comprising the five heads of departments under the chairmanship of the Permanent Under Secretary of State (the senior official in Scottish administration) advises the Secretary of State, particularly on questions, such as the allocation of resources and forward planning, with which more than one of the departments are concerned.

The Secretary of State also has a major and expanding role in the planning and development of the Scottish economy. He is to acquire important additional functions related to industrial development, with the intended establishment of a Scottish Development Agency responsible to him, and his assumption of responsibility for selective financial assistance to industry in Scotland.

He plays a full part in the Government's determination of energy policy and exercises a co-ordinating function over activities in Scotland—such as the location of industry, the creation of employment and the land-based facilities needed for North Sea oil—which are not his direct responsibility but have an important effect on the country's economy. United Kingdom Government departments with significant Scottish responsibilities have offices in Scotland with delegated powers, and work closely with the Scottish Office.

The Secretary of State is responsible for legal services in Scotland, and other important functions are exercised by the two Scottish Law Officers: the Lord Advocate and the Solicitor General for Scotland. On many domestic matters, in order to reflect distinctive Scottish features and the different conditions and needs of the country and its people, there is separate legislation relating wholly to Scotland, or else clauses of special application to Scotland only are inserted in Acts which otherwise apply to the United Kingdom generally.

The Department of Agriculture and Fisheries for Scotland The Department of Agriculture and Fisheries for Scotland has a general responsibility for, and in most cases administers, government measures for the promotion and development of farming in Scotland. It also has responsibilities for the oversight and protection of the Scottish inshore, deep sea and freshwater fisheries, and functions relating to certain harbours.

The Scottish Development Department The Scottish Development Department is concerned with a number of services affecting the physical development of Scotland, such as town and country planning, housing, roads, water supplies and sewerage, coast protection, flood prevention, building standards and the prevention of river and air pollution (most of which are administered by local authorities). The department is also responsible for general policy in regard to local government organisation and finance and for ancient monuments and historic buildings.

The Scottish Economic Planning Department The Scottish Economic Planning Department is responsible for industrial and economic development including the Scottish aspects of regional policies in both British and European Community contexts and the development of North Sea oil resources. It is also concerned with general policy in relation to the Secretary of State's responsibilities for Highlands and Islands development, transport, electricity, tourism, new towns, and rural development.

The Scottish Education Department

The Scottish Home and Health Department

Other Administrative Departments

The Law Officers and Legal Departments

The Scottish Courts Administration The Scottish Education Department is responsible for the development of public education in Scotland in all its forms (except universities). Through its Social Work Services Group the department has a responsibility for the guidance of local authorities in their provision and development of social work services. It is also concerned with sport in Scotland, including the financing of the Scottish Sports Council, and with the development of the arts in Scotland, with responsibility for the administration of the National Galleries of Scotland, the Royal Scottish Museum (including the Scottish United Services Museum), the National Museum of Antiquities of Scotland, and the National Library of Scotland.

The Scottish Home and Health Department is responsible for the central administration of functions relating to law and order, including the police service, criminal justice and legal aid and the administration of penal institutions. It also has responsibility for the administration of the National Health Service in Scotland, legislation relating to public service superannuation schemes in Scotland and the administration of the teachers' and National Health Service superannuation schemes. The Home and Health Department is the central authority in Scotland for the fire service, for certain home defence and emergency services, and for legislation concerning shops, theatres, cinemas, licensed premises and land tenure matters. It is responsible for Scottish aspects of devolution.

In addition to the main departments, there are a number of other Scottish departments, all of which work in varying degrees under the direction of the Secretary of State. Such departments include the Department of the Registrar-General for Scotland (the General Register Office); the Scottish Record Office; and the Department of the Registers of Scotland. There are also Scottish branches of the Great Britain and United Kingdom departments under the direction of controllers, who are responsible for ensuring that the execution in Scotland of the policy and procedure of their departments is in accordance with Scottish conditions and needs.

The Law Officers of the Crown for Scotland (the Lord Advocate and the Solicitor General for Scotland) are the chief legal advisers to the Government on Scottish questions and the principal representatives of the Crown for the purposes of litigation in Scotland. The Lord Advocate is also closely concerned with questions of legal policy and administration and is himself responsible for the institution and direction of all prosecutions on indictment in Scotland, and the control of summary prosecutions in the sheriff court, which are conducted by officials of the Procurator Fiscal Service. In some of this work the Lord Advocate is assisted by the Lord Advocate's Department and the Scottish Courts Administration. The members of the Lord Advocate's Department also act as legal advisers on Scottish questions to certain government departments who have no Scottish legal adviser of their own. The work relevant to prosecutions is centred in the Crown Office in Edinburgh.

The Parliamentary Draftsmen for Scotland, incorporated in the Lord Advocate's Department, are responsible to the minister concerned and to the Law Officers for the drafting of government Bills affecting the law of Scotland.

The Scottish Courts Administration has a general responsibility to the Secretary of State for the organisation, administration and staffing of the courts and court offices, and is responsible to the Lord Advocate for certain functions

in the field of law, including the programme of the Scottish Law Commission, proposals for law reform and questions involving private international law, international conventions and associated problems, the jurisdiction and procedure of the Scottish courts, and enforcement of judgments.

NORTHERN IRELAND Northern Ireland has traditionally had its own subordinate legislature responsible for a broad range of domestic matters. The Government of Ireland Act 1920 enacted a constitution which, while preserving the supreme authority of the United Kingdom Parliament and reserving certain matters to that Parliament, provided Northern Ireland with its own legislature and executive to deal with domestic 'transferred' matters. These arrangements remained in force until 1972 when, following several years' political instability and violence in Northern Ireland, a period of direct rule was introduced, with executive powers exercised by a Secretary of State for Northern Ireland and laws made by Order in Council. In 1973 a new type of constitution for the Province provided, among other things, for the devolution of powers to a legislative assembly and a power-sharing executive. These arrangements came into force in January 1974, but following widespread opposition in Northern Ireland the Assembly was prorogued in May 1974. In July 1974 the Northern Ireland Act was introduced, providing for the election of a Constitutional Convention to consider what arrangements for the government of Northern Ireland would be likely to command most widespread acceptance throughout the community. The Act provided that, in the interim period (defined as one year from the passing of the Act), the United Kingdom Government and Parliament should continue to be responsible for law and order, electoral matters and business of national importance, such as the Crown, foreign policy, defence and certain aspects of taxation. It further provided that the Secretary of State for Northern Ireland should be responsible to the United Kingdom Parliament for the devolved services, and that laws for Northern Ireland on matters formerly within the competence of the Assembly should be made by Order in Council during the interim period, which could be shortened or extended by the United Kingdom Parliament. The Northern Ireland Assembly was dissolved at the end of March 1975, and elections to the Constitutional Convention and its first meeting took place in May. In the meantime, the Northern Ireland departments, which have executive responsibility for the devolved matters (such as agriculture, commerce, education, health, finance and the environment), are temporarily the responsibility of ministers in the Northern Ireland Office.

The Northern Ireland Office The Northern Ireland Office is the department of the Secretary of State for Northern Ireland who, assisted by two Ministers of State and two Parliamentary Under Secretaries of State, has overall responsibility, and is fully answerable to Parliament, for the government of Northern Ireland. In addition to exercising personal responsibility for constitutional developments, law and order and security in Northern Ireland, the Secretary of State is closely concerned with financial and economic matters in the Province. The four other ministers are in charge of the various Northern Ireland departments, the activities of which are co-ordinated as necessary.

Northern Ireland The Northern Ireland departments' functions are listed below.

Departments

Department of Agriculture The Department of Agriculture is responsible for the development of Northern Ireland's agricultural, forestry and fishing industries, and for the administration of legislation and schemes in Northern Ireland relating to farm improve-

ment, crop improvement, plant health, livestock improvement, animal health, horticulture, agricultural loans, arterial drainage, water recreation, forestry and forest recreation, fisheries, and marketing and processing. The functions of the department also include the collection of agricultural census data, the compilation of statistics, the provision of extensive advisory services to farmers, and the promotion of agricultural research, education and training.

The Department of Commerce is concerned with the development of Northern Ireland's industry and commerce, and with the administration of schemes of assistance to industry. The department also has responsibilities in connection with electricity and other fuel undertakings; harbours (other than fishery harbours); the tourist trade; the regulation and inspection of mines and quarries; mineral development; consumer protection (including weights and measures); the registration of companies, societies, credit unions, trade unions, and insurance and unit trusts; and the administration of an industrial forensic science department.

The Department of Education's functions include the development of primary, secondary and further education, including adult and higher education; oversight of the five area education and library boards which are responsible to the department for the local administration of the education and library services; teacher training; examinations; youth welfare and youth services; museums; the Arts Council for Northern Ireland; and the Armagh Observatory.

The department is also responsible for sport and recreation, for formulating and sponsoring policies for the improvement of community relations, and for making grants to local authorities and voluntary bodies for a wide range of social provisions to relieve special social need in urban areas.

The Department of the Environment is responsible for European Community co-ordination. Its other functions are concerned with the construction and maintenance of roads and bridges; street lighting; traffic management; road safety; public service vehicle inspection; driving licences; fire services; transport; water supply; sewerage services; environmental public health; clean air; and the listing and preservation of historic buildings.

The Department of Finance's responsibilities include the control of the expenditure of the Northern Ireland departments, liaison with the United Kingdom Treasury and the Northern Ireland Office on financial matters, and the management of Northern Ireland's Civil Service. Functions include economic and social planning and research; compilation of statistics; issue of Ulster savings securities; control of borrowing; advancement of government loans to local and public authorities; making regional rate orders and fixing the regional rate and collection of the regional and district rates; and staffing, recruitment and training of civil servants and regulation of Civil Service conditions.

The department also has certain duties in relation to constitutional and legal policies and law reform, and to charities and charitable funds. Its other responsibilities include the provision and maintenance of public buildings, the issue of building regulations, liaison with the construction industry, property valuation, ordnance survey, public records, the registration of births, deaths and marriages, the registration of titles, land, miscellaneous licensing (including licensing bookmakers, money lenders and the sale of intoxicating liquor) and the registration of clubs.

Department of

Education

Department of

Commerce

Department of

the Environment

Department of Finance

Department of Health and Social Services

Department of Housing, Local Government and Planning opticians); and for the personal social services (including child care and adoption and care of the elderly and the physically and mentally handicapped). The department is also responsible for the development of community work. The Department of Housing, Local Government and Planning is responsible for housing; local government; planning (area planning and planning control); amenity lands—country parks, nature reserves and areas of natural beauty;

The Department of Health and Social Services is responsible for the

administration of social security benefits in Northern Ireland; for health

services (which include hospitals, family doctors, dentists, chemists and

and comprehensive development (redevelopment—other than housing—of district, town or village centres). The Department of Manpower Services is responsible for the administration of the employment service in Northern Ireland; for the compilation of employment and unemployment statistics; for the provision of an advisory service to companies; and for government training centres, integrated work-force units, industrial training boards, management training, and the training-on-employers-premises scheme. The department also has functions in connection with industrial relations, provides the factory inspectorate and is concerned with

disabled persons, contracts of employment, redundancy pay and wages

THE CIVIL SERVICE

councils.

A civil servant in Britain is a servant of the Crown (not being the holder of a political or judicial office), who is paid wholly and directly out of money voted by Parliament and works in a civil capacity in a department of government. Including part-time staff (two part-time officers being reckoned as equivalent to one full-time), there are about 700,000 civil servants (one-third of them women), roughly 290,000 of whom are engaged in the provision of public services—paying sickness benefits and pensions, collecting taxes and contributions, running employment services, staffing prisons, and providing services to industry and agriculture. About 265,000 are employed in the Ministry of Defence, including the Royal Ordnance factories and Royal Dockyards. The rest are about equally divided between: central administrative and policy duties; service-wide support services, such as accommodation, printing, and information; and services which are largely self-supporting financially, for instance those provided by the Department for National Savings and the Royal Mint.

Over 70 per cent of civil servants work outside the London area, and plans have been made for further dispersal from the capital.

The total of civil servants includes about 177,000 industrial staff, mainly manual workers in government industrial establishments, whose pay and conditions of service are largely separately administered, and differ quite substantially, from those for non-industrial grades.

Stability of administration is ensured by the political neutrality of the service. Although a civil servant works under the authority and direction of the minister of the department to which he is appointed, legally he is a servant of the Crown. A change of minister, whether due to ministerial changes within a government or the advent of a government of a different political complexion, does not involve a change of permanent staff.

Department of Manpower Services

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The Development of the Modern Service

The Civil Service in its present form is a product of the past 120 years. Before then, departments were free to choose their own staffs, qualifying standards were unknown, there was no central supervision, and political jobbery was rife. Nineteenth-century reforms included the substitution of open competition for the practice of obtaining Civil Service appointments by favour or purchase, and the establishment of an independent body, the Civil Service Commission, to control recruitment. The great expansion in State activity in the first half of the twentieth century, and the consequent increase in the numbers of civil servants and the scope of their duties, led to further reorganisation, including the creation of service-wide scientific and professional classes; recruitment was adapted to a developing educational system, and co-ordination between the various departments improved. Civil servants, though they remained employees of their departments, became members of an integrated service with common conditions of employment and traditions and standards of conduct belonging, not to individual departments, but to the Civil Service as a whole.

More recently the structure and management of the Civil Service came under detailed internal scrutiny following the report of the Fulton committee which in 1968 assessed the structure, recruitment and management, including management training, of the service. As a result of the report, the Civil Service is undergoing a programme of reshaping and modernisation, designed to make it more effective in carrying out its changing tasks.

Structure

The structure of the Home Civil Service, which until recently tended to reflect the assumption that specific types of work should be allocated to particular groups of civil servants on the basis of their specialist or vocational qualifications, is at present being redesigned to provide for a more flexible deployment of staff so that talent can be used to the best advantage and the highest levels of the Civil Service seen to be open to people of outstanding ability, whatever their specialist background or original method of entry to the service. These structural changes involve the abolition of classes, and are being allied with personnel management policies designed to ensure that, although work requiring specialist skill is always done by appropriately qualified individuals, people with the necessary aptitudes are given suitably wide experience to fit them for higher posts.

At the top levels of the Civil Service, where staff are predominantly concerned with higher management and policy, there is now an open and unified structure, with three grades—permanent secretary, deputy secretary and under secretary—available for all types of post. Posts at these levels are filled by the people most suitable for them without regard to their academic background or to whether they were previously in a specialist or generalist stream.

At other levels the structure is being based on a system of categories which are pay and grading structures and occupational groups which are groups of staff within each category, whose members have common personnel management and recruitment needs. Four new categories have so far been created, and the groups of staff that are so far members of them are shown below.

The Administration Group contains some 270,000 staff. Their functions range from the co-ordination and improvement of government machinery and the formulation of advice to ministers on matters of policy to the performance of normal clerical duties connected with the running of departmental business at lower levels.

General Category

The Economist Group contains about 300 staff. They provide economic advice and undertake economic analysis.

The Statistician Group (some 450 staff) undertakes the collection and analysis of statistics required for government policies (see p. 45).

The Information Officer Group (some 1,350 staff) carries out a variety of specialised press, publicity, public relations and information work.

The Science Category contains the Science Group (18,000 staff), which is responsible for conducting scientific research and testing in numerous government laboratories and testing establishments, and for providing advice on scientific policy. Its members also participate in the planning and management of advanced technology procurement projects.

The Professional and Technical Group contains some 40,000 staff and includes a range of professionals-architects, surveyors, quantity surveyors, and electrical and mechanical engineers-and appropriate supporting staff, whose main function is to plan and oversee a wide range of government construction and procurement activities, and to carry out certain inspection and regulatory activities.

The Illustrator Group contains about 500 staff responsible for the preparation of all forms of artwork applied to the wide range of requirements within the Government service.

Within the Training Category the Instructional Officer Group comprises some 4,000 staff employed on instruction in a trade, craft or subject, or on ancillary or supervisory duties connected with instruction.

The four categories already established account for some 60 per cent of the non-industrial staff; the remainder are in due course to be allocated to one of the three main categories or, where this is impossible, to additional categories to be set up for the purpose. Such staff include those in a number of 'general service' classes (that is to say, classes whose members serve in a number of departments), for instance, the medical and legal classes.

The Civil Service employs about 24,000 shorthand typists, audio typists and copy typists, who work mainly in small groups, and about 4,500 personal secretaries who work mainly to senior civil servants.

There are about 29,000 other support staff, including paperkeepers, office cleaners and messengers. (As far as practicable, posts of messengers are reserved for ex-servicemen, although other men and women over the age of 30 may be recruited.)

The Diplomatic Service

The Diplomatic Service is a separate self-contained service of the Crown, which provides the staff (it directly administers some 6,500 civil servants) for service in the Foreign and Commonwealth Office and at United Kingdom diplomatic missions and consular posts in foreign and in independent Commonwealth countries. Its functions include advising on policy, negotiating with overseas governments and conducting business in international organisations; promoting British exports and the advancement of British trade; presenting British ideas, policies and objectives to the people of overseas countries; and protecting British interests abroad.

The service has its own grade structure, linked for salary purposes with that of the Home Civil Service. It also has secretarial, communications and security officer branches. Various specialists and advisers from home depart-

Science Category

Professional and **Technical** Category

Training Category

Others

Typists

Other Support Staff

ments or the armed forces may serve at overseas posts on secondment or attachment to the Diplomatic Service.

The Northern Ireland Civil Service

Northern Ireland has its own Civil Service which, subject to regional differences, is modelled on its counterpart in Great Britain, recruitment being effected through its own Civil Service Commission. Interchange of staff between the two Civil Services occurs to a minor extent only, and is a matter for departmental agreement in individual cases.

Public Services of Overseas Dependent Territories

Britain's dependent territories fill vacancies in their public services by the appointment of suitably qualified local candidates wherever possible; but when vacancies cannot be filled by this means the Foreign and Commonwealth Office, the Ministry of Overseas Development and the Crown Agents for Oversea Governments and Administrations (see p. 379) are asked to recruit other candidates, principally from the United Kingdom.

Recruitment

Recruitment to the Civil Service is the responsibility of the Civil Service Commission which, working in conjunction with departments, ensures that staff are selected on the basis of fair and open competition. The selection of junior staff, especially those engaged in clerical and manual work, is undertaken almost entirely by departments. The commission, however, always issues the 'certificate of qualification' necessary for permanent appointment. The appointment of a successful candidate is made by the department in which he is to be employed.

For the administration group, which forms the central part of the Home Civil Service, entry is at three levels relating broadly to the academic achievements of university honours graduates; 18-year-old school-leavers; and 16year-old school-leavers. The selection procedure for the highest of these levels —the Administration Trainee entry—comprises qualifying tests, followed by a series of tests and interviews at the Civil Service Selection Board and an interview by the Final Selection Board. For most other entries selection from among those possessing the necessary academic qualifications is normally by interview only.

Entry to the professional and technical grades usually requires appropriate qualifications in the subject concerned, and selection is on the basis of past record and by interview.

Training

In all except the smallest government departments, there are full-time training officers and instructors whose task it is to help identify the training needs of the staff and to organise courses, both general and technical, to provide for their varying requirements. The number of management courses run within the Civil Service, including those provided at the Civil Service College, has recently increased substantially. Some use is also made of external management courses in business schools, the Administrative Staff College, Henley, and other centres.

Methods of training within the Civil Service combine lectures, discussion groups, instructional visits and case-studies with the use of many audio-visual aids such as closed-circuit television and video-tape recordings, instructional films and programmed learning. There is also a considerable amount of 'on-thejob' training. Civil servants are regularly moved between the different branches of their department and sometimes between departments so that they can gain as wide an experience as possible of Civil Service work.

In order that they may continue their education, arrangements are made for

the release of civil servants under the age of 18 to attend appropriate courses usually on one day a week ('day release' schemes). Adult staff are assisted financially to undertake, mainly in their own time, private studies leading to recognised educational or professional qualifications in approved subjects. There are also opportunities for civil servants in mid-career to obtain fellowships or otherwise to go on sabbatical leave to undertake research in areas of interest to themselves or their departments.

Training is co-ordinated by the Personnel Management (Training) Division of the Civil Service Department which is responsible, in conjunction with the Civil Service College, for the analysis and determination of training needs to be met centrally, and which exercises advisory functions in regard to departmental training. All central training is provided by the Civil Service College which offers a wide range of courses and seminars (some of a broad developmental nature and others more job-related) for civil servants, including those in specialist groups, at various levels up to and including that of under secretary. Subjects covered include structure and machinery of government, organisation and staff management, economics, statistics, industrial growth, social administration, operational research, computers and information systems.

The college also provides courses on European institutions and their working, and is developing links in a variety of matters, including training, with other European countries.

Promotion

A period of probation (varying according to grade, with extensions in certain instances) is the rule for all new entrants to the Civil Service.

Promotions are made partly through centrally conducted examinations and partly by the departments themselves. Promotions or appointments to most of the highest positions in the service (for instance, permanent secretaries, principal personnel officers and principal finance officers) are approved by the Prime Minister, who is advised in these matters by the head of the Home Civil Service.

The consideration governing all promotion is the advancement of the efficiency of the public service—the criterion being the fitness of an officer for a more senior, responsible post. Normally promotion is from grade to grade, but a procedure of accelerated promotion has been worked out for administration trainees and officers who have shown exceptional promise but are outside the age and salary limit for a particular grade.

Conditions of Service

Machinery for negotiation on conditions of service affecting the Civil Service as a whole is provided by the National Whitley Council, which is composed jointly of official and staff representatives. Negotiating machinery for separate sections of the service is provided through the various staff associations which civil servants are encouraged to join (for instance, the Civil and Public Services Association, the Society of Civil Servants and the Institution of Professional Civil Servants), and through departmental Whitley Councils.

In general, the civil servant receives a salary which is based on a fair comparison with that paid for similar work outside the service and usually he receives annual increments up to the maximum of the scale of the grade to which he belongs. In addition, although a civil servant holds office at the pleasure of the Crown and may therefore be dismissed at any time, in practice he enjoys a considerable measure of security of tenure. Thus every civil servant who is capable and efficient may reasonably expect a full career in

the public service and is entitled to receive pension benefits. Equal pay exists for men and women in the Civil Service.

It is possible for staff to interrupt their careers, or to have special leave granted, to look after domestic responsibilities, and staff who resign may apply later to rejoin the service in the grade they held at the time of resignation.

Civil servants are required to work a specified number of hours each week. Certain grades are eligible for overtime pay for any hours worked in excess of the standard hours, but this does not apply to the higher grades whose salaries are determined on the assumption that they will work such long hours as may be necessary without additional pay. The standard working week for office staff is 41 hours in London and 42 hours in the provinces. Annual leave varies according to grade and length of service up to a maximum of six weeks (that is, 30 working days a year).

Sick leave on full pay, less any national insurance benefit received, may be granted to civil servants for up to six months in any 12 months, and on reduced pay up to a maximum of one year's sick leave in any four years; any officer whose health is permanently impaired may be retired.

The position and functions of a civil servant remain the same whichever political party is in power; and it is his duty to serve the government of the day irrespective of his own political opinion. The extent to which he is free, as a private individual, to participate in political activities varies according to grade. For this purpose civil servants are divided into three groups: those who are completely free to engage in all kinds of national and local political activities (although if they intend standing for Parliament, they must resign their appointment before nomination day on the understanding that if not elected they will be reinstated in their previous capacity within a week of the declaration of the election result); those who are free, subject to the acceptance of the need for discretion and with the permission of the department, to take part in most activities except parliamentary candidature; and those who are debarred from national political activities though they may seek permission to take part in local government political activities. In the non-industrial Civil Service, the completely free groups are members of the minor classes such as cleaners and messengers. The intermediate group includes mainly members of the clerical and typing grades and the granting of permission by the department depends, broadly, on the nature of the work done. The remainder are not allowed to take part in national political activities. Permission is usually granted to members of all groups to engage in local political activities to the maximum extent consistent with the reputation of the Civil Service for political impartiality and the avoidance of any conflict with official duties. Where permission is granted, it is subject to a code of discretion and to the obligation to notify the department of election or co-option to a local council.

All civil servants enjoy the right to register their private political opinions on appropriate occasions, for instance, at general or local authority elections. They may also engage in such private activities as they wish, provided that these do not in any way conflict with their official duties, nor with the provisions of the Official Secrets Acts 1911¹ and 1920, and the Prevention of Corruption Act 1926. However, since a civil servant must not use his official position to further his private interests, he is subject to certain restrictions in commerce and business: for instance, he may not hold private interests in

Political and Private Activities

¹ Proposals have been made to modify this Act by limiting the areas in which the safeguarding of official information requires the protection of the criminal law.

public contracts and he may not use official information in writing, broadcasting or lecturing without the approval of his department.

Security

The political views of civil servants are not as a general rule a matter of official concern, but there are some civil service duties in which secrecy is so vitally important to State security that the Government does not feel itself justified in employing anyone to carry them out whose reliability is in doubt. For this reason no one who is known to be a member of, or actively associated or in sympathy with, the Communist Party or with Fascist organisations, or is liable to be a security risk in any other respect, is employed on secret work.

Each government department is responsible for its own internal security, and the Security Service, which operates independently under a Director-General who is responsible for its efficiency to the Home Secretary, deals with national security. In addition, there is a Security Commission which, if requested by the Prime Minister in consultation with the Leader of the Opposition, may investigate and report on breaches of security in the public service and, in certain circumstances, advise whether any change in security arrangements is necessary or desirable.

LOCAL GOVERNMENT

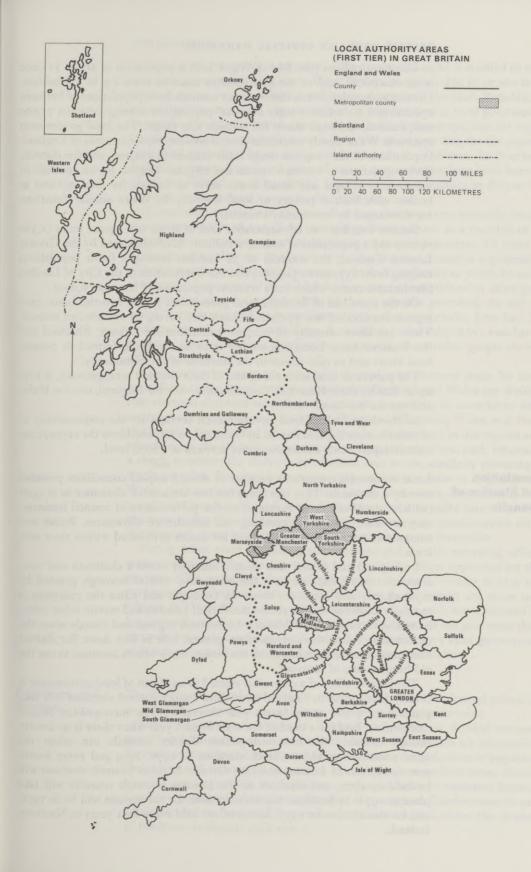
The local government system comprises a pattern of elected councils for defined areas. The councils represent their own localities, provide a local level of democracy and make available a wide range of services.

The specific powers and duties of local authorities are conferred on them by Act of Parliament (or by measures made under the authority of an Act). The actual administration and the exercise of discretion within statutory limits are the responsibility of the local authority, but, in respect of certain services, Acts of Parliament dealing with local government give government ministers defined powers, some of which are designed to secure a measure of national uniformity in the standard of service provided or to safeguard public health, while others are for the protection of the rights of individual citizens. For some services the minister concerned has wide powers of supervision; for others there are strictly limited powers. Government policy is to ensure that central government controls over local authorities are kept to a minimum.

In addition to their statutory powers, ministers concerned with local government give assistance to local authorities by the general issue of advisory circulars and by giving advice in individual cases.

The main links between local authorities and the central Government are: in England, the Department of the Environment; in Scotland, the Scottish Development Department; in Wales, the Welsh Office; and in Northern Ireland, the Department of Housing, Local Government and Planning.

Principal Types of Local Authority The main pattern of local government organisation in England and Wales (outside Greater London) is a division of the country into 53 large county authorities (see map on p. 67), within which there are 369 smaller district authorities. Both types of authority have independent, locally elected councils, and have separate functions to perform. County authorities normally provide the large-scale local government services, while the districts are responsible for the more local ones (see p. 69). However, in six of the English counties, which are in heavily populated areas and known as 'metropolitan' counties, responsibility for certain large-scale services rests with the district authorities. In England populations in the non-metropolitan counties range from 286,000



to about 1.4 million (the Isle of Wight with a population of about 111,000 is an exception), and in the metropolitan counties from 1.2 to 2.8 million. District authorities within metropolitan counties have populations of between 172,000 and 1.1 million; other districts' populations average between 75,000 and 100,000, although many fall outside this range. The local government system in Wales closely resembles that in non-metropolitan areas of England. Populations in the counties range from 100,000 to 539,000, and the districts have populations of between 19,000 and 285,000. English parish councils or meetings in villages and small towns serve as focuses for local opinion as bodies with limited powers of local interest. In Wales similar functions are discharged by community councils.

Greater London—an administrative area of about 610 square miles (1,580 sq km) and a population of some $7\cdot 2$ million—is administered by the Greater London Council, the councils of 32 London boroughs (with populations ranging from 137,000 to 329,000) and the Corporation of the City of London (the historic centre which has a resident population of less than 6,000).

On the mainland of Scotland local government is on a two-tier basis: nine regions are divided into 53 districts, each area having its own elected council. There are three virtually all-purpose authorities for Orkney, Shetland and the Western Isles. Local community councils are being formed to express local views and to take action in the interests of the community.

The pattern of local authorities, and of their electoral arrangements, is kept up to date by three Boundary Commissions—one for England, one for Wales and one for Scotland.

In Northern Ireland local environmental services are the responsibility of 26 district councils; area boards and local offices responsible to the appropriate central departments administer other services at a local level.

Local authorities comprise a number of elected unpaid councillors presided over by a chairman. They can claim flat-rate attendance allowance as of right (without proof of loss of earnings) on the performance of council business; they are also entitled to travelling and subsistence allowances. Parish and community councillors cannot claim for duties performed within their own areas.

In England and Wales each council annually elects a chairman and vicechairman. Some districts have the ceremonial title of borough granted by royal charter and some are cities. In boroughs and cities the chairman is normally known as the Mayor (in the City of London and certain other cities, he is known as the Lord Mayor). In Scottish regions and islands areas the chairman is called the convener; no general title is laid down for district chairmen, but some are known as conveners, while others continue to use the old burghal title of 'provost'.

The term of office of a councillor elected to any form of local government is usually four years. In England and Wales county council elections will take place in 1977 and every fourth year thereafter. The metropolitan district elections are held for a third of the seats in each year when there is no county council election; the non-metropolitan district councils can adopt the same procedure or choose block elections in 1976, 1979 and every fourth year thereafter. In London the next Greater London Council elections will be held in 1977, and elections to the London borough councils will take place in 1978. In Scotland the next elections for the regions will be in 1978, and for the districts in 1977. Elections are held every four years in Northern Ireland.

Constitution and Election of Councils

Any person (including a member of the House of Lords) is entitled to vote at a local government election in Great Britain provided that he or she is 18 years of age or over, is a British subject or a citizen of the Irish Republic, is not subject to any legal incapacity and is registered as a local government elector for the area for which the election is held. A person qualifies for registration as a local government elector if, on the qualifying date for the register (compiled annually), he or she is resident in the council area. In Northern Ireland, a person must be 18 years of age or over and must have been born in Northern Ireland or, alternatively, have resided continuously in Britain for seven years immediately prior to the qualifying date.

A candidate for election as councillor—man or woman—normally stands as a representative of one of the national political parties, as a member of an association representing some local interest, or as an independent. He must be of British nationality and aged 21 or over. In addition, he must be registered as a local government elector in the area of the local authority to which he seeks election; or have resided or occupied (as owner or tenant) land or other premises in that area during the whole of the 12 months preceding the day on which he is nominated as a candidate; or, in that 12 months, have had his principal or only place of work there. A candidate is also subject to a number of statutory disqualifications designed to ensure that unsuitable people do not offer themselves for election.

Local authority areas are generally divided into electoral areas for local council elections. Administrative counties in England and Wales are divided into electoral divisions returning one or more councillors in accordance with orders made by the Home Secretary. Districts in England, Wales and Northern Ireland are divided into electoral 'wards'. In Scotland in the regions and islands areas the electoral areas are called electoral divisions, each returning a single member; the districts are divided into wards, similarly returning a single member. For parish or community council elections in England and Wales, each parish or ward of a parish (or, in some cases, a combination of parishes) forms an electoral area which returns one or more members. For elections to the Greater London Council, parliamentary constituencies form the electoral areas, with each constituency returning one councillor.

Voting takes place at polling stations arranged by the returning officer concerned, and under the supervision of a presiding officer appointed for the purpose. The procedure for local government voting is similar to that for parliamentary elections, although facilities for postal voting are more restricted. In Great Britain each elector has one vote for each seat contested in his electoral area: he need not record all his votes, but must not give more than one vote for each candidate. In Northern Ireland the 1973 local government elections were held on the basis of proportional representation.

Functions and Services

The functions of local authorities are far reaching. Some are framed primarily as duties mandatory on an authority, others are purely permissive.

Broadly speaking, functions in England and Wales are divided between county and district councils on the basis that county councils are responsible for matters requiring planning and administration over wide areas or requiring the support of substantial resources. Within the metropolitan areas district councils are responsible for functions needing substantial resources because they have populations large enough to give such support. District councils as a whole administer functions of more local significance. In London the division of functions is slightly different. In England all county councils are responsible for such matters as strategic planning, transportation planning, highways, traffic regulation, consumer protection, refuse disposal, police and the fire service. Education, libraries and the personal social services are functions of county councils in non-metropolitan areas and of district councils in metropolitan areas. All district councils are responsible, for instance, for environmental health, housing, decisions on most planning applications and refuse collection. They may also provide offstreet car parks subject to the consent of the county council. Powers to operate some functions—such as the provision of museums, art galleries and parks are available at both levels; arrangements depend on local agreement.

In Greater London the London boroughs and the Corporation of the City of London are responsible for the same range of functions as district councils in metropolitan areas (with the addition of consumer protection). The Greater London Council (GLC) deals only with those services which by their nature require unified administration and control over the whole area. In the inner London area education is administered by the Inner London Education Authority, an independent committee of the GLC. Responsibility for highways in London is divided according to the type of road: principal roads (the main strategic road network) are a matter for the GLC, while the London boroughs look after the other roads. The boroughs are primarily responsible for the provision of housing, although the GLC also maintains a stock of housing. It is additionally involved in such matters as the provision of housing outside London for people from the London area, assisting the inner London boroughs in relation to slum clearance, the provision of accommodation for people on the London boroughs' housing waiting lists, and the rehousing of its own tenants and those of the London boroughs whose accommodation needs have changed. Greater London and certain areas just outside are policed by the Metropolitan Police Force, which, unlike county police forces, is directly responsible to the Home Secretary and not to local police authorities.

In Wales the division of functions between county and district councils is much the same as that between county and district councils in non-metropolitan areas of England. The main differences are that Welsh district councils are responsible for refuse disposal; they may, subject to the consent of the county council, provide on-street as well as off-street car parking facilities; and they may, exceptionally, be designated to exercise library and consumer protection functions.

Local authorities in England and Wales may arrange for most of their functions to be carried out on their behalf by another local authority. The exceptions to this general rule are functions relating to education, police, the personal social services and national parks.

In Scotland the regional and district authorities discharge local government functions in a way broadly similar to that of authorities in England and Wales, including some at both levels. Orkney, Shetland and the Western Isles, because of their isolation, have single, virtually all-purpose authorities.

In Northern Ireland, local environmental services are administered by the district councils, but control of roads, water supply and sewerage services is exercised in each district by a local office of the Northern Ireland Department of the Environment working in close association with the district council and its staff. Responsibility for planning is similarly exercised by local offices of the Department of Housing, Local Government and Planning. Area boards, responsible to appropriate central departments, administer locally education, public libraries and the health and personal social services.

Internal Organisation of Local Authorities Local authorities are free to a very considerable extent to make their own internal arrangements and to choose the means and methods by which they discharge their responsibilities. Most councils use the committee system, whereby questions of policy and principle are decided in full council, and committees are appointed to administer the various services. Parish and community councils in England and Wales are often able to do their work efficiently in full session although they appoint committees from time to time as necessary. Many councils have rationalised their organisation by reducing substantially the number of their committees. Some have established policy advisory or co-ordinating committees with powers to originate policy, subject to the approval of the full council. Advice to enable councils to determine appropriate management principles and structures has been given in the report of an official study group (see Bibliography, p. 468).

The powers and duties of local authority committees (which may be advisory or executive) are usually laid down in the appointing council's standing orders. A council is free to delegate all its powers to committees, except its powers in connection with raising loans, levying rates (see p. 72), or making financial demands on other authorities liable to contribute, which are legally reserved to the council as a whole.

Local authorities can make arrangements among themselves for the discharge of their functions. These include co-operation through joint committees, joint teams and the loan of staff. One authority may discharge functions for another, and may also supply others with a range of goods and services.

The public and the press are admitted to all meetings of a council (and of committees) but may be excluded while a particular item is considered if the council (or committee) resolves that publicity for that matter would be prejudicial to the public interest.

The execution of council policy rests with salaried officers and employees, of whom there may be tens of thousands in the larger authorities. Well over two million people are employed by local authorities, including administrative, professional and technical staff, manual workers such as refuse collectors and other groups including teachers and transport staff. A few appointments, such as chief education and fire officers and the director of social services, must by law be made by all the authorities responsible for the functions concerned, but councils are normally free to employ whatever staff they consider necessary and to choose their personnel. An authority must not however employ one of its own councillors.

As a general rule, employees are of three kinds: heads of departments or chief officers, whose duties are mainly of an administrative and managerial kind; subordinate officers employed in an administrative, a professional, clerical or technical capacity; and manual workers who are employed to do the physical work for which the council is responsible. Senior staff appointments are usually made at the instance of the committee or committees particularly concerned; most junior appointments are made by heads of departments, who are also responsible for engaging manual workers. Appointments and engagements always conform to the council's set establishment, and committees are informed of any appointments which they have not made themselves.

Rates of pay and conditions of service for local authority staff are within the jurisdiction of the employing council. They are based on recommendations made by the Whitley Councils (see p. 64), of which the largest are the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services and the National Joint Council for Local Authorities'

Officers and Employees

Services (Manual Workers). Conditions of service and salary scales for senior local government officers are determined by separate joint committees for England and Wales, and for Scotland. The local government service in Northern Ireland has its separate joint negotiating machinery at various levels.

Local authority expenditure in the United Kingdom (on both current and capital accounts) was nearly $f_{14,000}$ million in 1974. A clear distinction is made between capital and current expenditure. Capital expenditure (just under a quarter of the total) is normally financed by borrowing. Housing, the major element, accounts for almost a third of the total. The education service accounts for about a third of current expenditure, followed by the police, the personal social services, roads, and refuse disposal. Current expenditure is financed from three principal sources: government grants (nearly a half in 1974); local rates paid by occupiers of land and buildings (almost a third); and rents from council houses, and other income (about a fifth). Each local authority is responsible for its own finance, although in a few cases several authorities combine their resources to organise a specialised service which it would be uneconomic for each authority to provide on its own.

Government Grants

Rates

The most important government grants to local authorities are the 'rate support grants' which are paid in aid of revenues generally. Grants are also paid towards the cost of specific services—either towards current expenditure, such as on the police, or towards capital expenditure, such as on the acquisition and clearance of derelict land. Annual subsidies are paid for local authority housing.

Rate support grants are distributed among authorities in three parts: the 'needs' element which is designed to give most help to authorities whose spending needs are greatest; the 'resources' element, which is used to supplement the rate income of authorities whose rateable value per head of population falls below a standard figure, prescribed for each year; and the 'domestic' element, which compensates authorities for loss of rate income from reductions in rate poundage which they are required to give to householders. The formula for distributing the 'needs' element is subject to variations from year to year. Grants are also made towards the cost of rate rebates for people with low incomes.

In Northern Ireland the district councils receive specific grants plus a resources element towards the services they provide.

Rates are local taxes paid by the occupiers of non-agricultural land and buildings to meet the cost of local services (after allowing for grants and other income). Each occupier's payment is calculated annually by the rating authority by multiplying the rateable value of his property (broadly equivalent to its annual rental value) by the rate poundage—an amount per \pounds of rateable value fixed by the authority according to its projected financial needs. Rateable values are assessed periodically in England and Wales by the Board of Inland Revenue, which is independent of local authorities. The present valuation lists came into force in 1973. Disputes about rating assessments are heard by local valuation courts, and then, on appeal, by the Lands Tribunal.

In Scotland valuation is on a basis similar to that in England and Wales;

Local

Government

Finance¹

¹ A committee inquiring into the finance of local government in Great Britain is expected to report by the end of 1975.

but it is carried out by assessors appointed by the regional and islands councils. Appeals are heard by the valuation appeal committee of each valuation area and thereafter by the Lands Valuation Appeal Court of the Court of Session. In Northern Ireland the valuation authority is the Commissioner of Valuation, whose office is part of the Department of Finance.

In England and Wales the responsibility for levying and collecting the rates lies with the district councils and London borough councils. Expenditure by county councils and the Greater London Council is met by contributions from district councils and London borough councils respectively, who take these into account in the rates they levy. In Scotland, every authority determines a rate for its own services, but the collection of rates and the administration of rating is the responsibility of regional and islands councils. In Northern Ireland rates are set by the district councils (district rate) and by the Department of Finance (regional rate); both are collected by the department.

Agricultural land and buildings (apart from living accommodation) and places of religious worship are exempted from rate payments, and in Scotland and Northern Ireland industry and freight transport are rated at a half and a quarter, respectively, of their net annual value. Householders in Great Britain benefit from rate reductions financed by government grant and they have the right to pay rates in ten instalments a year. Householders with small incomes are entitled to rebates. Charities pay half the full rate on property they occupy for charitable purposes but may be given further reliefs by the rating authorities, which can reduce or remit the rates for a range of non-profitmaking bodies. Full rates may be levied on empty properties.

Loans may be raised by local authorities to finance capital expenditure under general powers conferred by national legislation. For items of expenditure in key sectors (such as education, housing and roads) local authorities in England and Wales must seek approval from the government department concerned before raising loans. For other capital expenditure, each authority receives an annual loan authorisation within which it determines what sums to borrow and what projects to undertake. The GLC applies annually for parliamentary sanction to raise the money it needs for capital expenditure. In Scotland and Northern Ireland the government department responsible for the service also issues the appropriate loan approvals.

Local authorities may raise long-term loans by means of private mortgages, issuing stock upon the Stock Exchange and bonds which may or may not be quoted on the Stock Exchange. Although these bonds may be for any period, local authorities normally issue them for one year. Local authorities also have right of access to the Public Works Loan Board, financed by the Exchequer, or, in Northern Ireland, to the Government Loans Fund, for longterm borrowing to finance a proportion of their reckonable capital payments, and may borrow temporarily for a limited proportion of their current outstanding loan debt.

Control of Finance

Internal control of finance is normally exercised on behalf of the council concerned by a finance committee, whose function it is to keep the financial policy of the council under constant review. (There is no statutory requirement for local authorities in England and Wales to appoint a finance committee, but they have to make proper arrangements for the administration of their financial affairs.) For the auditing of their accounts, local authorities in England and Wales can choose between the district auditor (appointed by the Secretary of State for the Environment) and an approved private auditor for

Loans

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the audit of some or all of their accounts. In Scotland the accounts of each authority are audited by a professional auditor appointed by the Secretary of State for Scotland and paid by the council concerned, and in Northern Ireland by local government auditors appointed by the Department of Housing, Local Government and Planning.

A complaints system for local government in Great Britain involves independent statutory Commissions for Local Administration (one each for England, Wales and Scotland), comprising a number of local commissioners, each responsible in a particular area of the country for investigating citizens' complaints of maladministration by local authorities. The commissioners help local authority councillors to protect the interests of constituents.

In Northern Ireland a Commissioner for Complaints deals with complaints alleging injustices suffered as a result of maladministration by certain public bodies, including all local authorities.

THE FIRE SERVICES

The fire services in Great Britain are organised on a local basis, subject to a measure of central control. The cost is borne by local authorities, aided by central Government through the rate support grant (see p. 72). Every part of the country is covered by a public fire brigade.

Estimated property losses from fire in Great Britain in 1974 amounted to about $\pounds 231$ million. Each authority must by law make provision for firefighting purposes, and in particular maintain a brigade of sufficient strength to meet efficiently all normal requirements. There are 55 fire authorities in England and Wales: 53 county councils, the Greater London Council and the Isles of Scilly authority. In Scotland there are nine 'regional' fire authorities on the mainland and three 'islands' authorities. The Lothian and Border regions in the south-east, and the Highland region and the islands authorities in the north, are combined to provide fire cover. Other fire-fighting organisations include, for instance, those maintained by the Army and Air Force Departments of the Ministry of Defence; by the Department of Industry at certain establishments; and by some large industrial and commercial concerns.

The Home Secretary and the Secretary of State for Scotland have central **Central Control** responsibility for the fire service in England and Wales and in Scotland respectively. Central control is directed mainly towards ensuring the operational efficiency of brigades. Ministers have statutory powers to make regulations on such matters as appointments and promotions, standards of training and equipment, pensions, and disciplinary matters. Their approval is also required for reductions in the operational establishments of fire brigades. In matters affecting the fire brigades as a whole (excluding discipline and conditions of service), each minister is advised by the appropriate Central Fire Brigades Advisory Council, consisting of officers of the respective home departments, representatives of the local authority associations, and of the associations representing members of fire brigades, and other persons with special qualifications, appointed by the minister concerned. The National Joint Council for Local Authorities' Fire Brigades and the National Joint Council for Chief Officers of Local Authorities' Fire Brigades are the negotiating bodies on ranks, pay and conditions of service of firemen in Great Britain.

Local Government Complaints System

FIRE AUTHORITIES IN GREAT BRITAIN

Inspectorates of fire services advise the ministers on operational and technical matters.

Firemen

Most fire brigade establishments include part-time retained firemen to augment and support the full-time strength in return for a retaining fee and callout and attendance fee. Volunteer firemen (who receive no remuneration) undertake to attend a fire if called upon. Many fire authorities employ women for duties in controls communications and mobilising and staff duties. Some brigades have schemes for the employment of junior firemen of 16–18 years, prior to their enrolment as regular firemen at the age of 18.

Each fire authority must draw up a scheme showing the establishment of officers and other ranks (both whole-time and part-time), the number and location of fire stations and the number and type of appliances considered necessary for the provision of fire cover for its area. Establishment schemes vary according to the fire risks in the area concerned, the strength of individual brigades ranging from 27 whole-time and 224 part-time men in Powys, Wales, to 6,500 whole-time men in Greater London. In England and Wales as a whole there are about 30,000 full-time and 13,500 part-time firemen; corresponding numbers in Scotland are 3,500 and 3,150.

Recruits and junior ranks in the fire service in England and Wales receive practical training in basic firemanship at collective training schools run by the larger fire authorities. In Scotland similar training is carried out at a central training school which is the responsibility of the Scottish Home and Health Department. Management and command training is provided for the higher and middle ranks at the Fire Service Staff College, where high-level operational studies are also conducted. Fire prevention, practical firemanship, advancement and instructor training for junior and middle ranks is provided at the Fire Service Technical College. Both colleges are maintained by the Home Office and the Scottish Home and Health Department. Facilities for officers from overseas fire services to study the organisation, current training methods, appliances and equipment of British fire brigades are arranged by the Home Office Fire Department.

Equipment

Every fire authority must buy such appliances and equipment as may be necessary to meet efficiently all normal fire-fighting requirements in its area. Certain items of equipment are standardised so that there is complete interchangeability when a fire is attended by men and appliances from more than one area. The principal types of fire-fighting appliances are bought by fire authorities to requirement specifications approved by the Home Office and the Scottish Home and Health Department on the advice of the respective Central Fire Brigades Advisory Councils. These specifications ensure that minimum standards are maintained, and allow sufficient freedom of design to meet special circumstances and encourage further developments.

In England and Wales more than 4,300 fire-fighting appliances are used (including pumps, turntable ladders, water tenders, emergency tenders and hose-laying lorries), and are housed in some 1,600 fire stations. Scotland has over 500 fire-fighting appliances and 367 fire stations.

Operational Methods Each fire authority must appoint a chief fire officer (firemaster in Scotland) for its fire brigade. The appointment must be approved by the Home Secretary or by the Secretary of State for Scotland.

Central control is exercised by the chief fire officer from brigade headquarters. Divisional officers in charge of the geographical divisions into

which most areas are divided, are responsible for mobilising forces to deal with outbreaks of fire in their divisions. Constant communication is maintained between divisional and brigade headquarters and, if at any time an outbreak of fire should grow beyond the capabilities of a division, help is sent from one or more neighbouring divisions, or even from the area of another fire authority. Under arrangements for mutual help made by all fire authorities, the nearest available force is sent to a fire, regardless of area boundaries. The number of fire calls in 1974 (including false alarms and special service calls) was about 502,300 in England and Wales and 59,200 in Scotland.

Special Services Fire authorities have discretion to employ their brigades and equipment for purposes other than fire-fighting, and they are in fact used in a variety of emergencies (such as rail, road and aircraft accidents, collapse of buildings, flooding of premises, leakage of noxious gas or liquids and the rescue of people or animals from dangerous situations) for which no charges are made. Brigades are also used, by prior arrangement, for such purposes as emptying swimming pools and filling water tanks.

Fire Prevention

Fire authorities are concerned with fire prevention measures required under a wide range of statutes relating to most buildings to which the public have resort or in which they are employed. The authorities are also under a statutory duty to give advice on fire prevention, restricting the spread of fires, and means of escape in case of fire. Courses in fire prevention are held at the Fire Service Technical College for fire brigade officers.

Fire precautions are not normally required by law in private dwellings, so that, in addition to enforcement duties, brigades are also involved in educational and publicity activities to promote fire safety in the home.

Central government is advised on all these fire prevention matters by the Joint Fire Prevention Committee of the Central Fire Brigades Advisory Councils, representing the service and central and local authorities.

Research

Research into the different aspects of fire is undertaken by a number of government departments and other organisations. A comprehensive programme of research into fire brigade operations, organisation, fire-fighting appliances and equipment is conducted by the Home Office with the help of the fire service under the auspices of the Joint Committee on Fire Research of the Central Fire Brigades Advisory Councils. Individual research projects are undertaken by the Home Office Scientific Advisory Branch or, under contract to the Home Office, by other government agencies, notably the Fire Research Station, which is part of the Building Research Establishment of the Department of the Environment, or by private consultants.

The Fire Research Station is the main organisation undertaking the study and investigation of the technical aspects of fire. Its work is supervised by a steering committee, the membership of which is drawn from the Department of the Environment, the Home Office and independent sources.

FIRE SERVICE IN NORTHERN IRELAND The fire service in Northern Ireland is controlled by the Fire Authority for Northern Ireland, which is responsible to the Northern Ireland Department of the Environment. The authority, whose members include representatives of the local government, maintains six whole-time and 49 part-time stations throughout the area. Brigade establishment is about 1,200: 420 whole-time officers and men and 800 part-time firemen, manning 120 appliances.

3 Membership of the European Community

Britain, together with the Irish Republic and Denmark, joined the original six countries—Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands—in the European Community on 1st January 1973.

British membership of the Community was endorsed by a more than twoto-one majority in the first national referendum to be held in Britain, on 5th June 1975. Some 67.2 per cent of those voting wanted Britain to remain in the Community, against 32.8 per cent who voted for withdrawal. Almost 65 per cent of those eligible to vote did so.

The British Government recommended that the British people should support continued Community membership in the referendum after the objectives of its policy of renegotiating the terms of membership had been largely achieved. The renegotiation, which was begun in April 1974, was directed towards securing a fairer system of financing the Community budget (see p. 81); improvements in the operation of the common agricultural policy (CAP); better trade and aid arrangements for Commonwealth and developing countries; and assurances that British regional, industrial and fiscal policies would not be unacceptably circumscribed by Community rules.

Britain negotiated these changes within the terms of the Treaty of Accession and the Treaties of Rome and Paris (see below), and largely in the course of the Community's normal programme of work. Details of British participation in the work of the Community are provided in the relevant chapters.

The Treaty of Accession

The Treaty of Accession was signed by the applicant countries and the original member states in January 1972. It provided for tariffs on trade in industrial products between Britain and the original six member countries to be progressively reduced over a transitional period ending in 1977, when they will be abolished. The cumulative reduction in 1976 amounts to some 80 per cent. At the end of the transitional period the phased introduction of the common external tariff on British imports from countries neither members of, nor having any special arrangements with, the Community will also be complete. In addition, Britain is progressively adopting the Community system of agricultural support (the CAP) during the transitional period. The Treaty provided for a slightly longer period of adjustment with regard to payments to the Community's institutions and to its relations with Commonwealth and other countries. Separate arrangements for the Channel Islands and the Isle of Man take into account their special relationship with Britain.

European Communities Act The European Communities Act became law in October 1972 and made the legislative changes necessary for Britain to comply with the obligations entailed by membership of the Community, and to exercise the rights of membership. The Act gave the force of law in Britain to that part of Community law which is directly applicable in member states. It also contained detailed legislation (in part repealing or amending existing statutes) to implement Community obligations. Other Community obligations are being met under existing powers to make subordinate legislation, introduced as the measures become applicable.

FORMATION OF THE EUROPEAN COMMUNITIES

The European

Coal and Steel

Community

The European Community consists of three communities set up by separate treaties—the European Coal and Steel Community, the European Economic Community and the European Atomic Energy Community. These are described briefly in the following pages.

The European Coal and Steel Community (ECSC) was established in 1952 by bringing together the coal and steel resources of the six member countries, and formed the model for the 'community' approach to economic integration. The Community is designed to ensure an orderly supply of coal and steel to member countries, to promote the rational expansion and modernisation of production and to provide better conditions of employment and living for the employees in the industries. The Treaty of Paris which established the ECSC and was signed in 1951 provided for the abolition of duties and quantitative restrictions (or charges having the same effect) on trade in coal and steel between member states; of discrimination by producers in prices, delivery terms or transport rates; of any measures which hampered free choice of supplier; and of restrictive practices resulting in the collusive sharing or exploitation of markets. The treaty also provided for action by the Community over a wide field of activity in the coal and steel industries, the work of the Community being financed by a levy on production. The Community provides funds for capital investment, research and other programmes, as well as loans to help create new jobs in declining coal areas or where restructuring of the steel industry is taking place. Grants to assist redundant coal and steel workers until they find new employment, or while undergoing retraining, are also made.

The European Economic Community

The European Economic Community (EEC) was created by the Treaty of Rome signed by the six countries in 1957, and aimed to promote the continued and balanced expansion of the members' economies by their progressive harmonisation and integration. The preamble to the treaty included among the basic objectives of the EEC the establishment of the foundations for a growing unity among European peoples, the improvement of their working and living conditions, the progressive abolition of restrictions on trade, and the development of the prosperity of overseas countries. The initial steps towards the attainment of these objectives were the creation of a customs union, abolition of internal tariffs and other barriers to trade and establishment of a common external tariff, the development of a common policy for agriculture, and the introduction of measures to establish the free movement of labour, capital and services. At the same time, provision was made for the overseas countries which had special links with the member countries to have preferential treatment in aid and the development of trade.

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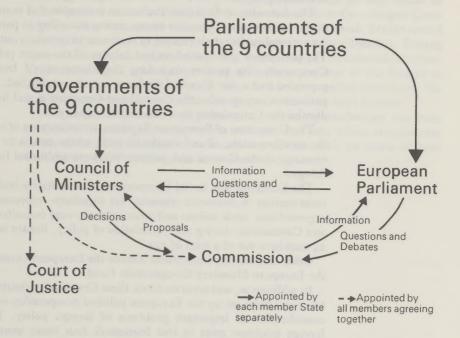
MEMBERSHIP OF THE EUROPEAN COMMUNITY

The European Atomic Energy Community The European Atomic Energy Community (Euratom) was set up by a second treaty signed in Rome in 1957 which provided for the co-ordinated development of members' atomic energy industries and of their other peaceful nuclear activities. Euratom has worked to develop a co-ordinated research programme (for power production, industrial and medical purposes) and to ensure the dissemination of technical information, to facilitate the co-ordination of investment in the nuclear field, and to ensure a proper supply of nuclear ores and fuels and wider commercial outlets. A common market for all nuclear materials and equipment came into effect at the beginning of 1959, with a common external tariff on imports of nuclear materials, while the Community has established common nuclear legislation and a common control system for nuclear materials to prevent their diversion to purposes other than those declared. Following the enlargement of the Community, agreement was reached in February 1973 on a further four-year research programme.

Institutions

The separate institutions established by the treaties for 'each of the three Communities were merged in 1967. The Community institutions, comprising the Council of Ministers, the Commission, the Court of Justice, the Assembly or European Parliament and others including a number dealing with specific subjects, provide a framework (see diagram below) within which the interests of the member states are represented and reconciled and common policies formulated and administered. In each of the institutions Britain has a position equal to that of France, the Federal Republic of Germany or Italy. English is one of the official languages of the Community.

Institutions of the European Community



The Council of Ministers is the final decision-making body for all major Community questions, and is the only institution whose members, usually the foreign minister or other ministers appropriate to the subject of discussion, directly represent each member country. Most Council decisions are taken on the basis of a proposal by the Commission. Although provision is made in the Treaty of Rome for certain matters to be decided by a qualified majority, using a system of weighted voting, in practice decisions are taken on the basis of consensus. On all matters of major importance, affecting vital national interests, decisions are taken on the basis of unanimity.

The Commission is responsible for formulating detailed policy proposals for submission to the Council of Ministers, for promoting the Community interest and attempting to reconcile national viewpoints and for implementing the provisions of the treaties and Community measures. It is composed of 13 commissioners nominated by the member governments; two are from Britain. Each commissioner is responsible for one or more of the main Community activities. The Commission is pledged to act in complete independence of national or sectional interests and to formulate its proposals and administer policy in the interests of the Community as a whole. Its proposals are made only after extensive consultation with officials of the national governments and with such organisations as producers, trade unions, employers' associations and many others.

The Court of Justice interprets and adjudicates on the meaning of the treaties and of any measures taken by the Council and Commission under them, hears complaints and appeals brought by or against Community institutions, member states or individuals and gives preliminary rulings on questions referred to it by courts in the member states. As a court of final appeal its procedure in such cases is broadly similar to that of the highest courts in member states; its rulings are binding on member countries, Community institutions and individuals. The Court of Justice consists of nine judges, assisted by four advocates-general.

The Assembly or European Parliament is composed of nominated members of the parliaments of member states, sitting according to party affiliation and not nationality. Britain is entitled to nominate 36 members out of a total of 198. The parliament is consulted on and debates all the major policy issues of the Community. Its powers regarding the Community's budget have been expanded and a new Court of Auditors is to be established. Members of the parliament may question the Council and Commission and have the power to dismiss the Commission by a two-thirds majority.

The Committee of Permanent Representatives consists of representatives of the member states, of ambassadorial rank, whose task is to prepare for the meetings of the Council and perform whatever additional functions it might delegate.

The Economic and Social Committee is a consultative body representing a cross-section of economic interests. Its members—representing employers' organisations, trade unions and other interests—are consulted by the Council and Commission during the formulation of policy. Britain is entitled to send 24 members out of a total of 144.

Other Community institutions include the European Investment Bank, and the European Monetary Co-operation Fund.

In addition to, and separate from, these Community institutions, the member states have set up the European political co-operation machinery for the consideration of important problems of foreign policy. The Community foreign ministers meet in this framework four times annually. Under the foreign ministers there is a structure of official committees. The country having the Presidency of the Council of Ministers provides the Secretariat.

MEMBERSHIP OF THE EUROPEAN COMMUNITY

Close contact is maintained with Community institutions when this is appropriate, and decisions are made on the basis of consensus.

The Community's heads of Government meet at least three times annually as the European Council in order to ensure progress and consistency in the activities of the Community. The European Council combines the functions of a meeting of the Council of Ministers with those of a meeting held within the context of political co-operation.

The Community Budget

All member countries contribute to a common budget for certain specific purposes, such as agricultural support (administered by the European Agricultural Guidance and Guarantee Fund, often known by its French initials, FEOGA), the European Social Fund (used for occupational re-training and re-adaptation programmes and programmes designed to further manpower mobility), the Regional Development Fund, and administrative costs. Under the direct income system, which came into effect for the original members in January 1971, the Community has progressively drawn a greater proportion of the finance for this budget directly from the revenue of customs duties and of levies on agricultural imports. Except for a 10 per cent rebate to cover collection costs all levies on agricultural imports and all customs revenues are handed over to the Community budget by the original six member states. The remaining proportion of the necessary income (taking into account the new members' contributions, which in Britain's case are described below) is made up by contributions from the (six original) member states according to their shares of the Community's gross national product (GNP); eventually this will be replaced by a proportion (equivalent to up to a 1 per cent rate) of the proceeds of the value added tax (see p. 368).

The Treaty of Accession gave Britain a transitional period up to 1980 in which to adopt this system. The Treaty set a percentage (or key) based on Britain's share of the total GNP of the nine countries in the enlarged Community. This represented the proportion of the budget which Britain would nominally have been expected to pay in the first year of membership. During the transitional period, Britain is paying a proportion of its nominal contribution, increasing in annual steps, from some 8.75 per cent of the budget in 1973 to about 19 per cent in 1977. For the two-year period after 1977, the British contribution is not to increase by more than a limited amount.

As a result of Britain's renegotiation, a 'correcting mechanism' has been established providing for repayments to a member state whose contribution to the Community budget is seriously out of line with its share of total Community GNP and its economic situation.

4 Justice and the Law

THE LAW

Although the United Kingdom is a unitary State, it does not have a single body of law applicable universally within its limits. England and Wales on the one hand and Scotland on the other have their own distinctive legal systems and law courts. Common opinions on broader issues, and a common final court of appeal in civil matters have resulted in substantial identity on many points, but considerable differences in substantive law, as well as in legal procedure and practice, remain. In Northern Ireland legal procedure and practice have closely resembled those of England and Wales for centuries but its enacted law derives in certain spheres from a different source and may differ in substance from that which operates in England and Wales. However, a large volume of modern legislation, particularly in the social field, applies throughout the United Kingdom.

Sources of Law The main sources of law in the United Kingdom are legislation, common law and, since Britain's accession to the European Community, Community law, the impact of which is mainly confined to economic matters. Legislation consists of laws made by or under the authority of Parliament and may be Acts of Parliament, or Orders in Council, orders, rules and regulations made by ministers under the authority of an Act of Parliament, or by-laws made by local government or other authorities exercising powers conferred upon them by Parliament. Common law is, broadly speaking, the ancient law of the land, as deduced from custom and interpreted by the judges. It has never been precisely defined or codified¹ but forms the basis of the law other than where it has been superseded by legislation.

Community law is mainly the directly applicable law of the treaties establishing the European Community treaties and the instruments made under them by the Community institutions. It has not been incorporated or made identical with domestic law but operates as a separate system side by side with that law. The English and Scottish legal systems remain intact and their courts continue to operate as before. In the event of conflict, however, Community law prevails over domestic law. Community judgments and orders, the formal authenticity of which has been verified by the designated national authority (the Foreign and Commonwealth Secretary or one of his officials), may be registered and enforced in the United Kingdom courts. (See also European Court of Justice, pp. 80 and 94.)

Branches of the Law

A feature common to the domestic legal systems of the United Kingdom is the distinction made between the criminal law and the civil law. Broadly speaking, criminal law is concerned with wrongs against the community as a whole while civil law is concerned with the rights, duties and obligations of individual members of society between themselves.

¹ The Law Commissions (see p. 99) are working on the codification of certain branches of law.

CRIMINAL LAW Criminal Courts in England and Wales

There are two levels of criminal courts in England and Wales: magistrates' courts, which try and dispose of the great majority of criminal cases and conduct preliminary investigations into the more serious offences; and the Crown Court which takes all criminal work above the level of magistrates' courts.

Magistrates' Courts Magistrates' courts are for the most part presided over by lay magistrates ('justices of the peace'), of whom there are some 19,500 who sit regularly but are part time and unpaid. The jurisdiction of the courts is local, their areas being mainly the counties which are divided into petty sessional divisions so that the courts are held in different places. The function of the courts, which consist of between two and seven magistrates, is to hear and determine charges against people accused of summary offences-minor offences that may legally be disposed of by the magistrates sitting together without a jury. In addition, magistrates may also try certain offences which would normally be tried on indictment-the more serious offences-if the accused consents to forgo his right to trial by jury. In fact, about 98 per cent of all criminal cases are disposed of in magistrates' courts. Magistrates also sit as 'examining justices' to conduct preliminary inquiries to determine whether there is sufficient evidence to justify the committal of the accused for trial in the Crown Court for a serious offence.

In inner London and a few large provincial cities there are, in addition to lay magistrates, some 49 stipendiary magistrates, who are full-time salaried lawyers, and usually sit alone. In the City of London, the courts consist of the aldermen of the City, who are magistrates ex officio by virtue of charters, as well as magistrates appointed individually. Benches of lay magistrates work with the help and advice of a justices' clerk (a barrister or solicitor or other person with court experience).

To hear cases involving people under the age of 17 brought before the court in care or criminal proceedings, and to deal with applications for the adoption of children, magistrates' courts sit as juvenile courts. Juvenile courts sit either in a different room or building from other courts, or at a different time, and only limited publicity is allowed. If a young person under the age of 17 is charged jointly with someone who has attained the age of 17, the case is heard in the ordinary magistrates' court. If the young person is found guilty, that court remits the case to a juvenile court, unless it wishes to dispose of the case by discharge or fine.

The Crown Court

The Crown Court is served by High Court judges and circuit judges and, in addition, by recorders who sit on a part-time basis. It sits regularly at nearly 90 centres.

There are three kinds of centre: first tier centres where the Crown Court is served by both High Court and circuit judges and where the High Court also takes civil business; second tier centres where, again, High Court and circuit judges sit in the Crown Court; and third tier centres, where the Crown Court is served only by circuit judges and recorders.

The jurisdiction of the Crown Court comprises trials on indictment (broadly, for the more serious offences), the sentencing of those committed for sentence from magistrates' courts, and appeals from magistrates' courts. This appellate jurisdiction includes certain civil as well as criminal appeals. In addition the court has a minor original civil jurisdiction.

A High Court judge, circuit judge or recorder presides at all trials of the Crown Court with a jury. A circuit judge or recorder sits with between two and four magistrates for appeals and committals for sentence from magistrates'

courts, and may sit with magistrates for the less important trials on indictment. For the more important criminal trials, a High Court judge sits without any magistrates. In the City of London, where the Crown Court is known as the Central Criminal Court, the Lord Mayor and aldermen are entitled to sit with any High Court judge, circuit judge or recorder in any class of work. The distribution of Crown Court business is determined by directions given by, or on behalf of, the Lord Chief Justice of England, with the concurrence of the Lord Chancellor; such directions allocate the various classes of offences to High Court judges, circuit judges and recorders.

Appeals

A person convicted by a magistrates' court may appeal against the conviction or against the sentence to the Crown Court. Where the appeal is on a point of law either the prosecutor or the defendant may appeal from the magistrates' court to the High Court by way of case stated-that is, by requesting the magistrate to 'state a case for the opinion of the High Court'. In certain cases, an appeal by case stated may lie to the High Court from the Crown Court, but normally appeals from the Crown Court, either against conviction or against sentence, are made to the Court of Appeal (Criminal Division). Appeals against conviction may be brought to the court by right on any point of law, and with leave of the trial judge or the court on any question of fact or mixed fact and law. Appeals against sentence come with the leave of the court, provided that the sentence was in the discretion of the trial judge and not fixed by law. The Court of Appeal (Criminal Division) normally consists of three judges, who may be Lords Justices of Appeal or judges of the High Court, although the Lord Chief Justice or a Lord Justice of Appeal usually presides. A further appeal from the Court of Appeal (Criminal Division) to the House of Lords can be brought if the court certifies that a point of law of general public importance is involved and it appears to the court or the House of Lords that the point is one that ought to be considered by the House. In addition, a prosecutor or defendant may appeal to the House of Lords from a decision of the High Court in a criminal case.

The Attorney General may seek the opinion of the Court of Appeal on a point of law which has arisen in a case where a person tried on indictment is acquitted; the court has power to refer the point to the House of Lords if necessary. The acquittal in the original case is not affected, nor is the identity of the acquitted person revealed without his consent.

Criminal Courts in Scotland Criminal cases in Scotland are heard either under solemn procedure, when proceedings are taken on indictment and the judge sits with a jury, or under summary procedure, when the judge sits without a jury. All cases in the High Court of Justiciary and the more serious ones in the sheriff court are tried under solemn procedure. Proceedings are taken under summary procedure in the less serious cases in the sheriff court, and in the district courts.

District Courts The system of lay summary courts is based on the district and islands areas of local government. Judges in the district courts are justices of the peace, including up to one-quarter of the membership of district and islands authorities who may be nominated as *ex officio* justices. In Glasgow there are three stipendiary magistrates who are full-time salaried lawyers.

Sheriff Courts For purposes of sheriff court jurisdiction, Scotland is divided into six sheriffdoms, and these sheriffdoms are further divided into sheriff court districts. A sheriffdom has a sheriff-principal and a number of sheriffs who act as the

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judges of the court. The sheriff courts exercise an extensive civil as well as a criminal jurisdiction.

The High Court of Justiciary

Appeals

The High Court of Justiciary is Scotland's supreme criminal court. It is both a trial court and an appeal court. Any one of the following judges is entitled to try cases in the High Court: the Lord Justice General (who is also the Lord President of the Court of Session), the Lord Justice Clerk, or any one of the 18 Lords Commissioner of Justiciary who are also judges of the Court of Session. The seat of the court is in Edinburgh, but the judges go on circuit to preside at trials in other towns.

A person convicted in the High Court or in a sheriff court on indictment may appeal to the High Court of Justiciary (a) against his conviction on any ground which involves a question of law alone, or, with leave of the High Court or upon the certificate of the judge who presided at the trial that it is a fit case for appeal, on any ground, and (b) against his sentence, with the leave of the High Court, unless the sentence is one fixed by law. Appeals are heard by three or more judges, and there is no further appeal to the House of Lords.

A person convicted summarily may appeal to the High Court, but only on questions of law and procedure, and not on issues of fact.

Children's Hearings Children under 16 years (and in some cases people between 16 and 18) who are considered to need compulsory care are normally brought before an informal children's hearing comprising three members of the local community. (Prosecution in the criminal courts is rare, and may take place only on the instructions of the Lord Advocate.) An official 'reporter' decides whether a child should come before a hearing. The hearing's main task is to decide, after the grounds for referral have been accepted by the child and his parents, what measures of compulsory care (if any) are most appropriate. If the grounds for referral are not accepted, the case must first go to the sheriff court for proof. An appeal lies from the decision of a hearing.

Proceedings **Before Trial** Prosecutions

The decision to prosecute normally rests, in England, Wales and Northern Ireland, with the police and in Scotland with public prosecutors. Police outside Scotland have powers to issue cautions instead of prosecuting, especially in the case of young people; in Scotland police can issue warnings.

All criminal trials in the United Kingdom take the form of a 'contest' between the Crown and the accused person. In England and Wales (and very exceptionally in Scotland) a private person may institute criminal proceedings, but they are usually initiated and conducted by the police.

Some offences in England and Wales can be prosecuted only by or with the consent of the Attorney General or the Director of Public Prosecutions. Where the consent of the Attorney General is required (for example, under the official secrets legislation), such prosecutions are invariably in the hands of the director (a senior civil servant and prominent lawyer appointed by the Home Secretary) who is responsible to the Attorney General. His other duties include: prosecuting all serious offences, which must be reported to him by the police; advising the police and others concerned with the administration of the criminal law; and taking over, where necessary, criminal proceedings instituted by another prosecutor. He is also concerned, for instance, with complaints of criminal offences by the police, extradition and offences committed by foreign servicemen stationed in England and Wales.

Professional officers of the director's department are either barristers or

solicitors, and, although the former have a right of audience in the higher courts, they appear in practice only in magistrates' courts where they and their solicitor colleagues conduct summary and committal proceedings. When cases go for trial, barristers in private practice are instructed to appear on the director's behalf; at the Central Criminal Court in London, these are drawn from a panel of 'Treasury Counsel' appointed by the Attorney General.

Each year the director's department conducts between five and ten per cent of the prosecutions brought on indictment in England and Wales; it also conducts some summary prosecutions.

In Scotland the Lord Advocate, acting through the Crown Office and subordinate prosecutors, is responsible for the prosecution of practically all crimes before Scottish courts (except the district courts which have their own prosecutors). The Crown Office is concerned with the preparation of prosecutions in the High Court; the public prosecutors in the sheriff courts, known as 'procurators fiscal', are lawyers who are usually full-time civil servants. The police make preliminary investigation of all offences known to them, and report the details to the procurator fiscal, who can decide whether to prosecute, subject to the discretion and control of the Crown Office. Private prosecutions, though permitted in some circumstances, are very rare.

The Director of Public Prosecutions in Northern Ireland, who is responsible to the Attorney General, has functions which include the initiation of criminal proceedings in certain circumstances, representing the Crown in criminal actions, and prosecuting offences against statutory provisions on behalf of government departments. The director also has functions in relation to the granting of bail.

In criminal cases in England and Wales arrest may be effected either on a warrant issued by a judicial authority on sworn information laid before it or, in certain cases, without warrant. In the latter circumstances, a police officer may release the defendant on bail, that is, he may discharge him temporarily, subject to his entering into a recognisance, with or without sureties, for a reasonable sum of money, to appear in court or at a police station at an appointed time. If the defendant cannot be brought before the magistrates' court within a day, and his alleged offence is not serious, the police must release him on bail. Magistrates also have discretion to grant bail, which they exercise according to well-defined principles. If bail is refused by the magistrates, the defendant is entitled to apply to the Crown Court or the High Court, and he must be informed of this right.

Once anyone has been charged with an offence, the police may not put any further questions to him, save, in exceptional circumstances, to prevent or minimise harm or loss to any person or to the public, or to clear up an ambiguity in a previous answer or statement. This is laid down by the Judges' Rules which, although they do not have the force of law, nevertheless carry very great weight.

A person detained in custody who thinks that the grounds for his detention are not lawful,¹ may apply for a writ of *habeas corpus* against the person who detained him, this person then being required to appear before the court on the day named to justify the detention. An application for such a writ is normally

Arrest

¹ Lawful grounds are: in pursuance of criminal justice; for contempt of court or of either House of Parliament; detention of persons found to be mentally disordered; detention of children by their parents or guardians; and detention expressly authorised by Act of Parliament. The writ of *habeas corpus* applies in both criminal and civil cases.

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made to a divisional court of the High Court either by the person detained or by someone acting on his behalf. If no court is sitting the application may be made to a single judge who may, and in some cases must, direct that it should come before a divisional court. An application on behalf of anyone under 18 is always first made to a judge sitting in chambers or in private. A writ may be refused only by a divisional court.

In Scotland the police have very broadly the same powers of arrest as have the police in England and Wales. The Judges' Rules do not apply, but when anyone is arrested he must be cautioned and have the charge read over to him. Thereafter, only his voluntary statements are used in evidence at his trial, and the court will reject any statements made by him unless it is satisfied that they have been fairly obtained. As in England and Wales, when anyone is apprehended in Scotland he must be brought before the court competent to deal with his case with the least possible delay. Where a prosecution on indictment is contemplated, the accused is brought before a judge for judicial examination and the judge may then commit him for trial or for further examination. Eight days may elapse between commitment for further examination and commitment for trial.

People in custody in Scotland, other than those charged with murder or treason, may be liberated on bail by the sheriff or, if the offence is within the jurisdiction of a summary court other than the sheriff court, by that court or by the police. Even in the case of murder or treason, bail may be granted at the discretion of the Lord Advocate or the High Court of Justiciary. There is a right of appeal to the High Court by the accused person against the refusal of bail, by the prosecutor against the granting of bail, or by either party against the amount fixed. The writ of *habeas corpus* does not apply in Scotland, but the High Court of Justiciary has power to release anyone unlawfully detained and trials must, in any event, be brought to a conclusion within 110 days of committal to custody.

Since criminal law in Britain presumes the innocence of the accused until his guilt has been proved, the prosecution is not granted any advantage, apparent or real, over the defence. A defendant has the right to employ a legal adviser for his defence and if he cannot afford to pay he may be granted legal aid wholly or partly at the public expense. If remanded in custody he may be visited in prison by his legal adviser to ensure that his defence is properly prepared. During the preparation of the case, it is customary for the prosecution to inform the defence of any relevant documents which it is not proposed to put in evidence and to disclose them if asked to do so. The prosecution should also inform the defence of any witnesses whose evidence may assist the accused and whom the prosecution does not propose to call.

Criminal trials in England and Wales are (with rare exceptions) held in open court and the rules of evidence (which are concerned with the proof of facts) are rigorously applied. For instance, although generally the evidence of one uncorroborated witness is, as a matter of English law, sufficient, where the evidence is that of an accomplice (or accomplices), the judge will warn the jury of the danger of convicting on such uncorroborated evidence and a conviction made without any such warning would not be upheld on appeal.

During the trial the defendant has the right to hear and subsequently to cross-examine (normally through his lawyer) all the witnesses for the prosecution; to call his own witnesses who, if they will not attend the trial of their own free will, may be legally compelled to attend; and to address the court either in person or through his lawyer—the defence having the right to the last

speech at the trial. Moreover, the defendant cannot himself be questioned unless he consents to be sworn as a witness in his own defence. The right to cross-examine him, even when he is so sworn, is limited by law, with the object of excluding inquiry into his character or into past offences not relevant to the particular charge on which he is being tried. Although confessions made in the course of previous judicial proceedings are admissible as evidence if they have been made upon oath, no confessions made in any other circumstances are admitted unless it can be proved that they were made voluntarily.

In criminal trials by jury the judge determines questions of law, sums up the evidence for the benefit of the jury, and acquits the accused or passes sentence according to the verdict of the jury; but the jury alone decides the issue of guilt or innocence. Verdicts need not necessarily be unanimous; in certain circumstances the jury may bring in a majority verdict provided that, in the normal jury of 12 people, there are not more than two dissentients.

If the jury returns a verdict of 'not guilty', the prosecution has no right of appeal and the defendant cannot be tried again for the same offence. From a verdict of 'guilty' there is a right of appeal on the part of the defendant to the appropriate court. The defence or prosecution may suggest that the mental state of the defendant is such that he is unfit to be tried. A jury must decide whether or not this is so. If they find that it is, the defendant will be admitted to a hospital specified by the Home Secretary.

In Scottish trials on indictment, the first 'pleading' proceedings take place in the sheriff court, when the accused person is called upon to plead guilty or not guilty. If he pleads not guilty, the case is continued to the second 'trial' proceedings in the appropriate court. If he pleads guilty, and it is a case which is to be dealt with in the sheriff court, the sheriff may dispose of it at once. If it is a High Court case, it is continued to the second proceedings in the High Court for disposal.

The trial proceedings are held at least nine days after the pleading proceedings, either before the sheriff or the High Court, with a jury of 15. Evidence is led (without opening speeches) and there are closing speeches for the prosecution and for the defence, followed by the judge's charge to the jury. The jury may return a verdict of 'not guilty' or 'not proven', both of which result in acquittal, or they may find the accused 'guilty', in which case the court proceeds to deliver sentence. The verdict may be by a simple majority. Fairness to the accused is ensured by the fact that, with a few minor exceptions, no person may be convicted without the evidence of at least two witnesses, or corroboration of one witness by facts and circumstances which clearly implicate the accused in the crime.

At summary trials in Scotland the accused is asked to plead to the charge at the first calling of the case and, if he pleads guilty, the court may dispose of the case. Where the plea is 'not guilty', the court may proceed to trial at once or it may appoint a later date.

The Criminal Injuries Compensation Scheme was established in 1964 to provide *ex gratia* compensation to victims of crimes of violence and people hurt as a result of attempts to arrest offenders and prevent offences. It is administered by a board which consists of legally qualified members appointed by the Home Secretary and the Secretary of State for Scotland after consultation with the Lord Chancellor. Compensation, which is assessed on the basis of common law damages and usually takes the form of a lump sum payment, has totalled over $\pounds 24$ million since the scheme began. A review of the scheme is in progress with a view to putting it on a statutory basis.

Criminal Injuries Compensation Scheme

JUSTICE AND THE LAW

The scheme does not apply in Northern Ireland where there is statutory provision in certain circumstances for compensation from public funds for criminal injuries and also for malicious damage to property.

CIVIL LAW

Civil Courts in England and Wales

Magistrates' Courts The main civil courts in England and Wales are the county courts, which deal with a wide variety of civil cases, and the High Court, where those that cannot be decided in the county courts are heard. Magistrates' courts have limited civil jurisdiction, as does the Crown Court—mainly in connection with appeals from magistrates' courts. Most appeals in civil cases go to the Court of Appeal (Civil Division) and from there may go to the House of Lords.

The civil jurisdiction of magistrates' courts extends to matrimonial proceedings for separation and maintenance orders, adoption and affiliation and guardianship orders. The courts also have jurisdiction in respect of such matters as nuisances under the Public Health Acts and the recovery of rates. Committees of magistrates exercise quasi-administrative functions in relation to the licensing of public houses and of betting shops and clubs.

County Courts

County courts (of which there are 337) are so located that no part of the country is more than a reasonable distance from one of them. In the busier centres, the courts may sit every day; in others they may sit weekly, monthly, or at longer intervals.

All judges of the Supreme Court (comprising the Court of Appeal, the Crown Court and the High Court) and all circuit judges and recorders have power to sit in the county courts, but each court has one or more circuit judges assigned to it by the Lord Chancellor, and the regular sittings of the court are mostly taken by them. The judge normally sits alone, although on the request of a party the court may, in exceptional cases, order a trial with a jury.

The jurisdiction of the county courts covers, for instance, actions founded upon contract and tort (with minor exceptions) where the amount claimed is not more than $\pounds_{1,000}$; trust and mortgage cases, where the amount does not exceed $\pounds_{5,000}$; and actions for the recovery of land where the net annual value for rating does not exceed $\pounds_{1,000}$. Cases outside these limits may be tried in the county court by consent of the parties, or may in certain circumstances be transferred from the High Court.

Other matters dealt with by the county courts include hire purchase, the Rent Act, landlord and tenant, and adoption. In addition undefended divorce cases are heard and determined in county courts designated as divorce county courts (defended cases are transferred to the High Court); outside London bankruptcies are dealt with in certain county courts; and complaints of racial discrimination brought by the Race Relations Board are heard in selected courts where the judge sits with assessors. Where small claims are concerned (especially those for less than \pounds 100 involving consumers), there are special facilities for arbitration and simplified procedures.

The High Court of Justice The High Court of Justice is divided into the Chancery Division, the Queen's Bench Division and the Family Division. Its jurisdiction, which is both original and appellate and covers all civil and some criminal cases, is vested in all its divisions. In general, however, particular types of work are assigned to a particular division—distribution of work being governed by statute, the rules of court and the practice of the court. For instance, the Family Division deals with all jurisdiction of a family kind, including matrimonial cases, and cases relating to wardship, adoption, and guardianship; while Admiralty and prize jurisdiction rests with a specially constituted Admiralty Court of the Queen's Bench Division.

There are 70 High Court judges each of whom is attached to one division on appointment but may be transferred to any other division during his term of office. The Lord Chancellor is president of the Court of Appeal and of the Chancery Division—the administration of the Chancery Division being the responsibility of the senior judge known as the Vice-Chancellor. The Queen's Bench Division is presided over by the Lord Chief Justice of England, who ranks next to the Lord Chancellor in the legal hierarchy, and the Family Division is headed by the President. Outside London (where the High Court sits at the Royal Courts of Justice) sittings of the court are held at 23 Crown Court centres which are known as first tier centres.

For the hearing of cases at first instance, High Court judges sit singly. Appellate jurisdiction in civil matters from inferior courts is exercised by divisional courts of two (or sometimes three) judges, or by single judges of the appropriate division, nominated by the Lord Chancellor.

Appellate Courts

Appeals in matrimonial proceedings heard by magistrates' courts lie to a divisional court of the Family Division of the High Court. Affiliation appeals are heard by the Crown Court, as are appeals from decisions of the licensing committees of magistrates. Appeals from the High Court and the county courts are heard in the Court of Appeal (Civil Division) and may (with leave of the court or of the House of Lords) go on to the House of Lords, which is the ultimate court of appeal in civil cases.

The *ex officio* members of the Court of Appeal (Civil Division) are the Lord Chancellor, the Lord Chief Justice, the President of the Family Division and the Master of the Rolls; the ordinary members are 14 Lords Justices of Appeal.

The judges in the House of Lords are the ten Lords of Appeal in Ordinary, who must have a quorum of three, but usually sit as a group of five, and sometimes even of seven. Lay peers do not attend the hearing of appeals (which normally takes place in a committee room and not in the legislative chamber), but peers who hold or have held high judicial office may also sit. The president of the House in its judicial capacity is the Lord Chancellor, and proceedings take the form of the normal proceedings of the House of Lords: judgments are given in the form of speeches to a motion, and the decision of the House is taken by a vote.

Civil Courts in Scotland The main courts of civil jurisdiction in Scotland are the sheriff courts which, in their civil capacity, correspond roughly to English county courts, and the Court of Session.

Sheriff Courts

The Court of Session

The civil jurisdiction of the sheriff court extends to most kinds of action and is normally unlimited by the value of the case. Much of the work is done by the sheriff, against whose decisions an appeal may be made to the sheriffprincipal or directly to the Court of Session.

The Court of Session sits only in Edinburgh, and has jurisdiction to deal with all kinds of action, subject to a few exceptions. The main exception is an action where the value claimed is less than \pounds_{250} —a matter for the sheriff court. The Court of Session has sole jurisdiction in divorce and certain other actions. The court is divided into two parts: the Outer House, a court of first instance, and the Inner House, which is mainly an appeal court. The Inner House is divided

into two divisions of equal status, each consisting of four judges—the first division being presided over by the Lord President and the second division by the Lord Justice Clerk. Appeals to the Inner House may be made from the Outer House and from the sheriff court. From the Inner House an appeal may lie to the House of Lords.

The Scottish Land Court

Proceedings

Civil

d The Scottish Land Court is a special court that deals with certain agricultural matters. The court is presided over by a legal chairman, who has the rank and dignity of a judge of the Court of Session.

In England and Wales civil proceedings are instituted by the aggrieved person; no preliminary inquiry as to the authenticity of the grievance is required. Actions are usually begun in the High Court by a writ of summons served on the defendant by the plaintiff, which notifies the defendant that the plaintiff has a claim against him and states the nature of the claim. If the defendant intends to contest the claim, he 'enters an appearance' by informing the court to this effect and documents setting out the precise question in dispute (the pleadings) are then delivered to the court. County court proceedings are initiated by a 'plaint' served on the defendant by the court; subsequent procedure is simpler than in the High Court.

A decree for divorce can be obtained only after a hearing in court, whether or not the case is defended. Civil proceedings, because they are a private matter, can usually be abandoned or compromised at any time without leave of the court—the parties to a dispute being able to settle their differences through their solicitors before the stage of actual trial is reached. Actions that are brought to court are usually tried by a judge without a jury, except in cases involving claims for defamation, false imprisonment, or malicious prosecution, when either party may insist on trial by jury, or in a case of fraud, when the defendant may claim this right. In trials where a jury is present, the jury is responsible for deciding questions of fact (as in criminal trials) and also the amount of damages to be awarded to the injured party; majority verdicts may be accepted.

Judgments in civil cases are enforceable through the authority of the court. Most are for sums of money and may be enforced, in cases of default, by seizure of the debtor's goods or by attachment of earnings (a court order requiring an employer to make periodic payments to the court by deduction from the debtor's wages). Refusal to obey a judgment directing the defendant to do something or to refrain from doing something may result in imprisonment for contempt of court. Arrest under an order of committal may be effected only on a warrant of the court.

The general rule is that the costs of the action (the barrister's fees, solicitor's charge, court fees and other payments) are in the discretion of the court. Normally, the court orders the costs to be paid by the party losing the action.

In Scotland proceedings in the Court of Session or ordinary actions (of a value exceeding f_{250}) in the sheriff court are initiated by the service on the defender of a summons or initial writ. In Court of Session actions the next step is the calling of the summons, which is the publication of the action in the court lists. If the defender intends to contest the action, he must 'enter appearance' within two days of calling and thereafter lodge defences, otherwise decree in absence can be obtained against him. In sheriff court ordinary actions there is no calling of the summons; the defender is simply required to enter appearance within a certain number of days after service of the initial

writ, and if he does so this is followed by the 'tabling of the cause' which involves a formal appearance in court by solicitors or, in some cases, the parties to the dispute.

In summary causes (actions normally of a value less than $\pounds 250$) in the sheriff court the usual procedure is slightly different. The statement of claim in the summons can be less formally drafted, and the summons specifies a date when the action will first be heard in court. If on that date the defender does not appear, decree can be given against him; if the pursuer does not appear, the action can be dismissed. If both appear and the defender wants to defend the action, the court will usually fix a date for proof. No legal argument on the relevancy of the action is allowed until after proof. A pursuer can abandon his case, including any matrimonial case, at any time, but, where abandonment is sought after the commencement of the proof or trial, only with leave of the court. Trial by jury in civil actions in Scotland is more common than in England and Wales, being the usual form of procedure in actions for damages for personal injuries in the Court of Session. In the sheriff court it is relatively rare, being confined to actions between employer and employee.

The higher courts in Northern Ireland comprise the Supreme Court of Justice (consisting of the High Court of Justice and the Court of Appeal) and the Court of Criminal Appeal. The High Court, the superior court of first instance, is constituted of the Lord Chief Justice, and five judges. The Court of Appeal, which is the appellate tribunal, comprises the Lord Chief Justice and two Lords Justices of Appeal.

The lower courts are the county courts and courts of summary jurisdiction (petty sessions). The county courts exercise both civil and criminal jurisdiction and are presided over by county court judges, of whom there are ten. The establishment has been proposed of a central criminal court for the Belfast region, to which the original criminal jurisdiction of county courts lying within the region should be transferred. Petty session courts are composed of one resident magistrate (who corresponds to a stipendiary magistrate in England and Wales) who normally sits alone. Juvenile courts are similar to those in England and Wales.

SPECIAL COURTS

Coroners' Courts Coroners' courts are common law courts convened when a person appears to have died a violent or unnatural death or a sudden death of which the cause is unknown, and in certain other circumstances, for example, in deciding what is 'treasure trove'. Cases may be brought to the notice of the local coroner (a senior lawyer or doctor appointed by local government) by medical practitioners, by the police, by various public authorities or by members of the public, and it is his duty to hold an inquiry into how, when and where the deceased died. He may hold an inquest in court for this purpose, and he must do so if he has reason to believe that the deceased has died a violent or unnatural death or has died in prison or in circumstances for which an Act of Parliament provides that an inquest must be held. If the coroner has reason to suspect that the death was due to murder, suicide, manslaughter, or infanticide, or was caused in a road accident, he must summon a jury.

In Scotland the office of coroner does not exist. The Procurator Fiscal inquires privately into all sudden and suspicious deaths in his district and may report the result of his inquiries to the Crown Agent in order that Crown Counsel may consider what proceedings, if any, are required.

Administrative Tribunals Administrative tribunals consist of persons or bodies exercising judicial or quasi-judicial functions outside the ordinary hierarchy of the courts. As

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a rule, they are set up by Act of Parliament or under powers conferred by statute, which also govern their constitution, functions and procedure.

The continuing expansion of governmental activity and involvement in the social and economic affairs of the nation has greatly multiplied the occasions on which the individual may find himself at issue with the administration, with a group of people or with another individual. Consequently there has been a substantial growth during the past 30 years of administrative tribunals with a regular or permanent existence and the function of deciding or adjudicating in disputes arising under regulatory or welfare legislation. Such tribunals include those concerned with: land and property; national insurance; supplementary benefits and family allowances; the National Health Service; transport; taxation; and many which do not fall into any specified group. Their constitution follows a fairly general pattern: usually they consist of an uneven number of persons so that a majority decision can be reached; members are usually appointed by the minister concerned with the subject but other authorities (for instance, the Lord Chancellor) have the power of appointment in appropriate cases; the Lord Chancellor (or the Lord President of the Court of Session in Scotland) makes appointments in most cases where a lawyer chairman or member is required; and, with some exceptions, members hold office for a specified period.

There are also tribunals which enforce professional discipline (for example of doctors and solicitors) but these are entirely different in constitution from the statutory tribunals and have no jurisdiction over the general public.

Appeals from all the more important tribunals may be made, at least on a point of law, to the High Court, or, in Scotland, to the Court of Session. An appeal may also be made to a specially constituted appeal tribunal, to a minister of the Crown or to an independent referee. An advisory body known as the Council on Tribunals (appointed jointly by the Lord Chancellor and the Lord Advocate) exercises general supervision¹ over tribunals and reports on particular matters, those peculiar to Scotland being dealt with by the Scottish Committee of the Council.

Courts Martial

Courts martial have jurisdiction over serving members of the armed forces and, in certain circumstances, their dependants and other civilians who accompany them outside the United Kingdom. The courts do not deal with certain serious offences if committed in the United Kingdom: treason; murder; manslaughter; treason-felony; rape; genocide; and aiding, abetting, counselling or procuring suicide. Civil offences committed by servicemen in the United Kingdom are also normally dealt with in the ordinary courts.

A court martial (which consists of a president and a number of serving officers) may be convened by an authorised officer. A judge advocate is appointed to sit with the court in more serious cases brought under the Army and Air Force Acts (and at every trial brought under the Naval Discipline Act) to advise upon law and procedure and, in the former case, to sum up the evidence. The judge advocate in the case of the Army and the Air Force is a civilian barrister; in the case of the Navy a legally qualified serving officer.

Appeals lie to the Courts Martial Appeal Court, and from that court to the House of Lords if the court certifies that a point of law of general public importance is involved and it appears to the court or to the House of Lords that the point is one that ought to be considered by the House. Servicemen can appeal to the Courts Martial Appeal Court only against finding. They can

¹ Excluding supervision of the professional disciplinary tribunals.

petition against sentence to the confirming and reviewing authority. Civilians can appeal against both finding and sentence.

European Court of Justice Under the treaties establishing the European Community, questions of the validity and interpretation of Community law may be referred by the courts of the United Kingdom to the Court of Justice of the European Community (see p. 79), and must be so referred when there is no further judicial remedy under national law, that is, when the question arises in a final court of appeal, such as the House of Lords. The European Court gives a preliminary ruling on the question referred, and this is binding on the national court on that particular point. However, it remains with the national court to apply the law thus interpreted and to decide the case.

ADMINISTRATION In the United Kingdom the judiciary is independent of the executive and is OF THE JUDICIAL SYSTEM In the United Kingdom the judiciary is independent of the executive and is therefore not subject to ministerial direction or control in regard to the judgment of the courts. Responsibility for administrative matters in England and Wales, when it does not rest with the courts themselves, lies partly with the Lord Chancellor and partly with the Home Secretary; in Scotland and Northern Ireland it lies with the appropriate Secretary of State.

In England and Wales the Lord Chancellor is concerned with the composition of all courts, both criminal and civil, with parts of criminal procedure and with everything relating to civil law; and the Home Secretary with criminal law, preventing offences, apprehending offenders, part of the process of trying them, and virtually the whole of their treatment. The Prime Minister is concerned in that he is responsible for recommending to the Crown the highest judicial appointments—the Lords of Appeal in Ordinary, the Lord Chief Justice, the Master of the Rolls, the President of the Family Division and the Lords Justices who are the judges of the Court of Appeal. The Secretary of State for the Environment is responsible for providing accommodation for all the superior courts, except the Central Criminal Court which is the responsibility of the City of London.

The Lord Chancellor is the senior member of the judiciary of England and Wales. He sits from time to time as the presiding judge in the Judicial Committee of the House of Lords which hears appeals to the House. He is also a senior member of the Government of the day, and the Cabinet minister responsible for the administration of justice and the running of all courts in England and Wales, save magistrates' courts (which are the responsibility of the Home Secretary). He is responsible for the appointment of judges and magistrates¹ and of officers of the civil and higher criminal courts of law in England and Wales.

Magistrates' courts in England and Wales are mainly administered by the magistrates themselves, chiefly through local committees, but the elected local authorities, with financial assistance from the Government, are responsible for meeting their costs, and the Home Secretary, besides exercising a general oversight, has certain specific responsibilities, including the approval of boundary changes, approval of the appointment of justices' clerks, and deciding disputes on financial matters.

In Scotland the Prime Minister makes recommendations for the appointment of the most senior judges. Recommendations for the appointment of all other judges are made by the Secretary of State for Scotland. He is responsible

¹ Except in Lancashire, where the Chancellor of the Duchy of Lancaster acts on behalf of the Crown in this matter.

for the appointment and removal of justices of the peace. He appoints the staff of the High Court of Justiciary and the Court of Session and is responsible for the composition, staffing and general organisation of the sheriff courts. The district courts are staffed and administered by the district local authorities.

In Northern Ireland the judiciary are appointed by the Sovereign on the advice of the Lord Chancellor. The Northern Ireland Office is responsible for staffing and general organisation of the county and petty sessions courts.

Law Officers of the Crown The Attorney General and the Solicitor General, the Law Officers of the Crown for England and Wales, are the Government's principal advisers on English law, and represent the Crown in appropriate domestic and international cases. They are senior barristers, elected members of the House of Commons and hold ministerial posts. The equivalent Scottish officers are the Lord Advocate and the Solicitor General for Scotland. The Attorney General is also Attorney General for Northern Ireland.

As well as exercising various civil law functions, the Attorney General has ultimate responsibility for the enforcement of the criminal law in England and Wales, and the Director of Public Prosecutions (see p. 85) is subject to his superintendence. The Attorney General is concerned with the institution and prosecution of certain types of criminal proceedings, but he must exercise an independent discretion, and must not be influenced by his Government colleagues. The Solicitor General is subject to the authority of the Attorney General, with similar rights and duties.

The Lord Advocate and the Solicitor General for Scotland are the chief legal advisers to the Government on Scottish questions and the principal representatives of the Crown for the purposes of litigation in Scotland. The Lord Advocate is closely concerned with questions of legal policy and administration, he is responsible for the Scottish parliamentary draftsmen, and he is responsible for the public prosecution of all major crimes. He delegates most of the work of prosecution to the Solicitor General, to seven Advocates Depute and to Procurators Fiscal who are full-time legally qualified prosecutors. The permanent adviser to the Lord Advocate on prosecution matters is the Crown Agent who is also head of the procurator fiscal service and is assisted by a staff of civil servants known as the Crown Office.

THE PERSONNEL OF THE LAW The operation of the law requires the participation of judges, with whom, aided in certain cases by juries, the decision of disputed cases rests, and of the officers of the court, who have general or specialised functions of an administrative (and sometimes of a judicial) nature in the courts to which they are attached. Barristers (advocates in Scotland) and solicitors who are entrusted with representing the interests of the parties to a dispute are also involved because, although the law allows an individual to conduct his own case if he wishes, most people prefer to be legally represented.

Judges

The courts of the United Kingdom are the Queen's Courts (since the Crown is the historic source of all judicial power) and the Sovereign, acting on the advice of ministers, is responsible for all appointments to the judiciary.

Full-time judges do not engage in politics, except for the Lord Chancellor who, as well as being head of the judiciary and speaker of the House of Lords, is a leading member of the Government in power. With the exception of lay magistrates, judges are normally appointed from practising barristers, advocates or solicitors and neither their training nor their careers are in any

way dictated by the State. Lay magistrates in England and Wales need no legal qualifications, being appointed for their qualities of integrity and understanding and as broadly representative of the community which they serve. On appointment, however, they give an undertaking to complete a period of basic training, so that they may obtain a sufficient knowledge of the law, including the rules of evidence, and may understand the nature and purpose of sentencing. A special committee advises the Lord Chancellor on training policies. Justices of the peace in Scotland likewise need no legal qualifications, and the Secretary of State for Scotland is responsible for providing such training for them as is necessary. In certain circumstances (for instance, in cases of misconduct or proven incapacity) judges of the inferior courts in England and Wales and Northern Ireland may be removed from their position by the Lord Chancellor, and in Scotland, by the Secretary of State.

In order to safeguard and perpetuate the independence of the judiciary from the executive, however, superior judges in England and Wales and Northern Ireland (other than the Lord Chancellor who, as a Cabinet Minister, changes with the Government) are subject to a power of removal only by the Sovereign on an address presented by both Houses of Parliament; in Scotland there is no statutory provision for removal of judges of the Court of Session or High Court of Justiciary from office and it is probable that special legislation would be required to effect such a dismissal.

Juries

A jury in England and Wales summoned to a criminal or civil court consists of 12 persons (except in county courts, where it consists of eight persons). In Scotland the jury consists of 15 persons in criminal cases, 12 persons in civil cases in the Court of Session and seven in civil cases in the sheriff court. In Northern Ireland the jury numbers 12 in ordinary criminal¹ and seven in civil cases. Jury service in England and Wales is determined by a qualification based on the electoral register: all citizens between the ages of 18 and 65, subject to a five-year residence qualification, are liable for jury service. However, people following certain occupations are either ineligible or entitled to claim excusal, and certain persons with criminal records are disqualified. Jury service in Scotland, for which citizens between the ages of 21 and 60 are liable, is based on a low property qualification. In Northern Ireland it is determined by a qualification based on the electoral register. Everyone between the ages of 18 and 70 whose name is on the register is liable for service; categories of exemptions and disqualifications are similar to those in England and Wales.

A jury is completely independent of both the judiciary and the executive. In criminal cases the accused can have up to seven jurors (in Scotland, five) changed without giving reasons and both defence and prosecution can object for cause shown (for instance, lack of impartiality), but once members of the jury have been sworn, they are protected by law from interference of any kind.

At certain inquests at coroners' courts in England and Wales and Northern Ireland and at fatal accident inquiries in Scotland, a jury is required to be present to return a verdict on how, when and where a deceased person died. Juries in this instance consist of from seven to eleven jurors. In England and Wales a coroner may accept a majority verdict provided that the minority consists of not more than two. At fatal accident inquiries in Scotland a simple majority is sufficient. A jury is also required at an inquest held by a coroner in

¹ Under the Northern Ireland (Emergency Provisions) Act 1973, trials of 'scheduled offences' (generally speaking, offences involving terrorism) are heard by a single judge, sitting without a jury.

England and Wales to decide whether objects of gold or silver found in the ground are 'treasure trove'.

The Legal Profession The legal profession is divided into two branches: barristers (advocates in Scotland) and solicitors. Barristers are known collectively as the 'Bar', and collectively and individually as 'counsel'. Each branch of the profession performs distinct duties—solicitors undertake legal business for lay clients, while barristers advise on legal problems submitted through solicitors and present cases in the higher courts—though certain functions are common to both.

To become a barrister in England a student must have reached an accepted educational standard, have passed certain examinations and attended certain courses prescribed by the Council of Legal Education. He must also have become a member of one of the four Inns of Court—Lincoln's Inn, the Inner Temple, the Middle Temple and Gray's Inn—where he must keep a number of terms. He may then be called to the Bar, but is normally not allowed to practise until he has kept further terms and completed six months' pupilage with a practising barrister of at least five years' standing. Most higher judicial offices are filled from the ranks of senior barristers (known as Queen's Counsel). The Senate of the Inns of Court and the Bar, the governing body of the profession, comprises representatives of each Inn of Court and representatives elected by barristers themselves. The latter also constitute an autonomous Bar Council charged with maintaining the standards and independence of the profession and improving its services.

A prospective solicitor in England and Wales must be considered suitable by the appropriate committee of The Law Society (the professional organisation of solicitors) and he must enter into 'articles of clerkship' with a practising solicitor of not less than five years' standing before he can begin his professional career. The term of articles lasts for two, two and a half, or five years, depending upon the educational qualifications of the student. An articled clerk must pass the necessary examinations prescribed by The Law Society and, unless he has been a barrister or is a law graduate of a university, he is generally required to attend a course of studies at a recognised law school. Once a solicitor is qualified, he may become a member of The Law Society.

In Scotland prospective advocates and solicitors undergo much the same training. While the respective professional organisations—the Faculty of Advocates and the Law Society of Scotland—have their own professional examinations, candidates usually obtain exemption from them by including the necessary subjects in a law degree of a Scottish university. The prospective advocate must, thereafter, undergo a period of training (either of 21 months or of 12 months depending on whether or not he has been granted exemption from nine months' training) in a solicitor's office, followed by about nine months' pupilage with a practising advocate. The prospective solicitor must serve an apprenticeship of two years in a solicitor's office before he can begin his professional career.

In Northern Ireland barristers are members of the Inn of Court of Northern Ireland; there is also a General Council of the Bar of Northern Ireland. The professional organisation for solicitors is the Incorporated Law Society of Northern Ireland.

LEGAL AID AND ADVICE Britain's legal aid scheme helps people of limited means and resources to meet the cost of work normally done by a lawyer. Under the scheme lawyers' costs and expenses are paid out of a state legal aid fund drawn from three sources: contributions which assisted people may be required to pay; costs and

damages recovered from opposite parties in litigation; and a grant from the Exchequer.

Legal Advice and Assistance Before court proceedings are involved, people in Great Britain with limited means can obtain help from a solicitor on criminal or civil matters for little or no payment. This includes giving advice, writing letters, drafting wills, obtaining opinions from a barrister and visiting a police station or prison. A solicitor may act for a client until his costs and expenses reach a total of \pounds 25, but authority may be obtained for this limit to be exceeded. A person seeking help has to give the solicitor brief details about his income and savings to show that he comes within the financial limits allowed by the scheme. People with disposable capital of up to a prescribed sum who are also receiving either supplementary benefits (see p. 131) or family income supplement (seep. 132) are within the financial limits; other people are also eligible provided their disposable capital does not exceed the prescribed sum and their weekly disposable income does not exceed a certain amount (in this case a contribution may be payable). The disposable income limit is reviewed at least annually. Similar provisions are proposed for Northern Ireland.

Legal Aid in Civil Proceedings

Legal Aid in Criminal Proceedings Legal aid is available to people whose disposable incomes and disposable capital do not exceed certain prescribed amounts,¹ but a contribution is payable according to the level of the applicant's income; if that is below a prescribed amount, legal aid is given free of any contribution. As in the case of legal advice and assistance, the qualifying income limits for aid in civil proceedings are reviewed at least once a year.

The legal aid schemes are run by The Law Society, The Law Society of Scotland and The Incorporated Law Society of Northern Ireland, under the general guidance respectively of the Lord Chancellor, the Secretary of State for Scotland and the Secretary of State for Northern Ireland.

An applicant for legal aid must show that he has reasonable grounds for asserting or disputing a claim. If his application is successful, he is entitled to select from a panel a solicitor (who, if necessary, instructs counsel), and the case is then conducted in the ordinary way, except that no money passes between the assisted person and his solicitor—payments being made in and out of the legal aid fund. The costs of an action which an assisted litigant loses against an unassisted opponent may also, subject to certain conditions and if the court so orders, be met out of the fund. Local committees have the right to refuse assistance if it appears unreasonable that the applicant should receive it in the particular circumstances of a case; both solicitors and counsel have a duty to review the case at each stage to see that it is not being pursued unreasonably at the public expense. Legal aid is not available for proceedings in tribunals (except the Lands Tribunals and the Commons Commissioners), coroners' courts and cases where redress is sought for alleged defamation.

In criminal proceedings in England and Wales a legal aid order may be made by the court concerned if it appears to be in the interest of justice and that a defendant's means are such that he requires financial help in meeting the costs of the proceedings in which he is involved. An order must be made when

¹ Assessments of disposable income and capital are made by the Supplementary Benefits Commission and are governed by regulations which allow for deductions from gross income for maintenance of dependants, interest on loans, income tax, rent and other matters for which a person may reasonably provide out of income, and deductions for the value of a person's house, furniture and other household effects from his capital.

a person is committed for trial on a charge of murder or applies for leave to appeal from the Court of Appeal (Criminal Division) or the Courts Martial Appeal Court to the House of Lords. No person can be sentenced for the first time to a term of imprisonment, borstal training or detention in a detention centre unless he is legally represented, or has been refused, or has failed to apply for, legal aid after having been informed of his right to do so.

Broadly similar arrangements exist in Scotland and Northern Ireland, but in Scotland there is in addition a duty solicitor system which enables people in custody to be represented on first appearing in court without any inquiry into their means.

LAW REFORM

The duty of keeping the law under review in order to ensure that it meets the needs of modern society lies, in England and Wales with the Law Reform Committee, the Criminal Law Revision Committee and the Law Commission, and in Scotland with the Scottish Law Commission. The Law Reform Committee and the Criminal Law Revision Committee are standing committees of judges and lawyers, appointed respectively by the Lord Chancellor and the Home Secretary, to examine such aspects of the civil and criminal law as may be referred to them by the appropriate minister. The Law Commission is a permanent body consisting of five lawyers of high standing, charged with the duty of scrutinising the law with a view to its systematic development and reform, including the possibility of codification, the elimination of anomalies, the repeal of obsolete and unnecessary enactments, and the reduction of the number of separate enactments. The Commission submits programmes of reform to the Lord Chancellor and may recommend further examination of specified topics by itself or by some other body, such as a Royal Commission or the Law Reform Committee or Criminal Law Revision Committee. The Lord Chancellor may also ask the Commission to prepare draft Bills or to advise government departments. In the course of its work the Commission seeks information about the legal systems of other countries in so far as this may assist its work. The Scottish Law Commission has a constitution similar to that of the English body and similar functions in relation to the law of Scotland. It reports to the Lord Advocate.

THE POLICE SERVICE

The police service of Great Britain is organised in a number of large forces linked with local government and subject to the influence and eventual control of the Home Secretary in England and Wales and the Secretary of State for Scotland in Scotland. In Northern Ireland, it is organised in a single force.

Police Forces

There are 43 regular police forces in England and Wales and eight in Scotland. Each is responsible for a separate area, but there is constant co-operation between them. They are defined according to area of responsibility. Outside London most counties have their own forces, though in the interests of efficiency several have combined forces; in London the Metropolitan Police Force is responsible for an area within a radius of about 15 miles (24 kilometres) from the centre but excluding the City of London, where there is a separate force. In Scotland there are six regional forces and two combined forces. The strength of the regular police force in Great Britain is about 119,000 (including over 5,000 policewomen), the size of individual police forces depending on the area and population which they serve. The strength of the Metropolitan Police Force is about 21,000.

In addition to the regular police forces, there are constabularies maintained by the statutory transport and other public authorities, and by the Ministry of Defence. Considerable numbers of people are employed by commercial security organisations (which are subject to the ordinary law of the land).

Each of the regular police forces is maintained by a police authority. In England and Wales the authority is a committee consisting of the local councillors and magistrates. Combined police authorities, which also comprise councillors and magistrates, contain representatives from each constituent county.

The police authority for the Metropolitan Police Force is the Home Secretary. In the City of London the Court of Common Council is the police authority, although it usually appoints a standing committee to deal with all police matters on its behalf.

In Scotland the police authority is the regional or island council. Where there are combined forces there is a joint police committee.

The primary duty of the police authority is to provide an adequate and efficient police force for the area for which it is responsible. Its functions, some of which are subject to ministerial approval, include appointing the chief constable and deputy and assistant chief constables and, if necessary, calling upon them to retire; fixing the establishment of the force and the number of officers in each rank; appointing traffic wardens; and providing and maintaining buildings and equipment. In the Metropolitan Police area the chief officer of police and his immediate subordinates are appointed by the Crown on the recommendation of the Home Secretary.

Chief constables are responsible for the direction and control of police forces and for the appointment, promotion and discipline of all ranks below deputy or assistant chief constable; they are, however, generally answerable to the police authorities on matters of efficiency, and are required to submit a written annual report.

The Royal Ulster Constabulary (RUC) operates under the direction of a chief constable who is responsible to the Police Authority for Northern Ireland, which has a duty to maintain an adequate and efficient police service. The RUC has a strength of some 4,500. Ranks, conditions of service, pay and general duties follow closely on the lines of the service in Great Britain. The RUC is aided in its duties by the civilian Royal Ulster Constabulary Reserve, a largely part-time body of men and women; while on duty, they have the same powers and duties as members of the regular force.

The Home Secretary and the Secretary of State for Scotland, who have a general responsibility for the preservation of law and order throughout Great Britain, are concerned both in the overall organisation of the police service and in its administration and operation. They approve the appointment of chief constables, and may require a police authority to retire a chief constable in the interests of efficiency, call for a report from a chief constable on any matters relating to the policing of his area, or cause a local inquiry to be held. They are also empowered to make regulations, with which all police authorities must comply, covering such matters as rank; qualifications for appointment, promotion and retirement; discipline; hours of duty, leave, pay and allowances; and uniform and equipment. Some of these regulations are first negotiable on the Police Council (a negotiating body on which are represented the police authorities, police staff associations and ministers); the

Police Authorities and Chief Constables

Northern Ireland

Central Authorities

others are discussed on representative advisory bodies, together with any general questions affecting the police service.

All police forces in Great Britain (except the Metropolitan Police for which the Home Secretary is directly responsible) are subject to inspection on behalf of ministers. Inspectors of constabulary carry out, under Her Majesty's Chief Inspector of Constabulary and Her Majesty's Chief Inspector of Constabulary for Scotland, a formal annual inspection of the forces in their regions, inquiring into efficiency and reporting to the Home Secretary or the Secretary of State for Scotland. Annual reports are published, covering the whole range of police matters. The inspectors also maintain close touch with forces for which they are responsible, and have various advisory functions.

Finance

The income of police authorities derives from central Government, the 'rates' (a form of local property tax) and various other local sources. The Government's contribution, which is a half of approved expenditure (except in the case of the City of London police where it is a third) is conditional on the Home Secretary or the Secretary of State for Scotland being satisfied that the force is being efficiently administered and maintained.

Officers and Ancillary Staff In general, entry to the regular police force is open to men between the ages of 18½ and 30, and to women in England and Wales between the ages of 18½ and 35, and in Scotland between 19 and 30. An individual chief constable may approve appointment of especially suitable older men and women. The standard police ranks in Great Britain, except in the Metropolitan

Police area, are: chief constable, assistant chief constable, chief superintendent, superintendent, chief inspector, inspector, sergeant and constable. The chief officer in the Metropolitan Police area, the Commissioner of Police of the Metropolis, is assisted by a deputy commissioner and four assistant commissioners. Next in rank are deputy assistant commissioners, and then commanders; from chief superintendent the ranks are the same as in the rest of the country. In the City of London the ranks are the same as in the regions except that the chief officer is the Commissioner of Police and the second in command is an assistant commissioner, and there is one commander.

Police CadetsCadet training is designed to prepare boys and girls between 16 and $18\frac{1}{2}$ years of age for a career in the police service (a few forces do not recruit girls).
They have no police powers but, in addition to their educational studies and
physical and adventure training, are instructed in elementary police work.

Civilian Staff In order to release as many uniformed police officers as possible for operational duties police authorities employ over 30,000 civilians on administrative (pay, records, finance, and other general subjects) and other duties (finger-print, scenes of crime and control room work). Some civilian staff are also employed on catering and domestic duties.

Traffic Wardens Traffic wardens (of whom there are nearly 7,000) are extensively employed to discharge specified duties connected with road traffic and vehicles, normally undertaken by the police. In this connection they may be authorised to serve fixed penalty notices¹ for minor offences to which the fixed penalty system applies; to man police car-pounds (except in Scotland); to enforce the vehicle

¹ A fixed penalty notice gives the recipient the option of paying a specified sum to the clerk of the appropriate court instead of having his case tried in the ordinary way.

excise laws; and to obtain the names and addresses of people thought to have committed certain types of traffic offence. They may also be employed to direct traffic, to act as parking attendants at street parking places, and as schoolcrossing patrols, if the police agree. Traffic wardens remain under the control of the chief constable of the force to which they are attached, whatever duties they may perform.

Each police force has an attachment of special constables, who are volunteers willing to perform police duties without pay in their spare time. In England and Wales the function of special constables is to act as auxiliaries to the regular force when required. In Scotland they are employed only in emergencies although they may be assigned for duty for training purposes.

A police officer in Great Britain is an independent holder of a public office and exercises his powers as a constable, whether conferred by statute or by common law, by virtue of his office. He is an agent of the law of the land, not of the police authority nor of the central Government and, although his chief officer of police has a vicarious liability for any wrongful act he may commit in the performance of his functions as a constable, he himself may also be sued in respect of his own wrongful act.

No member of the police service may belong to a trade union since it is a basic principle of the service that its members must not only be free from political bias, but must also be seen to be free of it. All ranks, however, have their own associations which can make representations to ministers or to police authorities on matters of interest or concern to their members.

The many functions of a police officer as a constable range from the protection of people and property, road or street patrolling and traffic control to crime prevention, criminal investigation and the apprehension of offenders.

The main departments in all police forces are the uniform department, the criminal investigation department and the traffic department. Many forces also have specialised departments, including river police (in districts with stretches of navigable waterway), a mounted branch and dog handlers.

In all aspects of police work, the application of scientific aids has reached an advanced stage: about £25 million is spent annually on police equipment, including about £3.9 million on radio communications. The police have some 30,000 personal radio sets operational. A police computer project is being developed on a national basis for rationalising the keeping of records and speeding up the dissemination of information.

A number of common services are provided by the central government departments for the benefit of all forces to supplement those provided by the police authorities for their own use and by communal arrangements made between the forces themselves. The most important of these services are: training services; a forensic science service in England and Wales which provides eight regional laboratories (in addition to the Metropolitan Police Laboratory); telecommunications services, including depots which in England and Wales supply and maintain wireless equipment for the police; and central and provincial criminal records which are available to all forces. In addition, regional crime squads, consisting of teams of experienced detectives from several forces, operating under a committee of chief constables, are employed in England and Wales to investigate major crimes involving inquiries in more than one police area. The Scottish Crime Squad assists police forces in Scotland in the investigation and prevention of crime and in the collection

Duties

Special

Constables

Co-ordination between Police Forces

and maintenance of information concerning criminals. Arrangements are also made for everyday assistance by one force to another.

Scientific Research and Planning

Metropolitan

Police Force

Services

There are three inter-related branches of the Home Office Police Department devoted to scientific research and medium- and long-term planning. The Police Scientific Development Branch and the Police Research Services Unit, which are staffed by scientists and senior police officers respectively, are concerned with operational research into police methods and the development of equipment for police forces throughout Great Britain. The Economic Planning Unit which is composed mainly of economists and accountants, is responsible for the development of a planning-programming-budgeting system for the police. This work includes the production of programme accounts and studies of the utilisation of police resources.

Services provided by the Metropolitan Police Force for other forces include (1) the publication of the Police Gazette, 1 which contains particulars of people wanted for crime and details of stolen property, and is supplied without charge to the police forces of the United Kingdom and to certain other Commonwealth and foreign forces; (2) the organisation and control of the special branch of the criminal investigation department at New Scotland Yard, whose duties include the protection of royalty, some ministers and distinguished foreign visitors; and (3) the carrying out of extradition orders made by the courts. The Metropolitan Police Force is also available, on request, to assist any other police force in England and Wales in criminal investigations. Similarly, the services of the Fraud Squad, run jointly by the Metropolitan Police Force and the City of London Police, are available throughout Great Britain for the investigation of serious company frauds. The National Central Bureau, which handles the business of the International Criminal Police Organisation (Interpol) on behalf of the United Kingdom and the British dependencies, is part of the Metropolitan Police Force. For certain of these services, the Metropolitan Police Force receives an additional Government grant.

Relations with the Public

Because of the small number of police officers in relation to the population as a whole (one officer to roughly 500 people), the limitations on their powers and their lack of firearms, the sanction of the police in enforcing the law rests to a very considerable extent upon common consent. Police training courses increasingly emphasise the role of both the service and the individual officer in local communities, and all forces are concerned with schemes for dealing with problems before court action becomes necessary, particular attention being paid to relations with children and young people and with coloured immigrant communities.

In England and Wales every chief officer of police must record and investigate any complaint received from the public about a member of his force. He may request the chief officer of another force to provide the investigator (and must do so if the Home Secretary so directs), and, unless completely satisfied that no criminal offence has been committed, must send the papers to the Director of Public Prosecutions who decides whether or not criminal proceedings should follow. Legislation is planned to introduce an independent element into the handling of complaints against the police. In Scotland

¹ The Scottish Criminal Record Office in Glasgow is responsible for the publication of the *Scottish Police Gazette*.

also chief constables have a duty to arrange for the investigation of complaints; procurators fiscal investigate independently complaints alleging that an officer has committed a criminal offence. Police authorities and all inspectors of constabulary throughout Great Britain must keep themselves informed about the way in which chief officers handle complaints.

PENAL SYSTEMS

The chief aims of the penal systems of the United Kingdom are to deter the potential law-breaker and to reform the convicted offender. The element of deterrence is in the probability of detection, public trial and punishment rather than in the severity of the punishment itself.

Treatment of Offenders Imprisonment and, for certain categories of young offender, other forms of custodial treatment form an important part of British penal practice, but are increasingly seen as the last resort in dealing with people who break the law. Wherever possible and appropriate for the safety of the public the treatment of offenders within the community is regarded as preferable to custodial treatment.

Traditional non-custodial treatment includes fines; probation; absolute or (in England, Wales and Northern Ireland) conditional discharge for up to three years (one year in Northern Ireland)—a discharge being made in circumstances in which there is properly a conviction but the court feels that there is no need to impose punishment; and 'binding over' where the offender is required to pledge money, with or without sureties, 'to keep the peace and be of good behaviour'.

The suspended sentence in England, Wales and Northern Ireland means that an offender does not actually serve his sentence unless he is convicted of a further offence punishable with imprisonment within a specified period (maximum two years). If he is convicted of such an offence within the period of a suspended sentence, the sentence will normally take effect and a further sentence may be imposed for the new offence. An offender who is given a suspended sentence of over six months may, in England and Wales, be made subject to supervision by a probation officer for all or part of the period during which the sentence is suspended.

Offenders who are convicted of imprisonable offences in England and Wales and who live in areas where facilities are available may be ordered to perform a specified number of hours (up to a maximum of 240) of unpaid service to the community under the supervision of the probation service. There are provisions for probation hostels, intensive supervision and day training centres. An offender may also with his consent have his sentence deferred for up to six months to enable a court to arrive at the most appropriate sentence, taking into account his conduct after, for instance, some expected change in his circumstances.

The courts may order an offender (having considered his means) to pay compensation for any personal injury, loss or damage resulting from his offence. In the case of major crimes against property a criminal bankruptcy order against the offender can form the basis of bankruptcy proceedings against him in England and Wales. In Scotland a committee is considering the potential role of the criminal court in ordering reparation by the offender to the victim.

In certain circumstances the courts may order the forfeiture of property used, or intended for use, in the commission of a crime. An offender convicted

of a serious crime may be disqualified from driving if a motor vehicle was used in its commission.

The mandatory penalty for murder in the United Kingdom is imprisonment for life. This is also the maximum penalty for manslaughter and certain other offences, including rape, robbery offences and arson.

Except in cases of murder (and of one or two other rarely prosecuted offences), for which the penalty is prescribed by law, the courts have complete discretion to select the sentence in the light of the nature and gravity of the offence and the available information about the character and needs of the offender. In certain cases this discretion is modified by statutory provisions designed to ensure that prison sentences are kept to a minimum. There are special provisions for dealing with children in trouble and young adult offenders—see pp. 110–2. In England and Wales a person who has not previously served a custodial sentence of a particular kind may not be sentenced to custodial treatment of that kind unless he is legally represented or has chosen not to be, and in the case of imprisonment unless the court is satisfied that no other sentence will suffice. On the other hand, special sentences longer than the normal maximum term (extended sentences) may be imposed on persistent offenders.

In Northern Ireland special temporary procedures are provided for dealing with people suspected of terrorism, but there are safeguards for the individual based on referral to independent legal commissioners with a further right of appeal to a tribunal.

In the interests of the rehabilitation of offenders, anyone in Great Britain who has received a prison sentence of up to $2\frac{1}{2}$ years and then has managed to avoid further convictions for a specified period (the time depends upon the nature of the original sentence) is entitled for most purposes to treat his 'spent' conviction as though it had never occurred (for instance, in some judicial proceedings and in most applications for employment).

Administrative Authorities

The Home Secretary and the Secretaries of State for Scotland and Northern Ireland are the government ministers generally responsible for legislation relating to the treatment of offenders, for collecting statistical and other information about the operation of the penal system, for keeping penal methods under review, and for bringing information about these methods to the attention of the courts. In England and Wales the Home Secretary is assisted by an Advisory Council on the Penal System, which makes recommendations on such matters relating to the prevention of crime and the treatment of offenders as the Home Secretary may refer to it. In Scotland the Scottish Council on Crime keeps under review questions relating to the prevention of crime and the treatment of offenders in Scotland, in consultation with the Secretary of State for Scotland.

In England and Wales probation, the after-care of prisoners and other related functions are the responsibility of the probation and after-care service. Its officers are employed by local probation and after-care committees composed largely of magistrates and representatives of the Crown Court. The Home Secretary, through the Home Office Probation and After-Care Department, is responsible to Parliament for the efficiency of the service. In Northern Ireland the Secretary of State has responsibility for the probation and after-care service. There is no separate Scottish probation service; local authority social work departments provide the services and officers required by the criminal courts in their areas.

Prison policy and the administration of custodial centres are functions of

the Home Office Prison Department, the Scottish Home and Health Department's Prison Service and the Prison Administration of the Northern Ireland Office. A board of visitors composed of men and women representing the local community and including a proportion of magistrates is appointed by the Home Secretary at each custodial centre in England and Wales. The boards have general responsibility concerning the state of the buildings, the administration of the establishment and the treatment of inmates. They report annually to the Home Secretary. They have certain disciplinary powers in cases involving serious breaches of discipline, and they hear representations or complaints from inmates. Similar arrangements exist in Scotland and Northern Ireland.

The Home Secretary and the Secretary of State for Scotland are advised by parole boards on the release of prisoners on licence.

Special provisions within the penal system apply to young offenders. The responsible Government departments are: in England and Wales, the Home Office and the Department of Health and Social Security; in Scotland, the Home and Health and Education Departments; and in Northern Ireland, the Northern Ireland Office. Local authority social services departments are responsible for many functions relating to children and young people.

Probation is designed to secure the rehabilitation of an offender while he continues his ordinary life under the supervision of a probation officer, whose duty it is to advise, assist and befriend him.

Before making a probation order (which may be for not less than one and not more than three years) the court must explain its effects and make sure that the probationer understands that if he fails to comply with the requirements of the order he will be liable to be dealt with again for the original offence. A probation order can be made only if the offender is 17 years of age or over and must have his consent; it usually requires the probationer to keep in regular touch with the probation officer, to be of good behaviour and to lead an industrious life. It may also require him to live in a specified place, or in appropriate circumstances to submit to treatment for his mental condition.

Probation and after-care committees may, with the approval of the Home Secretary, provide and maintain day training centres (which offenders may be required to attend for up to 60 days for intensive supervision and social education as a requirement of a probation order), bail hostels, probation hostels and other establishments for use in connection with the rehabilitation of offenders. The service is also responsible for administering the scheme of service to the community, whereby courts have the power to require offenders to perform, in their spare time, up to 240 hours (within 12 months) of such unpaid work as painting and decorating for families in need, the handicapped, and the elderly; building adventure playgrounds; clearing sites at redevelopment areas; and nature conservation tasks.

In England, Wales and Northern Ireland, the services of probation and after-care officers are available to every criminal court.

In Scotland, where there is no separate probation service, offenders subject to probation orders or to after-care supervision following release from a penal institution are supervised by specially approved local authority social workers.

The aims of the prison service are, briefly, to provide for the detention of those committed to custody under the law in conditions generally acceptable to society, and to develop constructive methods of treatment and training in the hope that they will lead to the prisoner's rehabilitation and reform. To this

Probation and After-care

Prisons

end prisoners are classified into groups, taking into account the likelihood of their escaping, the degree to which their escape would offer a threat to the public or the State, and the justification of high expenditure on providing secure conditions. Unconvicted prisoners are entitled to privileges not granted to convicted prisoners. As far as practicable, unconvicted prisoners are separated from convicted prisoners, and those under 21 are separated from those over that age.

Prisons to which offenders may be committed directly by a court are known as 'local prisons'; all are closed establishments. Other prisons, which may be open or closed, receive prisoners on transfer from local prisons. Separate prisons cater for female prisoners.

Many British prisons were built during the nineteenth century and are unsatisfactory by modern standards; overcrowding is also a problem. To improve conditions generally, new prisons are being built and existing establishments redeveloped and modernised.

All prisoners serving a sentence of imprisonment for an actual term of more than one month, except those sentenced to imprisonment for life, are allowed remission of one-third of their sentence provided that this does not reduce their sentence below 31 days (in Scotland, 30 days). Remission may be forfeited for serious misconduct in prison. In addition, except in Northern Ireland, prisoners serving fixed sentences totalling more than 18 months become eligible for consideration for release on parole after serving one-third of their sentence or 12 months, whichever expires later. Each eligible prisoner is first considered for release by a local review committee which reports to the Home Secretary or the Secretary of State for Scotland on his suitability for parole. In some cases the minister concerned has power to grant or refuse parole, while others he refers to an officially appointed parole board. Where the board recommends favourably, the decision whether or not to release a prisoner depends finally on the minister, but where the board does not recommend release the minister has no power to grant parole. The licence remains in force until the date on which the prisoner would have been released if he had not been licensed or, for prisoners serving extended sentences (in England and Wales only) and offenders sentenced while under 21 years of age, until the end of the sentence.

Prisoners serving life sentences are also eligible for release on licence. In England and Wales the practice is for cases to be referred to the local review committee at a date fixed for each case after consultation between the parole board and the Home Office. In Scotland the usual practice is to seek the views of the local review committee after the offender has served seven years. The Lord Chief Justice in England and Wales or the Lord Justice General in Scotland (as the case may be) and, if he is available, the judge who presided at the trial, must be consulted before any life sentence prisoner is released. In Northern Ireland the judiciary is similarly consulted before any such release takes place. Prisoners released in this way remain on licence for the whole of their lives, and are subject to recall at any time should the circumstances warrant it.

Employment

The main aim of prison industries is to give an offender in custody a training and experience that will fit him to get and retain a job on discharge. The primary source of work lies in the domestic requirements of the prison service itself in clothing and equipping prisoners and providing furniture and furnishings. Goods and services are also supplied to other government departments

Remission of Sentence and Parole

and public bodies, and there is a steady growth of sales of a wide range of products in the open market—for example, textiles, woodwork and engineering products. The profitable farming and horticultural industries also provide work and training and play an increasing part in contributing to the prison food provision. A few prisoners are employed outside prison in agriculture and on work such as archaeological excavation and the preservation of canals.

In England, Wales and Scotland, small payments are made to inmates for the work they do; in some prisons, special incentive schemes provide an opportunity for higher earnings on the basis of output and skill. In Northern Ireland there is a progressive system of earnings, related to work done.

Any prisoner serving a sentence of four years or more may be considered for employment in an ordinary civilian job outside prison for about six months before his discharge. Prisoners selected for the scheme may live either in a separate part of the prison or in a prison hostel; they are paid normal wages, from which they support their families and meet their own expenses.

Education for those in custody is provided by local education authorities in close liaison with central departments. Each prison in England and Wales has an education officer and a number of part-time teachers.

In many prisons the education officer is assisted by one or more full-time teachers. Attendance at evening classes is voluntary but full-time day classes are provided for young people under 16 years of age (such as those in borstals). Day release may be granted to certain prisoners to improve their basic education standards or to pursue examination courses. Increasing numbers of prisoners are taking Open University courses. All inmates have access to the prison library. Other recreational activities include: films, plays, concerts, lectures, discussions, gymnastics and, where facilities allow, outdoor sports. Physical education in custodial centres aims to maintain and improve general physical fitness; all offenders under 21 must attend a certain number of classes, but others choose whether to take part.

Selected prisoners take vocational training courses leading to recognised qualifications. Others learn construction industry crafts, and their skills are later used in maintaining and improving existing establishments and building new ones. Facilities in Scotland and Northern Ireland are similar to those in England and Wales.

The physical and mental care of inmates is a statutory duty of the prison medical officer. Large establishments have medical teams, while others may only need the services of a medical officer on a part-time basis. All have hospital and out-patient treatment facilities and the necessary support staff.

In a few prisons there are large, fully equipped hospitals where major surgery and treatment can be undertaken by visiting specialists. The patients include inmates from other establishments. There is one psychiatric prison in England and Wales with accommodation for some 300 inmates. Many establishments have psychiatric units to which inmates are transferred from other establishments. Use is also made of hospital and specialist facilities of the National Health Service, and if necessary arrangements are made for treatment to continue after release from custody.

There has been a constant development of the application of psychological principles to the tasks of the penal system over the past 30 years. The work of a prison psychologist varies from one place to another. Psychologists are involved in the analysis of operational processes, the evaluation of treatment programmes and regimes, the assessment of individuals, contributions to

Education

Psychological Services

Medical Services

management and treatment and the selection and training of staff. The focus of their work is primarily upon tasks involving design, development and evaluation.

All prisoners, from the beginning of their sentence, have a general right to write and receive letters and to be visited by their relatives at regular intervals. They also have such privileges as additional letters and visits, the use of books, periodicals and newspapers, and the right to make purchases from the canteen with money they have earned in prison. Depending on the facilities available, they may be granted the further privileges of dining and recreation in association and watching television in the evening.

Breaches of discipline are dealt with by the prison governor, or board of visitors, who have power to order, among other penalties, forfeiture of remission and forfeiture of privileges.

Welfare in prisons is the general concern of the prison staff as a whole, and in particular of the chaplains and assistant governors, but special responsibilities attach to prison welfare officers, who, in England, Wales and Northern Ireland, are probation officers seconded by the probation and after-care service (in Scotland, social workers from local authority social work departments). The functions of these officers include helping the prisoner in his relationships with individuals and organisations outside the prison, and making plans for the prisoner's after-care, working closely in this connection with colleagues in the probation and after-care service and with other agencies in the community whose help the prisoner or his family may need either during sentence or after release.

For the spiritual welfare of the inmates, a chaplain of the Church of England (in Scotland of the Church of Scotland, and in Northern Ireland of the Church of Ireland and of the Presbyterian Church), a Roman Catholic priest and a Methodist minister are appointed to every prison. Ministers of other denominations are appointed or specially called in as needed.

Prisoners may also receive visits from specially appointed prison visitors whose work is voluntary and in England and Wales is co-ordinated and guided by the National Association of Prison Visitors.

In England and Wales pre-release courses are conducted at all prisons. During these courses experts hold open forum with prisoners nearing their release on the domestic, social and employment problems with which they are likely to be faced. Certain categories of prisoners may be granted home leave towards the end of their sentences to enable them to preserve links with their families and friends, or to make new contacts with people, including potential employers, who may be able to assist them on release. Some categories are considered for two periods of home leave, one allowing five clear days and the other a week-end at home, and others for one period of five days at home.

Discharge and After-Care Prisoners granted parole may have preparatory leave. After-care begins at the commencement of a prisoner's sentence, and probation officers arrange interviews for offenders in the cells at court immediately after sentence. Officers often visit prisoners' families to discuss problems and in some areas set up prisoners' wives' groups which meet informally and provide a source of mutual companionship and support.

All prisons in England and Wales arrange pre-release preparations for prisoners, varying according to the needs of the inmates concerned. At many prisons they take the form of open discussion groups. For prisoners with sentences of two years or more home leave is extensively granted towards the

Privileges and Discipline

Welfare

end of their sentences, and for some male prisoners serving four years or more and for some women serving 18 months or more there are special provisions for work outside the prison before release.

There are two systems of after-care in England and Wales, both run by the probation and after-care service. A compulsory system applies to prisoners released from life imprisonment or extended sentences, young prisoners and young people discharged from borstals and detention centres; and a voluntary system is offered to the remainder. After-care is also provided by a number of voluntary societies, most of which are members of the National Association for the Care and Resettlement of Offenders. This may take the form of providing associates to probation officers in their work of befriending exprisoners; befriending prisoners' families; providing club rooms; or helping discharged offenders to find work and accommodation. Hostels and other forms of accommodation are provided, often with some financial help from the Home Office.

In Northern Ireland after-care duties are similarly carried out by probation and after-care officers. In Scotland responsibility for statutory and voluntary after-care is vested in local authority social workers.

In England and Wales no child under ten years can be held guilty of any offence. A child aged ten to 16 years who is alleged to have committed an offence may be the subject of criminal proceedings or of 'care' proceedings, both of which are normally held before special juvenile courts (see p. 83).

To make an order in care proceedings the juvenile court must be satisfied that any one of a number of conditions is met, one of which is that an offence has been committed. The court must also believe that the child is in need of care or control which he is unlikely to receive unless an order is made. This means that the commission of a criminal offence is not in itself a ground for a care order to be made by a court.

A number of orders are available to courts in both care and criminal proceedings. A care order commits the child to the care of the local authority, so that the authority becomes responsible for deciding where the child should be accommodated, for example, with foster parents or in a 'community home'. The care order generally lasts until the child is aged 18 or 19 unless it is in the meantime discharged by a court. For children who are too severely disturbed and disruptive to be treated successfully in other child care homes but who do not need treatment in hospital, three new establishments, known as 'youth treatment centres' are being provided.

Under a supervision order (usually valid for three years or less) a child normally remains at home under the supervision of a local authority social worker or a probation officer. He or she may be required to undergo 'intermediate treatment' which is a compromise between measures involving complete removal from home and those which do not. It consists of participation under a supervisor in a variety of constructive and remedial activities either through a short residential course or through attendance at a day or evening centre.

A court may also order a parent or guardian to enter into recognisances to take proper care of the child and to exercise proper control over him; may order payments of compensation; or may order a stay in hospital in accordance with the mental health legislation.

In criminal proceedings the courts may also impose fines or grant a conditional or absolute discharge. If the offender is a boy, he may be ordered to spend a total of (normally) 12 to 24 hours of his spare time on Saturdays at

Children in Trouble

one of 60 attendance centres (up to three hours on any one occasion). The centres are for boys found guilty of offences for which older people could be sentenced to imprisonment, and provide physical training and instruction in handicrafts or some other practical subject. For boys aged 14 or over courts may make a detention centre order (see below), and young people of 15 and over may be committed to the Crown Court with a view to borstal training (see below). In the case of a very serious crime, detention in a place approved by the Home Secretary or the Secretary of State for Northern Ireland may be ordered.

In Scotland the age of criminal responsibility is eight years, but prosecution is the exception, and no child can be prosecuted for an offence other than at the instance of the Lord Advocate. Children under 16 years who have committed an offence or need care and protection are generally brought before an informal children's hearing (not a juvenile court), where the aim is to discuss difficulties and provide the most appropriate measures of care and treatment (see p. 85). The hearing can commit a child to supervision by a local authority subject to conditions appropriate to the child's needs (this may include a requirement to stay in a residential home).

Young Adult Offenders

Scotland

Offenders aged 17 to 20 years have been recognised as a category distinct from child and adult offenders for many years in Britain, and there are special forms of custodial treatment for this age group. The main non-custodial measures are generally the same as those used in dealing with adults, although in the London and Manchester areas an attendance centre order (usually made for younger boys, see above) may be given. The custodial sentences available are: detention in a detention centre, borstal training and imprisonment.

Some 12 senior detention centres provide a means of treating young male offenders in Great Britain for whom a long period of residential training away from home does not seem necessary or justified by the offence, but who cannot be taught respect for the law by such non-custodial measures as fines or probation. Detention is usually for a period of three to six months (a fixed period of three months in Scotland). Life in a centre is brisk and formal, demanding the highest possible standard of discipline and achievement. The emphasis is on positive training which provides a normal working week of 40 hours, including an hour each day devoted to physical training, with considerable attention paid to education. All offenders discharged from a detention centre are subject to supervision for a year.

Borstal training aims to bring about a development in the trainee's character and capacities, progressively increasing scope for personal decision, responsibility and self-control, and to enable the trainee to develop as an individual. Offenders are placed as near their home area as possible so as to maintain and foster their ties with the local community. The system is essentially remedial and educational, based on personal training by carefully selected staff. Emphasis is placed on vocational training in skilled trades. There is much freedom of movement, and many borstals are open establishments. The training system is available to offenders aged 15 to 20 years (16–20 years in Scotland and Northern Ireland). Courts rarely order borstal training unless they have already tried fines, probation or detention centre training, perhaps all three. In England, Wales and Northern Ireland the training period ranges from six months to two years, and is followed by supervision for two years (one year in Northern Ireland). In Scotland, where there is no minimum training period the maximum is two years, and supervision for one year. A person under 17 years cannot be sentenced to imprisonment in England and Wales, and no court may pass a sentence of imprisonment on an offender aged 17–20 years unless satisfied that no other method of dealing with him is appropriate. If imprisonment is imposed, the term must normally be of less than six months or more than three years (or not less than 18 months if the person has served a previous sentence of not less than six months' imprisonment or a sentence of borstal training). Sentences of up to two years may be ordered by a court to be suspended. Prisoners under the age of 21 at the time of their sentence are classified as 'young prisoners', and serve their sentences separately from older prisoners unless they are reclassified as adults and treated as such in an adult prison. In Scotland no offender under 21 years may be sent to prison; where neither borstal nor detention training is suitable for an offender aged 16–20 years, detention in a special 'young offenders' institution' may be ordered.

CRIMINOLOGICAL A wide range of criminological and other social research is carried out by the RESEARCH AND STUDIES Home Office Research Unit which also provides liaison on research matters between the Home Office and the Social Work Services Group of the Scottish Home and Health Department. Research is carried out in university departments, much of it financed by the Home Office and the Scottish Home and Health Department. The principal university research establishment is the Institute of Criminology at Cambridge.

Studies undertaken in the Home Office Research Unit are mainly concentrated on subjects of direct interest to home departments. The results of the unit's work are published in learned journals and by Her Majesty's Stationery Office in the Home Office Research Studies series. First degree courses (normally in law, sociology or social administration) which include some study of criminology, one-year postgraduate courses and research facilities are available at a number of universities.

EXPENDITURE

TABLE 5: Public Expenditure on Justice and Law in the United Kingdom

| | | | | | to munon |
|--------------------------------|---------|----------------|-----------------|-----------------|------------------|
| | 1951-52 | 1961-62 | 1971-72 | 1972-73 | 1973-74 |
| Police Prisons Legal aid | 73 7 | 156 23 4 | 474 84 23 | 506 98 29 | 588 119 38 |
| Probation and after care |) 8 | 23 | 17 | 22 | 26 |
| Parliament and law courts | |) | 69 | 85 | 103 |
| TOTAL | 88 | 206 | 667 | 740 | 874 |
| of which capital expenditure | 8 | 16 | 53 | 52 | 93 |

Source: Social Trends 1974

5 Defence

In 1974-75 the Government undertook a major review of Britain's defence commitments and capabilities in implementation of its policy to maintain a modern and effective defence system while reducing its costs as a proportion of national resources. The review was completed in early 1975, following consultations with Britain's allies, and concluded that the economic as well as the military and political objectives of the Government could be achieved only if the defence forces were concentrated on those areas in which a British contribution to collective defence would be most effective in ensuring Britain's security and that of her allies. This means that the North Atlantic Treaty Organisation (NATO) will remain the first and overriding charge on Britain's defence resources, and that Britain will withdraw from its non-NATO commitments wherever this is consistent with its fundamental military and political obligations. At the same time, general purpose forces will be maintained as insurance against the unforeseen. As a result of the review, the average annual cost of the planned defence programme over the period to 1983-84 at 1974 prices has been reduced from £4,300 million to less than £3,800 million. Similarly, it is estimated that defence expenditure as a proportion of gross national product will fall from its 1974-75 level of about 5.5 per cent to about 4.5 per cent over the next ten years. Except where otherwise indicated, the programmes and commitments outlined below are both current and continuing.

POLICY

Britain's basic security depends on the strength of the North Atlantic Alliance, and it is to NATO that by far the greater part of Britain's military forces is committed. Britain makes a major contribution to the full range of deterrent capabilities, both conventional and nuclear, required to maintain NATO's defensive posture. Within NATO, Britain plays an important part in the efforts of the European members to assume, through closer co-operation, an increasing responsibility for Western defence. In the Eurogroup Britain and nine other European members are working to improve their contribution to the Alliance and to achieve a more effective collective result from the available resources. A major achievement was the European Defence Improvement Programme, launched in 1970, which provided \$1,000 million over five years for extra defence measures, including expenditure on additional force improvements and a cash contribution towards the NATO Infrastructure Fund. The sub-groups of the Eurogroup, each of which concentrates on a specific area such as training, logistics and, most importantly, the procurement of equipment, make an important contribution towards the strength of the Alliance by increasing co-operation among its members.

Britain is playing a major part in the efforts to reduce tension and achieve more lasting peace in Europe, and is working to ensure that the agreements with the Soviet Union and Eastern European countries on security and co-operation in Europe, concluded in August 1975, and the related talks on mutual and balanced force reductions will contribute to increased stability and improved relations.

Europe

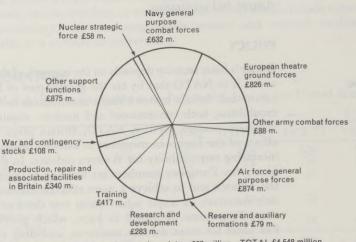
Beyond Europe

Britain is a member of the Central Treaty Organisation (CENTO) and the South-East Asia Treaty Organisation (SEATO) and participates with Australia, New Zealand, Malaysia and Singapore in the Five-Power defence arrangements in Malaysia and Singapore. Britain is also responsible for the defence and internal security of its remaining dependencies. In addition, the armed forces give extensive assistance to communities overseas, particularly in such activities as disaster relief and development work.

The United Nations Britain supports the peacekeeping and other efforts of the United Nations supplying the largest national contingent to the UN Peace-Keeping Force in Cyprus—and other international consultative authorities working to eliminate the sources of tension and conflict between nations and to promote arms control and disarmament. Britain played a leading part in the negotiations for the Non-Proliferation Treaty and the Sea-Bed Treaty, and Britain's proposal for a convention for the prohibition of biological methods of warfare led to the conclusion of a further international arms control agreement.

PLANNING AND CONTROL

Supreme responsibility for national defence rests with the Prime Minister and the Cabinet, who are responsible to Parliament. The formulation of defence policy is the responsibility of the Secretary of State for Defence. In recent years the emphasis in defence organisation has been on increased central policy control and the co-ordinated planning of the defence effort as a whole.



FUNCTIONAL ANALYSIS OF DEFENCE EXPENDITURE 1975-76

Miscellaneous expenditure and receipts - £32 million TOTAL £4,548 million

Note: Research and Development costs have been included, where possible, in relevant combat forces or support programmes.

The Ministry of Defence (see p. 48) ensures effective co-ordination on policy and administration concerning the Services. The Secretary of State is assisted by a Minister of State, and by three Under-Secretaries of State for the Navy, Army and Air Force respectively. They, together with the Chief of the Defence Staff, the three Service Chiefs of Staff, the Chief of Personnel and Logistics, the Chief Scientific Adviser, the Chief Executive of the Procurement Executive and the Permanent Under-Secretary of State for Defence, form the Defence Council, which deals with major defence policy under the

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chairmanship of the Secretary of State. The Chiefs of Staff Committee, comprising the Chief of the Defence Staff as chairman and the Chiefs of Staff of the three Services, is responsible for giving professional advice on strategy and operations, and on the military implications of defence policy. The day-to-day management of the three Services is the responsibility of the Admiralty, Army and Air Force Boards of the Defence Council.

Expenditure

Information about defence policy and the armed forces is provided in an annual Statement on the Defence Estimates (Cmnd 5976 in 1975 published in March). The defence estimates for 1975–76, at 1975 prices, totalled \pounds 4,548 million, which represents about 5.75 per cent of the gross national product. Of the total expenditure \pounds 2,102 million (46 per cent) is on personnel (pay, allowances, pensions), \pounds 1,529 million (34 per cent) on equipment and the remainder \pounds 917 million (20 per cent) on works, lands, miscellaneous stores and services. See also diagram on page opposite.

DEPLOYMENT

NATO Strategy

The basis of the present NATO strategy of flexible response, which retains the principle of forward defence, is that credible deterrence of military actions of all kinds is necessary. While NATO must be ready to use nuclear weapons if necessary, its conventional forces must be maintained to enable it to respond to aggression at a variety of levels, providing an alternative to a nuclear response against anything but a major attack, and thereby enabling it to gain time for negotiations to end a conflict. The strategy requires a comprehensive range of mobile and well-equipped conventional forces and tactical and strategic nuclear weapons.

Britain's NATO Contribution

Britain makes a major contribution to the forces required by NATO's present strategy. The British Polaris force forms the contribution to the Western strategic deterrent. Virtually all ships of frigate size and above are earmarked for assignment in an emergency to NATO. The Royal Navy also contributes to NATO's Standing Naval Force Atlantic, Standing Naval Force Channel, and the Naval On Call Force Mediterranean. The British Army of the Rhine (BAOR), an independent brigade in Berlin and RAF Germany are deployed in the Federal Republic of Germany. BAOR is organised as a corps of three divisions with five armoured brigades, one mechanised brigade and two artillery brigades. Its peace-time strength of around 55,000 would be more than doubled on mobilisation from Britain's reserves (see p. 120). Royal Air Force Germany is a tactical air force including strike/attack, reconnaissance, close support and air-defence aircraft. In addition, most of the air and ground combat units based in the United Kingdom have primary roles in support of NATO, and provide an important part of NATO's mobile reinforcement capability. These include the ground elements of the United Kingdom Mobile Force, and the British contribution to the Allied Command Europe Mobile Force (Land). RAF Strike Command provides forces for strike/attack, reconnaissance, close support, air defence and maritime patrol and antisubmarine warfare, together with transport forces and air elements for the United Kingdom Mobile Force and Allied Command Europe Mobile Force (Air).

Northern Ireland At home a major task of the armed forces since 1969 has been to assist the civil authorities in Northern Ireland in the maintenance of law and order, and they have operated to counter the terrorist activities of extremist organisations.

Outside NATO

Britain continues to maintain forces in certain dependencies, such as Hong Kong, Gibraltar, Belize, and the Falkland Islands and also at the sovereign bases in Cyprus. The forces currently stationed in Malta are to be withdrawn by 1979, and Britain's naval presence in the Indian Ocean and the Caribbean will be reduced by 1976, but occasional deployments from European waters will continue. British forces in Singapore, apart from a small contribution to the integrated air defence system of the Five-Power defence arrangements (see p. 114), will also be withdrawn in 1976.

THE ARMED FORCES

Service Organisation Britain's armed forces are organised on a tri-service basis, and consists of the Royal Navy and Royal Marines, the Army and the Royal Air Force.

The Royal Navy has four main arms: the Naval General Service, which mans and maintains the surface fleet; the Fleet Air Arm; the Submarine Service; and the Royal Marines, who primarily provide an amphibious striking-force.

The Army is organised into some 30 arms and services which include the Guards division and divisions of infantry, the Royal Armoured Corps, the Royal Regiment of Artillery, the Household Cavalry, the Corps of Royal Engineers, the Royal Electrical and Mechanical Engineers, the Royal Corps of Signals, the Royal Corps of Transport, the Army Air Corps, the Royal Army Ordnance Corps and the Royal Army Education Corps.

The Royal Air Force is organised in commands, on a functional basis at home and on a geographical basis overseas. These comprise Strike Command and Training and Support Commands, Royal Air Force Germany and Near East Air Force. The Royal Navy has a unified sea command, Commander-in-Chief, Fleet; shore commands have been reorganised under a single Commander-in-Chief, Naval Home Command, Portsmouth, with subordinate area commands based at Plymouth, Chatham and Rosyth. At home the Army is under a single command, United Kingdom Land Forces; overseas commands are British Army of the Rhine, Near East Land Forces, Land Forces Hong Kong, and British Troops Malta and Gibraltar.

Women's Services The three women's Services, the Women's Royal Naval Service (WRNS), the Women's Royal Army Corps (WRAC) and the Women's Royal Air Force (WRAF), are integral parts of the armed forces, and servicewomen serve alongside servicemen in Britain and overseas. Nursing services are provided by Queen Alexandra's Royal Naval Nursing Service, Queen Alexandra's Royal Army Nursing Corps and Princess Mary's Royal Air Force Nursing Service.

Manpower Britain's armed forces totalled 342,500 on 1st January 1975, 77,131 in the Royal Navy and Royal Marines, 169,089 in the Army and 96,301 in the Royal Air Force. The forecast total for 1st April 1976 is 333,900, while for 1st April 1979 the forecast total is 321,000. Recruitment to the armed forces in 1974–75 totalled 42,236, an increase on the total for the previous year which had been affected by the raising of the school-leaving age. The average number of civilian staff expected to be employed by the Ministry of Defence during 1975–76 is 295,600. A functional analysis of personnel is shown in the diagram on p. 117.

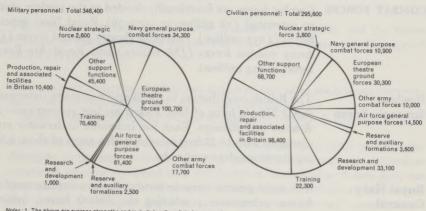
Engagements Britain's armed forces consist entirely of personnel serving on a voluntary basis. Engagements available to non-commissioned ranks range from three to

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DEFENCE

22 years, with a wide freedom of choice on the length and terms of service. In 1972 a new type of engagement was introduced for non-commissioned ranks of all three Services, under which recruits are committed for only a minimum period of productive service (about three years) and, subject to that minimum, may leave at any time at 18 months' notice. Discharge may also be granted on compassionate grounds, by purchase, or on grounds of conscience, for which there is an independent tribunal to assess cases. Commissions may be granted for short, medium and long terms. In all three Services there are

FUNCTIONAL ANALYSIS OF DEFENCE PERSONNEL 1975-76



Noles : 1. The above are average strengths and include locally enlisted personnel. 2. Civilian personnel comprise 140,000 non-industrial staff and 155,600 industrial staff

opportunities for promotion from the ranks, and almost half of each year's officer intake is on such promotion. Entry to commissioned ranks is on the basis of educational and other qualifications (O and A levels and their equivalents or degrees): all three Services have schemes for university cadetships which enable young men to take a degree before commencing their training.

Training

Entrants to non-commissioned ranks are given basic training, and further and specialist training is given during the course of their careers. Young servicemen are encouraged to study for secondary educational qualifications, all three Services providing extensive facilities for the consolidation and development of Service personnel's education. Trade and technical training, though primarily designed for Service purposes, leads for about half the total number of servicemen to nationally recognised qualifications including qualification for membership of trade unions.

Service technical training is highly valued in industry, which is a significant advantage on return to civilian life. To assist such resettlement the Services provide an advisory service, familiarisation attachments to civilian organisations and, for those without technical qualifications, opportunity and assistance to study for suitable civilian qualifications.

Entrants to commissioned ranks receive initial training at the Britannia Royal Naval College Dartmouth, the Royal Military Academy Sandhurst, the Royal Air Force College Cranwell or similar institutions. This is followed by specialist training, often including degree courses at university or Service establishments.

Staff training is provided by the Royal Naval Staff College, Greenwich, the Army Staff College at Camberley, and the Royal Air Force Staff College at Bracknell. The National Defence College at Latimer is designed to provide

mid-career officers with training for posts involving inter-Service staff work. Specially selected and more senior officers from the Services, the Civil Service, and from the Commonwealth, the United States, and allied European countries attend the Royal College of Defence Studies (formerly the Imperial Defence College) in London, which provides the wider background necessary for senior posts in the direction of defence.

Considerable operational training is done through joint-Service and interallied exercises. All three Services provide training facilities for the armed forces of allied and Commonwealth countries.

COMBAT FORCES Combat forces are functionally divided as the nuclear strategic force (costing an estimated £58 million in 1975-76), Royal Navy general purpose combat forces (£632 million), European theatre ground forces (£826 million), other Army combat forces (£88 million) and Royal Air Force general purpose forces (£874 million).

Nuclear Strategic Force The British contribution to the Western strategic deterrent is provided by the Royal Navy's force of four *Polaris* nuclear submarines—*Resolution*, *Repulse*, *Renown* and *Revenge*. Each has indefinite underwater cruising range and is equipped with 16 *Polaris* missiles with a range of about 2,800 miles and carrying thermonuclear warheads.

Royal Navy General Purpose Combat Forces

Equipment

The naval general purpose combat forces comprise amphibious and naval air forces, submarines (excluding the *Polaris* force), helicopter-cruisers, destroyers, frigates, and mine countermeasure forces and support and other ships. The following section contains detail of some of the equipment of these forces.

The aircraft carrier Ark Royal operates Phantom and Buccaneer strike aircraft, Gannet airborne early warning aircraft and Sea King anti-submarine helicopters. Amphibious forces are provided by the commando ships Bulwark and Hermes and the assault ships Fearless and Intrepid. (This capability is to be reduced in 1976 to the two assault ships, only one of which will be operational at any time, while Hermes, which will be transferred to antisubmarine duties, will retain a secondary role as a commando ship.) The command-helicopter-cruisers Blake and Tiger also carry Sea King helicopters and are responsible for directing and controlling naval forces. There are also eight County class guided missile destroyers equipped with Seaslug and Seacat surface-to-air missile systems; three of them have also been fitted with the Exocet surface-to-surface guided missile system. The Type 82 guided missile destroyer Bristol is equipped with the Seadart area air defence missile system and the Ikara anti-submarine guided weapon system. Sheffield, first of the new class of Type 42 Seadart destroyers, and three of the Amazon class Type 21 frigates, have recently entered service. There are also 26 Leander class and seven Tribal class general purpose frigates, three anti-aircraft frigates, four aircraft-direction frigates, 15 anti-submarine frigates, and the diesel frigate Mermaid. The frigate classes are variously armed with automatic guns, surface-to-air missile systems, underwater detection and anti-submarine weapons. Most have the Wasp helicopter embarked which will in due course be replaced, where appropriate, by the Lynx. The balance of the Fleet is made up of the mine-sweeper and mine-hunter forces, patrol vessels, survey and trials ships. Under construction is the Invincible, the first of a new class of cruiser, which will be equipped to operate Sea King helicopters and will have the optional capability of operating maritime vertical short-take-off and

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landing aircraft. In addition five of the new Sheffield class Type 42 Seadart destroyers and five of the Amazon class Type 21 frigates are building. The first of a new class of frigate, Type 22, to be armed with the Seawolf surface-to-air missile system, has been ordered and work is in hand on a new class of mine counter-measure vessel in glass reinforced plastics.

Besides the four *Polaris* submarines (see above) there are eight nuclearpowered fleet submarines in service together with 20 conventional patrol submarines. A further three nuclear submarines are under construction. Tankers and store ships of the Royal Fleet Auxiliary Service provide worldwide afloat logistic support.

European Theatre Ground Forces

The European theatre ground forces consist of the BAOR, and the forces stationed in Britain, the main elements of which have primary roles in support of NATO (see p. 115).

Other Army Combat Forces This category comprises land forces stationed abroad to meet treaty commitments to Commonwealth and other countries (see p. 114). Some of the equipment of this and the previous category is described below.

Equipment

Armoured regiments are equipped with the *Chieftain* main battle tank and the *Swingfire* long-range anti-tank guided missile. Armoured reconnaissance regiments are now equipped with the *Scorpion*, mounting a 76-mm gun, the first member of the new tracked combat reconnaissance vehicle series to come into service. Another, the *Scimitar*, mounting a 30-mm gun, will come into service at the end of 1975. The primary tracked armoured personnel carriers used by mechanised infantry battalions is the FV 432, some of which are fitted with 81-mm mortars or *Wombat* 120-mm anti-tank guns. Artillery units are equipped with the *Abbot* 105-mm gun, 155-mm and 175-mm self-propelled guns, and Field Artillery Computer Equipment (FACE). Tactical nuclear support is provided by the *Honest John* missile and the 203-mm self-propelled howitzer. Air defence is provided by the *Thunderbird* mobile surface-to-air missile system and by the L 40/70 gun which is now being replaced by the *Rapier* low-level surface-to-air missile system.

Royal Air Force General Purpose Forces

Equipment

The Royal Air Force general purpose forces consist of aircraft for air defence, strike/attack, reconnaissance, offensive support and tactical reconnaissance, maritime patrol and anti-submarine warfare, transport and in-flight refuelling together with RAF Regiment field squadrons.

Lightning and Phantom FG1 and FGR2 aircraft, together with Bloodhound, Tigercat and Rapier surface-to-air missiles are employed in air defence. Reporting and control is provided by the computerised Linesman system, and a number of Shackletons have been converted to provide airborne early warning over the sea. Jaguars, Vulcans, Buccaneers and Phantom FGR2s operate in the strike/attack role. The primary role of some of the strike/attack and air defence aircraft is the shore-based protection of naval forces at sea. Vulcans, Canberras and Phantom FGR2s are employed in the reconnaissance role; Harrier V/STOL aircraft and Jaguars for offensive support (the Harrier also having a tactical reconnaissance capability); and Nimrods in maritime patrol and anti-submarine warfare. With the introduction of the Jaguar in the strike/attack, reconnaissance and offensive support roles which began in 1974, the Phantom FGR2s are being gradually transferred to air defence, where they will largely replace the Lightnings.

Strategic transport support is provided by *Belfast*, *VCIo* and, for the present, *Britannia* aircraft. The *Hercules*, which also has a strategic capability is used for tactical transport support over medium ranges. For short-range tasks the *Wessex* and *Puma* helicopters are available. A force of *Victor* tanker aircraft provides in-flight refuelling which gives added range and flexibility to operations of air defence, maritime strike and other aircraft.

RESERVE FORCES Reserve and auxiliary forces are an integral part of the armed forces. Apart from their essential military role—to supplement the regular forces in time of war or emergency with trained personnel able immediately to take their places in the Services either as formed units or as individual reinforcements—they form an important link between the Services and the civil community. Some of their members have a reserve liability following a period of regular service (regular reserve): others are volunteer men and women who devote their spare time to training for the roles they would undertake in war or an emergency. On 1st January 1975 regular reserves totalled 168,000 and volunteer reserves and auxiliary forces 69,700. Cadet forces, which make a significant contribution to recruitment to the regular forces, totalled 130,500.

Royal Navy The regular reserve consists of various categories of former full-time officers and ratings liable to recall in emergency, including the Royal Fleet Reserve of men with recent experience of active service. The volunteer reserves comprise the Royal Naval Reserve, with its associated women's reserve, and the Royal Marines Reserve. Both carry out regular part-time training, the former to man a number of operational minesweepers and support maritime and other headquarters, the latter to reinforce the regular corps and in particular the Royal Marine Commandos.

Army The Army reserves comprise the individual reserves of ex-regular servicemen and the Territorial and Army Volunteer Reserve (TAVR).

The TAVR's primary role is to reinforce the ground forces committed to NATO and to assist in maintaining a secure United Kingdom base in support of the forces deployed in Europe. It consists of independent units, organised on a local basis with regular Army and permanent civilian staff, and sponsored units of specialists recruited on a country-wide basis. They are liable for callout in an emergency. There is also a number of miscellaneous units (including university officer-training corps) and pools of individuals (known as Group B) which have a variety of functions.

Ulster Defence The Ulster Defence Regiment is a locally recruited, part-time force designed to support the regular forces in their security tasks in Northern Ireland.

Royal Air Force The Royal Air Force Reserve consists of former regular officers and personnel with a reserve liability, and the Royal Air Force Volunteer Reserve, which includes the 16 university air squadrons. The Royal Auxiliary Air Force consists of maritime headquarter units which would support regular formations in an emergency.

CIVIL DEFENCE Civil defence arrangements are principally based on the extended and adapted use of existing public services operated by nationalised industries, by local authorities, police authorities and government departments. Supplementary effort from individual volunteers and voluntary organisations would be brought in either at the discretion of local authorities or in response to a national appeal

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in time of crisis. A central point of recent policy has been to improve the preparedness of local government to meet a war emergency; there is much common ground between such planning and the preparations and organisation for a major peace-time emergency or national disaster. Activities have therefore also been directed towards creating a closer relationship in local planning for the different emergencies of peace and war.

Within an annual budget of f_{12} million emphasis is placed on a high level of central and local government planning. Studies and seminars are arranged by the Home Office on staff college lines.

Arrangements also include an emergency system for decentralised governmental control and communications. The United Kingdom Warning and Monitoring Organisation, including the civilian Royal Observer Corps, is organised to provide public warning of an attack, of the location and power of nuclear explosions, and of the distribution and level of radioactive fall-out.

DEFENCE PROCUREMENT

Responsibility for the procurement (that is, research, development and production) of defence equipment, including aircraft, ships, ordnance, guided weapons and electronics, lies with the Procurement Executive within the Ministry of Defence. The Executive was set up in August 1971 following a reorganisation of the departments responsible for defence procurement and civil aerospace. The main objectives of the reorganisation have been to establish a closer liaison between the Service users and the machinery for procurement, closer co-ordination with industry in the formulation of programmes, and stronger and more accountable management, so ensuring a co-ordinated and cost-effective approach.

Research and Development The major part of research is undertaken by the Ministry of Defence's research and development establishments, but the Ministry also sponsors a substantial amount of research by industry and the universities. The research and development establishments have a very wide technological capability, which has civil as well as military applications: for example, support is given to civil aerospace projects such as *Concorde* and advanced aero-engines. On the development side, the establishments collaborate closely with the Ministry's contractors by monitoring their progress, assisting in testing programmes, and in solving particular technical problems.

Modern defence equipment is becoming ever more complex, and its development requires a high initial investment; in 1975-76 the total cost of British equipment research and development is estimated at £554 million. The search for a more efficient use of these resources has caused attention to be concentrated on collaborative projects, which enable the cost of development and production to be shared. On occasions, the outright purchase of foreign equipment is the most economical solution. Nevertheless, the importance of maintaining a sound national industrial base for defence procurement is recognised, and there is close consultation between government and industry both in the National Defence Industries Council and through other specialised machinery.

Collaboration between Britain and European countries is already extensive, and may be expected to increase, particularly through the work of the Eurogroup (see p. 113). The most important single project, the multi-role combat aircraft, is being developed by Britain, Italy and the Federal Republic of Germany. A number of Anglo-French projects—the *Jaguar* aircraft, the Martel air-to-surface missile, the Puma and Gazelle helicopters—are reaching completion, and the Lynx helicopter is well advanced. Britain, the Federal Republic of Germany and Italy are collaborating in the development of 155mm towed and self-propelled howitzers, while Britain and the Federal Republic are studying the possible collaborative development of a future main battle tank. Britain and Belgium are partners in a programme for the development and production of a family of tracked combat reconnaissance vehicles.

Britain has also co-operated with Australia on the Ikara anti-submarine equipment.

Equipment collaboration also facilitates joint logistic support and training arrangements, like those being discussed between Britain and four other European countries who have agreed to purchase the *Lance* surface-to-surface missile system from the United States.

National Projects A considerable number of projects, covering all the main equipment areas, are under development. They include the Hawk jet trainer, the Rapier low-level surface-to-air guided weapon system, the Sea Wolf short-range surface-to-air guided missile, navigation and attack systems for aircraft, radar, sonar and communications systems, the anti-submarine cruiser, and a new range of logistic vehicles for battlefield support.

ProductionFollowing the development of defence equipment, either nationally or in
co-operation with allies, production is usually undertaken by private industry
on a contract basis or by the Royal Ordnance Factories and Royal Dockyards.
Production may also be undertaken on a collaborative basis. The Defence
Sales organisation provides support, assistance and advice to British industry
and the Royal Ordnance Factories in promoting the sales of defence equip-
ment overseas. In 1975–76 the value of exports of British defence equipment
is expected to be in excess of \pounds 560 million.

6 Social Welfare

STATE AND VOLUNTARY SERVICES

Central and local government are responsible for a wide range of health and social services. Central government is responsible directly for social security, including family allowances, national insurance and financial help to those in special need. It is also responsible for all health services and the health authorities and boards which administer these services are its agents. It has a certain overall indirect responsibility for many local authority services. Local authorities are directly responsible for education (see Chapter 7) and housing (see Chapter 9) and for a variety of personal social services (all described in this chapter). They also have certain responsibilities regarding environmental health. Public expenditure on health and personal social services is given on pp. 360–1.

The publicly provided services are supplemented by those provided by voluntary organisations and by individual volunteers. Voluntary organisations, especially the Churches, were the pioneers of nearly all the social services. They provided schools, hospitals, clinics, dispensaries, and social and recreational clubs before these were provided by the state. They made themselves responsible for the welfare of the very young and the very old, the homeless and the handicapped. Gradually the state accepted the primary responsibility for the major services, supplementing the voluntary services and developing a comprehensive structure that ensured a minimum standard of living and well-being for all citizens.

State and voluntary social services are now complementary and co-operative. Both central and local authorities make grants to the voluntary agencies. Public authorities plan and carry out their duties taking account of the voluntary help available and co-operating with the voluntary agencies, which have specialised in meeting particular needs, while the residential provision made by public authorities for the care of children, the chronic sick, the mentally ill or handicapped, the disabled and the aged is supplemented by voluntary homes of various types.

In England and Wales the Charity Commission, a government department, gives free advice to trustees of charities, making schemes to modify their purposes or facilitate their administration when necessary; it maintains central and local registers of charities which are open to public inspection; and it investigates and checks abuses, though it has no power to act in the administration of a charity.

Co-ordination of government interests in voluntary social service is the responsibility of the Home Office in England and Wales and of the Scottish Office in Scotland. The Volunteer Centre, a national centre for information and research on voluntary work, was established in London in 1973 with the aid of a government grant. Its initial focus is on the health and social services.

Voluntary Organisations

The number of voluntary organisations in Britain runs into thousands; they range from national organisations to small individual local groups. Most organisations, however, are members of larger associations or are represented on local or national co-ordinating councils or committees. Some are chiefly concerned with giving personal service, others in the formation of public opinion and exchange of information.

Organisations concerned with personal and family problems include the voluntary family casework agencies like the Family Welfare Association, Family Service Units, and the National Society for the Prevention of Cruelty to Children; marriage guidance centres affiliated to the National Marriage Guidance Council; the National Council of Voluntary Child Care Organisations; the National Council for One-Parent Families; and the Samaritans, who help people near to committing suicide.

Community service of many kinds is given by young people, particularly those belonging to a number of national and local organisations, for example, the Young Volunteer Force Foundation, Community Service Volunteers, Task Force, Scouts, Girl Guides and school groups.

Voluntary service to the sick and disabled in general is given by—among others—the British Red Cross Society, the St. John Ambulance Association and Brigade, the Women's Royal Voluntary Service and the Leagues of Hospital Friends, but a number of societies exist to help people with particular disabilities and difficulties. Such societies, some of which are constituent members of the Central Council for the Disabled, include the Royal National Institute for the Blind, the Royal National Institute for the Deaf, MIND (National Association for Mental Health), the National Society for Mentally Handicapped Children, the Spastics Society, Alcoholics Anonymous, Age Concern, Help the Aged and their Scottish equivalents.

Bodies working on a national scale whose work is specifically religious in inspiration include the Salvation Army, the Church Army, Toc H, the Committee on Social Service of the Church of Scotland, the Church of England Children's Society, the Church of England Council for Social Work, the Young Men's Christian Association, the Young Women's Christian Association, the Society of Friends, the Catholic Marriage Advisory Council and the Jewish Welfare Board.

A wide range of voluntary personal service is given by the Women's Royal Voluntary Service, which gives help in every kind of practical difficulty, brings 'meals on wheels' to housebound invalids and old people, provides flatlets and residential clubs for the elderly, helps with family problems and assists in hospitals and clinics, as well as doing relief work in emergencies.

The main voluntary body in England and Wales providing central links between voluntary organisations and official bodies concerned with social service is the National Council of Social Service, which brings together most of the principal voluntary agencies for consultation and joint action, either as a whole or in groups of those concerned with particular aspects, such as youth work or work among the handicapped. There are also the Scottish Council of Social Service and the Northern Ireland Council of Social Service, which perform similar functions. The Citizens' Advice Bureaux, of which there are now some 670 in Britain, are steadily increasing in number. The primary role of the bureaux is to give explanation and advice to the citizen who is in doubt about his rights or who does not know about the state or voluntary services which could help him.

URBAN PROGRAMME

A four-year urban programme providing for government-aided local authority expenditure was launched in 1968 to assist areas of special social need, in particular to relieve problems resulting from overcrowding, inadequate

SOCIAL WELFARE

housing and schools and other forms of deprivation. In 1970 the programme was extended to 1976 with total expenditure for the period 1968–76 of £60 million to £65 million. Projects approved include advice and information centres, community centres, language teaching schools for immigrants and other educational projects, nursery and day centres, schemes to train child minders, schemes for old people, summer holiday schemes for deprived children and schemes to assist maltreated women ('battered wives'). A particular aim of the programme is to support the work of voluntary bodies.

An experiment in community development is also being undertaken by the Government in ten areas, mainly situated in declining inner city districts. Local projects comprise action and research teams who analyse the needs of their areas, co-operate with statutory and voluntary agencies in promoting experimental programmes, encourage participation by local residents, and make recommendations for changes in policy and administration where appropriate.

SOCIAL SECURITY

National insurance, industrial injuries insurance, family allowances, family income supplements and supplementary benefits together with (in a special category) war pensions constitute a comprehensive system of social security in the United Kingdom.

The Department of Health and Social Security administers these services in Great Britain; within the department, the Supplementary Benefits Commission is responsible for the system of supplementary benefits. In Northern Ireland the first five of these schemes are administered by the Department of Health and Social Services which contains the Supplementary Benefits Commission for Northern Ireland. Pensions and welfare services for war pensioners and their dependants are the responsibility of the Department of Health and Social Security throughout the United Kingdom. Appeals relating to claims for the various benefits are decided by independent authorities.

Although the development of public provision for social security in Britain can be traced back for several centuries (one major early statute was the 1601 Poor Relief Act in England and Wales), the modern social security system is a creation of the twentieth century. In 1908 non-contributory old age pensions were introduced and the first contributory pensions for old people, widows and orphans came in 1926. A contributory scheme of health and unemployment insurance was passed by Parliament in 1911, unemployment insurance being extended in 1920 to cover the great majority of employees. Although Britain's social security provision was among the best in the world by the beginning of the second world war, it lacked co-ordination because of its piecemeal development and not everyone came within its scope.

In the immediate postwar years a series of Acts established the main features of a comprehensive social security system which became operative (together with a National Health Service) in July 1948. In 1961 an earnings-related supplement to retirement pension was started, based on graduated contributions, and this principle was extended in 1966 to unemployment and sickness benefit; in April 1975 the supplement became payable with maternity allowance. In the 1970s new benefits were added including pensions for elderly people who were over pension age when the national insurance scheme started, pensions for widows aged between 40 and 50 when widowed or when entitlement to widowed mother's allowance ended and old persons' pensions payable to persons aged 80 and over.

Increased provision has been made for the chronic sick and disabled; in 1971 an invalidity pension was introduced for those who had received sickness benefit for six months with an additional invalidity allowance for people becoming chronically sick more than five years before retirement age. This was followed in the same year by an attendance allowance for severely disabled people needing attention or supervision by day and at night, the scheme being extended in 1973 with a lower rate for those needing attendance by day or at night. Social security provision was extended to further groups of disabled people by the Social Security Benefits Act 1975. Statutory provision for the war disabled goes back to the end of the sixteenth century, but the main lines of the present war pensions scheme were laid down during the first world war with further developments during and after the second world war.

Family allowances and national insurance benefits or allowances, other than maternity, unemployment, sickness, invalidity, injury or disablement benefit, are included in the taxable income on which income tax is assessed. On the other hand various income tax reliefs and exemptions are allowed on account of age or liability for the support of dependants. Family income supplement, attendance allowances and war disablement pensions are not taxable.

Types of Benefit There are three kinds of social security benefit: those paid in return for contributions to the national insurance scheme (for example, retirement pensions, sickness and unemployment benefits, maternity benefits, widows' benefits and industrial injuries benefits); non-contributory benefits paid to certain groups of people regardless of income (for example, family allowances, attendance allowances and old persons' pensions); and supplementary benefit (also non-contributory) for people not in full-time work with incomes below specified levels. Family income supplement is payable to low wage earners with children to support.

NATIONAL INSURANCE

The Social Security Acts apply, in general, to everyone over minimum school-leaving age living in Great Britain. There are similar schemes in Northern Ireland and the Isle of Man.

The national insurance scheme provides benefits in specified contingencies where contribution conditions have been fulfilled. The benefits are paid for partly by contributions from individuals, partly by contributions of employers in respect of their employees, and partly by a contribution made by the Treasury out of general taxation.

Under the new contribution arrangements which came into force in April Contributors and 1975, there are four classes of national insurance contribution. Class 1 is paid Contributions by employed people, Classes 2 and 4 by self-employed people, and Class 3 by voluntary contributors. The Class I contribution (which includes a small contribution towards the cost of the National Health Service) is earningsrelated and amounts to 5.5 per cent of earnings up to $\pounds 69$ a week provided that these are at least f_{II} a week. The employer's contribution per employee is 8.5 per cent over the same earnings range. Married women and most widows (if employed) can pay full contributions or may opt to pay 2 per cent. If they pay the lower contribution they rely on their husband's (or late husband's) insurance for maternity grant, retirement pension (at a lower rate), widow's benefit and death grant. The contributions are deducted at source through the 'Pay as You Earn' income tax system. Table 6 below shows examples of contributions payable.

TABLE 6 Weekly Contributions

| Weekly earnings | Employee's | Employer's |
|----------------------|------------|------------|
| £ | f. | 1 |
| 11 | 0.62 | 0.96 |
| 23 | 1.28 | 1.98 |
| 46 | 2.54 | 3.93 |
| 23 46 62 69 | 3.42 | 5.29 |
| 69 | 3.79 | 5.86 |

The self-employed pay a flat-rate Class 2 contribution of $\pounds 2.41$ a week ($\pounds 2.10$ for women) and, in addition, may have to pay a Class 4 contribution amounting to 8 per cent of net profits or gains between $\pounds 1,600$ and $\pounds 3,600$ a year. Selfemployed married women and widows must pay any Class 4 contribution due but they have a choice whether or not to pay a Class 2 contribution.

There is also a Class 3 flat-rate contribution of $\pounds_{1.90}$ paid voluntarily by employed earners or others who wish to complete a contribution record to safeguard entitlement to retirement pension and a limited range of other benefits. Class 2 and Class 3 contributions are paid by means of stamps bought from a post office which are affixed to a national insurance contribution card or by direct debit of a bank or National Giro account.

Certain people are excepted from paying contributions. An employed person ceases to be liable for contributions at the age of 70 for a man and 65 for a woman, or when he retires after reaching pensionable age (65 for a man and 60 for a woman). Self-employed people with earnings below a certain level may seek exception from contributions.

The graduated pension scheme initiated in 1961 ceased to operate from April 1975 but entitlement to pension on the basis of contributions paid between 1961 and April 1975 remains.

Benefits

The national insurance scheme provides payments to contributors in the event of unemployment (if normally working for an employer), sickness (if normally working for an employer or self-employed), and confinement and the weeks immediately before and after (for women normally working for an employer or self-employed and paying national insurance contributions at the full rate). Retirement pensions are paid to people who have reached 65 (60 for women) if they have retired from regular work and from the age of 70 (65 for women) even if they continue to work; people aged 80 and over who have not participated in the scheme are eligible for an old person's pension. Widows normally receive benefit in the first 26 weeks after bereavement and subsequently while they have young children or if they have reached the age of 40 when widowed or before their children have grown up; and there are two kinds of allowance in respect of orphan children where a widow's pension is not payable. The scheme also provides lump-sum cash grants for two expensive contingencies-the birth of a child and a death. The benefit rates shown below are applicable from 17th November 1975.

For most of the benefits there are two contribution conditions. First, before benefit can be paid at all, a minimum number of contributions must actually have been paid since entry into insurance; secondly, the full rate of benefit cannot be paid unless a specified number of contributions have been paid or credited over a specified period. There are special rules to help a widow who does not become entitled to a widow's pension at widowhood or when her children have grown up, to qualify for sickness or unemployment benefit in the period before she can have established or re-established herself in insurance through her own contributions; there are also provisions to help a divorced woman who was not paying contributions during her marriage.

| | Beneficiary | Wife or other adult dependant | Each child (inclusive of family allowances) |
|--|-------------|-------------------------------------|--|
| | £, | £ | £ |
| Invalidity, widow's and retire- ment pensions and widowed | | = 00 | 6.50 |
| mother's allowance Unemployment and sickness | 13.30 | 7.90 | 6.50 |
| benefit ^a | 11.10 | 6.90 | 3.50 |
| Widow's allowance (first 26 weeks of widowhood) | 18.60 | | 6.50 |
| Industrial injury benefit | 13.85 | 6.90 | 3.50 |
| Disablement benefit (100 per cent) | 21.80 | | |
| Attendance allowance: higher rate | 10.60 | | |
| lower rate | 7.10 | | |

TABLE 7. Some Principal Standard Benefits

a An insured married woman under 60 gets £7.80

Amounts

The standard flat-rate benefit for single men and women is £11.10 a week for unemployment or sickness, while for invalidity, widows' and retirement pensions it is £,13.30. Benefit, other than invalidity pension for those under retirement pension age, may be reduced if insufficient contributions have been paid, but is not affected by other unearned income or the previous level of earnings. Earnings received while the benefit is in payment, however, may cause its reduction or withdrawal: unemployment benefit cannot be paid to a person earning more than a specified amount from a subsidiary occupation; retirement pensioners under the age of 70 (65 for women) have their pensions reduced in step with earnings over certain specified amounts; sickness and invalidity benefits, though not affected by continued payment of wages during illness, are not normally payable to a person doing any actual work. Widows' benefits, however, are not affected by earnings. Exceptions to the basic flat rates are the higher rate of £18.60 a week payable to widows during the first 26 weeks after bereavement, the increased retirement pension earned by someone who has continued at work and paid contributions beyond minimum pension age and the invalidity allowance paid in addition to invalidity pension to people becoming chronically sick more than five years before pension age; and the lower rate of $f_{.7}$.80 a week unemployment or sickness benefit payable to married women who pay contributions and the rates for widows between 40 and 50 which reduce on a scale to $f_{3.99}$ a week for a woman aged 40 at the date of entitlement. The rate at which invalidity allowance is payable depends upon the age at which incapacity begins; it ranges between £0.85 and $f_{,2}\cdot 80$.

Additions to benefits are payable for dependants. For invalidity and retirement pensions the additions are $\pounds_{7,90}$ for a wife or other adult dependant and, for these pensions and for widow's benefit, $\pounds_{6,50}$ for each child inclusive of family allowances. For other benefits the additions are less— $\pounds_{6,90}$ for an adult and $\pounds_{3,50}$ for each child, inclusive of family allowances.

A guardian's allowance of $\pounds 6.50$ a week is payable to a person who has in his or her family a child who has lost both parents, one of whom was insured under the Social Security Acts. The allowance can sometimes be paid on the death of one parent. For certain fatherless children there is a child's special allowance also of $\pounds 6.50$ a week inclusive of family allowances; this is payable to a woman whose marriage has been dissolved or annulled and who has not remarried, if her former husband dies and she has a child to whose support he was contributing before he died.

The graduated addition to retirement pension is at the rate of $\pounds 0.02\frac{1}{2}$ a week for each $\pounds 7.50$ of all graduated contributions paid by a man and for each $\pounds 9$ of such graduated contributions paid by a woman between 1961 and April 1975 (with, in each case, the matching amount of graduated contribution coming from the employer). The earnings-related supplements to flat-rate unemployment and sickness benefits and maternity allowance amount to one-third of that part of a person's average weekly earnings between $\pounds 10$ and $\pounds 30$ and 15 per cent of that part between $\pounds 30$ and $\pounds 54$ but the supplements cannot raise the total benefit, including increases for dependants, beyond 85 per cent of the average weekly earnings on which the supplement is based. An earnings-related addition based on the late husband's earnings may also be paid with the widow's allowance to widows under 60 at widowhood or to widows whose husbands were not entitled to a retirement pension at time of death.

A £25 maternity grant is payable for a confinement and a further £25 for each additional child born at the same confinement living 12 hours after birth; while a £30 death grant is payable on the death of an adult insured person or certain close relatives of the insured person (less for a child, or for an adult who was within ten years of minimum pension age when the scheme started). In general, national insurance payments are paid as long as the situation requiring them lasts. However, unemployment benefit is payable for a maximum of one year. The earnings-related supplement to unemployment and sickness benefit is paid for a maximum of six months starting from the thirteenth day of unemployment or incapacity for work. Maternity allowance (£11·10 a week) normally begins 11 weeks before the expected week of confinement and ends six weeks after the expected week or the actual confinement if this is later.

Similarly, a widowed mother's allowance at the full rate ceases when her children are no longer dependent on her, though a widow can continue to receive $\pounds_{13,30}$ a week for herself while she has living with her a son or daughter under 19. The widow's pension payable to the childless widow, provided she is 40 or over at the time of being widowed, or the similar pension payable to the widowed mother who has reached 40 before her widowed mother's allowance ends, normally continues until she has reached minimum pension age (provided she does not remarry before that age) and retired, or at most till the age of 65. On retirement she receives a pension at a rate not lower than her widow's pension.

NATIONAL INSURANCE (INDUSTRIAL INJURIES) The industrial injuries insurance scheme, which, in 1948, replaced the workmen's compensation scheme (first introduced by the Workmen's Compensation Act of 1897), provides benefits for personal injuries caused by accidents arising out of, and in the course of, employment, and for prescribed diseases due to the nature of employment. It covers practically everyone liable to pay Class 1 contributions and certain others. Before April 1975 industrial injuries benefit was paid from a fund separate from the national insurance fund. In

April both funds were amalgamated. There are therefore no separate contributions for industrial injuries benefit.

Benefits Injury Benefit Injury benefit for an adult is \pounds_{13} .85 a week plus $\pounds_{6.90}$ for an adult dependant, and $\pounds_{3.50}$ for each child inclusive of family allowances. It is paid when the insured person is incapable of work as a result of an industrial accident or prescribed disease, and payment can continue for a maximum of 26 weeks beginning on the date of the accident or development of the disease. A person entitled to sickness benefit who draws injury benefit instead, also receives any earnings-related supplement (see p. 129) to which he is entitled.

Disablement Benefit Disablement benefit may be paid (but not at the same time as injury benefit) when, as the result of industrial accident or prescribed disease, there is a loss of physical or mental faculty. The amount depends on the extent of the disablement as assessed by a medical board; it varies from f_{21} .80 for 100 per cent disablement to f_{4} .36 a week for 20 per cent disablement, but for disablement of less than 20 per cent a gratuity is normally paid.

In certain circumstances disablement benefit may be supplemented as follows: unemployability supplement, at the weekly rate of £13.30; constant attendance allowance of up to £8.70 weekly normally, or a special rate of £13.05 or £17.40 a week in exceptionally severe cases; an allowance of £8.70 a week for exceptionally severe disablement; a special hardship allowance of up to £8.72 for a person who is unfit to return to his regular job or to do work of an equivalent standard; and hospital treatment allowance which raises the benefit to that for a 100 per cent assessment during hospital treatment for the industrial disability. Increases of disablement pension for dependants are payable with unemployability supplement. People receiving unemployability supplement may also receive an additional allowance similar to invalidity allowance (see p. 128).

If the accident or disease results in the insured person's death, death benefit may be paid to the dependants.

For a widow a pension of £18.60 a week is payable for the first 26 weeks of widowhood. In addition she receives any earnings-related supplement (see p. 129) that would have been paid had she claimed widow's allowance under the main national insurance scheme. Thereafter, the widow can receive a pension of £13.85 a week if she was aged 50 at the date of her husband's death, or has dependent children or other special needs; otherwise she receives £3.99 a week. If she had been living apart from her husband, a pension is payable only if she was receiving or entitled to receive at least £0.25 a week for her maintenance from him.

In addition allowances are paid for children under the family allowances age limits at the higher rate of $\pounds 6.50$ to widows but at the lower rate of $\pounds 3.50$ for other beneficiaries.

Certain other dependants, such as parents and other relatives, may be entitled to pensions, allowances or gratuities.

Family allowances are provided in Great Britain under the Family Allowances Act 1965 (which consolidated the Acts of 1945–64) and in Northern Ireland by separate legislation. They are paid in Great Britain to about 4.4 million families with over 6.9 million children and in Northern Ireland to some 142,000 families. The rate of the allowance is £1.50 for each child in a family other than the first. They are payable to families with two or more

Death Benefits for Dependants

NON-CONTRIBU-TORY BENEFITS Family Allowances

children who are under minimum school-leaving age (or under 19 and either in full-time education or apprentices with low earnings).

Allowances are paid from the Treasury and their object is to benefit the family as a whole; they may be drawn by the wife or husband but they belong in law to the wife who must claim them. Although the allowances are noncontributory, there are certain residence conditions.

A pension of £5.15 for a married woman and £8.15 for any other person

(including an age addition of £0.25) is payable (subject to conditions of residence in Britain) to people over 80 years old who were excluded from

Old Persons' Pensions

Benefits for **Disabled** People

the national insurance scheme when it started or who failed to qualify for a retirement pension or qualified for one at a lower rate. An attendance allowance of $f_{10.60}$ a week is paid to severely disabled people requiring a great deal of attention from another person by day and at night.

A lower rate of £,7.10 may be paid to those who need help either by day or night. Other non-contributory benefits for the disabled are being introduced. In November 1975 a new invalidity pension of $f_{.7,90}$ becomes payable to people

of working age unable to work and not qualifying for the national insurance invalidity pension because they had not paid sufficient contributions. The Government is also to extend this benefit to disabled housewives who are incapable of work and unable to perform their normal household tasks.

Another allowance to be introduced is a weekly invalidity care allowance for those people who cannot go out to work because they are caring for a severely disabled relative receiving an attendance allowance. It is hoped to introduce it in 1976-77. In addition the Government is proposing the introduction (over a three-year period from 1976) of a mobility allowance for severely disabled people (aged between 5 and 65) who are unable, or virtually unable, to walk. This will assist all severely disabled people in their transport costs as under the present system only certain classes of disabled people able to drive a vehicle receive transport help in the form either of a car or threewheeled vehicle or an allowance towards the cost of running a private car.

BENEFITS

SUPPLEMENTARY The Supplementary Benefits Act 1966 provides for a scheme of supplementary benefits which is administered by a Supplementary Benefits Commission within the Department of Health and Social Security. There is a similar commission in Northern Ireland.

Every person in Great Britain aged 16 or over who is not in full-time work, attending school or involved in a trade dispute and whose resources are insufficient to meet his requirements is entitled to a supplementary benefit. The benefit takes the form of a supplementary allowance for people under the minimum retirement age, and a supplementary pension for those over. The benefit is the amount by which a person's requirements exceed his available resources, both being defined by rules laid down by the Act. The calculation of requirements is based on different amounts for single people and family groups (for blind people there are special higher amounts) with, in each case, an addition for rent. For the old and most other long-term cases a higher longterm scale rate is payable. Where there are exceptional circumstances, extra help may be given through an addition to the weekly benefit. A single payment of benefit may be made to meet an exceptional need. Available resources include certain income and capital; the main national insurance and industrial injury benefits, family allowances, family income supplement and maintenance

payments from a husband or the father of the claimant's children are taken into account in full but some part of most other resources is disregarded.

The payment of a supplementary allowance in the case of an able-bodied person of working age may be conditional on registering for employment at a local office of the Employment Service Agency.

The Supplementary Benefits Commission also has a duty to influence people without a settled way of living to lead a more normal life. The commission provides temporary accommodation for them in 23 reception centres, three of which are administered by local authorities on behalf of the commission. For men who have been unemployed for long periods and who are receiving supplementary allowances or are using reception centres, it runs 15 reestablishment centres, three of which have residential accommodation where they are given help to fit them again for work.

FAMILY INCOME SUPPLEMENT Family Income Supplement provides a cash benefit for families (including single parents) with small incomes where the head of the family is in full-time work and there is at least one dependent child. It is payable when the gross weekly income of a family falls below a prescribed amount, fixed at $\pounds_{31.50}$ a week where there is one child plus $\pounds_{3.50}$ for each additional child. The weekly rate of the supplement is half the difference between the family's income and the prescribed amount up to a maximum of \pounds_7 for a one-child family and this is increased by $\pounds_{0.50}$ for each additional child.

WAR PENSIONS AND RELATED SERVICES Pensions and allowances for people disabled or bereaved through war or service in the Forces since the second world war are paid under Royal Warrants and other instruments administered by the Department of Health and Social Security.

The current basic pension for 100 per cent disablement for a private soldier is $\pounds 21.80$ a week, but the amount varies according to rank and the degree of disablement. The latter is assessed by comparing the condition of the person disabled by service with that of a normal healthy person of the same age and sex. Allowances for a wife and children are paid in addition to the basic pension. There is a wide range of supplementary allowances, the main ones being for unemployability ($\pounds 14.20$ a week), constant attendance (up to $\pounds 8.70$ and, exceptionally, $\pounds 17.40$ a week), comforts ($\pounds 3.70$ or $\pounds 1.85$ a week), and lowered standard of occupation (up to $\pounds 8.72$ a week). An additional allowance of $\pounds 8.70$ or $\pounds 4.35$ according to the severity of the disablement is payable to war pensioners who are receiving constant attendance allowance at a rate above the normal maximum. An age allowance (between $\pounds 1.60$ and $\pounds 4.80$ a week) is payable to disablement pensioners who are aged 65 or over and whose assessment is 40 per cent or more.

Both the basic disablement pension and the supplementary allowances are free of income tax.

Pensions are also paid to war widows and war orphans. The standard rate of pension for widows of private soldiers is $\pounds 17.20$ a week, with additional allowances for their children and, in certain cases, a rent allowance (up to $\pounds 6.70$ a week). There is an additional allowance of $\pounds 1.70$ for widows aged 65 which is increased to $\pounds 3.40$ at the age of 70. Parents or other relatives who were dependent on a person whose death resulted from service in the Forces may receive pensions if they are in financial need.

The Department of Health and Social Security maintains a welfare service for war pensioners and war orphans which is available to help any who require advice or assistance. War pensioners have priority for treatment of their war

disablements in National Health Service hospitals subject only to needs of emergency and other urgent cases.

Many voluntary associations and ex-Service organisations give financial aid and personal service to disabled ex-Service men and women and their families. The department's welfare officers work in close co-operation with these and other statutory bodies.

AGREEMENTS WITH OTHER COUNTRIES

The European Community Regulations on social security, framed to protect the benefit rights of people moving within the Community, apply to employed workers (and to pensioners who were employed workers) who are nationals of any of the Community countries or of Gibraltar. People covered by these regulations are entitled to benefit under the social security arrangements of any Community country, including Gibraltar, where they are working or visiting, on the same basis as nationals of that country. There are also bilateral reciprocal arrangements which apply, between the United Kingdom and other member states of the European Community individually, to self-employed and non-employed people who are outside the scope of the European Community Regulations. Reciprocal agreements on industrial injuries, family allowances and most national insurance benefits are in operation with Austria, Finland, Jersey and Guernsey, Norway, Spain, Sweden, Switzerland and Yugoslavia. Agreements with Cyprus, Israel, Malta, and Turkey cover industrial injuries and most insurance benefits. With Australia and New Zealand there are agreements on family allowances and most national insurance benefits. There are limited agreements with Bermuda, Canada, Jamaica and the United States. The Isle of Man is party to most of the bilateral agreements with other countries and Jersey and Guernsey to a few; neither the nationals of these areas nor their social security schemes are covered by European Community regulations. The social security and family allowance schemes of Great Britain and Northern Ireland operate as a single system.

HEALTH AND PERSONAL SOCIAL SERVICES

The concern of the state with the nation's health is chiefly a development of the years since the passing of the Public Health Act of 1848. The second half of the nineteenth century was notable for the growth of the environmental or public health services, such as provision of pure water, sewerage, disposal of refuse and cleaning of streets, and the first half of the twentieth century for the development of publicly provided personal health services, as distinct from environmental services, culminating in the introduction in 1948 of a comprehensive National Health Service available to every resident and to every visitor taken ill or meeting with an accident while in Britain. Reciprocal health agreements have been concluded between Britain and some other countries (see p. 142).

Scientific discoveries of importance to medicine and health, including the development of new drugs, and the improved services of the last 70 years, particularly in maternity and child health, school health services and school meals, are reflected in declining mortality rates (see p. 9) and improved physique. The infant mortality rate has almost halved since the National Health Service was inaugurated; this and the maternal death rate are among the lowest in the world. The health of children has steadily improved and emphasis is now placed on prevention or early detection of disease or disability. Deaths from such diseases as tuberculosis, poliomyelitis and diphtheria have fallen so markedly that they are no longer major health problems.

Diseases now in the forefront of research programmes include cancer and diseases of the central nervous system, such as muscular dystrophy. Efforts are also being made to combat some of the most prevalent diseases, which include, besides the common cold and influenza, bronchitis, rheumatism and arthritis, and heart diseases.

The Public Health Acts of 1936 and 1961 and the Health Services and Public Health Act 1968 constitute the present basic public health code in England and Wales. Local authorities (under the general direction of the Department of Health and Social Security or the Welsh Office and the Department of the Environment) have extensive powers for making and administering by-laws on matters of public health.

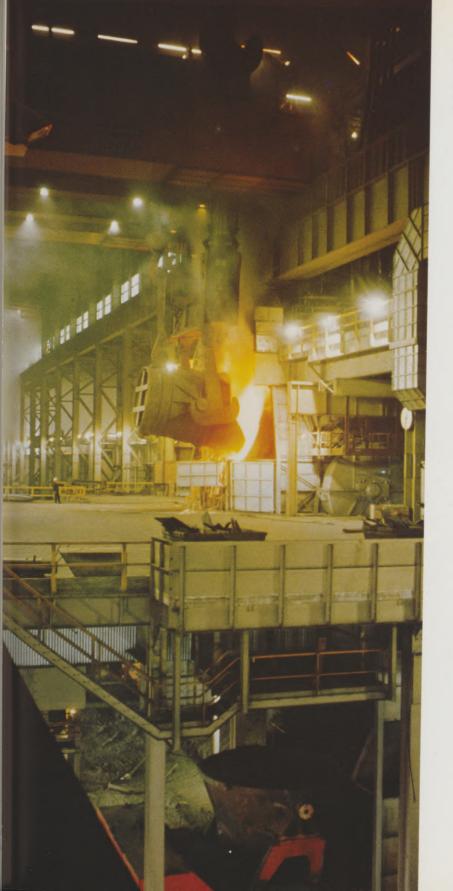
HEALTH SERVICE The general form of the organisation established in 1948 to administer the **ADMINISTRATION** National Health Service persisted until April 1974 when a major reorganisation took place. The health ministers—the Secretary of State for Social Services in England, and the Secretaries of State for Scotland and Wales—have a broad responsibility for all aspects of the health services in their respective countries, and a duty to make provision to meet all reasonable requirements for hospitals and other accommodation for health services; for medical, dental, nursing and ambulance services; for facilities for expectant and nursing mothers and young children; for facilities for the care and after-care of the sick; for the provision of a contraceptive service; and for any other services needed for prevention, treatment and diagnosis of illness.

The organisation responsible for the provision of these health services is three-tier in England, and two-tier in Scotland and Wales. Within each of the three countries the health departments (the Department of Health and Social Security in England, the Scottish Home and Health Department in Scotland, and the Welsh Office in Wales) are responsible for strategic planning, while area health authorities in England and Wales and health boards in Scotland, are responsible for area planning and operational control of all health services in their area. In England only, because of its greater size and population, there is an intermediate tier of regional authorities responsible for regional planning and certain central services.

There are 14 regional health authorities and 90 area health authorities in England, 8 area health authorities in Wales and 15 health boards in Scotland. They are all statutory agencies of central government and co-operate closely with local authorities responsible for social work, public health, education and other services. In general the areas covered by area health authorities and health boards correspond with those of the new major local authorities established in England and Wales in 1974 and in Scotland in May 1975.

Area authorities and health boards have wide discretion to determine the pattern of services best suited to their area, and most have deputed the day-today running of services to health districts which usually contain a district general hospital and have a population of between 150,000 and 300,000, though some are considerably larger.

The health authorities and boards consist mainly of unpaid part-time members. The chairmen and members of the regional authorities and health boards, and the chairmen of the area health authorities are appointed by the health minister concerned after consultation with professional, local authority, university and other interests. The members of the area health authorities are appointed by the regional health authorities in England, and the health ministers in Wales except for some members appointed by the corresponding local authorities, and at least one nominated by the university concerned. Area



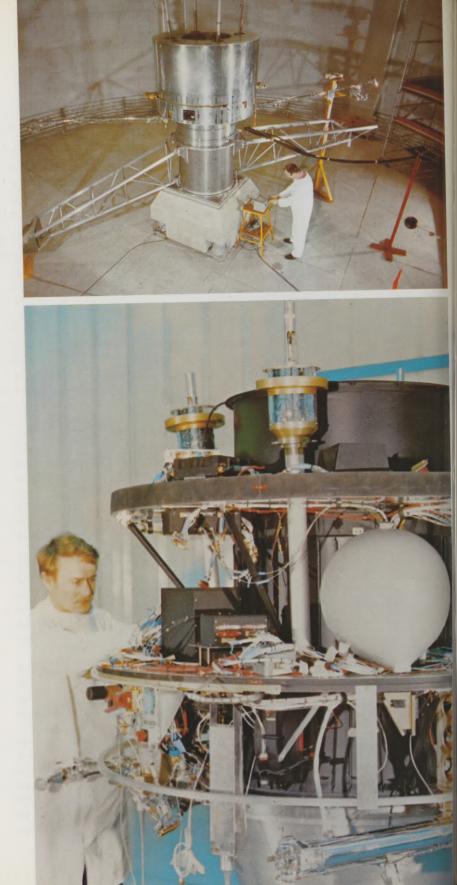
Industry

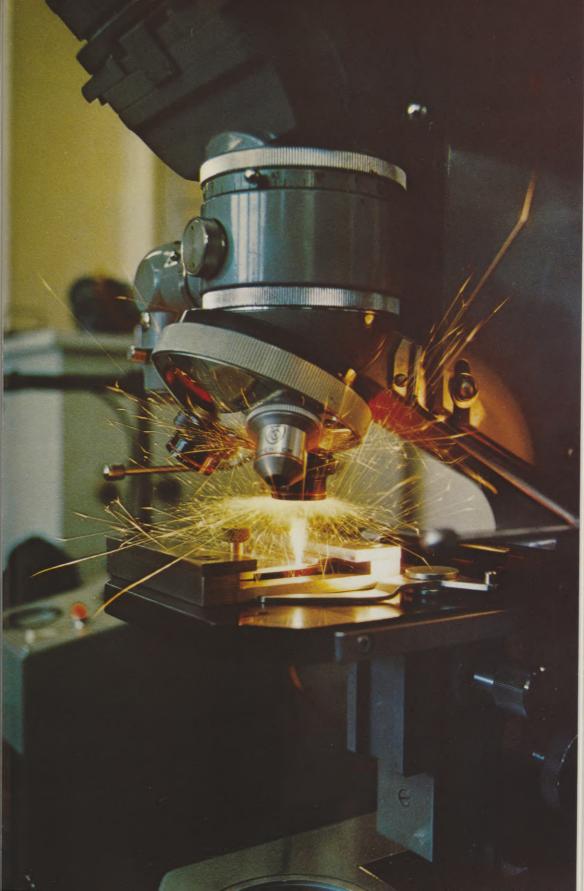
Charging hot metal into a 300-tonne converter in a basic oxygen steelmaking plant.

Technology

GEOS, Europe's first geostationary satellite, for probing the nature of the electric, magnetic and particle fields in the earth's atmosphere. It is being developed for the European Space Agency by a consortium of companies with a British firm as prime contractor.

Far right: Laser microwelder/driller piercing 1/16 inch (1.6 mm) steel plates.





Industry

Hybrid stepping motor, believed to be the smallest available.



The Isle of Grain refinery on the River Thames where consignments of North Sea oil come ashore.



authorities in areas containing a teaching hospital are known as area authorities (teaching) and in addition to two university nominees contain at least two members with experience of medical teaching.

Medical and dental schools are not under the control of the health ministers but it is their responsibility to provide hospital clinical facilities for the training of medical students. The universities are responsible for the provision of teaching.

There is statutory provision for professional advisory committees and the authorities have a duty to consult with these committees. At the national level the main standing advisory bodies are the Central Health Services Council in England and Wales, and the Scottish Health Service Planning Council in Scotland. In Scotland a Common Services Agency organises those services that can be provided most efficiently by one agency.

Public representation in the reorganised service for England and Wales is provided by district community health councils. These consist of about 20–30 members, half of them appointed by local government councils and the rest mainly on the nomination of voluntary bodies interested in local health services. They are not involved in management but act as a channel of communication between health authorities and the public.

In Scotland local health councils have been set up by the health boards to represent the interests of the public, and to report on questions relating to the health service in their area or district.

Health Service Commissioners

The three Health Service Commissioners (for England, for Scotland and for Wales) are statutory independent officers whose function is to investigate complaints from members of the public that they have suffered injustice or hardship as a result of failure in a service provided by a health authority, or failure to provide a service which it was its duty to provide, or maladministration. Health authorities include regional health authorities, area health authorities, boards of governors and family practitioner committees. Before the commissioner can investigate, the complaint must have been brought to the attention of the authority concerned, and an adequate opportunity given for it to investigate and reply. Matters which are outside his jurisdiction include action taken solely in the exercise of clinical judgment and the action of general practitioners and dentists in connection with their general medical and dental services; these, however, may be investigated under a separate procedure.

The commissioners report annually, and as they think fit, to the respective Secretaries of State who lay the reports before each House of Parliament. The terms of reference of the Select Committee on the Parliamentary Commissioner for Administration, who also holds the three posts of Health Service Commissioner, have been expanded to cover these reports (see p. 39). In Northern Ireland this function is covered by the Commissioner for Complaints (see p. 74).

PUBLIC HEALTH

The health authorities have general responsibility for the prevention of disease, and co-operate for this purpose with local, water and port authorities, which have certain specific powers of inspection and control. The local authorities mainly concerned are in England and Wales the district councils, the London borough councils and the City of London council; and in Scotland, new district and islands councils. District community physicians or community medicine specialists have been appointed with dual responsibilities to the health authorities and the local authorities, thus exercising both local government and health authority functions.

Control of Infectious Diseases and Food Poisoning Local authorities, under the new local government structure, have responsibilities and powers to investigate outbreaks of certain specific infectious diseases and of food poisoning, and to carry out disinfection and various other preventive measures. Most local authorities have appointed as their 'proper officer' to deal with infectious disease and food poisoning, a doctor who is a community physician or a community medicine specialist of the health authority, and as such has a general responsibility for the prevention and control of disease. The same arrangements also generally apply to the proper officers of the port authorities which supervise health control at seaports and airports, the primary object of which is to prevent the introduction of infectious disease into the country.

Immunisation

The area health authorities and health boards carry out planned programmes of vaccination and immunisation against diphtheria, measles, rubella (women and girls only), poliomyelitis, tetanus, tuberculosis and whooping cough. Such protection is given either in family doctors' surgeries, or in health centres or at child health centres (see p. 140).

Bacteriological and Virological Laboratory Services

The Public Health Laboratory Service provides a network of bacteriological and virological laboratories throughout England and Wales which conduct research and assist in the diagnosis, prevention and control of epidemic diseases. Its largest establishment is the Central Public Health Laboratory at Colindale, in north-west London, which includes the National Collection of Type Cultures, the Food Hygiene Laboratory, and reference laboratories specialising in the identification of infective micro-organisms.

In Scotland there is no separate public health laboratory service and bacteriological work is done mainly in hospital laboratories. In Northern Ireland a central public health laboratory shares the bacteriological work with hospital laboratories.

Pure Food

The composition, labelling and description of food, food hygiene and the safety and fitness of food are controlled by the Food and Drugs Act 1955 in England and Wales, by the Food and Drugs (Scotland) Act 1956 in Scotland and by the Food and Drugs Act (Northern Ireland) 1958 in Northern Ireland, and statutory regulations. In England and Wales the question of the composition, labelling and description of food are the concern of food and drugs authorities (county councils, London borough councils and the City of London council) and questions of food hygiene and the safety and fitness of food are the concern of district councils and port health authorities. The Department of Health and Social Security and the Ministry of Agriculture, Fisheries and Food are the central departments responsible for giving advice and making regulations. Premises where food or drink is prepared, handled, stored or sold must conform to certain hygienic standards. Authorised officers of the councils may take for analysis or for bacteriological or other examination samples of any food for sale for human consumption. There are special regulations for milk, meat and ice-cream.

In Scotland the local authorities chiefly concerned are regional and islands councils who are responsible for food standards and labelling, and district and islands councils who have responsibility for food hygiene. Environmental **Duties**

Local authorities are also responsible for other environmental functions including refuse collection, refuse disposal, control of pollution, and noise abatement.

Finance

Public expenditure on the health services in Britain was estimated at $f_{,4,570}$ million in 1974-75. Most of the cost falls on the Treasury while the rest is met from local rates, the national health service contribution paid with the national insurance contribution, and charges paid by people using certain services.

There are charges for prescriptions (except for children under 16 years, expectant and nursing mothers, women aged 60 and over and men aged 65 and over, patients suffering from certain medical conditions, war and Service disablement pensioners, and families with very low incomes, including those receiving supplementary benefits and family income supplement), for treatment in the dental service (but not for examination only or for treatment given to people under 21 years or women who are pregnant or have borne a child in the past year), for dentures (except for children under 16 or still at school, and women who are pregnant or have borne a child in the past year), for spectacles (except children's standard spectacles) and for certain other articles. Certain low income groups are exempt from dental and optical charges (those receiving supplementary benefit or family income supplement and those receiving free prescriptions or welfare foods).

A limited number of beds may be made available for hospital patients wishing for privacy, provided that this accommodation is not needed on medical grounds for non-paying patients; a charge for part of the cost of the accommodation is made. Provision is also made at certain hospitals for patients to be treated as private patients on payment of the whole cost of their accommodation and treatment but the Government is planning to phase out private pay beds in National Health Service hospitals. Such patients may make private arrangements for treatment by doctors of their own choice.

Hospital medical staffs are either full-time and salaried, or part-time; parttime medical officers are usually paid on a sessional basis and are free to accept private patients. General medical practitioners in the National Health Service are paid according to the number of patients on their list with adjustments to reflect differences in work and responsibility; certain practice expenses are also directly reimbursed.

Dentists providing treatment in their own surgeries are paid on a prescribed scale of fees according to the treatment they have carried out. Pharmacists dispensing on their own premises are paid on the basis of the prescriptions they dispense. Ophthalmic medical practitioners and ophthalmic opticians taking part in the general ophthalmic service are paid approved fees for each sight test made; opticians who dispense spectacles are paid according to the number and type of pairs supplied.

Primary health care, the front line of the personal health services, is in the HEALTH CARE hands of doctors, dentists, opticians and pharmacists working within the service as independent practitioners, and home nurses, midwives and health visitors employed by the health authorities.

Practitioner Services

PRIMARY

The family practitioner services cover the services given to individuals by doctors, dentists, opticians and pharmacists of their own choice from among those taking part in the service. They are administered by family practitioner committees established by the area health authorities.

Some 25,640 general medical practitioners (principals and assistants) in Great Britain take some part in the service. The maximum number of patients' names permitted to be on a family doctor's list is normally 3,500; the average number in Great Britain is about 2,400. It is normally through the patient's own family doctor that access to most other parts of the health service is obtained.

There are about 11,520 dentists in England and Wales and some 1,176 in Scotland in the general dental service.

Some 930 ophthalmic medical practitioners and over 6,080 ophthalmic and dispensing opticians in England and Wales, and about 70 ophthalmic medical practitioners and some 590 ophthalmic and dispensing opticians in Scotland are engaged in the general ophthalmic services. These services provide for the testing of sight and provision of spectacles. Patients requiring treatment are dealt with through the hospital eye service.

There are about 11,300 retail pharmacies under contract to the National Health Service in Great Britain. They are responsible for the dispensing of all prescriptions except for the small number dispensed by certain general medical practitioners and hospital pharmacies.

Home Nurses, Midwives and Health Visitors Health Visitors Health visitors, to meet the demand of patients. Home nurses, midwives and health visitors, to meet the demand of patients. Home nurses attend to people needing nursing in their homes or elsewhere outside hospitals. Midwives assist the family doctor at home confinements (about 6 per cent of all confinements), and care for mothers and babies (whether born at home or in hospital) for about 10 days after the birth. Health visitors are concerned with the health of the household as a whole, and have an important part to play in health education and preventive measures. They work in close co-operation with general medical practitioners, the paediatric and geriatric wards of hospitals and social workers.

Group Practices and Health Centres

Increasingly family doctors work as members of co-ordinated primary health care teams. About three-quarters of them are in partnership or group practices, and it is becoming more and more common for home nurses, midwives and health visitors to work from the larger premises established for such practices. About 15 per cent of doctors now work in health centres which are built and maintained by the health authorities and which provide modern and well-equipped accommodation for primary health care teams consisting of general practitioners and home nurses, midwives and health visitors. Services which may be provided at health centres include dentistry, chiropody, family planning, ante-natal care, pre-school, and school health and health education. Occasionally, when necessary, provision is made for general ophthalmic and pharmaceutical services. In some cases, a social worker is attached to or cooperates with the primary health care team. Out-patient facilities for local hospitals may also be provided.

There are nearly 700 health centres in operation in England and Wales and others are under construction or planned. In Scotland some 66 centres are in operation and 25 under construction with more planned.

HOSPITALS AND SPECIALIST SERVICES

The hospital and specialist services provide hospital accommodation of all kinds, including district general hospitals with treatment and diagnostic facilities for in-patients, day-patients and out-patients, hospital maternity departments, infectious disease units, psychiatric and geriatric facilities, rehabilitation facilities, convalescent homes and all forms of specialised

treatment. A number of specialist hospitals for mentally ill and mentally handicapped people are also provided. It is, however, planned to replace many of these by facilities in district general hospitals.

Hospitals

A large proportion of the hospitals in the National Health Service were built in the nineteenth century; some trace their origins to much earlier charitable foundations, such as the famous St. Thomas' and St. Bartholomew's Hospitals in London. Much has been done to improve and extend existing hospitals, some of which are housed in inconvenient buildings, and a number of new hospitals have been built.

There are about 2,500 NHS hospitals in England and Wales; they have some 421,000 beds and a nursing and midwifery staff of 207,655 full-time and about 131,450 part-time. There are 353 hospitals in Scotland with some 61,413 beds and nearly 31,326 full-time and 18,384 part-time nurses and midwives.

A small number of hospitals remain outside the service for special reasons. Some of these are run by religious orders. Some, such as the Italian and Jewish Hospitals, were set up to serve a special group of patients; others are maintained for the chronic sick or for convalescents by charitable organisations. Some treat NHS patients under special arrangements. There are also private nursing homes which must be registered.

Rehabilitation

Rehabilitation is an important aspect of medical care and today treatment is not limited to the relief of pain or cure of pathological conditions but aims at helping people to resume normal living as soon as possible. Rehabilitation has been applied with advantage in the care of many patients, including the younger disabled, the mentally ill and the aged and has enabled many patients to become self-sufficient and to resume an independent life in their own homes. Rehabilitation facilities are provided in the majority of hospitals and at special centres. The work is carried out by doctors, physiotherapists, remedial gymnasts and occupational therapists together with social workers acting as a team. The hospital departments work closely with the Disablement Resettlement Service of the Employment Service Agency.

Medical rehabilitation may include the provision, free of charge, of artificial limbs and eyes, hearing aids, surgical supports, invalid chairs, certain types of invalid vehicles, and other appliances. Very severely physically handicapped patients may be issued with electrical apparatus invented in Britain and known as POSSUM; this enables a person to operate up to 11 electrical devices such as alarm bells, radio and television, a telephone, and heating. The control is operated by means of a switch or sustained via a pneumatic tube with a pipe-stem mouthpiece. Nursing aids for the handicapped at home can be borrowed through the service.

Social work help, provided by local authority social service departments, is available to those hospital patients who have difficulties connected with their illness. Social workers help to solve social and emotional problems and are concerned with the rehabilitation and resettlement of patients especially where the illness has been long or where the disability results in changes in the patient's life.

The hospital service plays a major part in the treatment of drug dependence, providing treatment for both in-patients and out-patients either in specialised drug dependence units or as part of the general psychiatric service. Only doctors licensed for the purpose by the Home Secretary may prescribe heroin and cocaine to addicts in the treatment of addiction and all medical

Drug Dependence

practitioners are required to notify the Chief Medical Officer of the Home Office of any patient they consider to be addicted to certain controlled drugs.

Alcoholism Treatment is provided for alcoholics as part of the general psychiatric service. In addition a number of specialised hospital units have been set up. Closely linked with treatment are community services covering prevention, advice to alcoholics and their families, and rehabilitation including, where necessary, residential care.

Mothers and Children Special preventive health services, including free dental care, are available for expectant and nursing mothers and young children. Maternity and child health centres are provided either in health centres, purpose built or rented premises, or in mobile units. Special sessions are held for vaccination and immunisation and for early testing of babies for vision deficiencies or hearing loss. A feature of the service is the education of mothers before and after the birth by means of talks, discussion groups, demonstrations and classes.

About four-fifths of babies in their first year of life are taken to the centres. Family planning advice and help is provided at many maternity and child health centres and welfare foods (dried milk and vitamins) are distributed from them.

Whenever possible sick children are treated in their own homes, but for those that need hospital treatment many hospitals have children's departments under the oversight of paediatricians and specially trained nurses.

The school health service, now part of the National Health Service, comprises medical and dental inspection and treatment of school children, medical services connected with the education of handicapped children, school clinics to treat and advise on health problems of children of school age and child guidance clinics to give help and advice about children with mental or emotional problems. (In Scotland child guidance clinics are run by education authorities.)

Family Planning A free family planning service is provided to all irrespective of age, sex or marital status through National Health Service family planning clinics, hospitals and family doctors.

Abortion

The Abortion Act 1967, which came into force in Great Britain in 1968, permits the termination of a pregnancy by a registered medical practitioner if two registered medical practitioners are of the opinion that its continuance would involve risk to the life of the pregnant woman, or of injury to the physical or mental health of the pregnant woman or any children of her family greater than if the pregnancy were terminated, or if there is a substantial risk that if a child were born it would be seriously physically or mentally handicapped. Abortions may be carried out in National Health Service hospitals or in premises approved for the purpose by the Secretary of State concerned.

Blood Transfusion The National Blood Transfusion Service in England and Wales is administered by the new regional health authorities. Donors give their blood voluntarily without payment. There are two central laboratories administered by the Medical Research Council on behalf of the Department of Health and Social Security: the Blood Group Reference Laboratory, which prepares grouping serum and investigates blood grouping problems referred to it, and the Blood Products Laboratory, which prepares dried plasma and plasma fractions. In Scotland the Blood Transfusion Service is administered by the Common

Services Agency (see p. 135). In Northern Ireland the Blood Transfusion Service is operated by the Eastern Health and Social Services Board, which provides a service for all four health and social services boards.

A Chest Radiological Service, which is freely available, is provided by chest clinics and the radiological departments of general hospitals. The success of mass radiography units has been such that their work is being phased into the hospital radiography service. Mobile X-ray units are still used among specially susceptible groups.

Free conveyance by ambulance in England and Wales between home and hospital is provided, where necessary, by the health authorities either directly or by arrangement with voluntary organisations. The Hospital Car Service (organised by the St. John Ambulance Association and Brigade, the British Red Cross Society, and the Women's Royal Voluntary Service) augments the ambulance service in many areas by the conveyance of sitting patients. In Scotland ambulances are run by the Common Services Agency (see p. 135). In Northern Ireland they are run by the health and social services boards.

Health education in England, Wales and Northern Ireland is promoted by the Health Education Council which assists in the development of programmes of health education with the health authorities, professional organisations, voluntary bodies and industry. Central health education services in Scotland are provided by the Common Services Agency (see p. 135). Expenditure is met largely from central government funds.

> Under the Medicines Act 1968 the health and agriculture ministers are responsible for licensing the manufacture, marketing and importation of medicines for human and veterinary use. The Medicines Commission advises the ministers on policy regarding medicines and a Committee on Safety of Medicines advises the health ministers on the safety, efficacy and quality of medicines and monitors adverse drug reactions. The Act also controls the advertising, labelling, distribution, sale and supply of medicines.

Though practically all residents in Britain use the National Health Service, a number of people sometimes prefer to pay for private consultations and treatment. Among the major users are the families of subscribers to the provident schemes which make provision for private health care in return for annual subscriptions (now about 2 per cent of the expenditure on NHS hospital and specialist services).

Only people whose names are on the medical and dental registers respectively may practise as doctors and dentists under the National Health Service. Dental auxiliaries (who have undergone a two-year training course) and dental hygienists (who have undergone a nine-month training course) may carry out some kinds of simple dental work under the direction of a registered dentist. The minimum qualification for registration as a doctor requires five to seven years' training in medical school and hospital, with an additional year's experience as a resident assistant doctor in a hospital; for a dentist, four or more years at a dental school are required. The governing body of the medical profession is the General Medical Council, first set up in 1858; that of the dentists is the General Dental Council which succeeded the Dental Board in 1956. The British Medical Association is the doctors' main professional association; that of the dentists is the British Dental Association.

Chest Radiological Service

Ambulance Services

HEALTH **EDUCATION**

SAFETY OF **MEDICINES**

PRIVATE MEDICAL TREATMENT

THE MEDICAL, DENTAL, NURSING AND ALLIED PROFESSIONS

The minimum period of hospital training required to qualify for registration as a nurse is normally three years. Training may be in general, sick children's, mental or mental subnormality nursing. An enrolled nurse takes a two-year course. The examining bodies of the nursing profession in England and Wales and in Scotland are the General Nursing Councils, and in Northern Ireland the Northern Ireland Council of Nurses and Midwives. Midwives in England and Wales and in Scotland must have the certificate of the appropriate Central Midwives Board, and in Northern Ireland of the Northern Ireland Council of Nurses and Midwives. Most pupil midwives are already registered general nurses or sick children's nurses; for them the two-year midwifery training period is reduced to one year and, for other registered and enrolled nurses, to 18 months. The Royal College of Nursing and the Royal College of Midwives are the professional bodies for nurses and midwives. Health visitors are registered general nurses who have undergone at least the first part of the midwifery course or obstetric nursing before taking a year's course in health visiting, promoted by the Council for the Education and Training of Health Visitors. Home nurses are state registered or state enrolled nurses, the majority of whom have undertaken additional training.

To practise as a retail or hospital pharmacist, a pharmaceutical chemist must have his or her name entered in the register maintained by the Pharmaceutical Society of Great Britain, the governing body of the profession, or by the Pharmaceutical Society of Northern Ireland. Four or five years' academic study and practical training are necessary for registration. The dispensing of all medicines on doctors' prescriptions and sale of certain specified medicines can be carried out only by, or under the supervision of, a registered pharmaceutical chemist. Under the Opticians Act 1958 the General Optical Council regulates the professions of ophthalmic optician and dispensing optician; only registered ophthalmic opticians (or registered medical practitioners) may test sight. Training of ophthalmic opticians takes four years including a year of practical experience under supervision. Dispensing opticians may take a two-year full-time course with a year's practical experience or a part-time day-release course while employed with an optician.

State registration may be obtained by chiropodists, dietitians, medical laboratory technicians, occupational therapists, orthoptists, physiotherapists, radiographers and remedial gymnasts. The governing bodies are eight boards (called, for example, the Chiropodists' Board or the Dietitians' Board) under the general supervision of the Council for Professions Supplementary to Medicine. A professional training lasting two to four years is needed to qualify for registration. Only members of these professions who are state registered may be employed in the National Health Service and some other public services.

HEALTH AGREEMENTS WITH OTHER COUNTRIES Reciprocal health agreements have been concluded between Britain and a number of other countries. In addition, under the terms of the social security regulations of the European Community, British nationals and nationals of other Community countries resident in Britain and normally working for an employer are entitled to urgent medical treatment in another Community country on the same basis as insured nationals of that country; this regulation also applies to dependants and retirement pensioners.

PERSONAL SOCIAL SERVICES Responsibility for personal social services rests with local authority social services departments. Many of the services which they provide are directed towards the same groups of people who also have a great need for health

services, for example, the elderly, the chronically sick and the disabled and the mentally ill or handicapped. Other groups that are helped by the local authority social services are young families with social problems, children deprived of a normal home life and the young offender. Many adults and children in these groups are also in need of medical and psychiatric services. Close co-operation is maintained between local authority social services departments and health authorities.

In England and Wales the powers and duties of local authorities to provide these varied social services derive from a number of statutes; some of the main Acts are mentioned in their context in the succeeding pages. In Scotland many of the corresponding duties derive from the Social Work (Scotland) Act 1968 in accordance with which Scottish local authorities also undertake duties similar to those of the separate probation and after-care service in England and Wales. The Personal Social Services Council advises ministers on policy issues and provides a service of information and advice to all concerned with the personal social services in England and Wales, based on research projects or inquiries sponsored by the council. Its members are from local government, voluntary, educational and research bodies and professional organisations. There is cross-representation with the Central Health Services Council and the Central Council for Education and Training in Social Work. Finance comes from central and local government. In Scotland there is an Advisory Council on Social Work.

Local authorities in England, Wales and Scotland have a duty to provide social services for disabled people (for example, the blind and partially sighted, the hearing impaired and other physically handicapped groups). Local authorities are required to identify the number of handicapped people in their area and to publicise services available to them. A wide range of facilities is available, including advice on personal, social and occupational problems arising from disability; assistance in overcoming the effects of disability; help in carrying out adaptations in the home—for example, by fitting ramps, wide doorways, ground floor toilets, guide rails, and the provision of various aids to living to meet individual needs, including, in certain circumstances, help towards obtaining a telephone and a television set; social and occupational centres and clubs; teaching of handicrafts and other occupations either at home or in centres; the provision of recreational facilities, outings and holidays including recuperative holidays. They also provide residential homes for handicapped people.

Help available from other sources includes financial aid, preventive and medical treatment, special education, training for employment and placement in suitable occupations, specially designed housing and specially designed means of access to public buildings.

(For the provision of special educational treatment for handicapped children see p. 153 and the child health centres and the school health service, p. 140.)

The Elderly

A number of services for elderly people in their own homes are provided by statutory and voluntary bodies to help them to live there for as long as possible. The services of local authorities include the advice and help of social workers, domestic help, sitters-in, night attendants and laundry services as well as day centres, clubs, recreational workshops and meals services. In many areas 'good neighbour' and friendly visiting services are also arranged by the local authority or a voluntary organisation. Chiropody services for the elderly are provided by area health authorities.

The Handicapped

Local authorities also provide residential accommodation for the elderly and infirm and have powers to register homes run by voluntary organisations or privately. The newer homes provided by local authorities for elderly and other infirm people usually have accommodation for 30 to 50 residents. About 2,550 homes for elderly people are provided by local authorities in England and Wales which house about 1.4 per cent of the population over 65. Similar homes are provided in Scotland.

For many years local authorities have, under the Housing Acts, provided an increasing number of smaller dwellings for old people, and flatlets for frail or infirm old people who can lead independent lives with some help. Local authorities may contribute towards the cost of employing a warden in such specially designed housing.

Local social services authorities have a duty to make arrangements for helping The Mentally the mentally ill or mentally handicapped in the community, and for prevention Ill and the and after-care services. Recent developments in the treatment of mental illness, Mentally which enable patients either to be treated at home or to be discharged from Handicapped hospital more quickly provided support is available in the community, are adding to demands for these services and particularly for social welfare support. Arrangements include training centres for the mentally handicapped, day centres for the mentally ill, as well as social centres and a variety of residential care for the mentally ill and mentally handicapped of all ages. If necessary, the local authority can place a mentally disordered person under guardianship within the community. Local authority social workers help patients and their families to deal with social problems arising from mental illness or mental handicap.

Help to Families Local authorities, through their own social workers or through a voluntary organisation, make available help and advice to families facing special problems.

Domestic help (commonly called 'home help') is provided by local authorities. By far the most numerous category getting this help are the elderly, but others include the chronically sick and severely physically handicapped, the mentally ill or mentally handicapped and maternity cases.

Some local authorities make direct provision for the special needs of unmarried mothers and their babies, but most contribute to the cost of work done by voluntary organisations and other bodies.

For the homeless, local authorities provide or arrange temporary accommodation.

Local authorities also provide day care for children with special social or health needs. This is done through their own day nurseries and part-time nursery groups, voluntary and private day nurseries, child minders and playgroups.

Child Care

Local authorities in Britain have a duty of care and protection towards children who have no parent or guardian willing and able to provide for them and control them adequately. Local authorities in England and Wales are empowered under the Children and Young Persons Act 1963 to make available such advice, guidance and assistance as may promote the welfare of children by diminishing the need to receive or keep them in the authority's care or to bring them before a juvenile court. The Children and Young Persons Act 1969 (for England and Wales) provides for children to be brought before a court if they are neglected, exposed to moral danger, beyond the control of parents or not attending school or if they have committed an offence and are in need of care and control; and for the care and treatment of young offenders

and others in need of care and control; and gives local authorities responsibilities for undertaking, through social workers, enquiries and consultations with parents, schools and the police, and for the supervision of a child or young person found to be in need of care and control. Children under 17 who are charged with offences or brought before the court as being in need of care or control are almost always dealt with in a juvenile court.

In England and Wales a child may be committed to the care of a local authority under a care order if the juvenile court is satisfied that he is in need of care or control. A care order remains in force until a child's eighteenth birthday (or nineteenth if made after he is 16) unless revoked earlier by the court. In England and Wales local authorities have a further duty, under the Children Act 1948, to receive into their care any child under the age of 17 who has been abandoned or has no parent or guardian able to provide for him. A child so received remains in the care of the local authority until he is 18 years old unless discharged to the care of parents, other relatives or friends before that time. Similar provisions for assistance and care apply in Scotland under separate legislation. Under the provisions of the Social Work (Scotland) Act 1968, the juvenile courts were replaced by a system of children's hearings which have powers to impose compulsory measures of care on a child by means of a supervision requirement which can remain in force until he is 18 years old.

When practicable, children in care are boarded out with foster parents, who receive an allowance to cover the cost of maintenance. If a suitable foster home cannot be found for a child, or he is not suitable for boarding out, he may be placed in a community home, a voluntary home or other suitable residential accommodation. Community homes for children in the care of local authorities are now provided under plans formulated by regional planning committees in accordance with the Children and Young Persons Act 1969. These homes comprise local authority children's homes and the voluntary homes which have become 'assisted' or 'controlled' by a local authority together with former approved schools and remand homes which have ceased to function under these names. In Scotland local authorities are responsible for providing appropriate accommodation for children in their care and informal arrangements exist for the development of services on a regional basis.

In England and Wales local authority child care functions are the responsibility of the social services committees appointed under the Local Authority Social Services Act 1970. In Scotland child care work is undertaken by local authority social work departments set up under the Social Work (Scotland) Act 1968. Regulations regarding, for example, conduct of community homes and registered voluntary homes and the boarding out of children in care are made for England and Wales by the Secretary of State for Social Services and the Secretary of State for Wales and, for Scotland, by the Secretary of State for Scotland.

In Northern Ireland arrangements for the care of children and young persons follow the same general principles as in Great Britain.

Voluntary Organisations Voluntary organisations, many of which were pioneers in child care, continue to play a valuable part in this work. Children's homes run by voluntary organisations (with some 10,280 places in Great Britain) are required to be registered. Arrangements for the care of children and their accommodation are subject to inspection by social work service officers of the Department of Health and Social Security, the Welsh Office, the Scottish Education Department and the Northern Ireland Department of Health and Social Services.

Voluntary bodies concerned with the welfare of children in their own

homes include local family casework agencies and the Family Service Units. The National Society for the Prevention of Cruelty to Children and its Scottish counterpart maintain inspectors and visitors to investigate reported cruelty or neglect.

Adoption

Provision for legal adoption was first made in England and Wales in 1926, in Northern Ireland in 1929 and in Scotland in 1930. About 25,000 adoption orders are made annually by the courts in Great Britain and some 400 in Northern Ireland. Adoption is now regulated by the Adoption Act 1958 in Great Britain and by the Adoption Act (Northern Ireland) 1967 in Northern Ireland. The Registrars General keep registers of adopted children. In Great Britain local authorities have had the power since 1959 to act as adoption agencies and many do so. Adoption societies (over 70 societies arrange adoptions) must be registered with the local authority. Further changes in the law on adoption have been proposed in the Children Bill.

Adoptions of minors under the laws of most European and Commonwealth countries are recognised in Great Britain by virtue of the Adoption (Designation of Overseas Adoptions) Order 1973. The recognition does not confer on the adopted person citizenship of the United Kingdom and Colonies.

Social Workers Social services of all kinds require for their effective operation professional social workers, that is, full-time salaried workers trained in the methods of social work. Most professional social workers are employed in local authority social services departments, in voluntary organisations or in the probation service (see p. 106). Social workers working in the health services are employed by local authority social services departments and made available by them to hospitals and other health service establishments. Responsibility for advice and professional training in social work rests with the Central Council for Education and Training in Social Work. Professional training normally takes two years, or one year for certain students who have previously obtained relevant degrees or diplomas.

HEALTH AND PERSONAL SOCIAL SERVICES IN NORTHERN IRELAND

The services established under the Health and Personal Social Services (Northern Ireland) Order 1972 correspond fairly closely to the system under the National Health Service in Great Britain and are financed in the same way.

Services are provided by four health and social services boards acting as agents of the Department of Health and Social Services. They include hospital and specialist services, practitioner and other primary health care services and personal social services. The boards have under their control 95 hospitals containing in all about 18,260 beds. There are some 745 general practitioners (with an average of 2,100 patients each), 315 dentists, 11 ophthalmic medical practitioners and 115 ophthalmic and a few dispensing opticians.

IMMIGRATION AND COMMUNITY RELATIONS

After the 1950s considerable numbers of people entered Britain from Commonwealth countries in the West Indies, Asia and Africa to take up employment, many with the intention of settling permanently (see pp. 11 and 342). It was estimated that coloured Commonwealth immigrants and their families numbered some 1.5 million at the time of the 1971 census, about $2\frac{1}{2}$ per cent of the total population of Britain.

Welfare of Immigrants

Commonwealth immigrants make an important contribution to the economy and public services; but their concentration in areas where opportunities for employment are greatest (60 per cent have settled in Greater London and the West Midlands, including Birmingham) has led to an increased demand for housing and additional pressures on some of the social services. The problems of these inner urban areas are being met by continuous social service programmes in housing, education, hospitals, health and personal social services, which benefit the whole community, and by several social programmes which are directed at areas of special need. Additional teachers have been appointed to schools in immigrant areas and government grants are available to local authorities with substantial immigrant populations towards the salaries of extra staff, such as interpreters, health visitors and helpers in schools and community homes. The welfare of immigrants are promoted by voluntary community relations councils and other voluntary bodies.

Community Relations

The co-ordination of government action to promote the welfare of immigrants is the responsibility of the Home Office. Voluntary efforts to achieve the integration of immigrants as part of a wider aim of promoting harmonious community relations are co-ordinated nationally by the Community Relations Commission, a statutory body set up under the Race Relations Act 1968.¹ The Commission co-ordinates the activities of local community relations councils, of which there are about 85 operating in areas where there is an immigrant population. It makes grants towards the salaries of full-time community relations officers and assistants and towards special projects which help improve community relations and advises and makes recommendations to the Home Secretary on matters affecting community relations. The Commission gives specialist advice to those working in social services, including education, employment and youth services, in the context of a multi-cultural society.

Race Relations Acts

Discrimination on grounds of colour, race, or ethnic or national origin in places of public resort was first made unlawful in Great Britain by the Race Relations Act 1965, which established a Race Relations Board to secure compliance with the Act. The Race Relations Act 1968 replaced the 1965 Act and is much wider in scope, making discrimination unlawful in the provision of goods, facilities and services, in employment and housing and in advertising. The Race Relations Board has a statutory duty to receive and investigate complaints and seeks to resolve them by conciliation. The Board constitutes regional conciliation committees which between them cover all areas of Great Britain. If conciliation fails the Board can seek remedies in the courts. Employment complaints are dealt with in the first instance by the Department of Employment whose function it is to see whether voluntary machinery exists within industry to deal with them. Where no such machinery exists the complaints are investigated by the Board.

¹ Under Government proposals to strengthen the law against racial discrimination, published in September 1975, the Community Relations Commission and the Race Relations Board would be merged into a new body.

7 Education

There are nearly 12 million pupils and students in full-time attendance at schools and institutions of further and higher education in Britain. The great majority of schools, attended by over 95 per cent of school children, and most further education establishments are publicly maintained or assisted. Universities are autonomous self-governing institutions but are also aided from public funds.

The bulk of expenditure on education in Britain comes from public funds although some older-established schools and colleges continue to benefit from private endowments. In 1974–75 estimated total public expenditure on education, including school meals, milk, local libraries and museums, amounted to over $f_{4,500}$ million, which was 13 per cent of all public expenditure.

In England and Wales the main development of publicly provided primary education started over a hundred years ago. In 1833 the Government had begun to make annual grants to the voluntary societies which were providing schools, but the Elementary Education Act of 1870 first established the principle of compulsory education. By the end of the nineteenth century elementary education had become virtually both compulsory and free of charge. Public provision of secondary education (already begun in Wales) started in England under the Act of 1902. The Education Act of 1944 now governs public education in England and Wales. The Scottish and Northern Ireland educational systems both have long and separate histories, but the same general policy is implemented throughout Britain, with some national variations. Education is governed by the Education (Scotland) Act 1962 and the Education and Libraries (Northern Ireland) Order 1972.

A ten-year education programme for England and Wales was announced by the Government in December 1972. The proposals involve substantially increased expenditure in five sectors: a new programme of nursery education (see p. 152); a larger building programme for the renewal of secondary and special, as well as primary, schools; a larger teaching force to improve further the staffing standards in schools; new measures to improve the pre-service and in-service training of teachers; and the development in higher education of a wider range of opportunities for both students and institutions. Similar proposals have been made for Scotland. The original programme was somewhat scaled down in 1975 in the light of the economic situation and of revised (lower) estimates of future school population, but it remains substantial. Broadly parallel developments are taking place in Northern Ireland.

As part of a policy of special educational help to children suffering from particular social difficulties, including immigrants, the Government during 1974 established an Educational Disadvantage Unit and a related non-government advisory committee. Both work in co-operation with an Assessment of Performance Unit with the wider brief of finding out why some children of all ranges of ability fall below their potential. In addition a government grant of about \pounds_I million to promote measures to reduce adult illiteracy has been allocated (see p. 158).

Educational Administration Educational responsibilities are devolved in varying degrees to ministers of the four countries of Britain: the Secretary of State for Education and Science is

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responsible for all aspects of education in England, for further education in Wales, and for universities, civil science and the arts (see p. 48) throughout Great Britain; the Secretary of State for Wales is responsible for nursery, primary and secondary education in Wales; the Secretaries of State for Scotland and Northern Ireland have full educational responsibilities in their countries except that the Secretary of State for Scotland is consulted about Scottish universities but is not responsible for them.

Administration of publicly provided schools and further education is divided between the central government departments (the Department of Education and Science, the Welsh Office, the Scottish Education Department, and the Northern Ireland Department of Education), local education authorities (education and library boards in Northern Ireland), and various voluntary organisations. The relation between these three groups is based on consultation and co-operation.

The local education authorities are responsible for the provision of school education and further education and also provide grants to students proceeding to higher education. In Scotland the central institutions (colleges of higher education), which are administered by independent governing bodies, are financed directly by the Scottish Education Department and grants to students are also paid by the department.

In England and Wales teacher training has been mainly provided by colleges of education under the financial and administrative control of local education authorities or voluntary organisations. The system is being reorganised (see p. 162). The Scottish colleges of education are financed directly by the Scottish Education Department and administered by independent governing bodies; in Northern Ireland they are controlled by the Department of Education or voluntary agencies.

The universities are administratively independent and their governing bodies are appointed according to the terms of their individual charters or statutory provisions. The Government exercises its responsibilities in relation to the universities through the University Grants Committee (see p. 160).

SCHOOLS

Parents in Britain are required by law to see that their children receive efficient full-time education, at school or elsewhere, between the ages of 5 and 16.

There are over 11 million school children at some 37,000 schools. In England and Wales there were 9.1 million children in publicly maintained schools in 1974 besides 131,315 others at schools receiving direct grants from the Department of Education and Science or the Welsh Office; there were also 432,348 children of all ages at 2,433 independent schools. In Scotland 1.06 million children were attending education authority or grant-aided schools and over 17,800 were at independent schools. In Northern Ireland 369,240 children were attending publicly maintained or assisted schools.

In Britain boys and girls are generally taught together in primary schools. Some 70 per cent of pupils in maintained secondary schools in England and Wales and about 48 per cent in Northern Ireland attend mixed schools. In Scotland nearly all secondary schools are mixed. In the independent sector most of the schools for younger children are co-educational; but of those providing secondary education the majority are either for boys or for girls.

Management

Schools supported from public funds are of three kinds in England and Wales: county schools (the largest group), provided and maintained by local education authorities wholly out of public funds; voluntary schools (mostly 'aided' or 'controlled' schools), provided by a voluntary body, usually of a

religious denomination; and direct-grant schools, completely independent of local education authorities but receiving a grant (being phased out, see p. 153) from the Department of Education and Science or the Welsh Office. The local education authority is responsible for the running costs of all voluntary schools and for the cost of all building work at controlled schools. Aided schools have more independence than controlled schools and are responsible for part of the cost of external repairs and any building work (see p. 155). About a third of the 28,319 schools maintained by local education authorities in England and Wales are voluntary schools and the majority of these are Church of England schools. There are 2,629 Roman Catholic voluntary schools and smaller numbers belonging to other religious bodies. Directgrant schools (the smallest group) are mainly grammar schools. In Scotland most of the schools supported from public funds are provided by education authorities and are known as public schools (in England this term is used for a type of independent school, see p. 153). There are also 26 grant-aided secondary schools comparable to the English direct-grant schools, and subject to a similar decision to phase out their grants. In Northern Ireland controlled schools managed by education and library boards and voluntary schools managed by maintained school committees, boards of governors and individual managers (usually clergymen) are both grant-aided from public funds.

In England and Wales no fees are charged to parents of children attending maintained schools (that is, over 94 per cent of the school population) and books and equipment are free. In Scotland, education authorities have power to charge fees where this can be done without prejudice to the adequate provision of free school education.

The direct-grant grammar schools in England and Wales and a few of the grant-aided secondary schools in Scotland take pupils paid for by local education authorities as well as those whose fees are paid wholly or partly by parents. In Northern Ireland no fees are charged to parents of children attending grantaided schools, with the exception of grammar schools, where qualified pupils receive from the education authorities scholarships which cover the whole or most of the fees charged by the school.

Curricula

In England and Wales the secular curriculum in maintained schools is the responsibility of the local education authority or, in the case of voluntary aided secondary schools, of the schools' governors. In practice there is a very high degree of devolution to headteachers. Her Majesty's Inspectors of Schools are responsible for the inspection of all schools including independent schools; they review and report on the content and value of the education provided and are available as advisers. Local education authorities also employ inspectors to advise on maintained schools. Further advice and encouragement for school-based research and development is available to teachers through the Schools Council for Curriculum and Examinations. The council. an independent body representative of all educational interests, acts as an advisory body and carries out research and development work on curricula, teaching methods and examinations in primary and secondary schools. In Scotland the function of Her Majesty's Inspectors is in general the same. The content and balance of the curriculum is kept under continuous review by the Consultative Committee on the Curriculum. Northern Ireland has a Schools Curriculum Committee which works in close liaison with the Schools Council; the Inspectorate of the Department of Education provides help and

Fees

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advice to teachers and is responsible for the inspection and evaluation of the work of all schools.

The schools' freedom to frame their own curricula has facilitated a rapid increase in study and experiment, partly stimulated by the Schools Council and other organisations. The general purpose is to adapt the curriculum to the everyday life and needs of children and young people.

In England and Wales by law all children in county or voluntary schools receive religious instruction and take part in a daily corporate act of worship unless their parents choose otherwise. In county schools, and in certain circumstances in voluntary schools, religious instruction of an undenominational Christian character is given which may include the study of comparative religions. In all kinds of voluntary school there is opportunity for denominational instruction. In Scotland, subject to safeguards for the individual conscience, religious instruction must be given, but the content is determined by education authorities or, more commonly, by the schools themselves. Roman Catholic children generally have their own schools. In controlled schools in Northern Ireland clergy have a right of access which may be used for denominational instruction; in voluntary schools corporate worship and religious education are controlled by the management authorities.

Health and Welfare of School Children

Religion in

Schools

Physical education, including organised games, is a part of the curriculum of all schools. Those receiving financial assistance from public funds must have the use of a playing field and most secondary schools have a gymnasium. Organised games include tennis, cricket, football, hockey, lacrosse and netball.

The School Health Service (which became part of the reorganised National Health Service in April 1974) provides for medical inspection of school children and for advice and treatment of specific medical and dental problems associated with children of school age.

Milk (normally one-third of a pint a day) is given free to children of 7 years or under, to children aged between 7 and 12 if they have a medical requirement, and to pupils in special schools for the handicapped. The School Meals Service provides a mid-day meal at a subsidised charge (remitted where there is need). About 70 per cent of pupils in England and Wales, 46 per cent of pupils in Scotland and 54 per cent of pupils in Northern Ireland schools make use of the service. Education authorities have a statutory duty under certain conditions to provide free school transport; and have discretionary powers to assist financially in the provision of transport for pupils between home and school and for other school activities.

Priority Areas In Great Britain the Government has allocated resources under several schemes for the improvement of educational facilities in 'priority areas'. Educational problems in these areas arising from poverty, overcrowding and old school buildings were highlighted in the Plowden report (see Bibliography p. 473) which made a number of recommendations on aid to what it defined as educational priority areas. These recommendations led to the introduction of a special annual increment for teachers employed in schools of exceptional difficulty and to the allocation of additional funds for school building in these areas. Before the proposals for a major expansion in nursery education were announced in 1972, over 24,000 additional nursery school places in Great Britain had been approved in areas of acute social need through the Urban Programme (see p. 124). The educational share of the Urban Programme has since been devoted to other uses, for example, the improvement of the links between home and school, which was recommended in the report on the educational priority area project (see Bibliography p. 473). This project (sponsored jointly by the Department of Education and Science and the Social Science Research Council) and the Community Development Project (sponsored by the Home Office), have encouraged such innovations as community schools, pre-school experiments and new approaches to adult education. The education programme announced in 1972 (see p. 148), which included the provision of more nursery education and the improvement or replacement of old school buildings, also incorporated as an objective the need to give priority to the deprived areas.

Primary Schools

Nursery schools and classes provide informal educational and play facilities. Only a small proportion of children between two and five years old attends these schools but the major expansion of nursery education in Great Britain announced in December 1972 is planned to provide, within ten years, nursery education without charge to those children of three and four whose parents wish them to have it. In Northern Ireland a commitment to a similar expansion was announced in September 1974. Compulsory education begins at five when children in England and Wales go to infant schools or departments; at seven they go on to junior schools or departments. At present the usual age of transfer from primary to secondary schools is 11 in England, Wales and Northern Ireland but an increasing number of local authorities in England are establishing 'first' schools for pupils aged 5–8 or 10, and 'middle' schools for pupils aged 8 or 9 to 12 or 13 and 10 to 13 or 14. In Scotland, the primary schools take children from 5 to 12, normally having infant classes for children under 7, although in some areas there are separate infant schools.

The content of curricula is very largely a matter for the schools themselves (see p. 150). In England, Wales and Northern Ireland there are no compulsory secular subjects but generally a curriculum includes the teaching of reading, writing, mathematics, English, music, art and handiwork, science and nature study, history and geography. French is taught in an increasing number of schools. Additionally, in Wales, the Welsh language is taught. Where it is the home language of the pupils, Welsh is used as either the main or a secondary medium of teaching in many schools especially in nursery school and primary school. Welsh is also used as a main medium of teaching in bilingual primary and secondary schools throughout Wales. In Scotland the scope of the curriculum is similar and provision is made, where appropriate, for the teaching of Gaelic and its use for the purposes of instruction.

Secondary Schools

England and Wales

The public or state system of education aims to give all children an education suited to their particular abilities. Some 60 per cent of the maintained secondary school population in England and Wales attend some 2,270 comprehensive schools which take pupils without reference to ability or aptitude and provide a wide range of secondary education for all or most of the children of a district. They can be organised in a number of ways including schools that take the full secondary school age-range from 11 to 18; the middle schools whose pupils move on to senior comprehensive schools at 12 or 13, leaving at 16 or 18; and the comprehensive school with an age-range of 11 or 12 to 16 combined with a sixth-form college for pupils over 16. Most of the remaining children receive their secondary education in schools to which they are allocated after selection procedures at the age of 11. Schools receiving pupils on a selective basis are: about 850 grammar schools providing academic education (including 175 direct-grant grammar schools); some 1,510 secondary

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modern schools giving a general education with a practical bias; a few secondary technical schools offering a general education related to industry, commerce and agriculture; and schools providing all three, or any two, types of education, in separately organised streams and known as multilateral or bilateral schools.

In 1974 the Government announced plans to encourage progress towards a fully comprehensive system of secondary education including the phasing out of the direct-grant system. A number of direct-grant schools have agreed to end selection and join the state comprehensive system, while others have announced their intention of becoming independent (see below).

Scotland Secondary education in Scotland is almost completely organised on comprehensive lines and in 1974 363,405 pupils (about 98 per cent of all pupils in education authority secondary schools) were in schools with a comprehensive intake. The majority of schools are six-year comprehensive schools. Because of local circumstances there are some comprehensive schools whose courses may extend to four years or less and from which pupils may transfer at the end of their second or fourth years to a six-year comprehensive school.

Northern Ireland

In Northern Ireland there are grammar schools and secondary (intermediate) schools, the latter being the equivalent of the secondary modern schools in England and Wales. Some comprehensive type schools exist, and arrangements for transfer between the other types of schools are flexible. In 1975 the Government announced its intention to undertake a feasibility study on the reorganisation of secondary education.

Special Education

Special education is provided for children who require it because of physical or mental disability, including maladjustment, either in ordinary schools or special schools (including hospital schools). There are some 1,800 special schools including hospital schools, day and boarding schools. There are also boarding homes for handicapped children attending ordinary schools.

There are ten categories of handicapped pupils in England, Wales and Northern Ireland and nine in Scotland for whom local education authorities must provide special educational treatment: blind, partially sighted, deaf, partially hearing, delicate, educationally subnormal (mentally handicapped in Scotland), epileptic, maladjusted, physically handicapped and children suffering from speech defects. There is no separate category for the delicate in Scotland. As many children have multiple handicaps there is a growing tendency to relate educational needs to over-all medical condition and to use the system of categories for administrative purposes only.

Independent Schools

Independent schools in England and Wales receive no grants from public funds but all are open to inspection and must register with the Department of Education and Science or the Welsh Office which has power to require them to remedy any objectionable features in their premises, accommodation or instruction and to exclude any person regarded as unsuitable to teach in or to be the proprietor of a school. In default, the appropriate Secretary of State can, in effect, close a school, but schools have a right of appeal to an Independent Schools Tribunal against any of the requirements. The schools whose standards are regarded by the Department or the Welsh Office as comparable with those of well-run maintained schools are, on application, granted the status of 'recognised as efficient'. Such schools (1,379 of 2,433 independent schools. In Scotland where there are 105 registered schools, the position is generally the same except that there is no 'recognised as efficient' status. In Northern Ireland there are only four independent schools; these have to be registered with the Department of Education for Northern Ireland and be open to inspection. As in England and Wales they receive no grants from public funds.

Independent schools cater for pupils of all ages. The largest and most important of them are the public schools,¹ which accept pupils at about 12 or 13 years of age usually on the basis of a fairly demanding examination. There are about 260 public schools, most of them still single sex (about half of them for girls) and at least partly boarding; but there are some coeducational schools and certain boys' schools have recently begun to admit some girls direct to their top forms. Combined tuition and boarding in the public schools are usually between $\pounds_{1,100}$ and $\pounds_{1,400}$ a year, but some of this may be remitted for children winning competitive scholarship. A number of preparatory schools, day and boarding, coeducational and single-sex prepare children for entry to the public schools.

Over the past decade there has been a large increase in the number of pupils staying on at each age beyond the minimum school-leaving age, which was raised from 15 to 16 in 1972.

There is no national school-leaving examination in England and Wales, but secondary school pupils may attempt examinations, in various subjects, leading to the Certificate of Secondary Education (CSE) or the General Certificate of Education (GCE). The CSE is designed for pupils completing five years secondary education and is normally taken at the age of 16. It is controlled by 14 Regional Examining Boards, consisting mainly of teachers serving in the schools which provide the candidates. The highest grade in the CSE (grade 1) is widely accepted as being of the same standard as at least grade C at GCE 'Ordinary' level. Control over the scope and standards of the examinations is exercised by the Schools Council (see p. 150) to ensure national comparability. The GCE is conducted at 'Ordinary' (O) and 'Advanced' (A) levels. Normally candidates taking 'O' level are about 16 years of age, although some take it earlier, at the discretion of their head teacher. Most pupils in grammar, direct grant and independent schools take the 'O' level examination, and so do a number of pupils in comprehensive and other secondary schools.

Grade C or above in various subjects at GCE 'O' level and the equivalent CSE grade I are usually considered to be qualifications for entry to courses of further education and training. Since the inception of the CSE the number achieving the highest grade has increased steadily as the popularity of the examination has grown while GCE 'O' level subject performances have also improved. The 'A' level examination is at the standard for entrance to university and for entry to many forms of professional training. Since 1965 the number of school-leavers obtaining two or more 'A' levels (the minimum qualification for entry to first degree courses at university) has increased by nearly 25 per cent. Entries for both levels of the GCE are accepted from candidates at further education establishments and from candidates entering privately.

In Scotland examinations are conducted by the Scottish Certificate of Education Examination Board. School pupils in the fourth year of secondary

School Leaving and Secondary School Examinations

¹ 'Public schools' are usually taken to mean those schools in membership of the Headmasters' Conference, the Governing Bodies Association or the Governing Bodies of Girls' Schools Association. Some other schools, mainly direct grant, in England and Wales and grant-aided schools in Scotland, are also represented on these bodies. They should not be confused with the state-supported public schools in Scotland.

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courses sit an examination at 16 years for the award of passes on the Ordinary grade of the Scottish Certificate of Education, and pupils in the fifth or sixth year are presented for the Higher grade. Passes at the Higher grade are the basis for entry to university or professional training. For those who have completed their main studies at the Higher grade but wish to continue their studies in particular subjects there is a Certificate of Sixth Year Studies.

In Northern Ireland candidates may take the Northern Ireland General Certificate of Education or the Northern Ireland Certificate of Secondary Education, which are equivalent to those examinations in England and Wales.

School Building

Local education authorities and voluntary bodies are responsible, under the general supervision of the central departments, for providing the schools and other buildings needed for public education in their areas. The central departments decide on the size and nature of the authorities' individual programmes in the light of national priorities; they also offer guidance to authorities by means of building bulletins and in other ways.

Since 1945 an extensive school building programme has been carried out resulting in the completion of about 15,700 new schools in Britain, together with extensions, alterations and remodelling of existing state schools; over 8.8 million new places have been provided.

Grants of up to 85 per cent of the approved cost are normally available from the Department of Education and Science or the Welsh Office for the building of new voluntary aided schools and for alterations and external repairs to existing aided schools.

In Northern Ireland capital grants of 80 per cent are available for voluntary schools managed by maintained school committees and voluntary grammar schools which have entered into an agreement under the relevant statutory provisions.

The school building programme has provided for new ideas and methods in design and construction. Industrialised building techniques have been widely adopted. New schools are designed to be light, airy and colourful as well as to have enough teaching area and space for auxiliary activities and outdoor games. Space is being used more flexibly, particularly in primary schools to meet the needs of new teaching methods.

TEACHERS

Teachers are appointed by local education authorities or school governing bodies or managers. In 1974 there were about 506,000 teachers (including the full-time equivalent of part-time teachers) in publicly maintained schools in Britain. The expected fall in school population (see p. 148) will, in the longer term, permit continued improvement in the pupil-teacher ratio (about 20 to one) without further expansion of the teacher force.

In 1973 the Advisory Committee on the Supply and Training of Teachers was set up to advise the Secretary of State for Education and Science on the supply and training of teachers for maintained schools and establishments of further education in England and Wales. In 1974 there were about 71,000 full-time teachers in grant-aided establishments of further education in Britain, and many more part-time teachers. There is also an increased use of teachers' aides (helpers) particularly in primary schools, while the rapid growth in the number of teachers' centres has helped the spread of new ideas in teaching practice. Most teachers in technical colleges have had industrial and professional experience.

There are national salary scales for teachers in schools and other educational

institutions maintained from public funds in England and Wales, in Scotland and in Northern Ireland.

FURTHER EDUCATION Further education is a broad term which may be used to cover all post-school education. However, it is more commonly taken to exclude universities, though now including teacher training (see p. 162). There are full-time, part-time and evening courses, many of which lead to qualifications ranging from degree and professional equivalents, through technician level, to a variety of non-advanced qualifications. In addition adults of every age make extensive use of widespread and varied facilities for educational, cultural and leisure activities.

Institutions In England and Wales there are about 600 major establishments of further education including polytechnics (see p. 162), technical colleges, colleges of commerce, colleges of art, and a number of agricultural establishments. They provide both full-time and part-time courses up to the levels of first and higher degrees while their premises, as well as school and other premises, are often used for the wide range of 'adult education' (see p. 157). There are also about 100 recognised independent institutions, over half of which teach English to foreign students.

In Scotland there are about 70 local further education colleges offering fulland part-time day courses and a number of evening courses and 14 central institutions for further education doing mainly advanced work.

In Northern Ireland there are 28 institutions of further education.

Finance Since most further education establishments in Britain are either maintained or aided from public funds, tuition fees are moderate, and nearly always remitted for young people under 18 years of age. Where industrial training is provided by the colleges, charges (the responsibility of the employer) broadly reflect the economic cost of provision. Many full-time students are helped by awards from local education authorities. The awards, generally based on the results of the General Certificate of Education or a corresponding examination, are assessed to cover tuition fees and a maintenance grant, but parents who can afford to contribute towards the cost are required to do so. There are also some scholarships available from endowments, and from particular industries or companies for the most promising of their young workers.

Students In autumn 1973 there were some 345,000 full-time and sandwich-course students in grant-aided and independent establishments (304,000 in England and Wales, 28,600 in Scotland and 12,400 in Northern Ireland) and 1,659,000 part-time students in major establishments of further education (1.5 million in England and Wales, 136,500 in Scotland and 23,000 in Northern Ireland). The total number of students on advanced courses in England and Wales was about 208,000, in Scotland 20,900 and in Northern Ireland 3,780.

Courses The courses provided are full-time or sandwich (up to five years in length, generally consisting of alternate periods of about six months of full-time study in a polytechnic, central institution or college and supervised experience in industry); part-time day; block release (short periods in college); day release (generally attendance at a college for one day a week during working hours); and evening only.

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Sandwich courses in higher education are becoming increasingly popular. At the lower levels the numbers of day release and block release courses are considerable and have to a large extent replaced evening classes in certain vocational subjects. Many students attend courses in which further education and industrial training are combined.

Technical Courses

There is a wide variety of courses for young people in various trades and occupations, leading to appropriate qualifications at the end of a course of up to five years. Other, more academic, courses lead to the National Certificates and Diplomas awarded by joint committees consisting of representatives of education departments, teacher organisations and the appropriate professional bodies. The Technician Education Council was set up in 1973 with over-all responsibility for developing a unified system of courses for technicians in England, Wales and Northern Ireland, leading to awards which will eventually replace those of the joint committees. A similar council has been established in Scotland. Courses are normally at two levels, ordinary and higher. The Ordinary National Certificate (ONC) courses normally last two years parttime and students usually follow them between the ages of 16 and 19; the level of the certificate is generally considered to approach that of GCE 'A' level. The Ordinary National Diploma (OND) courses are the full-time or sandwich counterparts of the ONC but involve wider and deeper study. The Higher National Diploma (HND), which requires a further two years' full-time or three years' sandwich study, is recognised, within its more restricted field, as approaching the standard of a pass degree; the Higher National Certificate (HNC), after two further years' part-time study, is lower in standard because it is more narrowly based.

Business and Secretarial Courses Many colleges of further education offer courses in shorthand, typing, bookkeeping, and office studies. Higher level work, however, is generally concentrated in polytechnics or other colleges with a department of business studies.

Much business education is related to the specialised examination requirements of various professional bodies; and courses leading to them are provided in many further education colleges, although numbers of the candidates taking such qualifications do so through correspondence courses. A Business Education Council was established in 1974 with the same functions as the Technician Education Council (see above) in relation to courses of business education. In Scotland, similar courses lead to the Scottish National Certificate, the Scottish Higher National Certificate and the Scottish National Diploma in Business Studies, awarded by the Scottish Business Education Council. Courses leading to the certificate of business administration are provided for students in junior administrative positions.

Adult Education

Adult education is generally taken to mean courses of post-school education outside the main areas of higher, professional and technical education. In 1974 nearly 3 million people registered for such courses which were provided by local education authorities, various voluntary and statutory bodies, certain residential colleges, and the adult education ('extra-mural') departments of universities.

The residential colleges, the university departments and certain voluntary bodies recognised as competent to provide adult education, receive government grants. So do various national bodies which promote educational activities of a non-political kind, such as the National Federation of Women's Institutes and the National Council of Young Men's Christian Associations. Many of these bodies also receive grants from local education authorities for services rendered locally.

A major part of adult education is financed by local education authorities and provided mainly in their establishments, including schools (used for adult evening classes). Most of the courses are part time and about 2.5 million students attended such local authority adult education classes in 1974. In addition local education authorities maintained or aided most of the short-term residential colleges or centres, of which there are about 40 in England and Wales, and which provide courses varying in length between a weekend and a fortnight. Many of the courses are practical, but there are widespread opportunities for academic study.

Long-term residential colleges (6 in England and Wales, I in Scotland) which are grant-aided by the education departments, provide courses of one or two years, some of which lead to a diploma. The colleges aim to provide a liberal education and do not apply academic entry tests. Most students admitted to them are entitled to full maintenance grants at mandatory rates. The extra-mural departments of the universities and the Workers' Educational Association (WEA), the largest of the recognised voluntary bodies, provide extended part-time courses of more academic studies, though recently there has been a tendency for more short courses organised for special (including vocational) interests. Often the WEA provides the organisation and the teaching is provided by the extra-mural departments, many of which have full-time staff appointed for this purpose and can also call on the services of other departments of the university. In 1973–74 some 350,000 students attended such courses. Similar work is promoted in some education authority centres.

A recent development has been the spread of community schools and colleges and community centres. Community schools and colleges, which are now found in urban as well as rural areas, are secondary schools planned as cultural community centres, providing educational, social and cultural opportunities for the whole community. Community centres have a more social character and, though aided financially by the local education authorities, are usually managed by voluntary community associations many of which are affiliated to the National Federation of Community Associations.

The National Institute of Adult Education provides a national centre of information, research and publication for adult education, as well as a channel of co-operation and consultation for the many organisations in England and Wales which are interested in this subject. It is mainly financed by contributions from local education authorities and assisted by a grant from the Department of Education and Science. The National Institute of Adult Education has created an Adult Literacy Resource Agency to administer additional resources amounting to some \pounds_{I} million which the Government is making available until March 1976 to assist local education authorities and other organisations working to combat adult illiteracy. The Scottish Institute of Adult Education for assist local education.

In Northern Ireland extra-mural departments of the Queen's University of Belfast and the New University of Ulster organise and staff adult education classes which are supplemented by classes organised by various non-official bodies. The Workers' Educational Association is responsible for classes at other than university level and receives grants from the Department of Education and the education and library boards. The department has established a Council for Continuancy Education which will advise on the coordination of the work being done and assist planning for the future. TEACHING AIDS AND EDUCATIONAL TECHNIQUES Broadcasting is a major resource for teachers in schools. About nine out of ten schools can receive television, and almost all have radios. Nearly all primary schools use educational programmes at some time, and some seven out of ten secondary schools use educational broadcasts. All Independent Television (ITV) and most British Broadcasting Corporation (BBC) television programmes are broadcast in colour, though comparatively few schools are yet equipped to receive in colour.

On average one in three secondary schools now have video-taping facilities. This has begun to influence the style in which programmes are made. Two of the three television channels (see p. 447) are devoted to schools broadcasting throughout the morning in term-time. Radio broadcasts are transmitted nationally on one VHF channel morning and afternoon, and in addition many local radio stations provide some appropriate local educational broadcasting. Wales, Scotland and Northern Ireland are also served with regional educational television broadcasts by both BBC and ITV.

Adults are also provided for in a variety of programmes, often linked to a range of supplementary publications and activities. Most BBC radio programmes are grouped in hourly study sessions on five nights a week and weekend afternoons. Television programmes are shown on Saturday and Sunday mornings and at midday and in the later evening on weekdays. Both BBC and ITV provide programmes at successive intellectual levels from domestic, social and craft skills to progressive vocational training. The BBC channels and production teams are also used to produce radio and television programmes in support of Open University courses (see p. 168).

A number of other audio-visual aids are in use throughout the educational system. Most universities and a high proportion of colleges of education have closed-circuit television; it is also available in many further education colleges and schools. Use is made of language laboratories in schools and institutions of further and higher education.

Schools and colleges co-ordinate different methods of audio-visual presentation, including radio, television, films, colour slides, wall charts, maps, models and tape recordings. For example, the BBC's 'Radiovision' programmes for schools use coloured film strips in conjunction with a tape recording of the broadcast and a similar technique is used in support activities provided with some ITV schools programmes. The Council for Educational Technology for the United Kingdom and the Educational Foundation for Visual Aids advise all bodies connected with education and with training in industry and in the Services on the use of audio-visual aids.

HIGHER EDUCATION The system of higher education includes universities, polytechnics and central institutions, colleges of education and advanced courses at colleges of further education. There has been a rapid expansion in higher education in the last decade; the numbers in full-time higher education in Britain increased from 222,400 in 1962 to 490,000 in 1973-74. This expansion has been achieved by increasing the number of universities; by concentrating much of the advanced work in further education establishments in the polytechnics and central institutions and thus providing opportunities for students to gain a degree outside a university; by introducing new courses leading to a Bachelor of Education (B.Ed) degree; and by the establishment of the Open University which provides people, with or without formal qualifications, with the opportunity of studying for a degree.

Universities

There are now 44 universities in Britain-without counting the Open

University (see below)—compared with 17 in 1945. Although the Government is responsible for providing about 90 per cent of universities' income it does not control their work or teaching nor does it have direct dealings with the universities. The grants are distributed by the University Grants Committee, a body appointed by the Secretary of State for Education and Science to advise on state aid to the universities; its members are drawn from the academic and business worlds.

The English universities are: Aston¹ (Birmingham), Bath,¹ Birmingham, Bradford,¹ Bristol, Brunel¹ (London), Cambridge, City¹ (London), Durham, East Anglia,¹ Essex,¹ Exeter, Hull, Keele, Kent at Canterbury,¹ Lancaster,¹ Leeds, Leicester, Liverpool, London, Loughborough,¹ Manchester, Newcastle upon Tyne, Nottingham, Oxford, Reading, Salford,¹ Sheffield, Southampton, Surrey,¹ Sussex,¹ Warwick,¹ and York.¹ The federated University of Wales includes five university colleges, the Welsh National School of Medicine, and the University of Wales Institute of Science and Technology. The Scottish universities are: Aberdeen, Dundee,¹ Edinburgh, Glasgow, Heriot-Watt¹ (Edinburgh), St. Andrews, Stirling,¹ and Strathclyde¹ (Glasgow). In Northern Ireland there is the Queen's University of Belfast, and the New University of Ulster¹ in Coleraine (see p. 163).

The Universities of Oxford and Cambridge date from the twelfth and thirteenth centuries and the Scottish Universities of St. Andrews, Glasgow, Aberdeen and Edinburgh from the fifteenth and sixteenth centuries. All the other universities were founded in the nineteenth or twentieth centuries.

There are five other institutions where the work is of university standard: the University of Manchester Institute of Science and Technology; the two postgraduate business schools (see p. 163) which are supported jointly by industry and the Government—the Manchester Business School and the London Graduate School of Business Studies; Cranfield Institute of Technology for mainly postgraduate work in aeronautics and other subjects; and the Royal College of Art.

The Open University is a non-residential university which provides parttime degree and other courses, using a combination of television and radio broadcasts, correspondence courses and summer schools, together with a network of viewing and listening centres. No formal academic qualifications are required to register for these courses, but the standards of its degrees (which are awarded on a system of credits for each course completed) are the same as those of other universities. The university is financed by fees and a direct grant from the Department of Education and Science. The first courses began in January 1971 and in July 1975 some 50,000 students were following courses. In 1974, the Open University set up a consultancy service to make its advice and facilities available on a fee-paying but non-profit-making basis to bodies throughout the world interested in 'teaching at a distance' projects.

University Finance

ce In spite of the large sums of public money spent on universities they have remained autonomous institutions, due largely to the existence of the University Grants Committee. The Committee acts as a link between the Government from which it receives a block grant and the universities to which it allocates this grant. In all the Government contributes about 90 per cent towards both the current income of universities and towards their capital programmes for building work, purchasing sites and properties, professional fees and furniture and equipment. Further sums are raised by the universities.

¹ Has received its charter since 1960.

EDUCATION

In Great Britain the recurrent grants for the academic year 1975–76 are estimated to be about £465 million, about six times as much as in 1963–64. Capital grants are expected to be about £15 million. The Comptroller and Auditor General, a permanent officer of the crown (see p. 362), has access to the books and records of the University Grants Committee and the universities to check that the funds entrusted to the universities are efficiently administered. He cannot question policy decisions or those reached on academic grounds.

Courses in arts and science are offered by most universities. Imperial College, London, the University of Manchester Institute of Science and Technology and some of the newer universities concentrate on technology although they also offer a number of courses in social studies, modern languages and other non-technological subjects. About 47 per cent of full-time university students in Britain are taking arts or social studies courses and 38 per cent science and technology: about 10 per cent are studying medicine, dentistry and health, and the remainder agriculture, forestry, veterinary science, architecture and town and country planning.

University degree courses generally extend over three or four years, though in medicine, dentistry and veterinary science five or six years are required. The first degree of Bachelor (Master in the arts faculties of the older Scottish universities and in Dundee) is awarded on the completion of such a course, depending on satisfactory examination results. Further study or research is required at the modern universities for the degree of Master and by all universities for that of Doctor. Actual degree titles vary according to the practice of each university. A uniform standard of degree throughout the country is ensured by having external examiners on all examining boards. In the last decade there has been a tendency for degree courses to become more broadly based in subject matter, particularly in the new universities. A recent innovation has been the introduction of 'modular' degree courses which provide more flexibility for students in their choice of courses.

University teaching combines lectures, practical classes (in scientific subjects) and small group teaching in either seminars or tutorials.

Most members of the academic staffs devote time to research and at all universities there are postgraduate students engaged in research.

Students

Studies and

Degrees

Admission to the universities is by examination and selection; there is no religious test and no colour bar. Women are admitted on equal terms with men but at Cambridge their numbers may be limited by ordinance. The general proportion of men to women students is less than three to one; at Oxford it is over four to one, and at Cambridge seven to one. Just under a half of all fulltime university students in Britain are living in colleges and halls of residence, over one-third are in privately rented accommodation, and the remainder live at home.

Prospective candidates for nearly all the universities apply for places through the Universities Central Council on Admissions. The only students to apply directly are applicants to the Open University and British candidates who apply only to the universities of Glasgow, Aberdeen and Strathclyde.

In 1973-74 there were about 244,500 full-time university students in Great Britain, including about 27,700 postgraduates, and 24,400 part-time students. Some 32,170 home and overseas candidates were also registered for London University's external first degree examinations.

In 1973-74 there were 37,000 full-time university teachers in Great Britain;

about 10.7 per cent of them were professors. The ratio of staff to students was about one to eight, one of the most favourable in the world.

Teacher Training Teachers in maintained schools must hold qualifications approved by the education departments. In England, Wales, and Northern Ireland the majority have qualified by under-taking a three-year course at one of some 150 colleges of education, so as to obtain a teacher's certificate. Since 1970 professional training for newly qualified people with degrees and certain other specialist qualifications, before then entitled to teach without further training, has become mandatory for all school teachers except temporarily, mathematics and science teachers in secondary schools. Such courses have been at colleges of education and in university education departments.

From 1st August 1975, the system of teacher training in England and Wales is being basically reorganised. All higher and further education outside the universities including teacher training is being assimilated into a common system. A number of the existing colleges of education are to be merged either with each other or with other colleges of further education, while some are to discontinue completely the initial training of teachers. As the first move towards a wholly graduate profession, three- and four-year degree courses incorporating educational studies are being developed, although the three-year certificate courses will also be maintained as long as they are needed.

In Scotland all teachers in education authority and grant-aided schools must be registered with the General Teaching Council for Scotland. Courses in colleges of education lead to the award of a Teaching Qualification (Primary Education) or a Teaching Qualification (Secondary Education). Graduates and holders of specialist diplomas undergo a one-year course; courses in practical and aesthetic subjects for non-graduates extend to two, three or four years. For primary teaching the course extends to one year for graduates and three for non-graduates. Most Scottish colleges of education also offer fouryear courses leading to the degree of Bachelor of Education.

The education departments, universities, local authorities and other bodies provide a variety of short in-service training courses for practising teachers.

In 1973-74 about 230,000 students in Great Britain were taking advanced courses other than in universities and colleges of education in a wide variety of subjects including architecture, art and design (see p. 430), catering, engineering, natural sciences, social work and business and management studies. An increasing proportion of the students were taking courses leading to the awards of the Council for National Academic Awards. The council has power to award degrees and other academic qualifications, comparable in standard with those granted by universities, to students who successfully complete approved courses of study in establishments which do not have the power to award their own degrees. In the academic year 1973-74 some 600 courses were being followed by about 43,500 students. These courses ranged from science and technology to the arts, social studies, business studies and law. In 1974 the council approved its first teacher training courses including some leading to the B.Ed. degree.

In England and Wales higher education provision outside universities and colleges of education is being concentrated within 30 major national institutions named 'polytechnics'. They are comprehensive institutions providing all types of courses (full-time, sandwich, and part-time) at all levels of higher education.

Advanced Courses in Further Education

EDUCATION

In Scotland similar provision is made in 14 central institutions and a few further education colleges managed by education authorities.

Management studies are provided by polytechnics and other further education colleges, notably those designated as regional centres of management education. Courses for the post-experience postgraduate Diploma in Management Studies are run by about 80 colleges; and some polytechnics run courses leading to the Master's degree of the Council for National Academic Awards. In addition there is a wide range of other provision much of which is specifically designed to meet the needs of industry or of professional bodies.

Awards to enable students to undertake higher education are made under one of the most generous grant systems in the world. It is national policy that no school leaver should be prevented by lack of means from taking an advanced course at a university or elsewhere. As a result, over 90 per cent of students in higher education in Great Britain are aided from public funds.

In England, Wales and Scotland persons ordinarily resident in Britain can obtain awards from public funds in order to attend full time at a university, college of education or major further education establishment which has accepted them as students. In England and Wales local education authorities provide awards. In Scotland students' allowances for advanced courses are granted by the Scottish Education Department. The amount of these awards depends upon the income of the student and his or her parents or spouse. Grants for postgraduate study are offered annually by the Department of Education and Science, the Research Councils and the Scottish Education Department.

Two institutions provide university education in Northern Ireland—the Queen's University of Belfast and the New University of Ulster, Coleraine. The New University consists of four schools (biological studies, social and economic studies, physical sciences and humanities) and an education centre with the status of a school. Technological studies are provided at the Queen's University of Belfast, in addition to a wide range of courses in other faculties. In October 1974 there were 5,467 full-time students at the Queen's University and 1,589 at the New University. Government grants to the universities are made by the Department of Education which first seeks the advice of the University Grants Committee.

Higher education outside the universities is mainly centred in a new polytechnic called Ulster College which had 2,290 full-time and 2,144 part-time students in 1974-75.

Teacher training takes place in the two university education departments, three colleges of education, the Ulster College and one technical college. In 1974-75 there were about 3,300 students in training. The principal courses are three-year (certificate) and four-year (Bachelor of Education) but there are also one-year courses for graduates or holders of other appropriate qualifications. University and further education scholarships are awarded by the education and library boards and postgraduate awards and teacher-training scholarships by the Department of Education, the conditions of award being the same as those for Great Britain.

EDUCATIONAL RESEARCH Research into the theory and practice of education and the organisation of educational services is supported financially by the education departments, local education authorities, philanthropic organisations, universities and teachers'

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Awards

Northern Ireland associations. The Schools Council and the Social Science Research Council are additional channels for government support.

The major institute undertaking research in education, outside the universities, is the National Foundation for Educational Research in England and Wales, an autonomous body which derives its income mainly from corporate members, including local education authorities, teachers' organisations and universities and from an annual grant from the Department of Education and Science. There are also the Scottish Council for Research in Education and the Northern Ireland Council for Educational Research.

Some research is undertaken at colleges of education and polytechnics and by a few independent research organisations.

There are many opportunities for overseas students to study in Britain and for INTERNATIONAL British students to study abroad and some British teachers serve overseas for a RELATIONS period.

British membership of the European Community is creating closer educational Britain and the ties with other member countries. Both at school level and in the colleges and universities there has been an expansion of interest in European studies and languages. Post-to-post exchanges of teachers have been encouraged by government-sponsored schemes which are administered by the Central Bureau for Educational Visits and Exchanges. The bureau also makes appointments available to European teachers wishing to teach in Britain and negotiates posts on an in-service training basis for British teachers wishing to further their experience in another European country. Britain has adhered to the Statute of the European Schools (six of which have been established throughout the Community) to provide school education for children of people employed in the European Community institutions. Negotiations are in progress to promote recognition of professional qualifications which will enable qualified people to practise anywhere in the Community.

Overseas Students in Britain

European

Community

Students come to Britain from countries throughout the world to study at universities or other educational institutions or for professional training. In the academic year 1973-74 there were about 95,000 overseas students in Britain, of whom about 25,000 were at universities, another 27,000 at technical colleges and the remainder learning English or training as teachers, nurses, for the law, banking and accountancy, or in industry. About 61 per cent of all overseas students were from the Commonwealth and about three-quarters were from developing countries.

As part of British technical assistance to developing countries, the Ministry of Overseas Development supports 12,000-14,000 students with subsistence and fees, encourages the development of special courses of particular value to students from developing countries and of advisory and welfare services to meet their needs.

A wide range of public and private fellowships and scholarships for advanced study in Britain are awarded annually to students and research workers from other countries. Under the Commonwealth Scholarship and Fellowship Plan, the governments of certain Commonwealth countries have made awards available at their own institutions of higher education to men and women from other Commonwealth countries. At the beginning of the academic year 1974-75, 711 scholarships and fellowships (including medical awards) were held in Britain under the plan. The Commonwealth Education Fellowship Scheme provides opportunities for further training, study and research for teachers and

EDUCATION

others with appropriate experience. In 1974-75 there were 602 study fellowships tenable for periods of between three months and three years.

About 45 British Council¹ scholarships tenable usually for one year in Britain, and 25 British Council Fellowships tenable for two to three years, are offered annually to graduates of overseas universities. Thirty Marshall Scholarships for two years' study at any university in Britain are offered annually by the British Government to graduates from the United States of America and over 60 Rhodes Scholarships are awarded annually to Commonwealth and United States graduates for two years of study at the University of Oxford. A further two Rhodes Scholarships are awarded to graduates from the Federal Republic of Germany. Other universities and colleges themselves offer many scholarships for which graduate students of any nationality are eligible.²

Fellowships and training awards for study in British institutions are available under the Central Treaty Organisation, the Colombo Plan, the Special Commonwealth African Assistance Plan and British technical assistance programmes for many countries. Over 1,400 awards for study or training in Britain are also made under the United Nations Programmes of Technical Assistance and by the United Nations specialised agencies such as UNESCO, FAO, and WHO, and also under OECD and certain Council of Europe schemes.

The Commonwealth Education Liaison Committee supplements normal direct dealings on education between the countries of the Commonwealth, and regular Commonwealth education conferences are held.

The national representatives in London (Office of the High Commissioner or Embassy) of a number of countries accept certain special responsibilities for their students in Britain. The British Council acts as an agent for the British Government in matters affecting the welfare of overseas students, and provides certain services, such as meeting on arrival, introduction courses, an accommodation bureau and a student centre in London which organises a varied programme of lectures, discussions and social and other activities and arranges introductions of students to people who wish to invite them to their homes. In the vacations there are courses in many parts of the country which offer opportunities for getting to know more about British life in town and country. In term time there are visits to various places of interest, and theatre and concert parties are arranged.

Among many voluntary organisations which offer a welcome to overseas

Arrangements for Overseas Students

¹ The purpose of the *British Council* (founded in 1934) is defined in its Royal Charter as the promotion of a wider knowledge of the United Kingdom and the English language abroad and the development of closer cultural relations between Britain and other countries. The council is governed by an executive committee of 30 members, broadly representative of many elements of the life of Britain, and including eight members nominated by ministers. It is financed almost entirely from public funds. The activities of the council, which has staff in 78 overseas countries, are advising and assisting in English teaching and other educational work including science; fostering personal contacts between British and overseas people, especially in the educational, professional and scientific fields, running, or helping to maintain, libraries of British books and periodicals overseas; and presenting overseas British achievements and the arts. Its work in Britain is concerned mainly with professional visitors and with the welfare of overseas students.

² The Association of Commonwealth Universities publishes two handbooks, Awards for Commonwealth University Staff (see Bibliography p. 472) and Scholarships Guide for Commonwealth Postgraduate Students, which include information about sources of financial aid available for use in Britain. The association promotes co-operation between Commonwealth universities. Its activities include the provision of publication and information services, and of secretariats for various bodies affecting its member institutions, such as the Commonwealth Scholarship Commission and the Marshall Aid Commemoration Commission.

students are Rotary, Round Table, the Victoria League, the Royal Over-Seas League, the Royal Commonwealth Society, the National Union of Students, the English-Speaking Union and Churches of all denominations. The United Kingdom Council for Overseas Student Affairs, established in 1968, is an independent central body serving overseas students and organisations and individuals concerned in overseas student affairs; it provides both a forum for the exchange of ideas and machinery for consultation with government and other authorities. In many London boroughs and in other large cities there are committees which help students to make contact with local residents and organisations. These organisations also help by entertaining overseas students and many of them have established hostels with the financial help of the Overseas Students Welfare Expansion Programme which is administered by the British Council. By the beginning of 1975 grants had been approved for 150 projects, providing places for about 7,000 students.

British Students Overseas In 1974-75 27 awards were accepted by British students in Commonwealth countries under the Commonwealth Scholarship and Fellowship Plan (see p. 164). In addition the Study and Serve Scheme, administered by the Inter-University Council for Higher Education Overseas, enables British students to spend two years in a developing country, the time being devoted equally to study, which may or may not lead to a postgraduate qualification, and service, usually in the form of university employment in the country concerned.

The United States–United Kingdom Educational Commission (still sometimes called the Fulbright–Hays Commission) offers travel and maintenance grants for postgraduate study in the United States. Notable among more recently established scholarships are the Kennedy scholarships, to enable British students to study at three American universities, and the Churchill travel scholarships, for men and women in all walks of life. British students are also offered scholarships at institutions of higher education in many European and non-European countries outside the Commonwealth.

Over 1,260 teachers were recruited in Britain during 1974 for posts in schools, colleges of education, technical colleges and universities in developing countries, including over 1,100 for posts in the developing countries of the Commonwealth; almost all of them are supported by public funds. Recruitment is carried out by the Ministry of Overseas Development, the British Council and the voluntary teacher recruiting agencies, such as Christians Abroad. Some developing countries carry out their own recruitment of British teachers through their offices in London.

During 1974 about 1,200 British teachers served in universities in developing countries, most of them recruited through the Inter-University Council for Higher Education Overseas and the Association of Commonwealth Universities and the British Council. Government encouragement also includes support for a number of schemes of assistance for overseas universities which are administered by the Inter-University Council, including the scheme for Special Commonwealth Awards, which are made to leading scholars from British universities who are willing to work for a minimum of two years in important posts in the universities of developing Commonwealth countries.

Outside these schemes, four voluntary organisations, co-ordinated under the British Volunteer Programme (BVP), recruit graduate and qualified volunteers and a few cadet volunteers for service overseas. Of the 1,904 overseas in

Teachers Serving Overseas 1974, 1,252 were teachers. The BVP receives financial assistance from the Government.

Schemes under which teachers in Britain exchange posts for a year with teachers overseas include one with the United States and another with Commonwealth countries involving each year about 200 British teachers.

Official exchange schemes also operate between Britain and several European countries both for teachers and for temporary assistants' posts for language specialists. The largest of these schemes is the modern languages assistants' scheme, administered by the Central Bureau for Educational Visits and Exchanges, which enables students and young teachers to serve overseas, particularly in Europe, and for their counterparts to serve in Britain.

Several schemes designed to assist interchange between institutions of higher education in Britain and overseas countries through staff visits are administered by the British Council. Study and research visits by British and overseas scholars are supported through programmes of the British Academy, the Royal Society, the Science Research Council, and other British and international bodies.

Britain provides, on request, assistance to the developing countries in several other ways, including the loan of educational experts for specialist missions and technical and consultant services. Areas of particular activity include the introduction of new materials, methods and techniques. This assistance is provided through various educational organisations, the Ministry of Overseas Development and the British Council.

THE YOUTH SERVICE

The aim of the youth service is to help young people to broaden their interests, to enjoy recreational pursuits, and to mix socially in their leisure time.

The service (which in Scotland forms part of the Youth and Community Service) is provided by local education authorities and voluntary organisations, in co-operation with the government education departments. Membership of youth groups is voluntary and groups vary greatly in their activities, there being no attempt to impose uniformity or to create anything in the nature of a national youth movement.

Organised activities for young people were first promoted by voluntary bodies, often of a religious nature, during the nineteenth century, and the number of such organisations and the range of their activities have continued to grow over the past 100 years. The involvement of local authorities and the education departments in the youth service dates back principally to the 1940s when the service first became recognised as part of the education system.

The education departments formulate broad policy objectives for the service and encourage their achievements through financial assistance and advice. They make known the Government's attitude by means of circulars to local education authorities and through contacts between departmental officials and representatives of the authorities and the voluntary organisations. The Scottish Education Department is advised by a council representing both statutory and voluntary bodies concerned in youth and community work, while in Northern Ireland the advisory body is a Youth Committee. Financially the education departments assist voluntary organisations through grants towards their costs for central administration and building projects.

Academic Interchange

Other Educational Aid

Organisation and Finance

Local education authorities assist local voluntary groups by lending premises and equipment and by contributing to their capital and running costs. Many authorities also construct and run youth centres and clubs; in Great Britain there are several thousand youth centres fully run by local education authorities. Most authorities have appointed youth committees on which official and voluntary bodies are represented, and employ youth organisers to co-ordinate youth work in their areas and to arrange in-service training. In Scotland these committees and organisers are normally concerned with services for both young people and adults.

Although the number of local education authority youth clubs and centres is growing, national voluntary organisations still promote the largest share of youth activities through local groups, which raise most of their day-to-day running expenses by their own efforts; these have an estimated membership of 5.5 million. Some 38 national youth organisations and 141 local co-ordinating bodies are full members of the National Council for Voluntary Youth Services (NCVYS), a consultative body which takes action only in the name and with the consent of its member bodies; a further 18 organisations are observers. In Scotland, Wales and Northern Ireland there are similar representative bodies.

Among the largest of the voluntary youth organisations belonging to NCVYS are the Scout and Girl Guides Associations (with about 600,000 and 800,000 members), the National Association of Youth Clubs (400,000), the National Association of Boys' Clubs (170,000) and the Youth Hostels Association (about 300,000 including Scotland and Northern Ireland).

Certain pre-Service organisations for boys, which provide facilities for social, educational and physical development along with training for possible entry to the armed forces, are also members of NCVYS; they are assisted financially by the Ministry of Defence.

Local education authority youth groups in England and Wales normally cater Membership for young people of both sexes mainly in the 14-20 age-range.

Some voluntary organisations cater for young people on a single-sex basis and their membership often covers a wider age-range. An official survey published in 1972 on the Youth Service and similar provision (see Bibliography p. 474) showed that some two-thirds of young people aged 14-20 were members of a club or association (including associations attached to schools, colleges and universities, and places of work). The survey also indicated that 68 per cent or more had at some time been members of a youth club. A smaller proportion of girls than boys takes part in youth club activities and the main involvement is between the ages of 14 and 16.

There are about 3,000 full-time youth workers in Great Britain and these are supported by many thousands of part-time workers, many of them unpaid. **Youth Workers** Part-time workers usually have no professional qualification in youth work but some have allied qualifications, for instance as teachers, and a large number attend short courses and conferences on youth work. Qualified school teachers are recognised as qualified youth workers.

In England and Wales, there is a basic two-year training for youth and community workers. Provided at colleges of education and further education, the course leads to a professional qualification. In addition a number of colleges of education provide a study of youth work as a principal or subsidiary subject within a teacher-training course. In Scotland one- and three-year courses are provided at certain colleges of education and in Northern Ireland courses are provided by the Ulster College.

Training of

EDUCATION

Other Organisations Concerned with Young People There are in Britain a number of organisations, which, although primarily concerned with the welfare and out-of-school pursuits of young people, operate in a context broader than that of any individual youth movement. Among the most important are the Sports Councils for England, Wales, Scotland and Northern Ireland (see p. 454), which provide practical and advisory services for many youth organisations; the National Playing Fields Association, which advises local authorities and sports organisations on the acquisition, layout, construction and use of sports grounds; and the Outward Bound Trust, which maintains five schools in areas of outstanding natural beauty and offers fulltime residential courses designed to encourage a sense of adventure, responsibility, confidence and achievement.

The Duke of Edinburgh's Award Scheme, which operates through bodies such as local authorities, schools, youth organisations and industrial firms, is designed as a challenge to young people to reach certain standards in leisuretime activities with the voluntary assistance of adults. Some 200,000 young people between the ages of 14 and 25 from Britain and other Commonwealth countries took part in the scheme in 1974. There are three awards—Bronze, Silver and Gold—for each of which young people must attempt activities in four out of five sections: service; interests; expeditions; and either physical activity or design for living.

The King George's Jubilee Trust is a charitable body which, since its creation in 1935, has distributed more than $\pounds 2.99$ million in grants to voluntary youth organisations and towards experimental youth projects.

The National Youth Bureau is a forum for association, discussion and joint action for those concerned with the social education of young people. It provides information services, training services and services to research and experiment including the maintenance of a research register. The bureau also has a specialist information unit on social work with young people. In Scotland the Board for Information in Youth and Community Service undertakes similar functions.

There has been considerable growth in voluntary service by young people to those in need in the community, for example, the elderly, the sick, the mentally ill and the handicapped. Organisations such as International Voluntary Service, Task Force and Community Service Volunteers receive grants from the Government, and through them thousands of young people are doing fullor part-time voluntary work for the community. Many schools organise community service activities as part of the curriculum.

The Young Volunteer Force Foundation is an independent body which advises interested organisations in England and Wales on methods of involving young people in providing service to the community. The Foundation is grantaided by the Government and employs teams of young people who are available on request to assist such bodies as local authorities, voluntary organisations and hospital boards in encouraging and promoting voluntary service. In Scotland, a similar organisation, 'Enterprise Youth', exists to co-ordinate and promote voluntary service to the community.

Community Service by Young People

8 Environmental Planning

Over many years successive British Governments have taken action to manage and protect the environment, and have established a legal and administrative framework, particularly of planning law, to control development, to reduce pollution and to encourage positive planning to ensure the wise use of land.

The basis of the modern system of land use planning-derived from legislation passed in 1947-is contained in the Town and Country Planning Acts of 1971 (for England and Wales) and 1972 (for Scotland). There is a centralised planning structure under the Secretaries of State for the Environment, Scotland and Wales, and compulsory planning duties are imposed on all local planning authorities. Large scale strategic planning in England and Wales is the responsibility of the county councils and the Greater London Council while district councils and the councils of the London boroughs and the City of London are responsible for most local plans and development control, the main housing functions, and many other environmental health matters. The two types of authority exercise concurrent powers over, for example, the acquisition and disposal of land for planning purposes, development and redevelopment, parks, playing fields, open spaces and coast protection. In Scotland, planning functions are undertaken by regional and district councils whose responsibilities are divided on a basis broadly similar to that in England and Wales. In the more rural regions and islands areas, all planning responsibilities are carried out by the regional and islands councils respectively.

In Northern Ireland the Department of Housing, Local Government and Planning is responsible for planning matters through its local offices which work closely with the district councils and the local offices of the Housing Executive (see p. 182). District councils have local environmental health responsibilities.

A planning system of structure and local plans was introduced in England Development and Wales in the late 1960s and is being progressively brought into operation. Plans The system is designed to reduce administrative delays, to emphasise positive planning for the creation of a pleasant environment rather than a negative control of undesirable development, and to enable the public to play a greater part in the planning process. Structure plans are prepared by county planning authorities and require ministerial approval. They set out broad policies for the future use and development of land (including traffic management) and indicate 'action areas' where comprehensive development or improvement is expected to start within a specified period. Local plans, which have to conform with the structure plan, contain detailed proposals including plans for 'action areas' and are normally prepared by district councils, though sometimes by county councils. Local plans are adopted by the planning authorities without being subject to ministerial approval unless the Secretary of State calls in a plan for his own decision. All plans are under continuous

ENVIRONMENTAL PLANNING

review and may be altered periodically. A similar planning system was introduced in Scotland in May 1975.

The local authorities have wide powers for undertaking development, including the compulsory purchase of land. With a few exceptions, all other development (which includes most forms of construction, mineral extraction and any material change made in the use of land or existing buildings) can be carried out only after the local planning authority has given its permission.

Members of the public and interested organisations are given an opportunity to express their views on the planning of their areas during the formative stages of the structure and local plans. The local planning authorities must ensure adequate publicity for matters proposed for inclusion in the plans; representations may be made about them to the authorities. Where specific proposals for development differ substantially from the intentions of a development plan, they must be publicised locally. Other schemes affecting a large number of people are usually advertised by the local planning authority and applications seeking permission for certain types of development must also be advertised. There is a right of appeal to the appropriate Secretary of State if planning permission is refused or granted subject to conditions; in England and Wales some 75 per cent of appeals are transferred to inspectors for decision. An appellant always has the right to put his case before an inspector appointed by the Secretary of State.

The Secretary of State can direct that a planning application be referred to him for decision. This power is exercised sparingly and only in respect of proposals of national or regional importance. The applicant has the right to be heard by a person appointed by the Secretary of State and a public inquiry is normally held for this purpose. In the case of development schemes of national or regional importance or of a technical or scientific nature and if an ordinary inquiry is inadequate for the purpose, the ministers responsible may decide to set up planning inquiry commissions to carry out investigations and hold inquiries locally. Where highway development is proposed, the Secretaries of State for the Environment, Scotland and Wales can hold such inquiries as they consider appropriate.

Voluntary organisations are particularly active in ensuring that proposed changes in the use of land take full account of the interests of the public and considerations of amenity. The National Trust for England, Wales and Northern Ireland, founded in 1895, is the largest private landowner in Britain and has over 450,000 members. For the benefit of the public it owns and protects from harmful development 440,000 acres (176,000 hectares) of land, 200 historic buildings and large stretches of coastline. Properties in Scotland covering some 80,000 acres (32,000 hectares) are protected by the National Trust for Scotland, an independent body founded in 1931, which has nearly 65,000 members.

The Town and Country Planning Association, founded in 1899, seeks to improve the qualities of land use and planning in Britain, and helped to promote, for example, the first new towns legislation. The Civic Trust, established in 1957, encourages interest in architecture and planning and makes annual awards for good developments of all kinds. It supports and advises over 1,200 amenity societies.

Other voluntary societies concerned with amenity in town and country include: the Council for the Protection of Rural England, the Council for the Protection of Rural Wales, the Association for the Protection of Rural Scotland and the Ulster Society for the Preservation of the Countryside; the

Amenity Societies

Commons, Open Spaces and Footpaths Preservation Society; the Ramblers' Association; the Society for the Protection of Ancient Buildings; the Georgian Group and the Scottish Georgian Society; the Ulster Architectural Heritage Society; the Victorian Society; the Pilgrim Trust; and the Historic Churches Preservation Trust. The Committee for Environmental Conservation, comprising many of the main voluntary organisations, acts as a liaison body and is concerned with broader questions of amenity than those covered by individual societies. In Wales, the Prince of Wales Committee promotes projects to improve the environment and encourages a greater awareness of environmental problems.

Advisory machinery for regional planning has been set up by the Government. Regional Regional economic planning councils (see p. 195), regional economic planning Planning boards and local planning authorities jointly sponsor the preparation of regional strategies. These are intended to advise the Government on the problems of particular regions in relation to others, and to provide a framework for the preparation of structure plans by county councils.

Special provisions, in addition to the general town and country planning The Location measures, control the location of industry and offices (see p. 212). General of Industry problems of industrial development are dealt with jointly by a number of government departments, but each development scheme, as a rule, requires the local planning authority's consent. Financial incentives to encourage the location of industry in particular areas have been made available by the Government.

In Great Britain the New Towns Act 1946 and subsequent legislation (now consolidated in Acts of 1965 and 1968) give the Secretaries of State for the Environment, Scotland and Wales power to designate as the site of a new town any area of land (which may include an existing centre of population). The New Towns Act (Northern Ireland) 1965 makes similar provision for Northern Ireland.

The appropriate minister must consult the local authorities concerned and allow the public an opportunity to comment on the proposed designation. A development corporation is appointed by the Government to create and plan the growth of the town. It is responsible for the master plan, which is prepared in consultation with the appropriate minister, government departments, and the local authorities in the area. Residents are given an opportunity to state their views and, if necessary, a public inquiry is held. When the plan has been agreed, the development corporation draws up detailed proposals for particular areas and submits them to the responsible minister for approval which (given after consultation with the local planning authorities) constitutes planning permission. A development corporation has general powers to acquire by agreement or compulsory purchase any land or property within the designated area necessary for its purposes, and is empowered to provide houses, offices, factories and other essential buildings, estate roads and, in certain circumstances, the main services essential to the development of the town.

The capital cost of developing the new towns is advanced from public funds and is repayable over 60 years. Under the New Towns Act 1946 Parliament approved a fund of f_{50} million to provide for advances to the development corporations for work on the new towns. This fund was increased by subsequent Acts and now stands at $f_{1,750}$ million; a total of over $f_{1,400}$ million had been advanced by March 1975. The corporations submit annual reports (which include copies of their audited accounts) to Parliament.

New Towns



Of the 33 new towns designated in Britain since 1946, 23 are in England and Wales, six in Scotland and four in Northern Ireland. Eleven of the new towns in England and Wales (Basildon, Bracknell, Crawley, Harlow, Hatfield, Hemel Hempstead, Milton Keynes, Northampton, Peterborough, Stevenage and Welwyn) are designed to help to relieve housing problems in the Greater London area. Of the others, Aycliffe, Corby, Cwmbran, Peterlee and Washington are serving the special needs of their areas; Newtown is being developed to stem rural depopulation in mid-Wales and create conditions for growth in the area; Runcorn and Skelmersdale are helping to meet the overspill needs of Liverpool and north Merseyside; Telford and Redditch are taking population from Birmingham and the West Midlands conurbation; and Warrington aims to attract people from the Liverpool and Manchester areas. Central Lancashire New Town has been designated to ease further the housing problems of Liverpool and Manchester and to provide a growth point for the region's economy.

The six Scottish new towns (Cumbernauld, East Kilbride, Glenrothes, Irvine, Livingston and Stonehouse) are helping to relieve congestion in the Glasgow conurbation and are major growth areas in the central belt of Scotland; the Stonehouse new town is to be managed by the development corporation of East Kilbride new town. In Northern Ireland, Craigavon is being developed as a new city and is rapidly becoming an area of major industrial growth; Antrim and Ballymena are also becoming centres of economic growth; and Londonderry and the surrounding districts have been designated as an area of special development.

Four new towns (Crawley, Hatfield, Hemel Hempstead and Welwyn) have been substantially completed and are now the responsibility of the Commission for the New Towns, a government-appointed agency.

The new towns represent a notable achievement in positive land use. They are generally recognised as one of the most successful post-war experiments, both socially and industrially, and as a profitable long-term investment.

The population of the new towns in Great Britain is about 1.8 million; more than 850,000 people have moved into them since the late 1940s. Young people form a higher proportion of new town populations than of the country as a whole. An extensive building and civil engineering programme has provided houses, flats, factories, schools, shops, churches, health centres and libraries as well as public buildings including town halls and law courts. Roads, water supplies, sewerage, gas and electricity, police, fire and bus stations, postal, telegraph and telephone facilities have also been provided; most of the towns are well equipped with parks and playing fields of various kinds. All the new towns have become concerned with the increasingly high level of car ownership of their inhabitants and are making more adequate provision for parking and the segregation of pedestrians from motorists; a few are creating special facilities for different modes of transport, for example, roads for bicycles or buses only.

A number of the more developed towns are becoming regional centres and, as the populations grow large enough to give the necessary support, offices, hotels and department stores, as well as arts centres and full entertainment and recreational facilities (skating rinks, dance halls, bowling alleys, swimming pools, sports stadia, golf courses and youth centres) are gradually being provided. The expansion of large existing towns such as Northampton, Peterborough and Warrington has the advantage, among others, that many of these facilities are already available.

ENVIRONMENTAL PLANNING

Town Development Schemes

Urban

Renewal

The Town Development Act 1952 makes provision for the relief of congestion in large cities in England and Wales (such as London and Birmingham) by encouraging the transfer of population, and industry where necessary, to areas suitable for expansion. Schemes have been approved, providing some 160,000 dwellings in this way, of which about half have been built. Most of the expanding towns (for example, Aylesbury, Basingstoke, Swindon and Thetford) are well established and are providing homes, jobs and amenities for people from large cities. The Housing and Town Development (Scotland) Act 1957 makes similar provision for Scotland, where the only congested area so far involved is Glasgow.

Existing towns and cities are being renewed and re-shaped to improve the environment and to meet the growth in population and traffic. Local authorities have extensive powers (often aided by government grants) to clear slum dwellings, to improve individual houses or whole residential areas, to reclaim derelict land, to secure clean air and to manage traffic. The Government believes that greater integration of land use and transport planning is of basic importance, and through the Department of the Environment (see p. 49) ensures that a total strategic approach to environmental planning and protection is adopted (see p. 170). Studies of six urban areas in England have been undertaken by the Department of the Environment and local authorities to emphasise this type of approach to urban problems. Three of the studies were concerned with the problems of industrial towns. The other three studies are investigating those of 'inner city' areas, in particular the nature of 'urban deprivation' and ways of dealing with it.

Research into urban planning problems is also undertaken by a number of institutes and university departments and by the Centre for Environmental Studies, which is financed jointly by the Government and other sources, including the Ford Foundation.

Lists of buildings of special architectural or historic interest are compiled, as required by the planning Acts, by the Secretary of State for the Environment and the Secretaries of State for Scotland and Wales; nearly 235,000 buildings are already listed. It is an offence to demolish or alter the character of any listed building without special consent from the local planning authority or the appropriate Secretary of State; where consent is given to demolish a building, the Royal Commissions on Historical Monuments have an opportunity to make a photographic record of the building. Emergency 'building preservation notices' can be served by the local planning authority to protect buildings not yet listed. The respective Secretaries of State (on the recommendation of the appropriate Historic Buildings Council) can make grants and loans for the repair or maintenance of buildings (or groups of buildings) of outstanding interest, and local authorities can make grants and loans for any building of architectural or historic interest even if it is not listed. About 3,000 buildings in Great Britain have received grants and loans totalling over £13 million under the Historic Buildings and Ancient Monuments Act 1953. Local planning authorities have designated for special protection over 3,000 'conservation areas' of particular architectural or historic interest. Studies have been made in Bath, Chester, Chichester and York of the difficulties of preserving features of historic interest in ancient towns in the face of commercial development and increasing motor traffic. The Secretaries of State for the Environment, Scotland and Wales are responsible for the maintenance of royal parks and palaces and for the protection of ancient monuments of which

Historic Buildings and Monuments

over 800 are in their care. Some 16.5 million people visited them in 1974. The Royal Commission on Historical Monuments (for England), and similar bodies for Scotland and Wales, survey monuments and specify those worthy of preservation. In Northern Ireland 136 historic monuments are maintained and protected by the State, and there is planning legislation on the listing of buildings of special architectural or historic interest (over 600 have been listed since work started in 1974). Grants for repairs and maintenance are made by the Northern Ireland Department of the Environment, which is also responsible for the designation of 'conservation areas'.

Green Belts

In order to restrict the further sprawl of large built-up areas, to prevent adjacent towns merging into one another, and in some cases to preserve the character of a town and the amenities of the countryside, 'green belts' (areas where it is intended that the land should be left open and free from building development and where townspeople can seek recreation) have been established or proposed around all or part of certain urban areas. They cover about 5,800 square miles (15,022 sq. km.) in England. About three-quarters of London's green belt is agricultural land or woodland, some of which can be used for recreation. There are also country parks, public open spaces, playing fields and golf courses specifically for recreational use. In Scotland there are green belt areas around the main cities.

The Coast

The maritime local planning authorities are responsible for planning land use at the coast, for example, providing recreational facilities and amenities for holidaymakers and local residents; at the same time they attempt to safeguard and enhance the coast's natural attractions and preserve coastal areas of scientific interest.

A comprehensive study of the coastline of England and Wales was undertaken by the Countryside Commission in 1966–70 which recommended that certain stretches of underdeveloped coast of particular scenic beauty should be treated as heritage coast. Policies for these areas are being incorporated in the planning authorities' structure and local plans.

In 1965 the National Trust launched its Enterprise Neptune campaign to raise funds for the nation to acquire stretches of coastline of great natural beauty and recreational value. Some $\pounds 2.5$ million has been raised so far and, as a result, the National Trust brought under its protection a further 171 miles (275 km.) of coastline making a total of 359 miles (578 km.) in its care in 1975. The campaign has been extended with the aim of acquiring another 100 miles of coastline.

The protection of the coastline against erosion, for which the Department of the Environment and the Welsh Office and the Scottish Office are centrally responsible in Great Britain, presents difficult engineering problems and heavy costs for the maritime local authorities. All sizeable coast protection schemes drawn up by the authorities under the Coast Protection Act 1949 are investigated by government engineering staff. Substantial grants from central funds (up to a maximum of 80 per cent) are made to authorities with small resources. Protection against sea flooding where there is no question of erosion is the responsibility of the Ministry of Agriculture, Fisheries and Food (see p. 296). To help to prevent the pollution of the coastline, international regulations restrict the discharge of oil into the sea (see p. 312). Local authorities are equipped to deal with oil discharges which reach the shore and in-shore waters.

ENVIRONMENTAL PLANNING

Countryside Commissions

Two Countryside Commissions (one for England and Wales, the other for Scotland) encourage the provision and development of facilities for open-air recreation in the countryside. These include the provision by local authorities (sometimes in association with other bodies) and private individuals of country parks within easy reach of towns; the establishment of camping sites and picnic areas; and the increased use of reservoirs, canals and other waterways for bathing, sailing and other activities. By 1975 111 country parks and 141 picnic sites had been recognised in England and Wales by the Countryside Commission. In Scotland a large number of local authority schemes for the provision of a variety of countryside facilities have been approved for grant aid. The Countryside Commission for Scotland has approved six country parks. The commissions are also responsible for encouraging and promoting measures to conserve and enhance the natural beauty and amenity of the countryside and may undertake research projects and experimental schemes, working in consultation with local authorities and such bodies as the Nature Conservancy Council (see p. 179) and the Sports Councils (see p. 454). In England and Wales, the Countryside Commission may give financial assistance to public bodies and individuals carrying out countryside recreation and amenity projects.

National Parks

The Countryside Commission (for England and Wales) replaced and assumed the functions of the National Parks Commission set up under the National Parks and Access to the Countryside Act 1949 to select national parks and 'areas of outstanding natural beauty' and to make proposals for the creation of long-distance footpaths and bridleways. Ten national parks have been established: Northumberland, the Lake District, the Yorkshire Dales, the North York Moors and the Peak District in northern England; Snowdonia, the Pembrokeshire Coast and the Brecon Beacons in Wales; Exmoor and Dartmoor in south-west England. They cover 5,256 square miles (13,613 sq. km.), or 9 per cent of the area of England and Wales. Administration is based on local authority representation, with a third of the members appointed by the Government. By 1975 32 areas of outstanding natural beauty had been designated, covering some 5,583 square miles (14,462 sq. km.).

The land in these designated areas generally remains privately owned, but agreements or orders to secure additional public access may be made by local authorities. Steps are taken to preserve and enhance the landscape's natural beauty by high standards of development control, and by positive measures, for which grants are available, such as tree planting and preservation, and the removal of eyesores. In the national parks, other measures for the benefit of the public include the provision of car parks, camping and caravan areas, and information centres. All national parks and some other designated areas have warden services. Most local authority expenditure on national parks is met by central government grants. Some 1,500 miles (2,414 km.) of long-distance footpaths and bridleways had been approved by 1975. Large stretches of these paths are already public rights of way. A number of the routes are open and further routes are being established.

Under the Amenity Lands Act (Northern Ireland) 1965 the Ulster Countryside Committee advises on the establishment of national parks and the designation of areas of outstanding natural beauty. Eight areas have been designated. Five amenity areas, acquired by the Department of Housing, Local Government and Planning, are being managed as country parks. Although there are no national parks as such in Scotland, five large national park direction areas are subject to special planning control under ministerial

supervision. The areas are: Loch Lomond-Trossachs; Glen Affric-Glen Cannich-Strath Farrar; Ben Nevis-Glencoe-Black Mount; the Cairngorms; and Loch Torridon-Loch Maree-Little Loch Broom. Over 98 per cent of the land in Scotland has been designated as countryside within the jurisdiction of the Countryside Commission for Scotland.

Forest Parks The Forestry Commission (see p. 305) has formed, and opened to the public, seven forest parks in some of the finest country in Great Britain: Argyll, Glen Trool, Glen More and the Queen Elizabeth Forest Park in Scotland; the Forest of Dean and the Wye valley woods on the borders of England and Wales; Snowdonia in Wales; and the Border Forest Park on the borders of England and Scotland. The parks cover some 600,000 acres (243,000 hectares). Camping and other recreational facilities provided in all the parks are used by some 20 million holidaymakers each year. The historic New Forest, in Hampshire, although not a forest park, is also open to the public. In addition the Forestry Commission welcomes the public to many parts of the three million acres under its management. In Northern Ireland, the Department of Agriculture has established five forest parks—Tollymore Park, Castlewellan, Gortin Glen, Drum Manor and Gosford Castle—and there are also five forest scenic drives; in some 40 forests recreational facilities have been provided.

Under the National Parks and Access to the Countryside Act 1949 county councils in most areas of England and Wales have prepared maps showing all public rights of way, which must be kept free of obstructions and must not be permanently disturbed. If a path is not shown on the map, a private citizen can show that it is a public right of way if it has been used and regarded as such without interruption for at least 20 years. Public footpaths are maintained by local highway authorities who must also provide signposts and supervise the duty of landowners to repair stiles and gates. Local authorities in Great Britain can create paths and ways, close existing paths which are no longer in public use, and divert paths to secure a more efficient use of the land or simply a shorter route. Local planning authorities can convert minor roads into footpaths or bridleways and provide recreational facilities.

The 1949 Act is also concerned with access to open country, which now includes mountains, moors, heaths, downs, cliffs and foreshores, woodlands, rivers and canals and their banks, but not farmland unless it is simply used for grazing. There is no automatic right of public access to open country, but local planning authorities can secure access by means of agreements with landowners; if agreements cannot be obtained, authorities may acquire land or make orders for public access. These powers were extended in 1967 to cover Scotland.

Common land, a large proportion of which is open to the public, totals an estimated 1.5 million acres (600,000 hectares) in England and Wales. (There is no common land in Scotland or Northern Ireland.) This land is usually privately owned, but people other than the owner have various rights on or over it, for example, of pasture for farm animals. Commons are protected by law and cannot be built on or enclosed without the consent of the Secretaries of State for the Environment or Wales. The Commons Registration Act 1965 provided for the registration of all commons and village greens, and by the close of the registration period in 1970 over 16,000 areas had been registered. Under the Countryside Act 1968 local authorities can provide facilities for enjoyment on any common land to which the public has access.

Local Footpaths and Open Country

ENVIRONMENTAL PLANNING

Nature Conservation

The Nature Conservancy Council (see p. 402) is the official body responsible for nature conservation in Great Britain. At the end of March 1975 there were 140 national nature reserves, covering 282,980 acres (113,192 hectares). Some 40 nature reserves are run by local authorities; in woodland areas there are nine forest nature reserves; in addition a number of reserves have been established by voluntary bodies. There are also 3,500 sites of special scientific interest in Great Britain, notified because of their flora, fauna or geological or physiological features: local planning authorities must consult the Nature Conservancy Council before granting planning permission for development affecting them. In Northern Ireland 43 sites have been scheduled by the Department of Housing, Local Government and Planning and are subject to special planning control. Some 18 nature reserves have been established by the department on the advice of the Nature Reserves Committee.

Throughout Britain voluntary organisations co-operate in the conservation of nature (and in many cases establish their own reserves or other specially protected areas). These include: the National Trust, the Royal Society for the Protection of Birds, the Society for the Promotion of Nature Reserves, the County Naturalists Trusts and the Council for Nature (which consists of some 350 natural history and conservation societies).

Control of Pollution

Conservation and While specific measures have been adopted to ensure that the use of land in towns and in the countryside is properly supervised, a growing concern for the wider aspects of planning has meant that the restricted notion of protective planning has evolved into a positive concept for the enhancement of the land and of the enjoyment of the people who live and work on it.

In 1970 Britain became the first major country to establish a Department of the Environment (see p. 49); all government departments in Great Britain have a legal duty when exercising functions relating to land to keep in mind the desirability of conserving the countryside's natural beauty and amenity.

Many of the detailed aspects of planning for the environment are undertaken by local authorities. The local planning authorities have power to preserve trees and woodlands in the interest of amenity by means of tree preservation orders; when granting planning permission for development, a local planning authority must impose conditions to secure the preservation or planting of trees; and landowners are generally required to replace 'preserved' trees which die or are removed or destroyed. Outdoor display of advertisements is controlled by planning legislation; consent must be sought from the local planning authority for most forms of outdoor advertising, and in rural and other localities requiring special protection on grounds of amenity special controls may be applied. In addition to the general town and country planning controls over development, land may not generally be used as a caravan site unless a site licence has been issued by the local authority.

Land Reclamation

Local authorities are responsible for reclaiming land so damaged by industrial or other development that it is not capable of being used fully without special treatment. Local planning authorities have powers for reclaiming land in pursuit of the general well-being of their districts-for example, in the course of providing open spaces and schools; they can acquire and develop land and carry out restoration and improvement; and they can require an owner of land which is damaging and offensive to the surrounding area to improve its condition. Exchequer grants are available to cover half the cost of individual restoration schemes, higher grants being available for clearance in the designated areas (see map, p. 211) and in national parks and areas of

outstanding natural beauty. New arrangements are being introduced under which the entire cost of derelict land reclamation in the designated areas in England will be met from the Exchequer. In Scotland and Wales, responsibility for financing and implementing reclamation schemes will be transferred to the proposed Scottish and Welsh Development Agencies (see p. 213). Planning controls to prevent the spread of dereliction require that, when permission is granted for mineral working, conditions are attached ensuring various measures to minimise the disturbance caused by the work and to secure whatever restoration is practicable when working ceases. The use of land for tipping is also subject to conditions restricting height or requiring treatment on completion.

- Waste on Land The Litter Act 1958 made it an offence to leave litter on land to which the public has free access, and in some cases the Dangerous Litter Act 1971 prescribes fines of up to £100. Local authorities will be required under the Control of Pollution Act 1974 to make comprehensive plans for disposal of household, commercial and industrial waste and to ensure satisfactory standards of disposal. Where possible, recycling and reclamation is encouraged by the Government.
- Clean Air Responsibility for clean air in towns and cities rests with local authorities, who may, under the provisions of the Clean Air Acts 1956 and 1968, declare 'smoke control areas' within which the emission of smoke from chimneys constitutes an offence; over half the premises in the conurbations are now covered by smoke control orders. Central government is responsible through the Alkali and Clean Air Inspectorate for controlling certain industrial processes which give rise to particularly dangerous or offensive emissions or which are technically difficult to control. Emissions from motor vehicles are also controlled. The Clean Air Council (set up in 1956) and a similar council for Scotland review the progress made in abating air pollution in Great Britain. London no longer experiences dense ('pea-souper') fogs or serious smogs and in central London winter sunshine has increased by 70 per cent since 1962.
- Noise Local authorities are also responsible for the enforcement of the Noise Abatement Act 1960 which requires them to inspect their areas for noise nuisances and to take action (which can be enforced by the courts) to secure abatement. New measures against noise, based on recommendations of the Noise Advisory Council, were included in the Control of Pollution Act 1974. This improves and strengthens local authorities' existing powers, and gives them new powers to set up noise abatement zones within which they can require existing noise levels to be held constant or reduced. Noise levels may not be increased without their permission. The Act also contains special provisions to control noise from construction and demolition sites.

Other Measures For measures to control pollution of the sea, see p. 312; to control inland water pollution, see p. 282; and to safeguard the use of pesticides, see p. 299.

Monitoring Pollution In order to ensure effective pollution control there is a process of continuous updating of information on environmental hazards. The Government is advised by the Royal Commission on Environmental Pollution (see p. 404).

9 Housing

There are about 20 million dwellings in Britain: over 17.8 million in England and Wales, 1.9 million in Scotland and 500,000 in Northern Ireland. Nationally the numbers of households and dwellings are about equal, but they are unevenly distributed, and housing shortages persist in the more prosperous commercial and industrial centres such as London and Birmingham.

Some 79 per cent of households in Great Britain occupied a whole house according to the 1971 General Household Survey; 19 per cent lived in flats; and the remaining few lived in accommodation rented with business premises or mobile homes such as caravans.

Over half of all dwellings are owned by their occupiers, some 31 per cent are rented from public housing authorities, and most of the remainder are rented from private landlords (see diagram, p. 182). There are variations, however, in the distribution of tenure between the different countries of Britain—in Scotland more than half the dwellings are rented from public authorities—and in different regions and areas of those countries. Private rented accommodation is generally more common in the central districts of large towns, while owner-occupation is more frequent in their outer suburbs and in country areas.

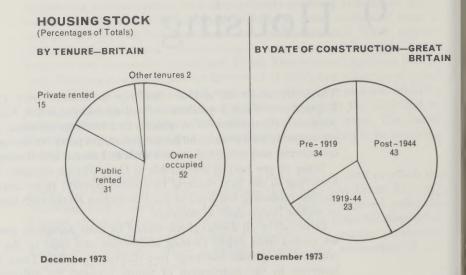
New house construction in Britain is undertaken by both public and private sectors. Of the 278,000 dwellings completed in 1974 some 52 per cent was provided by private interests, about 44 per cent by public authorities, and nearly 4 per cent by voluntary housing associations and societies. Public housing authorities provide dwellings mainly for renting while private interests build mainly for sale to owner-occupiers. The construction of private dwellings to rent has dwindled to a very low level.

Over 8.5 million new dwellings have been built in Britain since 1945, and two families in every five now live in a post-war dwelling (see diagram, p. 182). There remain a large number of older dwellings, some of which have been kept in good repair and modernised, but many others—particularly in the centres of cities—are unsatisfactory by modern standards. The demolition of slum dwellings, improvement of sub-standard houses and more advanced standards for new house-building (particularly in the public sector) have, however, led to significant improvements in the general quality of British housing. A survey carried out in England and Wales in 1971 established that the percentage of unfit dwellings fell from 11.7 per cent in 1967 to 7.3 per cent in 1971.

Administration

Responsibility for formulating housing policy and supervising the housing programme is borne by the Secretary of State for the Environment in England, by the Secretaries of State for Scotland and Wales, and in Northern Ireland by the head of the Department of Housing, Local Government and Planning.

In Great Britain most of the public housing is provided by 459 local housing authorities, which are responsible for ensuring that the supply of housing in their areas is adequate. These are: in England and Wales (outside London) the district councils; in London, the Greater London Council, the London borough councils and the Common Council of the City of London;



and in Scotland, the district and island authorities. Other public housing authorities in Great Britain are the new town authorities (see p. 172) and the Scottish Special Housing Association (SSHA), which was established in 1937 to supplement building by local authorities in Scotland.

The central government departments specify certain standards for the construction and equipment of all new dwellings; these are enforced by the local authorities. Subsidies are made available to the authorities to assist them with housing costs, and guidance is given on design and layout.

Besides providing public housing, local authorities are involved in many other aspects of housing policy, including paying house improvement grants to the private sector, granting mortgages to owner-occupiers, and carrying out slum-clearance and redevelopment programmes. A growing number are establishing housing advisory centres to provide the public with information on local housing opportunities in both public and private sectors.

In Northern Ireland all public housing, including that in new towns, is the responsibility of the Northern Ireland Housing Executive, a public body established in 1971. The executive is aided by a housing council representing each local authority area.

Policy

The main objectives of government housing policy are to secure a decent home for every family at a price within its means, and to ensure fairness between one citizen and another in giving and receiving help towards housing costs. Local authorities are encouraged to provide housing to meet local needs. Government subsidies are available for local authorities to assist with the cost of clearing slums and providing adequate public sector housing in areas of housing shortage. The Government is concerned to ensure that best use is made of the existing housing stock and subsidies are also available for the improvement of older houses.

A national system of rent rebate and allowance schemes assists poorer tenants in both the public and private sectors.

Research and Development

Research into building materials and techniques, as well as into the social and economic aspects of housing, is undertaken within the Department of the

HOUSING

Environment, under the control of the Director General of Research. It is carried out by the Building Research Establishment and the department's directorates of economics, statistics, and housing development. The Research and Development Group of the Scottish Development Department also undertakes research. Sponsored work is carried out in universities and local authorities may also have housing research programmes. The Government is advised on the need for, and application of, research and development by the Construction and Housing Research Advisory Council. Advice on ways of increasing productivity in house-building is also provided by the National Building Agency.

Public Sector Housing

Public housing authorities in Britain own some 6 million houses and flats and in 1974 completed over 124,000 new dwellings. The number of houses owned by each authority varies widely, some having a stock of well over 100,000 houses. Authorities plan their own building programmes within the framework of government policy. In 1974 the Government authorised additional public expenditure on housing to enable authorities to increase their building programme for rent and to acquire unsold or completed houses in the private sector; a start is also to be made on programmes for municipal ownership of privately rented housing in the worst areas of housing stress.

Local authorities in Great Britain meet the capital costs of new house construction by raising loans on the open market or by borrowing from the Public Works Loan Board (see p. 73). Current expenditure, including maintenance costs and loan interest and repayments, is met from rents, supplemented where necessary by subsidies from the Exchequer and sometimes (particularly in Scotland) from the rates. Subsidies for public housing in 1974–75 totalled some £796 million in England and Wales and about £97 million in Scotland.

The Housing Rents and Subsidies Act 1975 (for England and Wales) introduced a new housing subsidy system. Local authorities are required to charge their tenants reasonable rents—which keep a balance between the interests of tenants and ratepayers—without making a profit. The new subsidy system has five main elements to aid new building, acquisition of land and housing, and improvement of existing stock; and also to subsidise increases in local authorities' current housing debts. The Housing Rents and Subsidies (Scotland) Act 1975 makes similar provision for Scotland.

Supplementary subsidies are available to assist local authorities throughout Great Britain with slum clearance. In addition, there is a national system of rent rebates and allowances covering most tenants. Payments are made by local authorities and financed largely by government subsidy. The scheme assists poorer tenants in meeting rents of accommodation suited to their needs.

In Northern Ireland, the capital expenditure of the Northern Ireland Housing Executive is financed by loans raised on the open market or borrowed from the National Loans Fund. New dwellings completed by the executive qualify for government subsidy at a rate which varies according to the number of persons for whom each dwelling is designed.

In selecting tenants for new or vacant dwellings, local authorities normally give preference to families living in overcrowded or unsatisfactory conditions, but they are free to allocate houses according to their own schemes. Authorities normally establish waiting lists and treat applicants (outside priority categories) in order of application; some require applicants to fulfil residence requirements before they are accepted on waiting lists.

Finance

Tenants

Construction and Design

Home

Ownership

Although a number of authorities employ direct labour to build houses, most building is undertaken by private firms under contract. Some authorities work in consortia to make the best use of industrialised systems in their housebuilding programmes.

Dwellings are constructed to meet the needs of different sizes of household. More than a quarter are of the single bedroom type suitable for smaller households including the elderly, but the majority are designed for families and have two or three bedrooms, two living rooms and a kitchen, bathroom and lavatory. The standard of new local authority housing has improved, particularly in the floor space provided and the heating systems installed. In England and Wales in 1973 some 93 per cent of new dwellings had central heating, and houses built for families of four or five people had an average floor space of 958 square feet (89 square metres) and cost an average of about $\pounds 6,200$ to build.

In 1974 over 144,000 private sector dwellings were completed in Britain, almost all of which were intended for owner-occupation. The number of people owning their own houses has more than doubled in the last 20 years, and the 10.5 million owner-occupied dwellings in Britain now account for over half of the total housing stock. Although most owner-occupied houses were built for that purpose, many private rented dwellings have also been sold for owner-occupation. The Government also encourages voluntary housing societies which provide co-ownership housing.

Mortgage Loans

Loans to enable people to buy their own houses by a system of instalment purchase are available from various sources, including building societies, insurance companies, industrial and provident societies and local authorities.

Building societies (see also p. 376) are the most important of these agencies. They do not build houses themselves but provide long-term loans on the security of property bought for owner-occupation. They usually advance up to 80 per cent of their valuation of a house but it is possible to borrow up to 95 per cent, or in rare cases, 100 per cent. Loans are normally repayable over periods of 20 or 25 years (up to 30 or 35 years in certain circumstances) by equal monthly instalments to cover capital and interest.¹ The average price of new houses mortgaged to building societies in 1974 was $\pounds_{11,100}$; new houses in London and the south-east of England cost some 38 per cent more than the national average. In 1974 the societies advanced some $\pounds_{2,912}$ million.

Local authorities are encouraged to concentrate their mortgage resources on helping people with housing needs who are unable to obtain loans elsewhere. Their mortgage lending in 1974 amounted to \pounds 455 million.

Financial Assistance Owner-occupiers are entitled to tax relief on their mortgage interest payments on loans related to their principal private residences, and in 1974–75 this amounted to about £680 million. An alternative form of assistance—the option mortgage scheme—designed to help those with smaller incomes was introduced in 1968. Under the scheme, borrowers receive, through the lending agency, a subsidy (instead of tax relief) which reduces the rate of mortgage interest which they pay by up to 4 per cent. Subsidy payments under the option mortgage scheme in Great Britain amounted in 1974–75 to about £75 million. Associated with the scheme is the option mortgage guarantee scheme, whereby

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¹ A scheme was introduced in May 1975 enabling people buying homes for the first time (subject to certain conditions) to defer part of their mortgage payments in the first five years until the eleventh and subsequent years.

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mortgage loans of up to 100 per cent of the valuation of a house (not exceeding $\pounds_{12,000}$) may be made to those participating.

In Northern Ireland, the Government pays subsidies to private people who build dwellings for owner-occupation or letting.

For building in the private sector the National House Building Council (NHBC) sets standards and enforces them by inspection and certification. Almost all new private houses are covered by the council's scheme which carries a ten-year guarantee against major structural defects. A two-year guarantee is also given against faulty workmanship. Most lenders will not grant mortgages on a new house unless it is covered by a NHBC certificate.

During the last 20 years there has been a steady decline in Great Britain in the number of rented dwellings available from private landlords (including tied accommodation)—from nearly 52 per cent of the housing stock in 1951 to about 17 per cent (3.3 million) in 1974. Major factors in this decline have been the increased demand for owner-occupation, the greater availability of public rented housing, and the operation of rent restriction. Privately rented dwellings form a high proportion of Britain's older housing and many have been demolished under slum clearance programmes. While most landlords in Britain are private individuals with limited holdings, a proportion of all privately rented housing is provided by the small number of larger property owners, including property companies.

Most privately rented dwellings are subject to rent restriction. Tenants have a wide degree of security of tenure, and eviction from any dwelling (without a court order) and harassment of occupiers are criminal offences with severe penalties.

About 80 per cent of all private rented accommodation in Great Britain is let unfurnished. Most unfurnished accommodation is subject to either 'rent control' or 'rent regulation'. Rent control applies to about a quarter of the unfurnished dwellings—those with a rateable value on 31st March 1972 of less than £35 (£70 in London, £25 in Scotland) in which the tenant has lived continuously since before 1957. Tenants of controlled dwellings enjoy security of tenure during their lifetime and pay fixed rents determined by reference to 1956 rateable values or, in Scotland, to historic rent levels. These are very low by comparison with other rents. Landlords of controlled dwellings whose houses are of a satisfactory standard or who improve them to such a standard are able to transfer them to the alternative system of rent regulation.

Rent regulation was introduced under the Rent Act 1965 and applies to private unfurnished dwellings (but not while they remain controlled under previous legislation) which fall within defined limits of rateable value up to 1973 values of £1,500 in London, £750 elsewhere in England and Wales, and £200 in Scotland. Under the rent regulation procedure, a 'fair rent' may be fixed for a tenancy by independent rent officers at the request of the landlord, the tenant, or both. Factors taken into account by rent officers in determining rents include the age, character and locality of the house. To eliminate any artificial value derived from scarcity, the assumption is made that for similar dwellings to let in the area demand does not substantially exceed supply. If the landlord or tenant objects to the decision of the rent officer, the case is referred to a rent assessment committee. Since 1965 some 733,000 fair rents have been registered. Once determined, the rent is not normally reviewed for at least three years. Tenants of controlled and regulated lettings enjoy security of tenure.

Building Standards

Privately Rented Housing

Unfurnished Accommodation

Poorer tenants of private unfurnished accommodation are eligible for assistance with their rent under a national scheme of rent allowances. Operated by local authorities, the scheme is financed mainly by government subsidies.

In Northern Ireland, houses of a 1939 rateable value of less than f_{50} are subject to rent control with rents fixed by reference to their rateable value in that year. However, prescribed increases were permitted in the rents of certain controlled dwellings in 1951 and 1956, and dwellings with a 1939 rateable value of more than £26 of which landlords are in, or obtain, possession and dwellings completed since 1956 are freed from rent control.

Under the Rent Act 1974, tenants of furnished accommodation whose landlords do not live on the same premises have the same protection as tenants of unfurnished property, and may apply to a rent officer for a fair rent determination. Tenants of furnished accommodation with resident landlords may refer their tenancy agreements to a local rent tribunal for determination of a reasonable rent. Tribunals may grant tenants security of tenure for up to six months with a possibility of further periods if they so decide.

Poorer tenants in furnished accommodation are helped with their rent by a rent allowance scheme.

Since the early 1960s the Government has encouraged the growth of nonprofit-making housing associations and societies, which between them own about 250,000 dwellings in Great Britain; some 17,000 were completed or acquired in 1974.

Housing associations have long existed as voluntary bodies set up for the purpose of providing low-rent housing for people in need. The associations have in the past borrowed money to finance house-building, mainly from local authorities, which may make up to 100 per cent loans. Encouragement to purchase and convert old houses into new dwellings was offered by the Housing Act of 1969 which provides for a 20-year subsidy equivalent to half of all charges (capital and interest) on loans raised for the purpose. Under the Housing Finance Act 1972 housing associations, like co-ownership societies (see below), are able to borrow from the Housing Corporation for new building, a facility which was expanded by the Housing Act 1974. The rents of housing association houses are based on fair-rent levels, and their tenants are entitled to rent allowances (see p. 182). On new schemes where fair rents produce insufficient revenue to cover the capital cost of a scheme, associations receive a government grant covering the deficit.

Co-ownership societies build dwellings for co-ownership by a group of occupants to let at unsubsidised rents. Following a pilot scheme introduced by the Housing Act 1961, the Housing Corporation was set up under the Housing Act 1964 to stimulate the formation of such societies. Half of the money needed for approved co-ownership society schemes is advanced by building societies, with the Housing Corporation providing the remainder. Rented housing society dwellings where the tenants are not co-owners or members of a co-operative are, like those owned by housing associations, within the fair-rent and rent-allowance schemes.

Private owners in Great Britain can obtain grants from local authorities to Improvement improve their houses by providing amenities such as baths, for carrying out other works to modernise their properties, and for converting large houses or other buildings into flats. Known as renovation grants, these are: 'improvement grants' which may be awarded on a maximum eligible expense of up to

Furnished Accommodation

Housing Associations and Societies

of Houses

HOUSING

£3,200 (£3,700 in Scotland); 'intermediate grants' on up to £700 for the provision of standard amenities, and £800 for associated repairs; 'special grants' (not available in Scotland) depending on the number of standard amenities to be provided in a house in multiple occupation; and 'repairs grants' on up to £800 expenditure and available only in 'housing action areas' and 'general improvement areas' (see below). The amount of the award depends on the location of the dwelling: up to 75 per cent (sometimes 90 per cent) of the cost in housing action areas; 60 per cent in general improvement areas; and 50 per cent elsewhere. A government contribution amounting to 75 per cent (90 per cent in housing action and general improvement areas) of each grant is paid to the local authority. Aid on a similar basis is given by the Government to local authorities and housing associations, but this can include part of the cost of buying properties for conversion and improvement as well as that of carrying out works.

Since improvement grants were first introduced in 1949, some 3 million dwellings in England and Wales and some 355,000 in Scotland have been improved with their aid; in 1974 house improvement grants were approved for over 300,000 dwellings in Great Britain. Grants for house improvement and conversion are also provided in Northern Ireland.

In order to tackle systematically the improvement of whole areas of older housing, local authorities in England and Wales were given powers under the Housing Act 1969 to declare 'general improvement areas'. The aim in these areas is to encourage householders to improve their dwellings with the aid of grants, while the local authority uses its comprehensive powers to improve the environment. A government contribution is available of half the local authority's expenditure on environmental improvements on costs of up to $\pounds 200$ a dwelling. There are similar grants in Scotland and Northern Ireland for the improvement of residential areas. Under the 1974 Housing Act local authorities in Great Britain are empowered to declare 'housing action areas' in places of housing stress. In such areas authorities have powers to compel owners to improve their houses to a given standard and preferential rates of renovation grant are payable. Compulsory powers are also available to local authorities in general improvement areas.

Slum Clearance

About 3 million people have been rehoused in England and Wales since the mid-1950s as a result of slum clearance programmes and during 1974 some 53,000 houses were demolished or closed in Great Britain as a result of slum clearance and other action. Some housing authorities have eliminated all their slums and others expect to achieve this within a few years, but in inner London and in certain of the older industrial towns, clearance will take longer. Local authorities receive special financial assistance from the Government if they incur a loss on slum clearance operations.

Housing authorities are obliged to see that other accommodation exists, or can be provided by them, for people displaced by slum clearance. Owners of land compulsorily acquired during slum clearance programmes receive as compensation either the full market value or, if the land consists of unfit houses, a sum based on the value of the cleared site; additional payments are, however, made to most owner-occupiers of unfit houses to bring their compensation up to market value.

10 The Churches

England

Every person living in Britain has the right of religious freedom and may manifest his faith in teaching, worship and observance without interference from the community or the state. Churches and religious societies of all kinds may own property, conduct schools, and propagate their beliefs in speech and in writing. There is no religious or denominational bar to the holding of public office.

In the services administered by the state, such as the armed forces, the national hospitals and the prisons, the clergy of the established Church of England or the Church of Scotland provide the principal ministrations and are paid a salary by the state for this part of their work. Clergy of other denominations may also be appointed as required. Voluntary schools (see p. 151) provided by churches of any religious denomination may be wholly or partly maintained from public funds.

There is no precisely accurate or uniform method of assessing the number of adherents to the various churches in Britain, since no inquiries are made about religious beliefs in population censuses1 or other official returns, and each church adopts its own criteria in counting its members. The membership figures given in this chapter are therefore approximate.

The Church of England's status as the established church of the land derives The Church of from the Reformation in the sixteenth century. The Church's relationship with the state² is one of mutual obligation-privileges accorded to the Church balanced by certain duties which it must fulfil. The Sovereign must always be a member of the Church, and promises on his or her accession to uphold it; Church of England archbishops, bishops and deans are appointed by the Sovereign on the advice of the Prime Minister3; all clergy take an oath of allegiance to the Crown; the Church must obtain Parliament's consent to change its forms of worship (which are contained in the Book of Common Prayer of 1662), although it has temporary powers to use alternative forms without the need for parliamentary approval; and the two archbishops (of Canterbury and York), the bishops of London, Durham and Winchester, and 21 other bishops (according to their seniority as diocesan bishops) have permanent seats in the House of Lords (see p. 30). Clergy of the Church of England (together with those of the Church of Scotland, the Church of Ireland and the Roman Catholic Church) are legally disqualified from sitting in the House of Commons (see p. 31).

¹ In Northern Ireland, recent full censuses have contained an optional question about people's religious professions.

A church commission set up to consider the relationship between the Church of England and the state has recommended in a report, *Church and State* (see Bibliography p. 475), that, while the establishment of the Church should be maintained, the Church should be given final authority over its forms of worship and doctrine; alterations should be made in the present procedure for the appointment of bishops; ministers of all churches should be permitted to stand for election to the House of Commons and, if elected, to take their seats; and leading members of other churches should be invited to sit alongside Church of England bishops in the House of Lords.

³ The Church of England has recommended that it should take over responsibility for this function.

THE CHURCHES

Church Organisation and Government The Church is organised into 43 dioceses, grouped into two provinces: Canterbury, comprising 29 dioceses, and York, 14 dioceses. The dioceses are subdivided into ecclesiastical parishes, of which there are some 14,260. The Archbishop of Canterbury is styled 'Primate of All England', and the Archbishop of York is 'Primate of England'. Of the population born and resident in the two provinces (roughly 46 million), about 60 per cent are baptised into the Church and some 20 per cent are confirmed members.

The central governing body of the Church, the General Synod, is invested with both spiritual authority and legislative and administrative powers; and bishops, clergy and lay members are involved in decisions affecting the whole range of the Church's concern. In the dioceses, diocesan and deanery synods are linked both with the General Synod and parish organisations. Certain important issues must be referred for the approval of the dioceses before they are finally decided by the General Synod. Lay members of the Church are associated with church government in the parishes through parochial church councils on which are members appointed by baptised members of the Church over the age of 17 who are on the church electoral roll of their local parish.

The General Synod is the centre of an administrative system dealing with various aspects of the Church's work—such as education, recruitment and training for the ministry, and church work at home and overseas. It is concerned with the Church of England schools (attended by about 11 per cent of the 9·1 million pupils in the publicly maintained schools of England and Wales in 1974); a number of direct grant and independent schools; church colleges of education in England and Wales; theological colleges; and establishments for the training of women in pastoral work.

The Church has its own courts whose jurisdiction today extends only to matters of purely ecclesiastical concern.

Church Finance

Church finance is administered locally by the parishes and the dioceses, with contributions to a central General Synod Fund which the Central Board of Finance administers for the maintenance of central services, including capital expenditure on training and theological colleges and grants for training candidates for ordination. (Although the state pays for or contributes towards some services provided by the Church—see p. 188—it makes no direct financial contribution to church expenses as such.) The Church's endowment income (from its assets amounting to over $\pounds 617$ million in land and investments) is mainly administered by the Church Commissioners, the body largely responsible for the payment of clergy stipends and the provision of finance for pensions. The total net income ($\pounds 32 \cdot 2$ million in 1973–74) has greatly increased in recent years—in broad terms this has meant a rise in the stipends of the poorer clergy and the introduction of schemes for better pensions for clergy-men and their widows.

The Anglican Communion

The Anglican Communion comprises 22 autonomous Provinces in Britain and overseas and three regional councils overseas with a total membership of about 67 million. In the British Isles, there are four Provinces: the established Church of England and the unestablished Church in Wales, Episcopal Church of Scotland, and Church of Ireland.

Every ten years (most recently in 1968) the Lambeth Conference meets for unofficial consultation between all Anglican bishops; presided over by the Archbishop of Canterbury, it has no executive authority, but enjoys great

prestige, and its findings on doctrine, discipline, relations with other communions, and attitudes to political and social questions are widely studied. The Anglican Consultative Council—an assembly of laymen and clergy as well as bishops which meets every two years—is designed to provide consultations within the Anglican Communion and to serve as an instrument of common action. The council will meet in 1976 in Trinidad.

The Church of Scotland The Church of Scotland, established by law, has a presbyterian form of government. It has been described as 'the supreme example of a church which is established and yet is free'. It derives its status from the Treaty of Union 1707 and the Church of Scotland Act 1921 which confirmed its complete freedom in all spiritual matters. The Church appoints its own officers and its decisions on questions of doctrine and discipline are not subject to parliamentary discussion or modification.

All ministers of the Church of Scotland are of equal status, each of some 2,000 churches being governed locally by the Kirk Session, consisting of the minister and the elected elders of the church; above the Kirk Session is the Court of the Presbytery, then the Court of the Synod, and finally the General Assembly, consisting of elected ministers and elders, which meets annually under the presidency of an elected moderator who serves for one year. The Sovereign is represented at the General Assembly by the Lord High Commissioner.

The training for the ministry (to which women may be admitted) has given the Church a high reputation for scholarship and has in turn influenced the standard of education in Scotland. The adult communicant membership of the Church of Scotland is estimated at over one million.

The phrase 'Free Churches' is commonly used to describe the 'nonconformist' churches of England (which dissent from certain practices of the established church and, generally speaking, have distinctive convictions regarding organisation and worship) and Protestant churches in other parts of Britain (apart from the established Church of Scotland). Certain other churches and religious associations have links with the main Free Churches.

The Methodist Church, the largest of the Free Churches with some 600,000 adult full members, originated in the eighteenth century following the evangelical revival by John Wesley, and is nowadays based on a 1932 union of most of the separate Methodist Churches. The Methodist Churches which did not join the union include the Independent Methodists (5,950 members) and the Wesleyan Reform Union (with some 4,350 members).

The United Reformed Church, with some 190,000 members, was formed in 1972 when the Congregational Church in England and Wales (the oldest community of dissenters in Britain) and the Presbyterian Church of England merged—the first transdenominational union of churches in Britain since the Reformation in the sixteenth century.

The Baptists are nearly all grouped in associations of churches, most of which belong to the Baptist Union of Great Britain and Ireland (formed in 1813), within which 2,182 churches have a total membership of about 187,000; in addition there are separate Baptist Unions for Scotland, Wales and Ireland and other Baptist churches.

Among the other Free Churches are the Presbyterian Church in Ireland (with some 137,000 regular communicants in Northern Ireland); the Presbyterian (or Calvinistic Methodist) Church of Wales, which arose from the revivalist movement led in 1735 by Howell Harris and now numbers over

The Free Churches

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THE CHURCHES

99,000; the Union of Welsh Independents; the Free Church of Scotland; the United Free Church of Scotland; the Free Presbyterian Church of Scotland; the Reformed Presbyterian Church of Scotland; the Reformed Presbyterian Church of Ireland; and the Non-Subscribing Presbyterian Church of Ireland.

Other Protestant denominations in Britain include: the Unitarian and Free Christian Churches; the Churches of Christ (known also in the United States of America as Disciples of Christ), which have been an organised community in Britain since early in the nineteenth century; the British Province of the Moravian Church, which is an international missionary church; the Free Church of England (or Reformed Episcopal Church), which was formed in 1844 as a direct result of the Oxford Movement; and the Congregational Federation which was formed from Congregational churches which did not enter the United Reformed Church. The Society of Friends (Quakers)—with over 21,000 members in Britain—came into being in the middle of the seventeenth century under the leadership of George Fox and works for peace and the relief of suffering in many parts of the world.

The Salvation Army, founded in Britain in 1865, has since spread to 82 other countries. Within Britain it has some 178,000 active members operating from more than 1,000 centres of worship and a total community strength of about 350,000. Believing in a very practical expression of Christian concern, the Salvation Army also has 192 centres providing help for some 30,000 people in need.

There are also a number of other religious organisations with churches or assemblies in Britain, including the Church of Jesus Christ of Latter-Day Saints (the Mormon Church); and the Christian Scientists with some 300 branch churches and societies in the British Isles.

The Roman Catholic hierarchy in England and Wales, which became temporarily extinct during the sixteenth century, was restored in 1850; the Scottish hierarchy became extinct in the early seventeenth century and was restored in 1878. There are now 6 Roman Catholic provinces in Great Britain, each under an archbishop, 26 episcopal dioceses, and some 3,000 parishes. In Northern Ireland, there are 9 dioceses, some of which have territory partly in the Irish Republic. It is estimated that there are some 5.5 million adherents (including children) to the Roman Catholic faith in the whole of Britain.

The Roman Catholic Church attaches great importance to the education of its children and requires its members to try to bring up their children in the Catholic faith. Many schools for Roman Catholic children in Britain are staffed by members of the religious orders for men and women, who also undertake other social work such as nursing, child care, and the conduct of homes for old people.

Jewry

The Roman

Catholic Church

Jews first settled in England at the time of the Norman conquest, but were expelled at the end of the thirteenth century by an edict of Edward I. The Anglo-Jewish community in Britain dates from 1656; consisting of some 410,000 people, including both Sephardi (originally from Spain and Portugal) and Ashkenazi (from Germany and Eastern Europe), it has become one of the largest groups of Jews in Europe. The community is divided into two schools of thought—the Orthodox, to which about 80 per cent of practising Jews belong; and the Reform, which originated in 1840 and was followed in 1901 by the Liberal Jewish movement. The Chief Rabbi is the head of the largest group (Ashkenazi) within Orthodox Jewry; the Haham is the head of the Sephardi group. Jewish congregations in Britain number about 450. There has been an increase in the number of Jewish denominational schools, which are now attended by about one in five Jewish children.

Other Religious Communities Immigrants to Britain from Commonwealth and foreign countries have established centres of worship, especially in London, for their own communities. Among the Christian communities represented are Orthodox, Lutheran and Reformed Churches of various European countries and the Armenian Church.

The principal non-Christian communities in Britain, apart from the Jews, are the Muslims, Buddhists, Hindus and Sikhs. It is estimated that there are nearly one million Muslims in Britain; there are mosques or Islamic centres in London, Manchester, Liverpool, Bradford, Cardiff and in many of the other large cities in Britain. The community's headquarters are at the London Central Mosque and Islamic Cultural Centre. The Buddhist Society has its headquarters in London, with a Shrine Room and a Buddhist library claimed to be one of the finest in Europe; there are also Shrine Rooms in the three Viharas in London, one of which is run by Thai monks and supported by the Thai Government. In Scotland there is a Shrine Room at the Tibetan Centre. Hindu and Sikh temples have been established in many areas where Asian immigrants have settled.

The British Council of Churches, composed of representatives or consultant observers from all the main Christian churches in the British Isles, facilitates common action among the churches and seeks to further Christian unity. It works with the Conference of Missionary Societies of Great Britain and Ireland.

The Free Church Federal Council (which has a concordat with the British Council of Churches) comprises most of the Free Churches in England and Wales and aims to promote unity and joint action among the Free Churches and to provide a channel for communication with central and local government authorities.

The Permanent Anglican-Roman Catholic Commission explores points of possible unity between the two Churches.

The Anglican and the main Free Churches in the British Isles also participate in the World Council of Churches (of which the British Council of Churches is an associated national council) which links together some 250 churches in over 80 countries for co-operation and the study of common problems. The Council of Christians and Jews works for better understanding among members of the two religions and deals with problems in the social field.

The New English Bible, a translation into modern English completed in 1970, is the result of co-operation among many of the Christian churches in Britain.

The Sharing of Church Buildings Act 1969 enables agreements to be made by two or more churches for the sharing of church buildings.

11 The National Economy

Britain's economy is characterised by the contribution of manufacturing industry and services¹ to national output—accounting, respectively, for about 30 and 45 per cent of total domestic income—and the importance of international trade (exports of goods and services, that is, visible and invisible exports, equal about 26 per cent of gross domestic product). Britain ranks fifth in world trade (after the United States, the Federal Republic of Germany, Japan and France) and accounts for 6 per cent of total trade between the market economies. It takes about 9 per cent of the world's exports of primary products, and contributes almost 9 per cent to the main manufacturing countries' exports of manufactured goods.

The discovery and exploitation of North Sea oil and gas resources is having a fundamental effect on the economy.

As a result of a high level of agricultural productivity, Britain provides just over half the food it needs from its own soil, although only 2.8 per cent of the working population are engaged in agriculture—a lower proportion than in any other major industrial country. The remaining agricultural supplies are imported, Britain being among the world's largest importers of such products as wheat, meat, butter, fodder grains, fruit, tea, tobacco and wool. Other imports include raw materials (such as metallic ores, crude oil and timber) and semi-manufactures (for example, chemicals and textile yarns), as well as manufactured products.

The imports are paid for by exports of (mainly) manufactured goods and by invisible transactions—earnings on overseas investment (Britain is the world's second largest overseas investor, after the United States), travel, civil aviation, British-owned shipping, and financial, banking, insurance and other services. Britain is one of the world's largest exporters of aircraft, motor vehicles, electrical equipment, finished textiles and most types of machinery. The country's competitive ability strongly influences the economic growth rate and the standard of living. The gross domestic product per head of population rose in real terms by about 23 per cent between 1964 and 1974.

The significant contribution made to export earnings by invisibles is in large measure a reflection of Britain's position as a major financial centre. Its banks, insurance underwriters and brokers and other financial institutions provide worldwide financial services. The City of London contains perhaps the most comprehensive and advanced capital market in the world.

Earlier Development of the Economy

As a result of the 'Industrial Revolution' during the eighteenth and nineteenth centuries (when a series of inventions led to a complete change in the character of production), Britain emerged as the first great industrial nation and as a pioneer of new methods in transport, communications and technology. It

¹ Services in this context cover transport, communication, distributive trades, insurance, banking, finance and business services, public health and education, and other services excluding public administration, defence and ownership of dwellings.

occupied a leading position as world manufacturer, merchant, carrier, banker and investor, and its fast-growing economy supported a rapidly increasing population. In the period from 1870 to 1890 British industry had a clear lead over that of other countries. Between 1890 and 1914, industrial competition from Europe and North America grew, but its effects on Britain's export industries, particularly cotton textiles and coal, were offset by a number of factors including the rise in world trade and the returns on Britain's large overseas investments.

Following the first world war Britain's older industries met increasing competition, for example, in coal and iron and steel from other European countries and in textiles from some eastern countries where labour was cheaper. The difficulties were increased by the world economic depression which began in 1929 and the associated attempts by many countries to reduce imports. The result in Britain, as in many other countries, was heavy unemployment.

After 1932 levels of production and employment rose. The decade saw a strong expansion in the vehicles, electrical, chemical and aircraft industries, while the construction of 3 million houses brought about a large growth in the building and ancillary industries.

The Second World War and After During the second world war (1939-45) rapid and far-reaching re-orientation of the economy towards the war effort was secured by central planning. The Government involvement in the economy which this implied has remained, in a modified form, a permanent feature of the British economic system.

In spite of generous aid from the United States and Canada, the war ran down British domestic capital by about $\pounds_{3,000}$ million, through shipping losses, bomb damage, and arrears of industrial maintenance and replacements. Some $\pounds_{1,000}$ million worth of overseas investments were sold, nearly half in North America, and new external debts of $\pounds_{3,000}$ million were accumulated, while exports were greatly reduced.

After the war rationing and other controls were relaxed gradually as civil production expanded and trade recovered. Quantitative restrictions on most imports were gradually removed, exchange controls on transactions between the sterling area and the rest of the world were also for the most part lifted, and convertibility of sterling on current account was introduced for nonresidents.

ECONOMIC MANAGEMENT

The objectives of the Government in managing the economy are to achieve a steady rate of growth, rising exports and investment, a high level of employment and a more equitable distribution of income. Its policies are carried out by the main government departments with economic responsibilities on a national scale: the Treasury, the Departments of Trade, Industry, Employment, Energy, Prices and Consumer Protection, and the Environment, and the Ministry of Agriculture, Fisheries and Food.

An important advisory body on general economic policy is the National Economic Development Council, which brings together representatives of government, management and trade unions under the chairmanship of the Prime Minister. It has an independent but publicly financed secretariat and has established a number of economic development committees dealing with different industries and services and different aspects of industry. Other bodies responsible for advice on specific aspects of policy include the Monopolies and Mergers Commission (on action to prevent the abuse of monopoly power, see

THE NATIONAL ECONOMY

p. 209) and the Office of Manpower Economics (which provides the secretariat for the three pay review bodies, see p. 348).

On matters of major public policy such as the broad economic strategy, and problems such as inflation and industrial relations, the Government makes known its purposes, and keeps in touch with developments throughout the economy, by means of informal and continuous links with the chief industrial, financial, labour and other interests. Final responsibility for the broad lines of economic policy rests with the Cabinet (see p. 43).

The Secretary of State for the Environment has responsibilities for regional planning in England, which is carried out with the help of the Regional Economic Planning Councils and Economic Planning Boards. There is a council and a board in each of the eight economic planning regions: Northern, Yorkshire and Humberside, East Midlands, East Anglia, South East, South West, West Midlands and North West. The councils, which are advisory bodies, comprise part-time members with wide experience of their regions. They help in the preparation of broad economic and land-use strategies which provide a regional framework for national and local planning and investment decisions. The boards consist of senior officials in the regions of the government departments concerned with aspects of regional planning. They coordinate the regional work of departments and provide the councils with information and advice.

Scotland also has an Economic Council and an Economic Planning Board; there is a Welsh Council and a Welsh Planning Board; and Northern Ireland has an Economic Council.

The period after 1945 was one of rising production and, until 1970, a low level of unemployment (generally 2.5 per cent or lower); but economic growth, which averaged 2 to 3 per cent up to 1971, was rather slower and more intermittent than in most other western European countries. There were also certain persistent economic problems, such as periodic difficulties with the balance of payments especially during periods of relatively high pressure of demand. In spite of the contribution from invisibles, there were substantial deficits on current account in a number of years.

In the 1960s successive governments sought to deal with these problems in a number of ways, sometimes restraining the growth in home demand and implementing policies designed to hold down rises in incomes and prices. Following the devaluation of sterling in 1967, from \$2.80 to \$2.40 = \pounds_1 , exports recovered, leading to a substantial surplus on visible trade and a record current account surplus by 1971.

In July 1971 the then Government embarked on a policy designed to raise the economic growth rate and so reduce the unemployment rate, which had begun to rise rapidly. Consumer demand was strongly stimulated; other measures over the following 18 months included an increase in investment incentives (see p. 210), changes in the administration of regional policy (see p. 210) and in the taxation system (for the present system see p. 365) and the establishment of a new system of control over money and credit (see p. 370). In 1973 as a whole the economy achieved an annual growth rate of about 5 per cent; growth slackened, as the year went on, from the 8 per cent annual rate reached in the first quarter. With the onset of the world energy crisis towards the end of the year, however, and a prolonged dispute in the mining industry, special measures were necessary for a time to conserve energy; this had the effect of reducing production temporarily. During 1974 the world

Regional Economic Planning Machinery

Guidance of the Economy

economy entered a phase of recession, caused mainly by accelerating inflation and the large increases in the cost of oil (see p. 381).

The Budget presented to Parliament in November 1974 (following a full Budget in March and budget-type measures in July) was designed to improve employment prospects in 1975 by relieving financial pressures bearing on firms and to steer resources from personal or public expenditure into exports and investment, while helping those least well placed to protect themselves against the effects of rising prices. At the time of the Budget of April 1975, in the face of a large balance-of-payments deficit-caused mainly by the rise in oil prices and financed by external borrowing-and in the expectation of growth in world trade during 1976, the Government took measures designed to release resources for exports, strengthen Britain's industrial base and reduce the public sector borrowing requirement as a percentage of gross national product.

Control of Inflation Inflation, which began to gather momentum in the 1950s and 1960s, has continued to rise in Britain, as in most other developed industrial countries, in the 1970s. Britain's inflation rate accelerated during 1973 and 1974 because of rapid increases in world prices of food and raw materials (especially oil) which it must import in large quantities. Rises in commodity prices began to moderate in 1974, however, and in 1975 the prices of many commodities fell, leaving continued increases in wage rates as the main cause of inflation during the first half of the year; these increases were expected to slow down as a result of the policy introduced in July (see below). Table 8 gives a broad indication of the rate of inflation since 1964.

TABLE 8: Price Indices of Total Final Expenditure (1970 = 100)

| 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| 75.4 | 78.7 | 81.9 | 84.2 | 88.8 | 93.2 | 100.0 | 108.0 | 115.3 | 127.5 | 151.5 |

Source: National Income and Expenditure 1964-74

Since the second world war successive governments have adopted policies --some including statutory controls of pay or prices or both-to slow down the rate of inflation. The present policy follows from the 'social contract'---an agreement originally reached between the Labour Party and the Trades Union Congress (TUC, see p. 000) in February 1973 on measures necessary to control inflation and achieve sustained growth in the standard of living. The Labour Party undertook to maintain free collective wage bargaining without statutory control, to control prices, to help the lower-paid and pensioners and to aim at full employment; while the TUC acknowledged that, in the absence of a statutory incomes policy, trade unions have loyalties not only to their own members but to other members of the community, and should therefore aim to keep pay increases in step with the cost of living.

In June 1974 the TUC issued a policy statement, Collective Bargaining and the Social Contract, reviewing the situation and containing recommendations (or 'guidelines') to unions and negotiators about the conduct of collective bargaining in the period ahead. The statement was a response to the Government's commitment to, and implementation of, a wide range of economic and social policies (which have included the payment of subsidies on essential foods such as milk, butter, household flour and certain kinds of bread, cheese and tea,1 a standstill on housing rents until 31st March 1975, followed by a controlled rise, and higher pensions and other social benefits).

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While the majority of wage negotiations during the 1974–75 pay round took account of the guidelines and thus helped limit the size of pay settlements, rises in the rate of inflation led to a further development of the policy in mid-1975 after consultations between the Government, the Confederation of British Industry (CBI, see p. 351) and the TUC which concluded with a broad measure of agreement. The new policy combined the continued control of prices (under a Price Code administered by an independent statutory agency, the Price Commission) with a limit of $\pounds 6$ a week on pay increases (no increases on earnings over $\pounds 8,500$ a year) and a 10 per cent limit on dividend increases. The $\pounds 6$ pay limit was introduced on 1st August 1975, for a year in the first instance, having been announced in a government policy statement, *The Attack on Inflation* (see Bibliography p. 476). This included (with some modification) new pay guidelines contained in the TUC document, *The Development of the Social Contract*. The Government also intends to reinforce control of public expenditure in 1976–77 by making more extensive use of cash limits.

Money Supply

In controlling the money supply the Government has been concerned to ensure sufficient liquidity to support the growth of output but at the same time to avoid excessive monetary expansion in a period of inflationary pressures. In 1972 and 1973 the money supply expanded rapidly, as a result of the structural changes following the introduction in 1971 of a new system of credit control (see p. 370) and the increased bank lending in sterling to the private sector. As the economy approached full capacity in 1973, successive steps were taken to restrain the increase in money and credit, including calls by the Bank of England for special deposits from the banking system (which reduce its reserve assets base). At the same time banks were requested to restrict inessential lending so that priority could be given to finance for essential purposes, such as investment and exports. In 1974 the pace of the monetary expansion slackened substantially. Interest rates had reached high levels, as in other countries, but there was some easing of short-term rates following repayments of special deposits to the banks. In the early part of 1975 the lower rate of expansion was maintained and most interest rates fell.

Role of Public Enterprise

In Britain's mixed economy, direct state intervention in industry and commerce (as well as in social, cultural and other affairs) is often effected through special public corporations set up, usually by statute, to deal with a particular activity. Though not a part of a government department, the corporations are under varying degrees of public control. The most important are those which in the public interest operate major nationalised industries-including coal, electricity, gas, steel, railways, airports and air transport, commercial road transport and postal services. These industries and services are described in their relevant sections. Altogether about 8 per cent of all employees work for these bodies. (The public sector as a whole employs about a quarter of the working population.) In 1974 the Government published proposals for community ownership of development land, the establishment of the British National Oil Corporation through which the Government would exercise its participation rights in the exploitation of Britain's offshore oil resources, the nationalisation of the shipbuilding and aircraft industries, and the bringing of privately owned commercial ports and cargo handling activities under public ownership and control.

¹ Food subsidies are being gradually phased out in the interests of limiting the growth in public expenditure.

The managing boards and staffs of the nationalised industries are chosen for their experience and competence in a particular field; they are not civil servants, and, although accountable to Parliament for their actions in a variety of ways, it is they and not the ministers of the sponsoring departments who are responsible for management. Certain of the nationalised industries are selfsupporting; others receive Exchequer grants to help them to carry out duties with which they have been charged.

The extent to which the responsible minister has power over the working of the boards which have been set up to run the nationalised industries varies from industry to industry, but two features are common to almost all of them. First, the minister appoints (and may dismiss) the chairman and members of each board, and, secondly, he has power to give general directions as to how the industry should be run, but does not interfere in day-to-day management. It is usually also laid down that the board shall give to the minister any information, statistics and financial accounts which he may require. In practice, as the responsible minister is kept fully informed and major policy decisions are reached in consultation with him, there is very seldom occasion for him to issue a formal directive.

The minister also has financial powers and responsibilities. The usual statutory requirement is that the board is required to conduct its business so that receipts at least balance outgoings over a period. However, financial targets have been agreed by the Government with the different industries (or are under discussion) ranging from 12.4 per cent gross return on capital employed to 'breaking even' after interest and depreciation have been allowed for. In addition the industries are expected to apply a test discount rate of 10 per cent for new investment. The responsible minister is usually empowered, subject to Treasury approval, to say what shall be done with any surplus revenues which may accrue. As regards finance for capital expenditure, the present system is that finance which cannot be met from internal sources is provided mainly by interest-bearing loans from the Exchequer and in certain cases by borrowing from abroad.

It is usual for the minister responsible for each nationalised industry to be required by statute to take steps to see that the interests of the industry's customers are protected. This is generally done by the establishment of representative consumers' councils to consider complaints and suggestions made to them, and to advise the board or the minister on the changes they think desirable.

Government policy towards the nationalised industries is subject to the approval of Parliament. Opportunities for parliamentary discussion are afforded by debates, including debates on their annual reports and accounts, and by answers to parliamentary questions, which, in principle, are admissible only if concerned with policy rather than details of administration. A sessional House of Commons Select Committee on the Nationalised Industries examines the reports and accounts of the nationalised industries. (Its powers of investigation also include several other public corporations such as the Independent Broadcasting Authority, Cable and Wireless Limited and certain activities of the Bank of England.)

Apart from public corporations, state participation and intervention in industry takes several other forms, described on pp. 208–14. Under the Industry Bill, introduced in 1975, the Government is to set up a National Enterprise Board. One of the board's functions would be to execute the Government's policies in relation to state shareholdings in the private sector (see p. 208).

THE NATIONAL ECONOMY

European Community Membership

Overseas Trade and Payments The main economic adjustments provided for in the Treaty of Accession to the European Community are set out in Chapter 3 and in other relevant chapters.

THE EXTERNAL POSITION

In the years following devaluation in 1967 exports of goods and services increased rapidly in real terms. Helped by a record surplus on current transactions of over $\pounds_{1,000}$ million in 1971, and by massive capital inflows, the reserves stood at the high level of just over $\pounds_{2,740}$ million by the end of May 1972, after the repayment of all official short- and medium-term debt.

In 1972 the trade balance began to deteriorate; imports were swollen by the rapid growth of domestic demand, and exports were affected by various factors including the slower growth of world trade. This deterioration, together with growing fears about inflation, led to a large outflow of short-term speculative capital in June 1972, and the Government decided to allow the pound to float and applied exchange control to transactions with the overseas sterling countries (see p. 200). The lower sterling exchange rate made Britain highly competitive, and the volume of exports, which had not changed from 1971 to 1972, increased by almost 12 per cent in 1973 and by 7 per cent in 1974. Nevertheless, mainly as a result of rising prices of imports, including oil (see pp. 380-1), and despite the positive invisible balance, there was a large deficit on the current account in both 1973 and 1974. The balance of payments improved during the course of 1975 (see p. 391). In future years increasing supplies of oil from the North Sea (see p. 267) can be expected to bring considerable advantage to the balance of payments. (For details of overseas trade and payments see Chapter 18.)

Exchange Rates In December 1971, following a period of uncertainty in international exchange markets, particularly affecting the United States dollar, a general international realignment of exchange rates was agreed at a meeting held in the Smithsonian Institute in Washington, in which all the main currencies were in effect revalued against the dollar. (The rates of exchange fixed in that agreement are called Smithsonian parities.) As part of this realignment, the sterling rate for the dollar moved up by just over 8½ per cent, the new middle rate being \$2.60571 compared with the old par value of \$2.40. This was the direct result of the US decision to raise the dollar value of monetary gold from \$35 to \$38 per fine ounce.

The exchange markets continued to be unsettled during 1972 and early 1973, causing a number of further adjustments and flotations including the floating of the pound (see above). By the end of March 1973, the dollar had been devalued by a further 10 per cent against gold, thus raising the official price of gold to \$42.22 a fine ounce and increasing the parity rate of the pound to \$2.89524. At the end of August 1975 the effective depreciation of sterling in relation to the Smithsonian parities structure (the effective rate) was about 27 per cent, and the market rate was $f_{11} = 2.1102 .

Six member countries of the European Community (Belgium, Denmark, the Federal Republic of Germany, France, Luxembourg and the Netherlands), as well as Sweden and Norway, maintain a scheme, usually called the 'snake', under which rates between any two of their currencies cannot diverge from their cross parities by more than $2\frac{1}{4}$ per cent.

Sterling

As a result of Britain's early lead in international trade and finance, many

countries tended to use sterling as their currency for international transactions. As trade and payments arrangements have become more diversified in recent years, the international use of sterling has declined relatively. However, a number of countries hold sterling balances in Britain. The term 'sterling area' applies to those countries which link their currencies to sterling and keep most of their exchange reserves in the form of balances with the Bank of England. The area includes all the Commonwealth countries (see p. 23) and their dependencies except Canada and Rhodesia, together with Bahrain, Iceland, the Irish Republic, Jordan, Kuwait, The Maldives, Oman, Pakistan, Qatar, South Africa, Namibia (South West Africa), The United Arab Emirates and the People's Democratic Republic of Yemen. The overseas sterling countries comprise the sterling area countries except for the United Kingdom, the Channel Islands and the Isle of Man, the Irish Republic and Gibraltar.

The Committee of Twenty (representative of the major industrial and the developing countries), which had been set up within the International Monetary Fund (IMF) framework, concluded its work on the reform of the international monetary system in June 1974. The committee agreed on a method of valuation of the special drawing right (SDR—an international reserve asset) for an interim period, recommended guidelines for the management of floating exchange rates, and agreed on some principles of corrective action for countries with balance of payments disequilibria.

The work on international monetary reform is being continued by the IMF's Interim Committee and the joint Development Committee of the IMF and the World Bank. Following the large increases in oil prices the IMF set up a borrowing arrangement, called the oil facility, through which countries can draw on funds lent mainly by oil-exporting countries. In September 1975 agreement was reached, subject to ratification, to remove from the articles of the IMF any special status accorded to gold in the world monetary affairs. The agreement provides for the abolition of the official gold price and of gold transactions between member countries and the IMF. The IMF's gold holdings would be gradually disposed of and part of the proceeds used to help developing countries.

In April 1975 a Financial Support Fund was set up within the Organisation for Economic Co-operation and Development (OECD—a group of 24 developed countries) as a safety net for its members in case other international measures prove inadequate to deal with their financial problems.

NATIONAL INCOME AND EXPENDITURE

The following sections sketch briefly the structure and disposal of Britain's national income in recent years.

In 1974 Britain's gross national product at factor cost (the measure of the total value of goods and services produced at home and net income from abroad) is estimated to have amounted to \pounds 73,977 million. After allowing for price changes, the increase over the 10 years since 1964 was nearly 27 per cent.

About a third of total output can be attributed to manufacturing industry and this proportion has remained more or less constant for a number of years. The expanding industry groups in recent years (in relation to the economy as a whole) have been most of the services, particularly insurance, banking and finance, public administration and health and educational services. Agriculture, forestry and fishing have accounted for a small and slowly declining

International Monetary Agreements

Output

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share, and mining for a small and more rapidly declining share. The relative contribution of the distributive trades has also declined. Table 9 summarises the contribution of each industry group.

| | 1964 | | 1969 | | 1974 | |
|------------------------|--------|-------------|---------|-------------|----------|-------------|
| | £m. | per cent | £m. | per cent | £m. | per cent |
| Agriculture, forestry | | | | | | |
| and fishing | 996 | 3.4 | 1,171 | 3.0 | 2,116 | 2.9 |
| Mining and quarrying | 744 | 2.5 | 639 | 1.6 | 1,021 | 1.4 |
| Manufacturing | 9,855 | 33.7 | 12,699 | 32.2 | 20,645 | 28.4 |
| Construction | 2,007 | 6.9 | 2,732 | 6.9 | 5,645 | 7.8 |
| Gas, electricity and | _, | 0, | 2,152 | 0 / | 5,045 | 1.0 |
| water | 916 | 3.1 | 1,388 | 3.5 | 2,255 | 3.1 |
| Transport | 1,863 | 6.4 | 2,494 | 6.3 | 4,624 | 6.4 |
| Communications | 580 | 2.0 | 930 | 2.4 | 2,024 | 2.8 |
| Distributive trades | 3,323 | 11.4 | 4,122 | 10.5 | 7,003 | 2.8 |
| Insurance banking | 0,020 | ТТТ | Τ,122 | 10.3 | 7,003 | 9.0 |
| and finance | 1,894 | 6.5 | 2,885 | 7.3 | 6 750 | 0.2 |
| Ownership of | 1,071 | 05 | 2,005 | 7.3 | 6,750 | 9.3 |
| dwellings | 1,265 | 4.3 | 2,199 | 5.6 | 1 210 | 5.0 |
| Public administration | 1,205 | TJ | 2,199 | 5.0 | 4,310 | 5.9 |
| and defence | 1,681 | 5.7 | 2 4 2 0 | () | 5 210 | = 0 |
| Public health and | 1,001 | 5.1 | 2,429 | 6.2 | 5,312 | 7.3 |
| educational services | 1,272 | 1 2 | 2.012 | - 4 | 4.0.77.4 | |
| Other services | | 4.3 | 2,013 | 5.1 | 4,854 | 6.7 |
| | 3,453 | 11.8 | 4,918 | 12.5 | 8,735 | 12.0 |
| Adjustment for | 000 | 0 = | | | | |
| financial services | -800 | -2.7 | -1,175 | -3.0 | -3,405 | -4.7 |
| Residual error | 206 | 0.7 | - 58 | -0.1 | 736 | 1.0 |
| Gross domestic product | | | | | | |
| at factor cost | 29,255 | 100.0 | 39,386 | 100.0 | 72,625 | 100.0 |
| Net property income | | 1000 | 0,000 | *00 0 | 12,025 | 100.0 |
| from abroad | 393 | | 499 | | 1,352 | |
| Gross national product | 070 | | 177 | | 1,332 | |
| at factor cost | 29,648 | | 39,885 | | 73,977 | |
| | 27,010 | | 57,005 | | 13,911 | |

TABLE 9: Gross Domestic Product by Industry^a (at current prices)

Source: National Income and Expenditure 1964-74

^a Before provision for depreciation but after deducting stock appreciation.

Discrepancies between totals and their constituent parts are due to rounding.

TABLE 10: Distribution of Total Supplies of Goods and Services (at 1970 market prices)

| | 1964 | | 1969 | | 1974 | |
|---|--------|-------------|--------|-------------|--------|-------------|
| | £m. | per cent | £m. | per cent | £m. | per cent |
| Consumers' expenditure Public authorities' cur- rent expenditure on | 28,330 | 53.5 | 30,715 | 51.1 | 35,741 | 50.2 |
| goods and services Gross domestic capital | 8,138 | 15.4 | 8,960 | 14.9 | 10,449 | 14.7 |
| formation ^a Exports of goods and | 8,477 | 16.0 | 9,647 | 16.1 | 10,358 | 14.5 |
| services | 7,991 | 15.1 | 10,740 | 17.9 | 14,654 | 20.6 |
| Total final expenditure | 52,936 | 100.0 | 60,062 | 100.0 | 71,202 | 100.0 |

Source: National Income and Expenditure 1964-74

 a Including value of physical change in stocks and work in progress (£553 million in 1974).

Use of Resources

Personal Income and Consumers' Expenditure

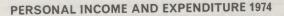
Sources of Income Table 10 shows the distribution of total supplies of goods and services in 1964, 1969 and 1974 at 1970 market prices, divided between personal consumption, public expenditure on goods and services, investment and exports.

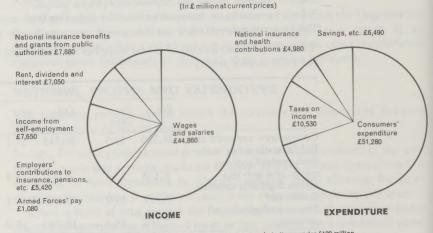
The main trends since 1964 are a fall in the proportion of total available output devoted to personal consumption and to public authorities' current expenditure and a significant rise in the proportion devoted to exports.

Personal incomes before tax at current prices rose rapidly and fairly steadily from over £27,500 million in 1964 to over £74,800 million in 1974—a compound rate of about 10 per cent a year. The increase in consumer expenditure at constant prices has, however, been only about 2.5 per cent a year. The difference is accounted for mainly by rising prices and to a lesser extent by a higher incidence of direct taxation and increased personal savings.

Income from employment in 1974 totalled £52,000 million and accounted for about 69 per cent of total personal income (compared with about 72 per cent in 1964). The three other main sources of personal income were selfemployment (11 per cent), income from rent, dividends and interest (9 per cent), and grants from public authorities (10 per cent). The general pattern of income distribution is thus dominated by income from employment.

The combined effect of taxation and transfer payments and benefits in kind¹ is to redistribute income on more egalitarian lines. According to studies by the Central Statistical Office, the effect in 1973 was to raise the highest income among the poorest fifth of households (that is, the income at the lowest quintile) from 25 to 54 per cent of the median income of all households. Similar conclusions about income redistribution were reached by the standing Royal Commission on the Distribution of Income and Wealth (see p. 347), in its first report (see Bibliography, p. 476). Illustrating trends in income over a period the report also shows a continuing decline in the share of the top 5 per cent of income recipients after tax from 17.7 per cent in 1949 to 14.2 per cent in 1972–73. The second report, on income from companies, shows that





Note: Figures are preliminary estimates (rounded to nearest £10 million) and exclude items under £120 million.

¹ Government expenditure on pensions, subsidies, education and health, and on the building of houses, schools and hospitals (sometimes called the 'social wage') amounted in 1974–75 to about £19 a week for every member of the working population.

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rather more than one-third of dividends, indirectly, go to about 11 million members of occupational pension schemes, 2.25 million taxpayers receiving occupational pensions and 14 million taxpayers who save through life assurance; these groups include many people of moderate means.

Consumers' Expenditure

The rise in the volume of consumers' spending has been accompanied, in Britain as in other advanced industrial countries, by changes in its pattern. The proportions of expenditure devoted to food, tobacco and clothing have been falling while the proportions spent on housing, alcoholic drink, and the running costs of motor vehicles have risen. These and other changes are shown in Table 11.

| | 1964 | | 1974 | |
|--------------------------------------|--------|-------------|--------|-------------|
| | £m. | per cent | £m. | per cent |
| Food (household expenditure) | 4,888 | 22.8 | 9,837 | 19.0 |
| Alcoholic drink | 1,390 | 6.5 | 3,927 | 7.6 |
| Tobacco | 1,343 | 6.2 | 2,237 | 4.3 |
| Housing (rent, rates, repairs, etc.) | 2,347 | 10.9 | 7,198 | 13.9 |
| Fuel and light | 1,000 | 4.7 | 2,268 | 4.4 |
| Clothing and footwear | 1,971 | 9.2 | 4,477 | 8.7 |
| Cars and motorcycles | 733 | 3.4 | 1,834 | 3.6 |
| Other durable goods | 1,022 | 4.8 | 2,311 | 4.5 |
| Running costs of motor vehicles | 790 | 3.7 | 3,038 | 5.9 |
| Other travel expenditure | 705 | 3.3 | 1,598 | 3.1 |
| Catering (meals and accommodation) | 1,131 | 5.3 | 2,431 | 4.7 |
| Other goods | 2,002 | 9.3 | 5,130 | 9.9 |
| Other services | 1,994 | 9.3 | 5,440 | 10.5 |
| Other items ^a | 161 | 0.7 | - 56 | -0.1 |
| Total | 21,477 | 100.0 | 51,670 | 100.0 |

TABLE 11: Changes in Pattern of Consumers' Spending (at current prices)

Source: National Income and Expenditure 1964-74

^a Consumers' expenditure abroad, less expenditure by foreign tourists in Britain, plus income in kind not included elsewhere. Discrepancies between totals and their constituent parts are due to rounding.

Current expenditure on goods and services by the central Government and local authorities rose by about 28 per cent at 1970 market prices over the period 1964 to 1974 when it amounted to about 22 per cent of the gross domestic product. The main cause of this increase was the continuing growth of the social services, especially education. Defence has recently accounted for a declining share of public expenditure on goods and services-23 per cent in 1974 compared with 36 per cent in 1964 and a peak of 48 per cent in 1953.

In addition to their expenditure on goods and services, public authorities transfer large sums to other sectors, mainly the personal sector, by way of national insurance and other social security benefits, grants, and interest and subsidies (see pp. 127 and 183). The Government also makes grants to local authorities to finance about 50 per cent of their current expenditure.

Investment

Gross domestic fixed capital formation represents about 22 per cent of the gross domestic product at factor cost. The total value of fixed assets in Britain. valued at constant replacement cost, is estimated to have increased by 47 per cent between 1964 and 1974 when their current replacement value, net of depreciation, was some £254,000 million, of which about two-thirds was accounted for by buildings and one-third by plant and machinery, and vehicles.

Public Authorities' Current Expenditure

Within the total of gross domestic fixed capital formation in 1974 (£9,805 million compared with £9,191 million in 1969 at constant prices) private sector investment accounted for 12·1 per cent of the gross domestic product at factor cost (12·2 per cent in 1969) and the public sector for 8·4 per cent (9·4 per cent). The approximate shares of industry groups in total fixed investment in 1974 were (1969 figures in brackets): manufacturing, 21 per cent (22 per cent), gas, electricity and water, 6 per cent (9 per cent), transport and communications, 13 per cent (12 per cent), distributive trades, 6 per cent (5 per cent), dwellings, 17 per cent (19 per cent), social and other public services, 15 per cent (14 per cent), and other industries, 23 per cent (18 per cent). There is a marked cyclical pattern in the flow of investment by manufacturing industry; it was at a low point in 1967 and 1972 but rose in 1973 and 1974. Among the trends over recent years have been increases in investment in agriculture, mining (other than coal mining), shipping and retail distribution.

Saving has made a significant contribution to the rising levels of investment in all the main sectors of the economy. The extent to which each sector contributed on balance, by way of lending, to the capital formation of the other sectors (and to net investment abroad) in 1972–74 or drew on the saving of the other sectors is shown by the sector's net acquisition of financial assets (see Table 12).

The main features of 1974 were the large financial deficit of the public sector and the large financial surplus of the overseas sector (which equals net overseas investment in Britain).

TABLE 12: Net Acquisition of Financial Assets

| | 1972 | 1973 | 1974 |
|---|---------------------------|--------------------------|-----------------------------|
| Public sector: Saving ^a plus capital transfers (net receipts) <i>less</i> Gross domestic capital formation ^b Net acquisition of financial assets | 3,022 -4,759 -1,737 | 2,956 5,768 2,812 | 2,238 — 7,317 — 5,079 |
| All companies: Saving ^a plus capital transfers (net receipts) less Gross domestic capital formation ^b Net acquisition of financial assets | 5,737 5,334 403 | 8,373 9,058 685 | 9,323 12,970 3,647 |
| Personal sector: Saving ^a plus capital transfers (net receipts) less Gross domestic capital formation ^b Net acquisition of financial assets | 4,064 -2,810 1,254 | 5,408 -3,173 2,235 | 7,253 - 3,006 4,247 |
| Overseas sector ^c | - 128 | 894 | 3,743 736 |
| Residual error (in national income accounts) | 208 | 368 | /30 |

Source: National Income and Expenditure 1964-74

^a Before providing for depreciation, stock appreciation and additions to reserves.

^b Comprises gross domestic fixed capital formation and increase in value of stocks and work in progress.

^c Equals, apart from the change in sign, net investment abroad.

The public sector's financial deficit (a negative net acquisition of financial assets) increased substantially in 1974 to some $\pounds 5,079$ million, \$1 per cent above 1973. Much of the public sector's deficit in 1974 was financed by borrowing overseas. Local authorities and nationalised industries accounted for most of the $\pounds 2,606$ million borrowed from overseas under the exchange cover scheme which safeguards public sector borrowers against the risk of loss

Saving and Lending

f,million

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resulting from changes in the exchange rate. Rather more than half of the central Government's borrowing requirements was covered by sales of debt to the non-bank public. The public sector's capital formation at current prices was some £1,549 million higher, and saving by both central Government and local authorities was reduced as a result of the rapid increase in current expenditure overtaking a more modest growth in revenue. Public corporations had a slightly greater surplus on current account. The company sector was in deficit in 1974 (following a smaller deficit in 1973) as company stocks rose sharply—largely because of the much higher stock appreciation—and fixed capital formation increased. The personal sector increased its net acquisition of financial assets mainly by increasing its saving and reducing gross domestic fixed capital formation.

12 Industry

Production industries (mining and quarrying, manufacturing, construction and gas, electricity and water) and distributive trades together account for more than half of Britain's gross domestic product, manufacturing for some 34 per cent and distributive trades 11 per cent. About 55 per cent of Britain's employed labour force is engaged in these sectors, while over 80 per cent of Britain's visible exports consists of manufactured or semi-manufactured products. The following sections discuss general industrial topics—such as investment, productivity, location and the Government's relations with industry—together with manufacturing industry, construction and distributive and service trades. For the energy industries (coal, gas, petroleum and electricity) see Chapter 13.

ORGANISATION AND PRODUCTION

Structure

The pattern of ownership and organisation in industry is varied. Personal, corporate, co-operative and public enterprise all assume a number of different forms, and all are important in the economy. Industrial enterprises vary from such large-scale organisations as the General Electric Company (201,000 employees) and Imperial Chemical Industries (199,000), and the public corporations such as the National Coal Board with about 337,000 employees, to the many thousands of small firms, which nevertheless account for something like one-fifth of the gross national product. Most manufacturing is in the hands of private enterprise, but it is government policy to increase control where public funds are involved. It is proposed to take into public ownership a large part of the aircraft and shipbuilding industries and of the North Sea oil resources (see p. 267) and to extend the role of public enterprise in the road haulage and construction industries. Most iron and steel production is already in public ownership. Other state-controlled products include a small range of chemicals from the plants of the British Steel Corporation; aero-engines made by Rolls-Royce (1971) Ltd.; locomotives and rolling-stock built in the workshops of British Railways; military equipment and supplies made in establishments of the defence services and fissile materials and radioactive isotopes, made by two statutory companies (see p. 235). Certain factories giving employment to the severely disabled are operated by Remploy Ltd., a non-profitmaking public company partly financed by the Department of Employment. In addition the Government has a major holding in British Petroleum Limited, and has an interest in a number of other companies.

The most recent complete analysis of the size distribution of establishments and enterprises in manufacturing industry, and of the degree of concentration, is contained in the *Report on the Census of Production 1968*. This shows that some 64 per cent (59,000) of the 92,000 or so establishments which submitted returns had fewer than 25 employees each, and accounted for 7 per cent of total employment; some 28,000 establishments, nearly one-third of the total, had between 25–500 employees, and accounted for over two-fifths of the total labour force; 2,400 establishments, each with between 500 and 2,000 employees, were responsible for 28 per cent of employment; while 21 per cent was in the hands of the 409 leading groups each with over 2,000 employees. A high proportion of the biggest establishments were in the heavy industries;

the average size of establishments in industries making consumer goods was smaller than in manufacturing industries as a whole. An enterprise, as defined in the 1968 census, normally consists of either a single firm or a parent company together with its subsidiaries. Just over 34 per cent of all employment in British manufacturing industries in 1968 was accounted for by more than 1,000 large private enterprises employing 1,000 or more people, the largest 100 or so accounting roughly for a third. A further indication of company size is the value of capital employed (net assets). In the case of three companies, the Imperial Chemical Industries group, British Petroleum and Shell Transport and Trading, the figure exceeds £2,000 million; about 100 companies registered in Britain have over £100 million net assets. Of the top 20 industrial groups in Europe in terms of annual sales, five are British.

With intensified competition in the economy and, in many branches of industry, the growing dependence of profitable operation on concentration and economies of scale, the trend towards mergers and regrouping has gathered momentum in recent years, although it was considerably less marked in 1974. Larger units of control have been established in almost all the leading industries and in some a small number of big companies and their subsidiaries are responsible for a very large proportion of total production. Examples are oil refining, non-ferrous metal smelting, motor vehicles and aircraft, heavy electrical engineering, electronics, machine tools, brewing, textiles, basic chemicals, tobacco and magazine publishing. Shares in these companies are, however, usually distributed among a great number of holders or are held by insurance companies or pension funds representing a broad cross-section of the community, and it is rare for a few large holders to have a controlling interest. For example, more than 40 of the largest public companies each have more than 100,000 shareholders.

Private industrial undertakings have increasingly entered into voluntary association for a number of different purposes, including the provision of common services, the exchange of information and representation of their members' point of view; the regulation of trading practices; and negotiation with trade unions on wages and conditions of work. Associations for these purposes cover, with varying completeness, most of British industry. Trade associations, concerned mainly with representation to the Government, the provision of common services and the regulation of trading practices, are normally composed of firms manufacturing a particular product or group of products. Employers' organisations which deal with employment matters usually consist of firms engaged in the same type of operation or manufacturing process. In an industrial sector concerned wholly with an allied group of products, a single association may undertake all the required functions.

There are about 50 national federations and some 1,100 employers' organisations (mostly regional or local, and members or branches of the national federations) concerned with negotiation of wages and conditions of work (see p. 350). The number of manufacturers' associations concerned with providing common services is not known precisely but is thought to total some 1,200 varying greatly in importance, structure and activities.

The central body representing British industry nationally is the Confederation of British Industry (CBI), recognised by the Government as a channel for consultation between government departments and representatives of private employers as a whole. For its members it acts as an advisory and consultative body providing them with information and statistics, ascertaining their collective views and representing them nationally to the Government and the

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public and also internationally, for example in the Council of European Industrial Federations. CBI representatives sit on the National Economic Development Council, the Manpower Services Commission, the Health and Safety Commission and other official advisory committees and voluntary bodies concerned with matters affecting industry.

The CBI membership consists of some 12,000 companies and about 230 employers' organisations and trade and commercial associations. Nationalised industries have joined as industrial associates. The CBI has a regional organisation in Britain and is widely represented abroad. In matters of common concern the CBI often acts jointly with the chambers of commerce. These are open to all kinds of producers and traders and exist to promote the interests of local industry and commerce. The Association of British Chambers of Commerce, founded in 1860, is the central organisation to which approximately 100 local chambers of commerce (together with 20 British Chambers of Commerce operating abroad) are affiliated. These chambers have a membership of about 50,000 firms. In Scotland there is an additional central organisation, the Scottish Chamber of Commerce, and in Northern Ireland the Northern Ireland Chamber of Commerce and Industry to which local chambers are affiliated.

The Government and Industry

Within the framework of economic and social policy as a whole it has been a continuing aim of government policy to promote the expansion and modernisation of industry and at the same time to develop an effective solution to the problems of regional imbalances. The Government has traditionally sought to influence industrial activity in a number of ways—through fiscal and monetary policy, through the level of public expenditure, by incentives for industrial investment and by the provision of services, information and advice. Legislative arrangements have been developed to control aspects of employment, monopolies, mergers and restrictive practices and new industrial and office building and changes in land use.

The aims of the new Industry Bill introduced in 1975 are to encourage investment in manufacturing industry, extend public ownership in profitable industrial firms and increase industrial democracy by closer dialogue between Government, management and the trade unions. The National Enterprise Board, a public corporation to be established under the Bill with funds totalling $f_{.1,500}$ million, will provide a new source of public investment capital. It will establish new industrial enterprises and give selective financial assistance, extend public ownership by acquiring individual firms and administer government shareholdings in industry. In Scotland and Wales, regional functions of the National Enterprise Board will be the responsibility of Scottish and Welsh Development Agencies (see p. 213). Planning agreements between Government and leading firms and the disclosure of information by certain firms to the Government and the relevant trade unions are the other main provisions of the Bill. It also amends certain provisions of the Industry. Act 1972 (see p. 212) concerning selective financial assistance to industry.

The Department of Industry (see p. 51) is responsible for industrial policy as a whole on both a national and regional level; 1975 marked the devolution of certain responsibilities towards industry in Scotland and Wales to the Scottish and Welsh Offices respectively (see pp. 56 and 55). In Northern Ireland the Department of Commerce (see p. 58) deals with industry and industrial development. Related responsibilities (for example, those of the Department of Employment for manpower affairs) are discussed in the appropriate chapters.

In addition there is close association between industry and the Government through such channels as the National Economic Development Council, the main forum for consultation between the Government, management and the trade unions, and the Economic Development Committees (EDCs) which cover particular industrial sectors.

The EDCs bring together leading representatives of government, management and unions to study, and make recommendations on, the efficiency and prospects of individual industries.

Competition Policy

Competition policy has led to the development of machinery for scrutinising monopolies, mergers and restrictive trade practices and of powers to regulate any structural changes or uncompetitive practices which operate against the public interest. The relevant statutes are the Fair Trading Act 1973 which contains all current legislation on monopolies and mergers; it also sets out recent changes and additions to the restrictive practices legislation, of which the basis is the Restrictive Trade Practices Acts 1956 and 1968. The Director General of Fair Trading has certain statutory responsibilities in respect of monopolies, mergers and restrictive practices, in addition to his work on consumer protection.

The objective of the competition policy of the European Community is to promote free and fair competition throughout the nine member countries. The Community's rules of competition, which are set out in the Treaty of Rome, ban practices which prevent, restrict or distort competition and prohibit the abuse of 'dominant positions'. These rules apply where trade between member countries may be affected. Agreements which fall within the rules must be notified to the Commission of the European Community; they have limited powers to exempt agreements which, though restrictive of competition between member countries, benefit the Community in defined ways.

Monopoly situations can be referred-by the Secretary of State for Prices and Consumer Protection or by the Director General of Fair Trading-for investigation by the Monopolies and Mergers Commission. The market share by reference to which monopoly is defined is one-quarter; local monopolies and monopolies in public sector industries can also be referred to the commission. If the commission finds that monopoly conditions operate against the public interest (for example, the commission must take into account the need to maintain and promote the balanced distribution of industry and employment in Britain) the Department of Prices and Consumer Protection has powers to make orders and otherwise to remedy or prevent the harm which the commission considers may result. These powers are, however, not available to implement reports by the commission on general references or references of restrictive labour practices. The Director General of Fair Trading also has the duty, when requested by ministers, of negotiating undertakings with the firms concerned following a commission report, of advising on the use of the ordermaking power and of supervising the observance of undertakings or orders.

A merger may be referred to the commission by the Secretary of State for Prices and Consumer Protection if it results in, or intensifies, a monopoly situation, or if the value of gross assets taken over exceeds $\pounds 5$ million. There are special provisions relating to newspaper and certain other mergers. The Director General of Fair Trading has the same task of advising on the action to be taken following a commission report on a merger reference that he has in relation to monopoly reports.

European Community

Monopolies and Mergers

Restrictive Trade Practices The Restrictive Trade Practices Acts 1956 and 1968, as amended by the Fair Trading Act 1973, require the entry in a public register of the particulars of a wide range of restrictive agreements (including those relating to common prices, approved lists of dealers and the limitation of production) which affect the supply of goods or commercial services for the British market. Such agreements must be notified to the Director General of Fair Trading who is responsible for bringing registered agreements before the Restrictive Practices Court. The court, which was set up under the 1956 Act, has powers to prohibit the operation of agreements which it decides are contrary to public interest. Registration and judicial examination has applied to agreements relating to goods since 1956. Under powers provided in the Fair Trading Act, they will be applied to commercial services in 1975. Not all restrictive agreements are taken before the court; there is a frequently used procedure by which those containing only insignificant restrictions may effectively be exempted. The Secretary of State for Prices and Consumer Protection may exempt proposed agreements of substantial importance to the national economy or agreements designed to keep prices down. Restrictive agreements relating exclusively to exports are not subject to registration but they must be notified to the Director General of Fair Trading (and to the Commission of the European Community if they fall within its rules of competition).

Encouragement of Investment Britain has a generous system of national incentives for industrial development which compares favourably with the incentives offered by other member countries of the European Community or the United States. Under the Finance Act 1972 incentives to encourage capital expenditure in plant and machinery take the form of a system of free depreciation enabling the whole of such expenditure to be written off against profits for tax purposes in the year in which it is incurred; there is in addition a 54 per cent initial allowance on new industrial buildings and structures and an annual writing down allowance of 4 per cent thereafter. Direct investment from overseas is also encouraged, and overseas firms are offered the same facilities and incentives as those applying to British-owned companies.

Industrial and Regional Policy Economic imbalance between different parts of the country is due partly to the steady decline over the years of older industries, such as coalmining and shipbuilding, causing a high level of unemployment in certain regions and such adverse factors as poor amenities, derelict buildings and land and net outward migration. In addition, the newer and expanding industries have tended to develop mostly in the Midlands and the South East, and unemployment has remained a persistent problem in Scotland, Wales, Northern Ireland and some parts of England, particularly the North and Merseyside. The ending of regional imbalance has been an objective of successive Governments. Financial and other aid to areas of high unemployment began in the 1930s and has been expanded considerably over the years.

Assisted Areas

The map (see p. 211) shows those parts of the country where preferential assistance is offered by the Government to encourage industrial development and the movement of office and other service employment. The assisted areas cover the whole of Scotland, Wales, Northern Ireland and the North Yorkshire and Humberside regions; almost all of the North West Region; parts of the South West and East Midlands regions; and Oswestry in the West Midlands. There are three different categories of assisted area; special development areas, where the economic situation and consistently high rates of

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unemployment give rise to the most urgent need for assistance; development areas with similar but rather less severe problems, and the intermediate areas, where some assistance is necessary but where the need is relatively less acute than in the other types of area. Under the Industry Act 1972 regional development grants are available in the assisted areas to help meet the cost of buildings and works on premises used wholly or mainly for specified activities in manufacturing, construction and mining and, in the special development and development areas only, towards the cost of plant and machinery as well. These grants are not limited to projects creating employment, and are thus available to help with improvements and modernisation. In addition, they are not treated as reducing the capital expenditure which qualifies for tax allowances.

The Industry Act also provides for selective financial assistance for projects which are likely to provide, maintain or safeguard employment in any part of the assisted areas. Assistance may be provided in a number of forms, the usual forms for employment-creating projects being loans at concessionary rates of interest, interest relief grants and removal grants. In the year ended 31st March 1975 some $\pounds 213$ million was paid in regional development grants under the Industry Act, and $\pounds 69$ million was offered in regional selective assistance. Regional selective assistance is expected to lead to the creation of 58,000 new jobs in the next five years.

Under the Finance Act 1967 a regional employment premium is payable to firms with manufacturing establishments in the development and special development areas.

It is planned that Britain should receive nearly 28 per cent of the funds allocated to the European Regional Development Fund, set up in 1975. For the period 1975–77 the fund has been allocated some £550 million to spend in regions of the Community suffering from problems of a preponderance of agriculture, industrial change and structural under-employment. Britain's gross share of the fund should be £30 million in 1975 and £60 million in both following years, but the net receipts after deducting payments into the fund should be about £20 million a year. Loans are also available on favourable terms from the European Investment Bank and the European Coal and Steel Community. (See p. 78.)

Other forms of assistance available include the provision of modern factories for sale or rent on favourable terms in the development and intermediate areas, and grants to ease the transfer or establishment of a business and its key workers in the development and intermediate areas. Factory building and estate management formerly undertaken on the Department of Industry's behalf by the English, Scottish and Welsh Industrial Estates Corporations, are in Scotland and Wales to become the responsibility of the Scottish and Welsh Development Agencies. The Government also influences the location of industry by requiring industrial development certificates (IDCs), for the building of new factories outside the development areas. The purpose of this control is to direct potentially mobile projects towards the areas of greatest employment need. From 1st July 1975 the administration of regional selective financial assistance, formerly the responsibility throughout Great Britain of the Department of Industry, became the responsibility in Scotland and Wales of the Secretaries of State for these countries and is carried on by the Scottish Economic Planning Department and the Welsh Office respectively.

Machinery

Within the Department of Industry an Industrial Development Unit helps with the appraisal, negotiation and monitoring of projects referred to it. This unit will continue to provide advice on request to the Scottish and Welsh

Offices. An Industrial Development Advisory Board, made up of members prominent in industry, banking, accounting and finance and international industrial investment, advises generally on industry-wide problems and priorities, and considers specific major cases for selective assistance. Scottish and Welsh Industrial Development Advisory Boards are being established on a statutory basis to advise on projects which are the responsibility of the Secretaries of State for Scotland and Wales.

The Department of Industry's regional organisation in England has an important degree of authority for dealing with applications for selective financial assistance. Regional industrial development boards operate in the North, North West, Yorkshire and Humberside and South West regions. Regional Industrial Development Boards have been set up in Scotland, Wales, the North, North West, Yorkshire and Humberside and South West regions. The boards advise generally on regional industrial opportunities and on applications for selective financial assistance for the development of industry in their regions. The links between Regional Economic Planning Councils and Boards and the department's regional offices have been strengthened so that the process of industrial regeneration in a region and the planning of its land use and other physical resources can be properly co-ordinated.

Development Agencies The Government intends to establish Scottish and Welsh Development Agencies for providing new machinery to assist in the economic and environmental development of these countries. The agencies will be responsible to the Secretaries of State for Scotland and Wales respectively and will perform functions similar to the regional functions of the National Enterprise Board as well as taking over responsibility for industrial estates and factories (see p. 212) and the tasks of removing industrial dereliction and undertaking projects to improve the environment, with an emphasis on areas in need of both economic and environmental redevelopment.

Northern Ireland

Under separate legislation capital grants are available at 30 per cent of the cost of new buildings, machinery and equipment for the manufacturing, construction and extractive industries in Northern Ireland. Total expenditure inclusive of grants qualifies for tax allowances. There is also provision for assisting firms by means of loans to carry out major schemes of re-equipment, to move to another area in particular need of industrial development or to undertake a rehousing of their business in association with a major scheme of modernisation and reorganisation. Help under the capital grants legislation is given without regard to the number of jobs created.

As an alternative means of assistance in Northern Ireland comprehensive and flexible powers are offered under the Industries Development Acts for projects which offer a reasonable amount of employment. In such cases industrial development grants of up to 40 per cent of expenditure on new buildings, machinery and equipment are available, with tax allowances as above. For those projects which offer exceptionally attractive returns in employment or location within Northern Ireland, the assistance offered can include tenancy of a government-built factory at low rent (including possibly a rent-free period), grants towards operating costs in the initial stages, and grants towards costs of removing existing machinery and installing it in a factory in Northern Ireland.

Since 1945 nearly 200 new firms have been established in Northern Ireland and others expanded with government assistance, and the number of people now employed in grant-aided industry totals over 75,000. A Finance Corporation

with an initial capital of \pounds 50 million was formed in 1972 to aid industrial and commercial concerns which have short-term liquidity problems but long-term prospects of viability.

Councils to Promote Industry Certain regions and areas in England have industrial development associations concerned with promoting local industry and sponsored mainly by local authorities, trade associations and individual firms.

Several voluntary associations are concerned with Welsh industry, the Development Corporation for Wales, founded in 1959, being the most prominent. In Scotland, the Highlands and Islands Development Board, a statutory body, works to stimulate the economic and social development of the seven 'crofting' counties (see p. 295). It provides grants and loans to industrial, commercial and other enterprises; it may also acquire land, provide management and other advisory services and set up and carry on businesses. The Scottish Council (Development and Industry), a non-profit-making body, works to promote the general economic development of Scotland.

Rural Industries Encouragement is also given to the development of rural industries. Much of this work is done under the aegis of the Development Commission. In England and Wales this service is provided by the Council for Small Industries in Rural Areas acting in consultation with the rural community councils through their small industries committees in the counties; in Scotland by the Small Industries Council for Rural Areas of Scotland; and in Northern Ireland by the Local Enterprise Development Unit (LEDU). All these agencies provide advice and guidance to small businesses in rural areas and country towns, finance for small factories to stimulate rural industries and (except LEDU) loans for assistance to tourism in the rural parts of development areas.

Small Firms Within the general arrangements for promoting industrial expansion and modernisation, smaller firms, which account for about one-fifth of manufacturing output and about one-third of employment, have recently received more government attention. In the Department of Industry there is a minister with special responsibility for the small firms sector and a separate division responsible for the development, inter-departmental co-ordination and implementation of policy towards small firms and for the administration of the official services provided for them. The most important of these is the network of ten small firms information centres in Great Britain, which work in co-operation with Chambers of Commerce, trade associations and other organisations and are provided with a comprehensive data bank in order to guide small firms towards appropriate sources of information and assistance.

Location The following is a broad summary of the locational distribution of British industry, grouped according to the eight standard regions of England, plus Wales, Scotland and Northern Ireland.

Greater London and the South-East Region London is Britain's capital and main communication centre, and is probably still the world's most important financial centre. Lying at the head of ocean navigation on the Thames estuary it is one of the world's largest cities and largest ports, though much deep-sea-going traffic has moved down-river to Tilbury docks. It is the main centre in Britain of printing and the manufacture of clothing, food and drink, furniture, materials for the arts, precision instruments and many other specialised products. Small firms predominate in many of these industries and the average size of manufacturing firms (particularly in the central area) is well below the national average. London is also

important, especially in its outer ring, for light engineering, chemicals and consumer goods and has some heavy engineering plants and a number of leading research establishments. There has been in recent years, however, a considerable drop in employment in manufacturing industry in London, due mainly to increasing shortages of labour and the rising cost of land.

Towards the periphery of Greater London and in the surrounding Outer Metropolitan Area, industry, particularly the electronics and consumer goods industries, has expanded greatly; some of the largest aircraft plants are in these areas, for example at Weybridge and Hatfield, as well as two of the four main motor vehicle manufactures at Dagenham, Luton and Dunstable. There are other major motor vehicle manufacturing plants at Cowley, Oxford, some 50 miles north-west of London. Along the lower Thames and Medway estuaries there are large oil refineries as well as some smaller shipyards, engineering works and major concentrations of the paper and pulp and cement industries. There are centres of manufacturing industry at Crawley, Basingstoke, in the Medway towns and the Aldershot–Farnborough area.

A great part of the Channel coast eastwards from Southampton consists of built-up areas, which from Brighton eastwards are partly dormitories for people working in London. Holiday resorts fringe the coast. Portsmouth is a naval port with some shipbuilding and general manufactures. Southampton is one of Britain's leading ports for both passengers and freight; its industries include ship repairing, oil refining, cable-making, electronics and synthetic rubber. Dover, Folkestone and Newhaven are ferry ports.

Though famous for its tourism, leisure industries and agriculture, the southwest of England has a busy manufacturing sector. Bristol, the region's administrative and commercial centre, is a leading port and the largest industrial city, having food processing, tobacco, packaging materials, printing, aerospace, machinery and a wide range of other industries; there are extensive modern docks at Avonmouth, an industrialised suburb with important basic chemicals and non-ferrous metal plants. Plymouth, with the naval dockyard and electrical and other industries, is an important manufacturing centre. The towns of Gloucester, Poole, Christchurch, Cheltenham and Bath are major producers of machinery, instrumentation and other engineering products. Swindon has vehicle, electrical and electronic engineering. Clothing, footwear, and other textile products are made at several centres. In the Camborne, Redruth, Falmouth and St. Austell areas, Cornwall has china clay and tin mining, and machinery manufacture, ship repairing and other forms of engineering.

East Anglia Although the smallest of the regions East Anglia has been rapidly growing in terms of both population and employment. A major contribution to this growth has been made by the nine towns receiving overspill of population and industry from London. The area is one of the most productive agricultural regions in the world and this has provided a firm base for the growth of the food processing industry, which is concerned mainly with canning, and more recently freezing local produce. Cambridge is a major centre of research-based industry; Ipswich and Peterborough are noted for diesel engines, agricultural machinery and engineering generally and Norwich for footwear and food manufacture. The east coast ports of Great Yarmouth and Lowestoft have become important bases for companies associated with oil and natural gas exploitation in the North Sea.

West Midlands

South-West

England

The main concentration of industry is in the West Midlands metropolitan county which includes the districts of Birmingham, Coventry, Dudley,

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Sandwell, Solihull, Walsall and Wolverhampton. The economy is dominated by metal-using industries and, in particular, by motor vehicle manufacture. Some other notable industries are mechanical and electrical engineering, machine tools, castings and tubes, locks, jewellery, domestic metalware and rubber manufactures.

In north Staffordshire, a smaller conurbation centred upon Stoke-on-Trent is the centre of the British pottery and china industry and the region's major coalmining area. Other industries are rubber and electrical products. Coal mining is also important in the Cannock Chase and North Warwickshire areas.

Other important centres include Stafford, with heavy electrical and other engineering; Worcester, mechanical engineering and pottery; Burton-on-Trent, brewing and rubber; Kidderminster, carpets; and Rugby, electrical engineering. Stratford-upon-Avon, the birthplace of William Shakespeare, is an international tourist centre.

The two major new towns, Telford and Redditch, have large metal-based industries.

The industrial cities and towns of the East Midlands include Leicester noted East Midlands for hosiery and knitwear, shoes and a diversity of engineering products; Derby for general engineering, aero-engines and man-made fibres; Nottingham for hosiery, cycles and a variety of other engineering products, lace, pharmaceutical products and tobacco; Northampton, footwear and engineering; and Chesterfield, engineering. Northampton was designated a new town in 1968. Corby, a new town in Northamptonshire, has a large integrated steel works. Part of Britain's richest and most highly mechanised coalfield lies under the north-east of the area. Some of the towns on the coalfield, such as Mansfield, have important manufacturing industries, particularly textiles. Lincoln is noted as an engineering centre.

> The North-West comprises the metropolitan counties of Greater Manchester and Merseyside and the counties of Lancashire and Cheshire. Manchester is Britain's second most important commercial and financial centre and a major port. It is one of the chief centres for electrical and heavy engineering and for the production of a wide range of goods including computers, electronic equipment, petrochemicals, dye-stuffs and pharmaceuticals. Manchester's traditional role as the centre for the Lancashire textile industry is only a small part of its present-day activities. The textile towns, while adapting to the increasing use of man-made fibres and moving into new textile products, such as carpets, have seen engineering outgrow the textile industry. The largest towns, Bolton, Stockport, Oldham, Blackburn, Preston, Rochdale, Burnley and Bury, have diversified into such industries as printing, paper-making, textile and electrical machinery, light engineering and consumer goods, electronics, aircraft and heavy commercial vehicles.

The Manchester Ship Canal, which carries a substantial volume of export traffic, links Manchester and Merseyside. It passes through Warrington, with its metal industries (such as wire-drawing), Widnes, Runcorn with the chemical industry, and Ellesmere Port with its oil refinery installations, before reaching the Mersey estuary. St. Helens, to the north of the canal, is famous for glass manufacture. Liverpool, with its modernised dock system is one of Britain's leading seaports and, after London, the largest centre for processing imported foodstuffs and raw materials (flour milling, soap, sugar refining and rubber products). While it has grown to be a significant service centre its industrial strengths have changed from the older industries such as ship-

North-West England

building and repair across the river at Birkenhead to the newer industries, including electrical engineering, heavy industrial plant and motor vehicles.

University research facilities in the region are closely linked with the region's industries. Industrial research units serve most industries and are of major importance in the region's development.

The North-West has international airports at Manchester (Ringway) and Liverpool (Speke), and a well-developed rail system. An advanced motorway network provides rapid access to the rest of the country and to Europe through Leeds and Hull.

Yorkshire and Humberside Though some parts of Yorkshire and Humberside are heavily industrialised, more than four-fifths of the region is open country, including the Yorkshire Moors National Parks and part of the Peak District.

The region's industrial structure is diverse. Important industries include a wide range of engineering products, mechanised handling equipment, plastic, packaging and printing machinery, vehicle components and electric motors, metals and metal goods, coalmining, food-processing, drink, clothing, carpets, chemicals and glass containers. About 70 per cent of Britain's worsted and woollen industry is located in West Yorkshire. Bradford is the commercial centre of the wool trade. The metropolitan district of Leeds includes about half a million people in the city of Leeds, which is an important commercial centre and also has a variety of industries including men's clothing and various engineering industries. In the south, the steel centre based on Sheffield and Rotherham is noted for alloy and special steels, tools and cutlery. Yorkshire's coalfield is particularly important and production is to be extended to the Selby area, where major new reserves have been discovered. The main centres in the coalfield (Doncaster and Barnsley) are well positioned in relation to communications, particularly to motorways, which makes them natural growth points.

York, a leading tourist attraction, is also noted for chocolate and confectionery manufacture. It is an important railway centre and has substantial railway workshops. Humberside, with four ports, offers varied trading outlets to overseas markets, particularly to continental Europe. Kingston-upon-Hull, the other principal city in the region, has, in addition to port activity, industries engaged in engineering, vegetable oil-processing, chemicals, sawmilling and food-processing. The ports of Grimsby, Immingham, and Goole, the steel town of Scunthorpe, and a variety of industries, including oil-refining, on Humberside are of importance. The completion of the west-east motorway system and the Humber Bridge should assist the economic growth of the region.

Northern England

The greater part of this region (the metropolitan county of Tyne and Wear and the counties of Northumberland, Durham, Cleveland and Cumbria) is an area of hills, lakes and moorland and is relatively thinly populated. Most of the population is concentrated in the eastern coastal strip stretching from the coalfields north of the Tyne to the Tees. Within this area the main centres are Newcastle upon Tyne, Gateshead, South Shields, Sunderland, Darlington, Middlesbrough, Stockton, and Hartlepool. The main towns of Cumbria are Carlisle, Workington and Barrow-in-Furness.

The region is relatively more dependent than other parts of England on the long-established heavy industries, notably coalmining, iron and steel manufacture, shipbuilding and repairing and chemicals (the complex of chemical plants on both banks of the Tees is probably the most extensive in Europe),

which together employ about one-quarter of the male workers. Europe's largest steelmaking complex is being developed in the Teesside area. At the same time other types of industry have been successfully established in the region. It is one of the most important areas for the manufacture of electrical plant, and the many other industries include mining machinery, rolling mill plant, earth-moving equipment, machine tools, ropes, paint, glass, clothing and scientific instruments. An aluminium smelter is operating on the Northumberland coast. Atomic energy is important in Cumbria, with two nuclear power stations and other installations.

Nearly two-thirds of the population (which totals 2.7 million) live in industrial South Wales. Coalmining remains a major industry; although the numbers employed have declined substantially, the area still produces virtually all Britain's anthracite and much of its steam and other specialised coals. There are plans for the further rationalisation and modernisation of steel, the other traditional industry of South Wales, which already supplies all of Britain's output of tinplate and much of its sheet steel. In the past 35 years many new industries, including mechanical and electrical engineering, motor vehicle components, plastics, chemicals and textiles have been established throughout the former coalmining valleys and on the coastal plain. Cardiff, Newport, and Swansea are the major urban centres and, with Barry and Port Talbot, are also the major ports of the region, the latter with one of Britain's largest steelmaking plants and a deepwater harbour for importing iron ore. Inland the main concentrations of population are Rhondda and Merthyr Tydfil, the largest centres in the coalmining area.

The other main industrial area is in North Wales. Here also coalmining has declined, but the sheet steel, chemical and man-made fibre industries are important employers. In addition, and particularly in the Wrexham area, newer light industries, including domestic electrical appliances, have been introduced and on Deeside there is a large aircraft manufacturing plant.

The remainder of Wales is predominantly rural, and sparsely populated, although light industry has been introduced in many areas. Milford Haven is one of the finest natural deepwater harbours in the world and has developed as Britain's major oil importing port. It has four major oil refineries and also an ocean terminal which links it with Wales' fifth refinery at Llandarcy near Swansea. These five refineries together account for more than one-quarter of Britain's total capacity. Offshore, in the Celtic Sea, there is increasing interest in exploration for oil and gas. Wales as a whole is important as a holiday and recreational centre.

Scotland

About three-quarters of Scotland's population of $5 \cdot 2$ million is concentrated in the central lowlands between the Firth of Clyde and the Firth of Forth. The principal cities in this area are Glasgow, a major commercial centre, and Edinburgh, Scotland's capital, an administrative and cultural centre. Clydeside, which includes Glasgow, is a major shipbuilding and marine engineering centre; it produces a great variety of general engineering products, which include modules for the oil industry; the world's largest oil production platform yard is situated at Ardyne Point in the Firth of Clyde. Clydeside is also an important centre for food, drink and tobacco manufactures. The steel industry, sited mainly in Central Strathclyde, produces a wide range of products. The widely dispersed electronics equipment industry is represented by a growing number of firms in such centres as Glasgow, Airdrie, East Kilbride and other parts of Strathclyde, Fife and Dundee, as well as in

Wales

Edinburgh, where this and other modern industries are expanding alongside the long-established engineering, printing and brewing industries. Largescale plants producing cars in Linwood, near Paisley, and commercial vehicles in West Lothian and the Scotstoun district of Glasgow are well established, while heavy earth-moving equipment and tracked vehicles are produced in Uddington and Airdrie. The Firth of Clyde provides central Scotland with valuable deepwater facilities.

Outside the central belt there is considerable industrial concentration in and around Dundee and Aberdeen and a number of towns outside these areas have attracted light industries in recent years. Dundee's traditional manufacture, jute, has been supplemented by office machinery, clocks and watches, refrigerators and electronic products.

North-east Scotland has the largest concentration of whisky distilleries, while the paper industry and food and fish processing are also important. The major oil discoveries in the North Sea (see p. 262) have led to many oil-related projects being set up in that area: Aberdeen in particular has become a major oil centre.

Most of northern Scotland is mountainous and much of southern Scotland is hilly and rugged. These areas are sparsely populated, but the Scottish Highlands possess significant resources of hydro-electric power (see p. 274). There are high-quality tweed and knitwear industries both in the valley towns of the Borders and in the Highland and Western Isles region. Small engineering and electronics industries have recently been established in towns in the Borders and the south-west. Small-scale manufacturing has also been introduced in the Highlands, and larger enterprises include the experimental and prototype fast nuclear reactors at Dounreay, the aluminium smelter at Invergordon and the pulp mill at Fort William. There is also large-scale development in oil-related industries—particularly the construction of oil production platforms—in the Moray Firth and Cromarty Firth areas.

Northern Ireland

Although the area of Northern Ireland is relatively small and lacking in minerals, there is substantial and growing industrialisation, particularly in and around Belfast, the capital city. Britain's largest single shipyard is in Belfast; other well-established activities include the manufacture of aircraft, textile machinery and a wide range of other engineering products, ropes, tobacco and clothing. Northern Ireland has also long been an important centre for textiles—it is particularly well known for linen. The textile industry is, however, extensively diversified and Northern Ireland is one of the most important areas in Europe for man-made fibre production. There has also been extensive development in vehicle components, oil-well equipment, electronic instruments, telecommunications equipment, carpets and synthetic rubber.

Production

Industrial production as a whole (mining and quarrying, manufacturing, construction, and gas, electricity and water) was in 1974 slightly lower than a year previously, but 6 per cent higher than in 1970 and more than double the level in 1948. Since 1970 manufacturing production has grown by 8 per cent and since 1948 by more than 130 per cent.

Over the last decade output among manufacturing industries rose fastest in chemicals and allied industries, in coal and petroleum products and in engineering, where instrument engineering and electrical engineering were the fastest growth areas.

In the period 1970–74 output grew fastest in chemicals and allied industries (28 per cent), engineering (10 per cent, the fastest growing sector being

electrical engineering 21 per cent), timber, furniture, etc. (12 per cent) and bricks, pottery, glass, etc. (18 per cent.)

| Industry Group | 1948 | 1968 | 1970 | 1972 | 1973 | 1974 | 1948–74 change % |
|---|----------------------|------------------------|------|-------------------------|-------------------------|-----------------------------|------------------------|
| All industries Mining/quarrying | 50·5 129·1 | 97·2 111·4 | | 102·6 84·0 | 110·2 93·6 | 106·4 83·6 | 111 -35 |
| Total manufacturing Food/drink/tobacco | 47·8 58·4 | 95·8 96·5 | | 102.3 105.0 102.6 | 110.9 109.3 110.0 | 108.0 110.0 106.1 | 126 90 396 |
| Coal/petroleum products Chemical/allied industries Metal manufacture | 21.4 25.5 61.8 | 84·0 89·8 97·5 | | 102·0 108·1 91·0 | 121·6 99·4 | 100^{-1} 128.0 91.5 | 402 48 |
| Engineering industries Shipbuilding | 34·7 110·3 | 91·1 95·1 | | 100·5 91·8 | 111·6 95·1 | 110·2 95·6 | 218 |
| Vehicles (inc. aircraft) Other metal goods | 39·0 64·1 | 101·1 98·3 | | 103·7 95·7 | 105.0 103.5 | 98·5 104·3 | 153 63 |
| Textiles/clothing Bricks, pottery, etc. | 73·4 54·4 45·4 | 98·9 102·2 106·5 | | 104.6 114.2 113.5 | 110.0 126.5 132.6 | 103.5 117.8 112.4 | 41 117 148 |
| Timber, furniture, etc. Paper/printing/publishing Other manufacturing | 42·7 30·5 | 96·2 95·7 | | 102.6 104.2 | 132.0 112.1 116.5 | 109·4 113·8 | 156 273 |
| Construction Gas/electricity/water | 56·3 31·4 | 103·5 91·6 | | 104·5 111·2 | 107·2 117·8 | 98·1 118·6 | 74 278 |
| | | | | | | | |

TABLE 13: Index of Industrial Production 1948–74 (1970 = 100)

Source: Economic Trends; Monthly Digest of Statistics

Productivity

The size of the labour force employed in industry has fallen steadily in the last six or seven years and substantially in the period 1970–74. The increases in production have been due mainly to a variety of factors influencing productivity, including advances in products, machinery, processes and methods of work; the rate of fixed capital formation; more intensive competition and sales promotion; and improved management. Output per head (a basic measure of labour productivity) increased by 11 per cent in production industries between 1970–74, the increase for manufacturing industry being 14 per cent.

Both the long-term and the short-term growth of productivity depend most directly on the decisions of individual undertakings. However, government departments and educational and research establishments also make an important contribution. The Department of Industry is responsible for the coordination of activities related to the improvement of industrial productivity. It is represented on the EDCs (see p. 209) which are concerned with the removal of obstacles to efficiency. The department also works to forward the introduction of advanced machinery and techniques into industry, provides technical advisory services and sponsors the Computer Aided Design Centre and the National Computing Centre. It is concerned directly with research into such factors as productivity measurement techniques, group technology and production engineering. The Department of Employment advises firms on aspects of productivity connected with manpower utilisation and industrial relations.

Within industry, employers' organisations often provide technical assistance and support schemes of vocational education and training, as do many trade unions. The British Productivity Council is one of many specialist institutions, both public and private, concerned with various aspects of productivity. The council gives primary attention to manufacturing industry through a national

network of more than 50 local associations and provides information and advisory services, seminars, conferences and courses, inter-firm visits and industrial films among its services.

| | Employed | A | All production industries | | | Manufacturing industries | | | |
|------|-----------------|--------------------|------------------------------|-----------------------|--------------------|-----------------------------|----------------|--|--|
| | labour force | Output Employ- per | | Output per head | per Output Employ- | | | | |
| 1965 | 102.3 | 89.1 | 105.9 | 84.1 | 87.6 | 102.6 | 85.4 | | |
| 1966 | 102.6 | 90.6 | 105.6 | 85.6 | 89.2 | 102.6 | 86.9 | | |
| 1967 | 100.9 | 91.7 | 102.8 | 89.2 | 89.8 | 99.8 | 90.0 | | |
| 1968 | 100.5 | 97.1 | 101.5 | 95.7 | 95.7 | 99.0 | 96.7 | | |
| 1969 | 100.5 | 99.7 | 101.5 | 98.2 | 99.4 | 100.3 | 99.1 | | |
| 1970 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | |
| 1971 | 98.3 | 100.5 | 96.9 | 103.7 | 99.7 | 96.8 | 100.0 103.0 | | |
| 1972 | 99.1 | 102.6 | 94.6 | 108.5 | 102.3 | 93.7 | 109.2 | | |
| 1973 | 101.2 | 110.2 | 95.8 | 115.0 | 110.9 | 94.2 | 117.7 | | |
| 1974 | n.a. | 106.4 | 95.5 | 111.4 | 108.0 | 94.5 | 114.3 | | |

TABLE 14: Output per head (1970 = 100)

Source: Monthly Digest of Statistics n.a. = not available.

Investment

Productivity is particularly dependent on the quantity and efficiency of the capital assets which the labour force has at its disposal. Investment in manufacturing industry tends to reflect the level of demand in the economy as a whole, with some time lag between the start of an increase in output and the implementation of investment plans. There is thus a marked cyclical pattern in the flow of investment by manufacturing industry, and since 1961 there have been three discernible cycles. Investment fell from a peak in the third quarter of 1961 to a low point at the beginning of 1963, then rose to a new peak in early 1966. It then fell again in 1967 before rising to a new peak at the end of 1970, when the present cycle began. Details of investment in the period 1965–74 are

 TABLE 15: Manufacturing Industry's Fixed Capital Expenditure 1965–74

 (1970 prices)

 f million

| | | | ~ |
|--|--|---|--|
| Total all manufacturing industries | New building work | Vehicles | Plant and machinery |
| 1,726.0 | 384.0 | 102.2 | 1,239.8 |
| 1,773.7 | 363.4 | | 1,312.0 |
| 1,737.7 | 319.6 | | 1,318.6 |
| $1,851 \cdot 2^{a}$ | 335.9 | | $1,406 \cdot 1^a$ |
| (1,800.2) | | 1072 | $(1,355\cdot 1)$ |
| 1,977.5 ^a | 390.1 | 115.9 | $1,471.5^{a}$ |
| (2,028.5) | | 115 / | (1,522.5) |
| 2,129.8 | 391.2 | 114.7 | 1,623.9 |
| 1,996.6 | 358.5 | | 1,523.8 |
| 1,806.3 | | | 1,365.9 |
| | | | 1,469.4 |
| 2,132.6 | 364.6 | 144.5 | 1,623.5 |
| | manufacturing industries 1,726·0 1,773·7 1,737·7 1,851·2 ^a (1,800·2) 1,977·5 ^a (2,028·5) 2,129·8 1,996·6 1,806·3 1,924·4 | $\begin{array}{c c} \mbox{manufacturing}\\ \mbox{industries} & \mbox{work} \\ \hline 1,726\cdot0 & 384\cdot0 \\ 1,773\cdot7 & 363\cdot4 \\ 1,737\cdot7 & 319\cdot6 \\ 1,851\cdot2^a & 335\cdot9 \\ (1,800\cdot2) & & \\ 1,977\cdot5^a & 390\cdot1 \\ (2,028\cdot5) & & \\ 2,129\cdot8 & 391\cdot2 \\ 1,996\cdot6 & 358\cdot5 \\ 1,806\cdot3 & 320\cdot8 \\ 1,924\cdot4 & 326\cdot0 \\ \hline \end{array}$ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ |

Source: Trade and Industry

^a After allowing for expenditure brought forward into 1968 from 1969 to secure the higher rate of investment grants, estimated at \pounds_{51} million.

contained in Table 15. In 1974 fixed capital expenditure in manufacturing industry (at 1970 prices) totalled $\pounds 2,133$ million, an 11 per cent increase on the previous year. Analysed by industry group, investment in the food, drink and tobacco group was $\pounds 302$ million; coal and petroleum products totalled $\pounds 46$ million; chemicals $\pounds 262$ million; metal manufacture $\pounds 272$ million; engineering, shipbuilding and metal goods $\pounds 523$ million; vehicles $\pounds 145$ million; textiles, leather and clothing $\pounds 186$ million; paper, printing and publishing $\pounds 135$ million; and other manufacturing industries $\pounds 262$ million.

Of the 1974 total some 76 per cent represented investment in plant and machinery. Part of this rising investment is associated with the introduction of new techniques and equipment and in particular of machines and instruments which lessen the demand for human supervision, though they may require more skill from fewer people. This process of automation is giving rise to farreaching changes in the pattern and organisation of industry and has already been responsible for substantial increases in production and efficiency which, in the long run, are likely to be very large. Much investment, however, still consists of replacements, additions and improvements of a more traditional kind.

Management

In Britain, as elsewhere, management is recognised as a subject requiring special skills and training, as is reflected in the increased educational qualifications of managerial recruits and in the spread of systematic education for management. The large number of professional people working as management consultants indicates the concern for improved management performance in Britain. Such consultancy services are being increasingly used by overseas clients.

The British Institute of Management (BIM) is the central national management body, independent, non-political and non-profit-making. Its purpose is to study and promote scientific management, including management education and training, throughout industry, commerce and public administration. The Industrial Society, also an independent self-financing organisation, has a membership representing trade unions, employers and their associations. It works to promote better use of human resources; it advises members and conducts conferences and courses.

Management studies and education for management are expanding rapidly in Britain and have become a recognised feature of higher education (see p. 163). Training courses for higher management are held at several universities and colleges, including the Administrative Staff College, Henley-on-Thames, and Ashridge College of Management, Berkhamsted. There are graduate business schools in London and Manchester and in Scotland: there are nearly 50 graduate management courses and half that number of undergraduate courses at universities. The Council of Industry for Management Education, jointly sponsored by the CBI, the BIM and the Foundation for Management Education, works to foster the development of business and management education. The larger firms, especially those with wide responsibilities, often provide general management courses for senior executives, and systems of informal training within an organisation are numerous. There are also a number of bodies concerned with specialised branches of management, for example, the Institute of Personnel Management, the Institution of Works Managers, the Institute of Administrative Management and the Institute of Marketing.

Design The improvement of industrial design is also recognised as an important factor. The Design Council is sponsored by the Government with the purpose of

improving the design of goods manufactured by British industry. The council receives an annual grant from the Department of Industry and members are appointed by the Secretary of State. They include industrialists, engineers, retailers, architects, designers, educationists and trade unionists. In Scotland the council's activities are guided by a separate Scottish committee whose members are similarly appointed.

The council keeps in close contact with British industry through officers who analyse and advise on design. A designer selection service for companies who wish to contact experienced industrial designers is also operated. Permanent displays of modern British consumer products are maintained at the Design Centres in London, Glasgow and Cardiff. All products on display in the Design Centres are drawn from Design Index, the council's photographic and sample record of some 10,000 current British products selected by independent committees for their good design, safety and performance. The Design Centres mount special exhibitions on particular design themes, and the council also helps manufacturers who wish to exhibit their products overseas at trade fairs or special displays of British design. Manufacturers of outstanding products in consumer goods, engineering products and components, medical equipment and motor vehicle industries, may receive one of a number of annual Design Council Awards.

In addition, the council organises a comprehensive programme of courses, conferences and seminars on design for various audiences and it also plays an important part in promoting better design education. It publishes two monthly magazines, *Design* and *Engineering*, and a range of books, slide packs, leaflets and catalogues. It also has a photographic slide library.

Other bodies concerned with industrial design include the Royal Society of Arts (see p. 406), the Society of Industrial Artists and Designers, which is the representative professional body in Great Britain of industrial designers and the Design and Industries Association, a voluntary association of industrial companies, designers, and others interested in the promotion of good design in industry. The Crafts Council of Great Britain, the Crafts Centre of Great Britain and the Scottish Craft Centre are all grant-aided and work to improve craft design and to promote closer relations between craftsmen and industry.

Standards

The British Standards Institution (BSI) is a voluntary non-profit-making body incorporated by Royal Charter. It prepares and promulgates standards in respect of, among other things, quality, performance, dimensions, testing methods and codes of practice. Voluntary acceptance of such standards by manufacturers, buyers and sellers reduces unnecessary variety and simplifies the specification of requirements. The BSI is governed by a council consisting of representatives of the main organisations of employers and workers, professional institutions and the larger government departments.

MANUFACTURING INDUSTRIES

The following sections describe individual manufacturing industries in more detail. (For coal and petroleum products see Chapter 13.) Production figures in Table 16 and on p. 219 show the relative importance of broad sectors of manufacturing industry. Expansion has been particularly marked in those industries using advanced technologies such as electronics, the newer branches of mechanical engineering, instrument engineering, most sectors of the chemical industry and man-made fibres. At the same time other long-established industries, such as shipbuilding and marine engineering and

electrical engineering, have been undertaking continuing reorganisation, reequipment and modernisation. A major stimulus has been provided by the various needs of the offshore oil and gas industries.

Statistics

The main source of statistical information on industrial topics is the Business Monitor series produced by the Business Statistics Office of the Department of Industry (see p. 45), and compiled from returns made by firms in industry. Monthly and quarterly Production Series Monitors cover some 150 manufacturing industries and their products, with information on output and overseas trade concerning some 5,000 commodities. Annual Census of Production Reports give total industrial figures for production, capital expenditure, stocks, wages, salaries and employment. Information is also available in a number of other publications. The Overseas Trade Statistics of the United Kingdom contain detailed information on overseas trade, the December issue carrying cumulative totals for the whole calendar year. The five-yearly Census of Distribution is published in special reports; and short-term statistics on service and distributive trades appear in a separate series of Business Monitor. The weekly publication Trade and Industry includes regular statistics and commentary on industrial output, investment, retail sales and overseas trade, and employment statistics are published in the monthly Department of Employment Gazette. Many of the figures are brought together in summary form in the Monthly Digest of Statistics and the Annual Abstract of Statistics.

In the subsequent sections, employment statistics refer to numbers in Britain at June 1974, sales and output figures are taken from the latest available *Business Monitor* and export figures from the *Overseas Trade Statistics*. Unless otherwise stated, export and production figures include parts. Some production figures are given in metric terms, where statistics for an industry are normally published in this form. Conversion tables are on p. 463.

METAL MANUFACTURE The metal manufacturing industries employ 507,000 people. Of these, 244,400 are in the iron and steel industry, and 85,900 in the manufacture of iron castings, 54,300 in the manufacture of aluminium and aluminium alloys, and 71,100 in the copper, brass and other base metal industries. Exports of iron and steel products and non-ferrous base metals in 1974 had an aggregate value of $\pounds_{1,242:9}$ million.

Iron and Steel

Britain, responsible for most of the early developments in iron and steel production, is today the world's eighth largest steel producing nation. Output of crude steel in 1974 totalled 22.4 million ingot tonnes. Pig iron production in 1974 totalled 13.9 million tonnes, while net deliveries of finished steel amounted to 21.5 million tonnes in 1974. Exports of iron and steel products (including iron castings) were worth £553.5 million; the United States (£84.3 million), Sweden (£32 million), and Canada (£29.7 million) were the main overseas buyers.

The Iron and Steel Act 1967 brought into public ownership 13 major steel companies (together producing over 90 per cent of Britain's crude steel and employing some 70 per cent of the manpower in the industry) and created the British Steel Corporation (BSC). The remaining privately owned companies are represented by the British Independent Steel Producers' Association. The private sector is particularly strong in the manufacture of alloy and stainless steels and of finished products for the engineering industry. The main producing districts are: Wales (30 per cent of total crude steel output); Yorkshire and Humberside (29 per cent); the North region (16 per cent); and Scotland (12 per cent). Wales concentrates mainly on the manufacture of flat

| Industry Group | | £ million | | | per head | | £ | |
|--|---|---|---|----------------------|---|---|---|--|
| | 1971 | 1972 | 1973 | 1973 | 1971 | 1972 | 1973 | |
| Food, drink and tobacco Coal and petroleum | 2,597 | 3,053 | 3,507 | 13.2 | 3,268 | 3,842 | 4,462 | |
| products Chemicals and allied | 259 | 235 | | | 6,936 | 6,371 | | |
| industries Metal manufacture Mechanical engineering Instrument engineering Electrical engineering Shipbuilding and marine | 1,828 1,270 2,575 376 1,828 | 2,063 1,421 2,633 415 2,064 | 2,411 1,778 3,077 469 2,356 | 9.1 6.7 11.6 1.8 8.9 | 4,435 2,326 2,559 2,161 2,401 | 5,130 2,817 2,821 2,441 2,750 | 6,026 3,518 3,328 2,719 3,071 | |
| engineering Vehicles Metal goods not | 361 1,750 | 387 2,172 | 438 2,610 | 1·7 9·8 | 2,035 2,217 | 2,238 2,795 | 2,518 3,358 | |
| elsewhere specified Textiles Leather, leather goods | 1,239 1,198 | 1,385 1,317 | 1,637 1,684 | 6·2 6·3 | 2,266 1,955 | 2,535 2,243 | 2,996 2,872 | |
| and fur Clothing and footwear Bricks, pottery, glass, | 89 646 | 111 699 | 116 827 | 0·4 3·1 | 1,967 1,421 | 2,396 1,551 | 2,684 1,853 | |
| cement, etc. Timber, furniture, etc. Paper, printing and | 803 625 | 940 791 | 1,175 1,053 | 4·4 4·0 | 2,798 2,388 | 3,245 2,916 | 4,116 3,806 | |
| publishing Other manufacturing industries | 1,600 | 1,830 | 2,231 | 8.4 | 2,700 | 3,150 | 3,863 | |
| All manufacturing industries | 822 | 949 22,464 | 1,115 26,575 | 4·2 100 | 2,451 2,536 | 2,786 2,935 | 3,294 3,485 | |

TABLE 16: Manufacturing Industry: Net output 1971-73

Source: Census of Production Reports 1971, 1972, 1973 (1973 Provisional Results) Discrepancies between totals and their constituent parts are due to rounding.

products, especially sheet steel and tinplate; the output of the north-east coast and Scotland is predominantly of heavy steel products (plates, sections and rails), but a wide strip mill for sheet production is also in operation in Scotland. Production of special alloy and stainless steels is centred on Sheffield, while Scunthorpe concentrates on heavy and medium products. The emphasis in investment by the BSC has been on improving efficiency rather than raising total capacity, and production in Britain is being concentrated on the basic oxygen steel-making (BOS) and the electric furnace processes. Output per blast furnace has risen markedly in recent years through improvements in efficiency, such as better preparation of raw materials and improvements to blast furnace design. The BSC's research and development expenditure in 1974–75 was \pounds_{14} million. A number of private sector companies have their own research facilities.

The corporation in 1972 adopted a ten-year development programme. Expansion and modernisation will take place at sites in Wales at Llanwern and Port Talbot (the full development of which is still under consideration), at Ravenscraig in Scotland, at Scunthorpe and in the Teesside area where a high-capacity blast furnace, the first in Britain, will be built and the existing Redcar/Lackenby works expanded to create one of the largest and most modern steelmaking complexes in Europe. Development projects completed in the last few years include a large-scale BOS plant and a deep-water harbour/ore terminal at Port Talbot, and a major new steelmaking and finishing complex at Scunthorpe.

Iron Castings

Some 700 firms are today engaged in the production of iron castings. Fewer, more highly developed units are replacing the numerous small foundries and a small number of large firms are responsible for more than a quarter of total output. In 1974 output of castings was just under 3.2 million tonnes, of which 145,000 tonnes (apart from substantial tonnages of machined castings included in other industry statistics) were exported. The main users of iron castings are the motor vehicle industry, accounting for nearly one-third of the total tonnage sold, the general engineering industry, the manufacturers of pressure pipes and fittings, the building and associated industries and the steel industry.

Non-ferrous Metals

Britain's non-ferrous metal processing and fabricating industry is one of the largest in Europe. Output in 1974 included: aluminium, 293,000 tonnes of virgin metal and 207,000 tonnes of secondary metal; refined copper, 69,000 tonnes of virgin copper and 91,000 tonnes of secondary metal; lead, 277,000 tonnes; and zinc, 84,000 tonnes of slab metal. Britain is also a major producer of the newer specialised metals including uranium, zirconium and beryllium for the nuclear energy industry; niobium for aircraft production; and selenium, silicon, germanium and tantalum for electronic apparatus.

Nearly half of the industry is situated in the Midlands; other centres include south Wales, London, Tyneside and Avonmouth, where a zinc smelter, with a capacity of some 100,000 tonnes a year, operates. Three large-scale aluminium smelters provide over half of Britain's requirements for primary aluminium. Firms are engaged in smelting, casting and fabrication by rolling, extrusion and drawing and advanced techniques of powder metallurgy and pressure diecasting are also employed. Scientific and technological research for the industry as a whole is conducted by the British Non-Ferrous Metals Research Association.

In 1974 exports of non-ferrous base metals were valued at £689.4 million. Exports of silver, platinum and other metals of the platinum group totalled £228 million. The main products exported, including alloys and semi-finished products, were copper (£182.6 million), nickel (£91.5 million), aluminium (£75 million), lead (£41 million), tin (£38.5 million) and zinc (£8.8 million). The United States (£127.4 million) and the Federal Republic of Germany (£88.8 million) were the largest purchasers in terms of value.

MECHANICAL ENGINEERING Mechanical engineering, employing some 976,200 people, comprises a group of industries including all types of machinery, machine tools, industrial engines, mechanical handling equipment, construction equipment and industrial plant. The aggregate value of sales was over £6,000 million in 1974. Exports of non-electric machinery were valued at £3,081 million in 1974.

Agricultural Machinery There are over 500 firms manufacturing agricultural machinery with six large firms predominating. Products include machinery for soil preparation and cultivation, harvesting and crop handling (including milking machinery). (For tractors see p. 232.) In 1974 sales were valued at £133 million and exports at £80 million. The main overseas markets were European Community countries, the United States and Australia.

Machine Tools Britain was the birthplace of the modern machine tool industry and the British industry is today one of the most advanced in the world. Output ranges from simple metal-working centre lathes to the sophisticated numerically controlled machine centres. Equipment using new electrical machinery

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techniques is also produced. The industry consists of about 250 firms headed by ten large companies which account for about half of total deliveries. Centred mainly in the Midlands, South East, Yorkshire and North and North West areas, the industry employs about 66,900 people. The Machine Tool Trades Association represents most of the manufacturers and importers and is responsible for the international machine tool exhibition held in Britain every four years, the next being due in 1976. The industry is also served by its own research organisation, the Machine Tool Industry Research Association.

The pattern of machine tool orders and production is highly cyclical. Sales in 1974 were valued at £350 million including numerically controlled machine tools worth £15 million. Exports of metalworking machine tools in 1974 had a value of £260 million.

The European Community imports about one-quarter of the machine tool industry's production. In 1974 the United States (\pounds 13 million) and South Africa (\pounds 8·4 million) were the two largest individual overseas markets. At the end of 1974 the industry had orders on hand valued at \pounds 309 million of which 50 per cent was for export.

Pumps, Valves and Compressors

Textile

Machinery

Industrial pumps and valves controlling the movement of liquids and gases are vital components in many industrial processes particularly in the chemicals, oil and electric power industries. The total work force is some 85,600 and there are 470 companies of which 11 employ more than 1,000 people each. In 1974 sales of pumps and valves were estimated at $\pounds 258$ million and those of air and gas compressors and fluid power equipment at $\pounds 82$ million and $\pounds 135$ million respectively. Exports of all types of equipment totalled $\pounds 158$ million.

The textile machinery industry produces machines and accessories for the manufacture and processing of yarns and fabrics from all types of natural and man-made fibres. Comprising about 450 firms, four of which account for about one-half of total output, the industry has some 39,600 employees and is situated mainly in the North West, East Midlands, Yorkshire and Humberside and Northern Ireland. In 1974 the industry's sales totalled £233 million and exports £195.8 million. Principal markets were the European Community (£41 million), and the United States (£27 million). Exports of sewing machines totalled a further £22.5 million.

Construction and Earth-moving Equipment Almost the whole range of plant required by the construction industry is produced, including excavating, earth-moving and road-making equipment, pile drivers and quarry crushing and screening plant. Five large firms are responsible for more than a third of total output; the labour force numbers 39,800.

The value of sales by the industry was \pounds_{414} million in 1974. Exports of construction and mining machinery totalled \pounds_{219} .8 million, France (some \pounds_{18} million) being the major market.

Mechanical Handling Equipment Almost every industry makes use of mechanical handling equipment, which extends from individual units and accessories to complete operating systems. There are some 550 firms in the industry, the ten largest being responsible for over a quarter of total output; the labour force totals 63,300. The value of output in 1974 was some £500 million, the main products being cranes and bridge transporters, lifts, escalators, conveyors, elevators, hoists and powered industrial trucks. Exports of mechanical handling equipment (including

industrial and works trucks) in 1974 were valued at $\pounds_{170.1}$ million, European Community countries forming the largest market ($\pounds_{49.6}$ million).

Office Machinery The office machinery industry comprises some 80 firms, nine of which account for over three-quarters of total output. British subsidiaries or associates of overseas firms are prominent in some sectors of the industry. There are 29,700 people employed.

Sales have been expanding rapidly and in 1974 were valued at £146 million (including non-electronic data processing and handling equipment and electronic calculators). Exports of all office machinery (excluding electronic computers and data processing equipment, see p. 231) were valued at £915 million. The most important overseas purchasers were European Community countries and the United States.

The refrigerating machinery industry (excluding domestic equipment) has a wide application, covering plant for ships and vehicles, food and drink processing and supermarket stores. Some six firms account for over half the industry's 1974 output of \pounds 80 million, of which \pounds 24 million was exported with numerous smaller firms completing the balance. About half of the actual output comprises compressors and condensing units; other important products are equipment for conserving drinks, food and ice-cream.

Industrial Plant and Steelwork

Refrigerating

Machinery

British industry manufactures almost every type of industrial (including process) plant and steelwork. The industry, which comprises both equipment manufacturers and contractors responsible for the design, engineering, construction and commissioning of complete plants for process industries, has some 1,480 firms, including nine with over 1,500 workers each, responsible for over one-third of total output, and in all employs 162,500 people. For nuclear power station construction see Chapter 13. In 1974 the estimated value of equipment sales was £955 million, of which £125 million was for overseas markets. Of particular importance are chemical and oil refining (process) plant, steam-raising boilers, sintering plant, metallurgical furnaces and plant, lime and cement kilns, nuclear reactors, water and sewage treatment plant, and fabricated steelwork for bridges, buildings, and industrial installations. Substantial new business has been generated by the North Sea oil and gas explorations.

In 1974 sales of boilers and boilerhouse plant totalled £136 million; exports totalled £20.5 million. Water tube boilers of advanced design and of large steam-raising capacity are produced for power stations, together with shell boilers for steam-raising and heating in factories and other buildings. Sales of fabricated iron and steelwork totalled £240 million in 1974 and constructional steelwork £288 million; exports totalled £38 million and £26 million respectively. Other industrial plant produced includes, furnaces and kilns (£62 million), refuse disposal and other plant (£32 million), and water, effluent and sewage treatment plant (£41 million). Exports amounted to £37 million in 1974.

The design, engineering, construction and commissioning of complete process plants for the chemical, petrochemical, oil refining and gas industries has expanded rapidly in recent years. There are some 30 process plant contracting groups in Britain, half of which are United States subsidiaries. In 1974 expenditure on complete process plants and constructional steelwork totalled \pounds_1 ,800 million. British firms are carrying out major plant projects in many overseas countries.

Other Machinery

General Mechanical Engineering In addition to the mechanical engineering products described in the preceding sections there are some 2,500 enterprises producing other types of machinery and employing some 226,100 workers. The main products include: mining machinery (sales worth £172.5 million in 1974); printing, bookbinding and paper goods machinery (£129 million); ventilating and air-conditioning equipment (£114 million); food and drink processing machinery (£78 million); packaging and bottling machinery (£65 million); portable power tools (£72 million); and miscellaneous non-electrical machinery (some £487 million).

Behind the firms manufacturing the major products outlined in this section are about 5,300 enterprises, employing 180,000 people, whose main functions are to supply parts and components and to undertake general sub-contracting, fabricating and repair work. (Some enterprises are included because the mixed character of their work precludes their classification under any single mechanical engineering group.) The sector includes 14 large undertakings with more than 1,500 employees and responsible for about one-quarter of total output. Ball, roller, needle and similar bearings and transmission and other precision chains, are particularly important products. In 1974 sales of ball and other bearings totalled \pounds 175 million and precision chains and other mechanical engineering products \pounds 479 million. Exports of bearings totalled \pounds 40.6 million and chains and other mechanical engineering products \pounds 120 million.

With products extending from scientific and industrial instruments to photo-

graphic equipment and timepieces, instrument engineering is a particularly important sector of the engineering industry. Electronic techniques, particularly in the industrial instrument sector, are of growing importance. Aggregate output was valued in 1974 at some $\pounds741$ million and has increased, in current price terms, by over 270 per cent since 1963. In all, some 160,600

There are some 930 firms in the scientific and industrial instruments industry, which has a labour force numbering 102,200. The industry is represented by

the Scientific Instruments Manufacturers Association (the Sira Institute

conducts research on behalf of the industry) and the Control and Automation Manufacturer's Association. Output of instruments in 1974 totalled £477 million, including optical instruments and appliances (£31.9 million), process measuring and control instruments (£53.7 million) and electrical measuring and control instruments (£64.9 million). Exports totalled £215.2 million.

INSTRUMENT ENGINEERING

Scientific and Industrial Instruments

Photographic Equipment

Sales of photographic and cinematographic cameras, projectors and other equipment (including document copying machines) in 1974 totalled \pounds 105.3 million, and exports totalled \pounds 110.7 million.

Watches and Clocks There are some 70 firms in the watches and clocks industry, which employs 15,000 people; five relatively large employers are responsible for over threequarters of total output. Deliveries in 1974 included watches and parts ($\pounds 25 \cdot 2$ million), clocks and parts ($\pounds 15 \cdot 8$ million) and time recorders ($\pounds 2 \cdot 6$ million) and the industry's total sales were valued at $\pounds 46 \cdot 6$ million; export sales were valued at $\pounds 27 \cdot 3$ million.

people are employed in this sector.

Surgical Instruments and Appliances With 730 firms in the industry (ten relatively large employers being responsible for nearly one-third of output) deliveries of surgical instruments and appliances and related products totalled $\pounds_{112:4}$ million in 1974, exports totalled $\pounds_{57:1}$ million. The industry employs 30,700 people.

ELECTRICAL AND ELECTRONIC ENGINEERING

The electrical engineering industry, with a labour force of 843,000 is engaged in the manufacture and installation of a wide variety of electrical and electronic equipment, including all types of generating, transmission and distribution equipment; motors; telecommunications and broadcasting apparatus, television and radio receivers; computers; specialised electronic equipment; and domestic electrical appliances. The total value of production in 1974 was almost $f_{.4,864}$ million.

Exports of electrical machinery, apparatus and appliances (not including electronics products such as computers, see p. 231) in 1974 were valued at $\pounds_{1,131\cdot7}$ million. Products are exported to all parts of the world; in 1974 the Federal Republic of Germany ($\pounds_{69\cdot3}$ million), France ($\pounds_{65\cdot1}$ million), South Africa ($\pounds_{63\cdot8}$ million), and the United States ($\pounds_{62\cdot3}$ million) were among the principal markets.

The industry's leading representative organisations are the British Electrical and Allied Manufacturers' Association, the Association of Manufacturers of Domestic Electrical Appliances, the Electronic Components Board, and the Electronic Engineering Association; industry-wide scientific and technological research is carried out by the Electrical Research Association.

Fical British scientists and engineers were responsible for many of the basic advances in the generation and transmission of electric power and British firms have continued to be important suppliers of machinery and equipment. Although about 680 firms manufacture machinery, mergers have led to the creation of one of the leading electrical and electronic engineering groups in Europe for generating, transmitting and distributing electric power, while a number of smaller firms have been reorganised into larger units. Nine firms with more than 2,000 employees are responsible for over one-third of total output. The total labour force numbers 144,700.

In 1974 output of electrical machinery was valued at £805 million, including £278 million worth of generating equipment, and £226 million worth of switchgear and control gear. Exports of electric power machinery (generators, motors, converters, transformers and rectifiers) amounted to £138.4 million in 1974 and exports of switchgear, starting and control gear amounted to £87.9 million. The main purchasers were South Africa, Canada and Australia.

Insulated Wires and Cables The industry produces cables and wires for the distribution of electric power, for telecommunications networks and for many other purposes; its products include submarine cables and cables insulated by a great variety of materials. About half of the industry's labour force of 46,100 are employed in four major groups responsible for more than half of total output. The value of output in 1974 was £535.5 million. Exports of insulated wire and cable and electrical insulating equipment were worth £100 million; Commonwealth countries are the largest purchasers.

Electrical Goods and Domestic Appliances Untput of other electrical goods in 1974 included domestic electric appliances, $\pounds_{392\cdot7}$ million; electrical equipment for motor vehicles and aircraft, \pounds_{242} million; accumulators, $\pounds_{95\cdot5}$ million; and electric lamps and light fittings, $\pounds_{259\cdot4}$ million. In terms of volume, sales included: 1.4 million electric blankets, 1.8 million domestic vacuum cleaners, 1 million domestic washing machines, 2.3 million electric irons and 3.6 million kettles. In 1974 exports of domestic electrical equipment included heating and cooking equipment ($\pounds_{22\cdot8}$ million), washing machines and dryers (\pounds_{17} million), refrigerators ($\pounds_{8\cdot8}$ million) and vacuum cleaners (\pounds_{18} million); the main markets were European

Electrical Machinery

Community countries, particularly the Federal Republic of Germany, the Netherlands and the Irish Republic. Exports of batteries and accumulators in 1974 were valued at $\pounds_{31\cdot9}$ million, electric lamps and light fittings $\pounds_{46\cdot4}$ million, and electrical equipment for motor vehicles and cycles \pounds_{27} million. There are about 270 firms producing domestic electric appliances (four large employers producing over one-third of output) and about 900 firms producing other electrical goods (three very large firms producing nearly one-third of total output). The industry has a labour force of 208,900.

Electronic Equipment Production of electronic equipment is one of the most rapidly expanding industries in Britain. British scientists and companies have made a number of important contributions to the industry's technology. There are numerous firms in the industry, although in most sectors—telecommunications, components, consumer goods, computers and communications and capital equipment—there are a few large-scale enterprises. Total deliveries in 1974 were valued at some £2,409 million (not including electronic process control and industrial instrumentation, see p. 229) and export deliveries at £811 million. The industry employs some 443,300 people.

Only a part of the telecommunications industry is concerned with electronic equipment, but it is normally considered as a sector of the electronics industry. The degree of involvement in electronics is, however, increasing and will continue to do so with the advent of new switching systems. Total sales of telegraph and telephone apparatus were valued at $\pounds 418.5$ million in 1974 including sales to the Post Office of $\pounds 270$ million. Britain is a major exporter of telecommunications equipment, with overseas sales valued in 1974 at $\pounds 56.8$ million. Research and development work is done by firms in the industry, in co-operation with the Post Office. The industry employs 91,400 people, and three firms are responsible for almost all the output.

The components sector (in which there are about 830 firms) manufactures the whole range of active and passive electronics components, including integrated circuits (in which many circuits are accommodated on a single chip of silicon), mainly for the electronics equipment industry. Deliveries of components in 1974 comprised active components valued at \pounds_{162} million and passive components valued at \pounds_{432} million: output of integrated circuits totalled $\pounds_{46\cdot9}$ million. Exports were valued at $\pounds_{182\cdot3}$ million.

The consumer goods sector of the industry manufactures radio and television sets, radiograms, high fidelity audio equipment, tape recorders and similar products. The industry is dominated by several large firms. The sector's output had a total value of $\pounds 421.7$ million in 1974; output included 2.6 million televisions, 1 million radios and 0.6 million radiograms and record players. Exports were valued at $\pounds 43.1$ million.

The computer sector manufactures the complete range of control processes and peripherals from large, main frame computers for large-scale data processing and scientific work to mini-computers for use in control and automation systems and in communications systems. The industry complements 'hardware' by the production of appropriate programmes and associated services (software). Total output in 1974 was valued at £421.7 million and exports at £269.5 million.

The other major sector of the electronics industry manufactures radio communications equipment, radar and navigational aids, public broadcasting equipment and other capital equipment. Such British equipment is extensively used throughout the world. The sector's total output in 1974 was valued at $\pounds 482.8$ million, including radio communication equipment $\pounds 93.8$ million,

radar equipment £112.5 million and navigational aids £65.4 million. Exports totalled £159.7 million.

VEHICLES, AIRCRAFT AND SHIPS The industries which manufacture vehicles and aircraft are a particularly important source of overseas earnings; exports of transport equipment in 1974, valued at £1,839 million, formed some 11.2 per cent of total exports. The labour force numbers 977,300 and includes: 496,600 in motor vehicle manufacture, 210,000 in aerospace construction and repairing, 185,300 in shipbuilding and marine engineering, 40,300 in the manufacture of locomotives and railway wagons and carriages, 30,600 in wheeled tractor manufacturing and 14,500 in the making of cycles and motor cycles.

The largest section of the vehicle industry comprises the manufacture of cars **Motor Vehicles** and commercial vehicles. Car and commercial vehicle output is dominated by four large firms-British Leyland, Ford, Chrysler United Kingdom and Vauxhall-which account for over 95 per cent of car and commercial vehicle production; the remainder is in the hands of smaller, specialist producers of heavy commercial vehicles, buses, coaches, limousines and sports cars. At one time located mainly in the Midlands and the London area, the industry, during the last decade, has built manufacturing and assembly plants on Merseyside, in Wales and in Scotland. The principal trade association is the Society of Motor Manufacturers and Traders, which holds a motor show annually in London and a commercial vehicle exhibition every two years. The Motor Industry Research Association carries out collective research on vehicles and components.

> Output of passenger cars in 1974 totalled 1.534 million units. Exports in 1974 amounted to 569,442 cars, whether or not assembled, valued at £425.9 million. The United States (£101.3 million) was the largest single purchaser, followed by New Zealand (£37.9 million), Iran (£34.1 million) and South Africa (£26.4 million). Production of commercial vehicles totalled some 402,560 in 1974. Britain is one of the world's largest exporters of commercial vehicles. Exports in 1974 numbered 155,566 worth £235.3 million. South Africa (£17.1 million), the Irish Republic (£11.7 million), and Australia (£11.4 million) were the main markets. Exports of bodies, chassis and parts for cars and commercial vehicles had a value of some £619.8 million in 1974. Caravans and trailer exports totalled £58.9 million.

Agricultural tractors account for the bulk of British production of wheeled Wheeled tractors. Production is dominated by two large firms with three others re-Tractors sponsible for almost all the remainder. Some 119,200 wheeled tractors were delivered in 1974. Exports were valued at £186.1 million in 1974; South Africa (\pounds 16 million) and Australia (\pounds 13.7 million) were the major buyers.

Sales of motor cycles and parts amounted to £14.2 million in 1974. Exports of **Motor Cycles** motor cycles and parts totalled £17.1 million in 1974 with the United States and Cycles (£10.4 million) by far the biggest market. Deliveries of bicycles amounted to 1.9 million. The bulk of British bicycles are manufactured in the Nottingham area.

Railway Vehicles The British Railways Board (see p. 316) and a small number of firms in the private sector build locomotives, carriages and freight wagons for British Rail, for industrial users and for export. Output in 1974 had a total value of f_{190}

Cars and Commercial Vehicles

million. The value of exports of railway vehicles and parts was £26.1 million; Commonwealth countries were the largest purchasers.

Aerospace

Britain's aerospace industry is one of the largest and most comprehensive in the world, producing civil and military aircraft, helicopters, guided weapons, hovercraft and space vehicles. The construction of aircraft is dominated by two large airframe manufacturers and one helicopter concern; outside these groups are a few important smaller companies and a large number of components and systems suppliers. The Government intends to take into public ownership four companies, the British Aircraft Corporation, Hawker Siddeley Aviation, Hawker Siddeley Dynamics and Scottish Aviation, under a new corporation, British Aerospace. Almost all aero-engine manufacture is in the hands of Rolls-Royce (1971) Ltd., a publicly owned company to which the essential assets of Rolls-Royce Ltd. were transferred in 1971. Besides extensive research and development work by the industry itself, research on a substantial scale is carried out by a number of government research establishments. The industry is represented by the Society of British Aerospace Companies. The society organises a major international air show and exhibition at Farnborough, Hampshire, every two years.

Total sales of aerospace products and work done in 1974 were valued at $\pounds_{1,234}$ million, including $\pounds_{326,5}$ million for aircraft and parts, \pounds_{395} million for engines and parts and some \pounds_{92} million for guided weapons and parts. Exports had a total value of \pounds_{631} million, including $\pounds_{293,6}$ million for aircraft and parts and $\pounds_{296,8}$ million for engines and parts. The leading markets in 1974 were the United States ($\pounds_{191,5}$ million) France ($\pounds_{82,1}$ million) and the Federal Republic of Germany ($\pounds_{60,9}$ million). Sales to the People's Republic of China were also prominent.

Current production includes such civil aircraft as the Hawker Siddeley HS 748, Trident, and 125 executive jet, the BAC One-Eleven and the Shorts Skyvan and Britten-Norman Islander/Trislander light transports. The Anglo-French Concorde supersonic transport is expected to start in commercial service early in 1976. New projects include the Short's SD 3-30, commuter airliner. Military programmes include the unique Hawker Siddeley Harrier vertical/short take-off and landing aircraft (which has achieved extensive sales to the United States), the Hawk advanced trainer aircraft, and the Multi-Role Combat Aircraft, a collaborative development by Britain, the Federal Republic of Germany and Italy. The Puma, Gazelle and Lynx helicopters are collaborative developments by Britain and France, together with a number of guided-missile projects. The industry is also extensively involved in the development and manufacture of space systems, including satellites for communications, and in research and other European collaborative programmes. Britain is in addition the world's leading producer of hovercraft, the Winchester (SRN6) and Mountbatten (SRN4) classes having been sold extensively overseas. British aero-engines are also in world-wide use, recent developments including the Pegasus vectored-thrust engine for the Harrier and similar aircraft and the advanced technology RB 211 ultra-quiet engine, and its more powerful derivative, the RB211-524, an engine developed for aircraft with a longer range.

Shipbuilding and Marine Engineering Britain has a long-established tradition in shipbuilding and its industry is among the most important in the world. In the past decade the major shipyards have embarked on extensive programmes of reorganisation and modernisation. A series of mergers has led to the creation of two major groups on Clydeside,

three in north-east England, one in eastern Scotland and one in southern England. Together with one firm on Merseyside and one in Belfast—where the world's largest building dock is operational—they account for more than nine-tenths by gross tonnage of the industry's merchant shipbuilding operations. In addition numerous yards around the coast build smaller vessels such as naval ships, fishing and harbour craft, and oilrig supply vessels, this being a particularly rapidly growing area of activity. Co-operative research into shipbuilding and marine engineering is undertaken by the British Ship Research Association.

In 1974 completions of merchant ships of 100 gross tons and over totalled 134 vessels of 1·19 million gross tons and an estimated value of $\pounds 227.9$ million, of which 31 vessels of 235,000 gross tons with an estimated value of $\pounds 61.7$ million were for overseas registration. At the end of that year orders were on hand for 381 ships of 6·2 million gross tons with an estimated value of $\pounds 1.538$ million, of which 110 vessels of 1·6 million gross tons and an estimated value of $\pounds 474$ million were for overseas registration. Deliveries of pleasure craft were valued at $\pounds 29.3$ million. Exports of ships and boats had a total value of $\pounds 1.20.4$ million in 1974.

Some of the larger shipbuilding firms also carry out repair work in addition to a number of specialist ship repair firms. Ship repair, maintenance, conversion and refitting by the whole industry had a value of $\pounds 264.9$ million in 1974. A number of specialist firms construct and fit various types of marine diesel engines, steam turbines and gas turbines. Completions and deliveries of marine engines and machinery totalled $\pounds 120.3$ million in 1974. Direct exports of marine propulsion diesel engines had a value of $\pounds 15.9$ million.

The Government intends to take into public ownership the larger shipbuilding, ship repairing and marine engineering companies, which are to be reorganised under a new public corporation, British Shipbuilders.

The group of industries manufacturing metal products not already described consists of a very large number of firms with a total labour force of 5\$1,700 in 1974. The main groups are engineers' small tools and gauges (67,000 persons), bolts, nuts and screws (3\$,900), wire and wire manufactures (40,800) cans and metal boxes (31,700), jewellery, plate, and the refining of precious metals (22,400), hand tools and implements (21,200), cutlery (14,600), and other metal industries (345,000). The total value of exports in 1974 was about $f_{.471}$ million.

Engineers' Small ToolsThe manufacture of engineers' small tools (used with metal-working machine tools) is an expanding industry. Small firms predominate. Sales totalled \pounds_{218} million in 1974, including jigs and fixtures ($\pounds_{18.9}$ million), press tools and moulds ($\pounds_{47.7}$ million), hard metal-tipped tools ($\pounds_{25.5}$ million) and other metal cutting tools (\pounds_{76} million). Exports totalled $\pounds_{41.5}$ million.

Cutlery The production of cutlery and tableware (including safety razors and blades) is centred mainly in Sheffield and the Midlands. The industry's reputation has been built on the skill of its craftsmen, although, except in the case of the highest quality wares, mass-production methods are extensively used. Although small firms predominate, seven relatively large employers are responsible for over half of output. The value of sales of cutlery in 1974 was \pounds_{30} million and of safety razors and blades \pounds_{30} million. Exports of cutlery, razors and razor blades totalled \pounds_{30} million.

METAL

PRODUCTS

Hollow-ware

About 220 firms produce a wide range of domestic utensils, such as saucepans, buckets and dustbins, mainly from aluminium and wrought steel, together with industrial hollow-ware such as kegs, drums and barrels. The value of sales in 1974 was £130.3 million. Exports of domestic utensils were valued at £14 million.

Hand Tools and Implements The manufacture of hand tools, such as files, saws, hammers, axes and spades, is a long-established industry. There are about 350 firms, four relatively large employers being responsible for over one-quarter of output. Sheffield, Birmingham and other Midland towns are the most important centres. The value of sales of hand tools and implements was £87 million in 1974: exports totalled £46.7 million.

Jewellery, Gold and Silver Ware

The making of jewellery, gold and silver ware and the refining of precious metals is an industry in which British craftsmen are world renowned. Most firms in the industry, which is mainly centred on Birmingham, are small, although five relatively large firms are responsible for nearly three-fifths of total output. The total value of sales of jewellery, goldsmiths' and silversmiths' wares, including coins and medals, and electro-plated nickel silver wares in 1974 was $f_{s}130.9$ million, of which $f_{s}16.8$ million was for export.

CHEMICALS

The chemicals industry, with a labour force of 434,700 comprises the manufacture of: general chemicals (133,600 employees), pharmaceutical chemicals and preparations (76,600), toilet preparations (27,100), paint (27,500), soap and detergents (15,900), synthetic resins, plastics materials and synthetic rubber (50,400), dyestuffs and pigments (23,400), fertilisers, (12,200), and other chemical products (68,000). This is one of the fastest growing sectors of British industry, and an important contributor to overseas earnings. The value of exports in 1974 was $\pounds 2,146$ million, or 13 per cent of total British exports.

General Chemicals

About one-third of the output of the general chemicals industry consists of a limited number of relatively simple inorganic chemicals, such as sulphuric acid and metallic and non-metallic oxides, serving as basic materials for industry. Substantial quantities of inorganic chemicals are used in the manufacture of such products as fertilisers, detergents, paint, glass and metals. Sulphuric acid has the largest production of any chemical and 3.9 million tonnes were produced in 1974. The remaining output of this sector consists of a very wide range of chemicals. The chemical industry is highly capital intensive, so that employment figures for firms do not adequately reflect the size of undertakings. Four large firms are responsible for half of total output of inorganic chemicals.

Petroleum-based chemicals account for over four-fifths of the total output of organic chemicals. The most important products (by weight) in 1974 were ethylene (1.3 million tonnes), propylene (663,000 tonnes) and benzene (696,000 tonnes). The main outlets for organic chemicals are plastics materials, solvents, synthetic rubber, man-made fibres and detergents. Three large firms are responsible for almost two-thirds of total output of organic chemicals.

Output of general chemicals totalled $\pounds 2,534$ million in 1974 and exports $\pounds 550^{\circ}3$ million; European Community countries and the United States are the principal purchasers.

Sales of radioisotopes from the Radiochemical Centre Ltd. in 1974 were valued at over £9 million of which 58 per cent represented exports.

Pharmaceuticals The whole range of drugs is produced in Britain, where many of the basic products were discovered and developed. These include antibiotics, sulphonamides, anti-malarial drugs, anti-histamine products, anaesthetics, vaccines, sera and naturally occurring drugs.

Seventeen firms are responsible for almost two-thirds of total output; several of the larger pharmaceutical companies are subsidiaries of overseas firms.

In 1974 sales of pharmaceutical chemicals and preparations totalled £707 million. Exports of medicinal and pharmaceutical products totalled £301.6 million, of which £39 million worth were antibiotics. The largest purchasers were Belgium (£19.6 million) and the Irish Republic (£18.7 million).

Plastics and Synthetics

Many of the basic discoveries in plastics, including polyethylene, were made in Britain. Plastics manufacture is one of the fastest growing sections of industry. Expansion in recent years has mainly been in thermoplastic materials, of which the most important are polyethylene (used in coverings and packagingnotably for foodstuffs), polyvinyl chloride (known as PVC and used for a wide range of industrial purposes and consumer goods) and polystyrene (a material used for toys, light mouldings and many consumer goods). One of the newer thermoplastic materials is polypropylene, which can be fabricated as mouldings, films and fibres. A new family of plastics materials reinforced with carbon fibres is also in commercial production in Britain; they have up to three times the strength but are only half the weight of steel. High styrene rubbers for shoe soles and flooring, and nitrile rubbers for use where oil resistance is required, are also in large-scale production, together with neoprene rubber. There are about 250 firms in the industry; four large enterprises are responsible for about two-fifths of output. In 1974 sales of synthetic resin and plastics materials totalled £949.8 million; sales of synthetic rubber a further £158.4 million. Exports of synthetic resins and plastics materials totalled £366.8 million, the main purchasers being Australia (£28.3 million), and Sweden (£27.8 million). Exports of synthetic rubber totalled £46.6 million.

Fertilisers

Crop Protection Products British scientists. Production is dominated by three firms, together with a number of firms marketing compound fertilisers from the principal constituents—nitrogen, phosphorus and potassium—and is almost entirely for the domestic market. Sales of fertilisers were valued at $\pounds 292.7$ million in 1974. The use of ammonium nitrate (35 per cent nitrogen), ammonium phosphate, and urea (mostly 45 per cent nitrogen), is resulting in more concentrated fertilisers. The value of exports of manufactured fertilisers was $\pounds 45.7$ million in 1974, European Community countries forming the largest market.

The development of chemical fertilisers owes much to the pioneer work of

Notable discoveries by the British crop protection industry include the insecticidal activity of BHC (benzene hexachloride), the first selective hormone weed-killer, MCPA, and *Gramoxone*, a non-residual general herbicide. Three relatively large firms are responsible for more than a third of total output. Sales of pesticides and allied products were valued at $\pounds_{111\cdot 2}$ million in 1974; herbicides (\pounds_{51} million) were the largest single category. Exports of insecticides, fungicides and disinfectants in 1974 totalled $\pounds_{60\cdot 7}$ million.

Paints

Manufacturers' sales of paint and varnish during 1974 amounted to some $611\cdot3$ million litres (including 142.9 million litres of emulsion paint) valued at £325 million. In recent years many improved techniques have been

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introduced, including new ranges of synthetic resins and pigments, non-drip, quick-drying paints and paints needing only one application. About 360 firms are involved in this sector, six relatively large firms being responsible for almost half of total output. Britain is one of the largest exporters of paints in the world; exports of pigments, paints, varnishes and related products in 1974 amounted to $\pounds_{110.5}$ million.

Toilet and
SoapSales of toilet preparations totalled $\pounds 294$ million in 1974 and sales of soap and
detergents $\pounds 358$ million. About 220 firms, including three large enterprises,
are involved in the toilet preparations industry and about 200 in the soap and
detergents industry. Exports of perfumery and toilet preparations, soap and
associated products were valued at $\pounds 104.4$ million.

Other Chemical Products Sales of other chemical products in 1974 included formulated adhesives ($\pounds 91\cdot 5$ million), printing ink ($\pounds 54\cdot 3$ million) and photographic chemical materials ($\pounds 146\cdot 6$ million). Sales of polishes in 1974 were valued at $\pounds 49\cdot 3$ million, including floor and furniture polishes worth $\pounds 13\cdot 8$ million. Exports in 1974 included additives for improving viscosity and similar products ($\pounds 89\cdot 9$ million) and glues and starches ($\pounds 22\cdot 8$ million).

> The boundaries between the various fibre-based sectors of the textile industry have now become indistinct and considerable vertical integration has taken place, connected with the rapidly developing technology of man-made fibres. The industry's main research bodies are the Cotton, Silk and Man-made Fibres Research Association, the Wool Industries Research Association, the Hosiery and Allied Trades Research Association, the International Wool Secretariat and the Shirley Institute.

The industry has a labour force of 585,300 half of whom are women; 47,700 are engaged in the production of man-made fibres, 118,600 in the spinning, doubling and weaving of cotton, flax and man-made fibres, 102,200 in the woollen and worsted trades, and 132,400 in hosiery and knitted goods. The total value of textile exports in 1974 was $\pounds745\cdot8$ million.

Man-made Fibres

TEXTILES

Much of the early development of man-made fibres took place in Britain. Production is spread throughout the country with Northern Ireland of notable importance. Large firms predominate in the industry. Development started with the cellulose fibres such as rayon (made from natural polymers) and later moved on to the more complicated fully synthetic fibres (the polyamides) such as nylon, produced from chemical substances. These are still the two main types of man-made fibre.

Extensive research by the industry has enabled the range of man-made fibres to increase annually. Terylene, a polyester fibre, invented in Britain during the second world war, is particularly suited to blending with wool. Acrylic fibres, including *Courtelle* (a British discovery) and *Acrilan*, are of growing importance. Production also includes elastomerics of spandex fibres, which have inherent properties of stretch and recovery, anti-static synthetic yarns, embedded with carbon, new fire-resistant yarns, and another British development, melded fabric, in which the weaving and knitting stages are omitted, producing a non-woven fabric. Output, which has expanded rapidly in recent years, totalled 599,000 tonnes valued at £475 million in 1974, consisting of 364,100 tonnes of staple fibre and 234,600 tonnes of filament yarn. Of the continuous filament yarn 115,800 tonnes were polyamide yarns. Output of woven man-made fibre cloth totalled 435 million linear metres valued at £186 million.

Exports of synthetic and artificial yarns had a value of \pounds_{165} million in 1974 and synthetic and artificial fabrics $\pounds_{68\cdot 6}$ million. The Irish Republic was one of the most important purchasers, along with several other members of the European Community.

The British wool textile industry, important since medieval times, is one of the largest in the world. There are two main branches—woollen and worsted and in recent years an increasing amount of man-made fibre has been blended with wool. The small or medium-sized business predominates, with only a few large firms. While West Yorkshire is by far the most important producing area, Scotland and the west of England remain famous as specialised producers of high-quality cloth.

In 1974 sales of woollen and worsted products had a total value of £769 million. Production of tops amounted to 98.7 million kg., of which the wool and hair content composed 43.8 million kg. Deliveries of worsted and semi-worsted yarn amounted to 87 million kg. and of woven fabrics to 175 million square metres, of which woollen comprised 92 million square metres and worsted 83 millionsquare metres. In addition, large, but declining, quantities of raw wool are scoured and cleaned in Britain. Consumption of raw wool in 1974 was 113 million kg. Exports in 1974 included wool yarns (£36.5 million) and fabrics (£106.6 million). By far the largest market for woollens and worsted fabrics was Japan (£31.8 million). Raw wool (cleaned or scoured in Britain) and other animal hair and tops exported had a value of £67.3 million.

Cotton was Britain's chief consumer goods industry and cotton piece-goods its largest export during the nineteenth century. Increasing low-cost competition has cut progressively into British markets but the industry has responded with extensive reorganisation, modernisation and the introduction of new techniques. Most of the industry is located in Lancashire, the north-east of the county being mainly concerned with weaving and the south-east with spinning.

Output in 1974 consisted of: 81 million kg. of single cotton yarn, 88 million kg. of spun man-made fibre and mixture single yarn, 75 million kg. of doubled cotton yarn, 409 million linear metres of woven cotton cloth, and 505 million linear metres of man-made fibre and mixture cloth. In 1974 exports of cotton yarn were worth $\pounds 22$ million, exports of woven cotton fabrics were valued at $\pounds 52$ million, with the Irish Republic and Commonwealth countries the most important markets.

Hosiery and Knitwear The hosiery and knitwear industry is predominantly one of small-scale enterprises. Although widely distributed, the industry is centred in the east Midlands, the north-west of England and in Scotland. Sales of hosiery and other knitted goods totalled \pounds 602 million in 1974 including \pounds 238 million worth of outerwear, \pounds 122 million worth of socks, tights and stockings and \pounds 144 million worth of knitted fabrics. Exports of knitted or crocheted clothing and accessories were valued at \pounds 83.9 million in 1974; the largest buyers were the European Community countries who bought \pounds 29.3 million and the United States (\pounds 8.4 million). Exports of knitted and crocheted fabrics amounted to \pounds 44.9 million.

Other TextilesThe linen industry is centred in Northern Ireland which concentrates on
yarns and the lighter types of fabrics, with most of the remainder in Scotland.
Northern Ireland manufacturers produced 17 million linear metres of cloth in
1974, while weavers in Britain delivered 18 million square metres including

Wool

Cotton

6 million square metres of sailcloth and canvas. Textile exports in 1974 included £8.8 million worth of linen fabrics and £6.3 million worth of flax yarns and linen thread.

Jute products are manufactured on a large scale in the Dundee area; jute yarn is used in the manufacture of carpets, cordage, ropes and woven into fabrics for a wide range of applications in the packaging, carpet, upholstery, building and motor car industries. New uses for jute, as a plastics reinforcement for example, have also been developed. In 1974 output included 48,000 tonnes of jute yarn and 18,900 tonnes of woven jute cloth. Total sales of the main products of the jute industry were valued at £56.8 million including exports of £3.2 million.

Sales of finished lace goods amounted to $\pounds 23$ million in 1974. The most important lace product is manufactured on warp knitting machines, with sales valued at $\pounds 9.8$ million. Exports of principal products were worth $\pounds 4.4$ million in 1974.

In addition to the products mentioned above, British textile firms manufacture a wide range of other goods, including many special yarns and fabrics, net, household textiles such as blankets, tablecloths and curtains, and carpets and other floor coverings. Sales of floor coverings of linoleum, vinyl and other synthetic materials were valued at over \pounds 124 million in 1974; just under onesixth was for export. The cordage industry is one of the largest in Europe. Exports of ropes, cordage, nets and netting in 1974 were valued at \pounds 8.6 million.

Some 135 enterprises are engaged in the manufacture of carpets and rugs, including six large groups. The principal manufacturing centres include Kidderminster, Halifax and Bradford, Glasgow and Kilmarnock and several towns in Northern Ireland. About one-quarter of the carpets produced (by quantity) are made predominantly of wool and a growing proportion of traditional woven carpets contain some man-made fibre. Total sales in 1974 amounted to some 151 million square metres worth about £382 million. Some two-thirds of output is accounted for by tufted carpets, in the production of which the pile, usually with a high man-made fibre content, is inserted into a pre-woven backing; woven carpets, such as Axminster and Wilton, make up most of the remainder of sales, and form the bulk of exports which totalled £85 million in 1974.

CLOTHING, LEATHER AND FOOTWEAR

Clothing

There are 469,300 employees in the clothing, leather and footwear industries. Some 340,400 are in the clothing industry, 86,100 in the footwear trade and 42,800 in leather, leather goods and fur manufacture.

The British clothing industry is the largest in Europe. The typical firm in the industry is small, although there are some large firms employing mass-production methods on an extensive scale. The principal manufacturing centres are London, Leeds and Manchester, but some firms are also situated on industrial estates throughout the country. The Clothing Export Council, representing some 220 companies, organises promotions for various sectors of the industry. Exports of clothing in 1974, including knitted goods but excluding fur clothing, were valued at $\pounds 223.6$ million; the Irish Republic ($\pounds 28$ million) was the main purchaser.

Jute

Lace

Miscellaneous

Manufactures

Textile

Carpets

240

Leather

BRITAIN 1976: AN OFFICIAL HANDBOOK

Leather tanning and leather goods manufacturing is another of Britain's longestablished industries.

Tanneries are situated in most parts of Britain, but there are important concentrations in Lancashire, Cheshire, Yorkshire, the north Midlands and the London area. All types of leather (including heavy types for industrial use) and leather goods are produced. Collective research is carried out by the British Leather Manufacturers' Research Association. In 1974 the industry's output totalled £231.6 million; exports were valued at £53.8 million. The United States (£7 million) is the largest single market.

Footwear

The British footwear industry is among the largest in the world. There are about 520 firms in the industry, with three large firms being responsible for about one-fifth of total output. Factories are located throughout Britain. Some areas concentrate on production of particular types; for example, the Rossendale valley region of Lancashire on slippers, and Leicester and Norwich on women's and girls' shoes. In 1974 manufacturers' sales of footwear totalled 177 million pairs with a value of £379.2 million. Exports of all types had a value of £47.3 million; the Irish Republic (£8.8 million) was the largest market.

FOOD, DRINK AND TOBACCO The food, drink and tobacco industries employ 765,900 people in the production of a great variety of goods. The value of their combined exports in 1974 was £989.6 million. Exports of alcoholic beverages accounted for £381 million; sugar, sugar preparations and honey for £59.2 million; cereal and cereal preparations for £76.8 million; fruit and vegetables for £52.8 million; dairy products and eggs for £41 million; and coffee, cocoa, tea and spices for £54.9 million.

Many of the industry's leading firms have been involved in mergers in recent years.

Bread

Bread production is increasingly concentrated in large mechanised bakeries most of them using a process developed by the industry's main research organisation (the Flour Milling and Baking Research Association) now also widely used in other countries. About two-thirds of bread is made in these bakeries. Three groups have a dominant position. In smaller bakeries production of cakes and other flour confectionery is usually allied to bread production. There are 116,100 employees in the bread and flour confectionery industry and a further 22,700 in grain-milling. Output of bread totalled 2·19 million tons in 1974; sales of bread, flour confectionery and other bakery products had a total value of $f_{10}70.7$ million.

There are 43,500 employees producing biscuits and related products. Output of biscuits totalled 622,000 tons in 1974; sales of biscuits and related products had a total value of \pounds_{305} million. British biscuits have gained a world-wide reputation, and exports in 1974 were valued at $\pounds_{30^{\circ}3}$ million.

Confectionery

The cocoa, chocolate and sugar confectionery industry, which has 75,400 employees, is composed of a small number of very large manufacturers and many medium-sized and small firms. The main ingredients used by the industry are sugar, cocoa beans, glucose, milk, nuts and fats. Production of cocoa, chocolate and sugar confectionery and related products totalled 935,500 tons in 1974, with a total value of \pounds 603.6 million. A substantial proportion of total world exports of chocolate and sugar confectionery come from Britain, the world's largest exporter of these products; exports totalled \pounds 72.5 million in 1974.

Fruit and Vegetable Products Fruit and vegetable products include canned, frozen and dried fruit and vegetables, jam, marmalade and pickles. The labour force numbers 64,300. Output of jams and marmalade totalled 175 million tons in 1974 and exports were valued at £3.7 million. In 1974 839,000 tons of canned vegetables were produced. In addition, output in 1974 included 90,000 tons of canned and bottled fruit. Nearly 361,000 tons of vegetables were processed by quick freezing in 1974.

Bacon Curing, Meat and Fish Products The industry comprises the curing of bacon and ham, the canning and preserving of meat and fish, the manufacture of sausages and pies and the preparation of extracts and pastes. The labour force numbers 117,700. Output of canned meat and canned meat products in 1974 totalled 135,031 tons, and 239,000 tons of bacon and ham were cured. Quick-frozen fish output amounted to some 79,900 tons in 1974; small quantities (7,000 tons in 1974) are also canned. Exports of fish and fish preparations had a value of $\pounds 51.8$ million in 1974 and those of meat and meat products were worth $\pounds 80.1$ million.

Beverages The industries producing beer, spirits, wines, cider and soft drinks have a labour force of 135,600.

Whisky Exports of whisky (almost all of it Scotch whisky) totalled 87.6 million proof gallons with a value of $\pounds 326.4$ million in 1974; almost half went to the United States which imported $\pounds 145.6$ million worth of distilled alcoholic beverages from Britain in 1974. Scotch whisky was first distilled in the fifteenth century. It is blended from 20 or more different types, some from malted barley and some from other grains. Whisky requires several years to mature, and the Scotch whisky produced in the 1974 distilling year will not be on sale for some years. Stocks of whisky amount to more than 1,000 million proof gallons. About four-fifths of annual sales are to overseas buyers.

Production of gin in Britain has risen steadily since the early 1950s. The main distillers are in London and one company accounts for a large proportion of total output. Although the larger manufacturers also own distilleries abroad, exports had a value of $\pounds 28.9$ million in 1974.

There are 71,100 employees in the brewing and malting industry.

Seven major brewery groups market their products throughout the country together with a number of smaller enterprises. Firms have introduced new production methods, including continuous brewing processes, and automated batch production plants are well established. In 1974, 38.5 million bulk barrels of beer were produced. Exports in 1974 of malt beer were 444,000 bulk barrels, worth $f_{.774}$ million.

The main raw materials used in brewing are malt, hops and some sugar. Malt is made almost entirely from home-grown barley. Some brewers make all or part of their own malt, others purchase it from independent maltsters who also supply distillers, vinegar brewers and malt extract manufacturers. British malt is used by brewers throughout the world, and exports in 1974 amounted to 130,400 tons, worth $f_{x}12$ million.

The soft drinks industry has expanded markedly in the last decade. Total exports of non-alcoholic beverages and fruit juices were $\pounds_{5,3}$ million in 1974. There are two very large firms among about 20 producing brands which are marketed on a national scale together with about 250 firms supplying regional

Gin

Brewing and Malting

Soft Drinks

markets. There is also some degree of specialisation by firms in the production of various types, such as carbonated drinks, cola-based drinks, squashes and cordials, tonic waters and 'mixers', fruit juices and health drinks. Sales in 1974 included 95.5 million gallons of concentrated soft drinks, and 378.3 million gallons of unconcentrated drinks.

Tobacco The tobacco industry manufactures almost all the cigarettes and other tobacco goods sold in Britain. The main centres of production are in and around Bristol, Liverpool, London, Manchester, Newcastle, Nottingham, Glasgow and Belfast. The two biggest manufacturing groups account for over 90 per cent of total output and the industry has 40,900 employees. In 1974 the industry's total sales were valued at $\pounds 1,852$ million. Exports worth $\pounds 68.9$ million (of which cigarettes accounted for nearly 90 per cent) were shipped to a large number of overseas markets; Saudi Arabia ($\pounds 6.7$ million), the Netherlands ($\pounds 5$ million) and Belgium ($\pounds 4.4$ million) being the most important. The tobacco industry used 362.3 million lb. of imported tobacco in 1974, the main sources being the United States, Canada and India. The industry's output included 277 million lb. of cigarettes; 5.5 million lb. of cigars; and 35.8 million

lb. of pipe and other tobacco.

BRICKS, CEMENT, POTTERY AND GLASS This group comprises the manufacture of bricks, fireclay, refractory goods, pottery, glass, cement, abrasives, asbestos and other building materials. The industries have a combined labour force of 300,800 which includes 47,500 in the bricks, fireclay and refractory goods trades, 72,700 in the glass industry and 59,800 in the pottery industry.

Brickmaking and Refractory Goods Firms in the industry manufacture such items as bricks, roofing tiles, chimney pots, fireclay ware and heat-resisting products including furnace and kiln linings. Brickmaking is one of Britain's oldest industries, but most manufacture is now based on highly mechanised systems. In 1974 about 5,580 million building bricks were produced in Great Britain, made mainly in the Bedford and Peterborough areas. Sales of bricks and other non-refractory goods had a total value of $\pounds 153^{\circ}2$ million in 1974. Refractory goods include firebricks, silica bricks, magnesite bricks, chrome-magnesite bricks and alumina bricks, which in 1974 totalled 965,400 tonnes valued at $\pounds 50^{\circ}3$ million; output of other refractory goods amounted to $\pounds 65^{\circ}5$ million. Exports of bricks, tiles and refractory goods were valued at $\pounds 36^{\circ}4$ million in 1974.

Cement The cement industry, with 15,200 employees, is chiefly concerned with the manufacture of Portland cement for the home market. Invented by Joseph Aspdin and patented in 1824, this material and the methods of its production have been the subject of continuous technical improvement and intensive research. The capacity of the industry has been expanded substantially in recent years. Output totalled 18 million tonnes in 1974 and the industry's total sales were valued at \pounds 1996 million.

Pottery The pottery industry, centred largely in Staffordshire, supplies almost all home needs for domestic and industrial pottery. It is a long-established industry, in which there has been considerable re-equipment; kilns fired by gas or electricity have replaced almost all the coal-fired kilns, and new decorating techniques and automatic and semi-automatic machinery have been introduced. Domestic pottery, including china, earthenware, stoneware, jet and Rocking-ham, accounts for about half of the industry's output; the other main divisions

are glazed tiles, sanitary ware and electrical ware, and such specialised industrial products as acid-proof stoneware, porous ceramics and laboratory porcelain are also manufactured. Production of tableware is concentrated in four major groups. Britain is the world's principal manufacturer of fine bone china; famous makes include *Wedgwood*, *Spode*, *Royal Worcester*, *Royal Doulton*, *Minton*, *Coalport* and *Royal Crown Derby*. Total sales of pottery were £203 million in 1974 including export sales of £71.2 million; the United States and Canada are among the leading markets.

Britain's glass industry is one of the largest in the world. The section of the industry devoted to the manufacture of plate and sheet glass in their various forms is organised for quantity production, much of it in the form of 'float' glass a process developed in Britain and licensed to glassmakers throughout the world. The use of glass for internal decoration and as a finish for internal and external walls has greatly increased in recent years. Large quantities of safety glass are produced for the motor and other industries. Other products include tubular glass (produced on a large scale), mirrors, lamp and bulb glass, scientific and medical glassware, glass fibres, and all types of glass containers (mostly made automatically). A traditional product is hand-made lead crystal glassware of very high quality. Collective research is undertaken by the British Glass Industry Research Association, and much research work is also carried out by the Department of Glass Technology of Sheffield University.

Total sales of glass and glass products were valued at £393 million in 1974. Direct exports of glass and glassware totalled £83 million in 1974. Those of glass were worth £50.4 million, the most important markets being European Community countries.

PAPER, PRINTING AND PUBLISHING The paper, printing and publishing industries have 588,700 employees, including 96,400 in the manufacture of paper and board, 91,000 in the production of packaging materials, 148,900 in the printing and publishing of newspapers and periodicals, and 210,500 in other types of printing and publishing.

> The British paper and board industry is one of the largest in Europe. Four major companies dominate the industry but there are many medium-sized and small firms. The large groups hold considerable interests abroad, including pulp and paper producing mills in the United States, Canada, other parts of the Commonwealth and Europe. In recent years the trend in production has been towards high-quality and specialised paper.

> The main raw materials are woodpulp and waste paper. Woodpulp produced in Britain is used, although it still represents only a small percentage of total supplies. The use of salvaged waste paper is increasing and new recycling techniques are being developed.

> Total sales in 1974 of all types of paper and board amounted to $\pounds 907$ million. Of this, newsprint accounted for $\pounds 52.6$ million and other printing and writing papers for $\pounds 340.3$ million; $\pounds 172.7$ million was board and the remainder was made up chiefly of wrapping papers, industrial and special purpose papers and tissues. Sales of household paper products, including facial tissues, and other paper and board products totalled $\pounds 255$ million. Sales of packaging products, such as cardboard boxes, cartons and fibreboard packing cases, totalled $\pounds 603$ million, while sales of manufactured stationery were valued at $\pounds 303$ million. Sales of wall coverings (where a major innovation has been the introduction of plastics coated coverings) totalled $\pounds 94.7$ million.

Paper and Board

Glass

Exports of paper and board were valued at £137.1 million in 1974, and exports of manufactured paper items at £62.2 million. The Irish Republic (£20.5 million), and France (f,14 million) are among the leading purchasers.

Printing and Publishing

The printing and publishing industry produces a wide range of goods, from national newspapers and periodicals to books, business stationery and greetings cards. Mergers in recent years have led to the formation of large groups in the newspaper, magazine and book publishing sections. Three large firms each employ more than 15,000 people. General printing, publishing, engraving and bookbinding remains essentially an industry of small firms. Production processes include the latest developments in high-speed printing equipment, including electronic engraving and advanced processes of photographic reproduction, and several newspapers are set by computer techniques. Total sales and receipts of newspapers and periodicals were valued at £1,106 million in 1974, including £678.9 million for newspapers (sales £282.5 million, advertising revenue $f_{396\cdot 4}$ million) and $f_{278\cdot 6}$ million for periodicals (sales £148.8 million, advertising revenue £129.8 million). Sales in the general printing and publishing industry totalled £977.2 million, of which sales of books totalled £272.6 million. Exports of printed matter were valued at £161.5 million in 1974, including books and pamphlets (£84.5 million), and newspapers and periodicals (f,24.2 million), but these figures do not include parcel post shipments, which are possibly as large again as the recorded totals. The United States (£,27.2 million) and Australia (£,23.4 million) are among the most important overseas markets. The Book Development Council of the Publishers Association promotes the supply and use of British books overseas.

Other manufacturing industries include the timber and furniture group, with MANUFACTURING 283,100 employees, rubber manufacture, with 125,100 employees, and a group of miscellaneous manufactures employing some 233,100 including 128,000 in plastics moulding and fabricating.

Tyres and tubes represent more than half the output of the industry but firms

also make a variety of goods, the most important being rubber footwear, conveyor belting, cables, hose, latex foam products and other vehicle components and accessories. One recent major development has been the introduction of tyre systems which enable the vehicle to continue safely after puncturing. The largest tyre group in Europe came into being in 1971, following the merger of Britain's leading rubber and tyre company and its Italian equivalent. Tyre manufacturers include several subsidiaries of United States

In 1974 the industry's consumption of rubber totalled 454,800 tonnes, comprising 165,000 tonnes of natural rubber, 271,200 tonnes of synthetic rubber and 18,000 tonnes of recycled rubber. In 1974, 222,000 tonnes of rubber were used in the production of tyres and tyre products. Direct exports of rubber and rubber manufactures in 1974 were worth £171.8 million, with Sweden, the United States and Australia as the main markets. This figure

Rubber

INDUSTRIES

OTHER

included tyres and tubes valued at £,86.4 million, but excluded large indirect exports on vehicles. In addition, the industry exported about £,8 million worth of rubber or plastic footwear and $f_{.5.5}$ million of rubber gloves and other clothing.

and other overseas companies.

Furniture, **Brushes** and Timber

Numerous enterprises manufacture furniture in Britain (including domestic, upholstered, office, school and other furniture) with a few large firms predominating. The labour force is of the order of 125,300. New designs and

materials are incorporated into modern furniture; traditional designs are reproduced by skilled craftsmen. Sales of wooden furniture and upholstery totalled £539.5 million in 1974, while sales of metal furniture were valued at £126.9 million. Exports of all furniture were worth £69.5 million in 1974. The bedding industry employs 21,500 people; sales of bedding and soft furnishings in 1974 were valued at £121 million. Scientific research and technical and other information services are provided by the Furniture Development Council and the Furniture Industry Research Association. A Development Council for the furniture industry has existed since 1949.

The brush industry is located throughout Britain, and includes highly mechanised establishments as well as small craft units. The value of sales in 1974 was $\pounds 46.4$ million, of which $\pounds 5.9$ million was for export.

The timber industry employs 99,000 people. Britain is mainly dependent on imported supplies of timber although domestic production has been steadily increasing. Sales of timber, plywood and chipboard and builders' woodwork totalled $\pounds 653$ million in 1974.

The number of people engaged in manufacturing toys and sports equipment and children's carriages in Britain is 45,700. Sales of toys, games and children's carriages in 1974 were worth £180·1 million and exports had a value of £72·5 million. The Federal Republic of Germany and the United States are the main overseas markets. The value of sales of sports equipment was £54·9 million: exports totalled £26·8 million.

There is in Britain a comprehensive system of legislation and machinery to protect the consumer's economic and other interests. The importance attached to this is indicated by the establishment under the Fair Trading Act 1973 of the office of the Director General of Fair Trading, and in 1974 of a Department of Prices and Consumer Protection (see p. 54). The Director General of Fair Trading keeps consumer affairs continuously under review. He can initiate action on unfair trading practices in general and against individual unfair traders. He encourages trade associations to adopt and publish voluntary codes of practice and himself publishes material to inform and educate consumers. The Director General of Fair Trading is also concerned with competition policy (see p. 209). The Consumer Credit Act 1974 is being introduced in stages, and will replace previous legislation on credit, including hire purchase and hire. It will give the consumer greater protection and will provide for a licensing system for businesses involved in credit and hire transactions. The Supply of Goods (Implied Terms) Act 1973 guarantees the consumer's basic rights in transactions for the purchase of goods-that is, that the goods correspond to their description and are of merchantable quality and fit for their purpose. Other important legislation (which differs in some respects for Northern Ireland) includes the Weights and Measures Act 1963 which establishes a uniform system of weights and measures and provides protection against short weight and short measure in commodities; the Food and Drugs Act 1955 and the Food and Drugs Act (Scotland) 1956 which control the purity, hygiene and description of food; the Consumer Protection Acts 1961 and 1971 which empower the Government to make regulations to ensure the safety of any class of goods; and the Trade Descriptions Acts 1968 and 1972 which make it an offence to describe goods inaccurately or make certain kinds of false statements about services. The Prices Act 1974 makes it possible to require prices or unit prices to be marked on goods offered for sale. In the main, this type of legislation is enforced by the Trading

Toys, Games and Sports Equipment

CONSUMER PROTECTION

Standards Departments and other branches of local government. Independent consumer councils for each of the nationalised industries investigate consumer complaints, while some trade associations in industry and commerce have established codes of practice designed to protect the consumer and look into complaints about member firms. A National Consumer Council, established in 1975, ensures that the consumers' view is made known to those in Government and industry whose decisions affect consumers.

Where necessary, consumers can gain legal redress through the simplified procedure introduced in 1973 in the county courts (see p. 89). Information and advice are made available to consumers throughout the country by the Citizens' Advice Bureaux (see p. 124) or by consumer advice centres run by local authorities.

In addition a number of private organisations work to further consumer interests. The largest is the Consumers' Association with a membership of over 700,000. The association conducts an extensive programme of comparative testing of goods bought on the open market; its views and test reports are published in a series of bulletins issued to members, the main monthly bulletin being entitled *Which?*. The association also provides an advice service on subscription. Work of this kind is also carried out by local groups, whose representative body is the National Federation of Consumer Groups. Other private consumer organisations include the Housewife's Trust and the Research Institute for Consumer Affairs.

CONSTRUCTION

The construction industry, which accounts for about 7 per cent of the total domestic income, includes firms engaged on the construction, alteration, repair and maintenance of buildings, highways, airfields, drainage and sewerage systems, docks, harbours and canals, sea defence works, offshore structures, electrical wiring, heating and other installation work, open-cast coal prospecting and mining, and structural work connected with thermal and hydroelectric power stations and telecommunications. About 1.8 million people are engaged on construction, including the self-employed, and they represent some 8 per cent of the total labour force. About 20 per cent are employed by public authorities. Some 30 per cent of output consists of maintenance work, and about 45 per cent of all new work is commissioned by public authorities.

Structure

Construction work is carried out both by private contractors and by public authorities which employ their own labour. About 90 per cent of the work is done by private firms. Although there are over 66,000 firms employing two or more people over 92 per cent of them employ fewer than 25 people.

Public authorities as a whole employ about 242,000 operatives but a very large proportion of these are engaged on repair and maintenance work for local authorities.

Nearly 38 per cent of operatives are occupied on building maintenance, valued at about $\pounds_{3,000}$ million annually. The total labour force includes about 730,000 skilled craftsmen, most of whom have been trained under the industry's apprenticeship schemes. A further 88,000 are employed as apprentices. The apprenticeship period is now four years.

Some firms are vertically integrated, owning quarries and workshops, mechanised plant and standard builders' equipment; some undertake responsibility for projects from initial design to finished building. All but the smallest projects are generally carried out under professional direction, either

by architects or, in the case of the more complicated civil engineering projects, by consulting engineers. The functions of the latter, acting on behalf of a client, embrace advice on the feasibility of projects, the drawing up of plans and the supervision of the construction work by the contractor.

The Property Services Agency, which is an integral part of the Department of the Environment (see p. 50) is responsible for the construction programmes undertaken directly by the Government, including work for the armed services, both at home and overseas. The Department of the Environment is responsible for co-ordinating research and development throughout the government service and seeks to influence methods and techniques in the building industry as a whole.

The value of work done in 1974 amounted to \pounds 10,181 million, of which \pounds 925 million represented work carried out by the labour employed directly by public authorities. Private contractors carried out the remaining \pounds 9,255 million (\pounds 7,012 million on new work and \pounds 2,243 million on repair work).

Some 252,000 houses and flats were started in 1974 and 268,000 were completed, of which 140,000 were for private owners. Of the $\pounds 2,536$ million of new housing carried out by private contractors, $\pounds 1,467$ million, or over half, was for private owners and the remainder for public authorities. Industrialised building methods employing prefabricated components are used in some of the work.

The National Building Agency is an independent advisory body, managed by a board of directors appointed by the Secretaries of State for the Environment and for Scotland and Wales. Its main function is to encourage the adoption of advanced methods of house building, and to provide technical advice and services to government departments, local authorities and other clients.

Britain was the first country to develop civil engineering as a large-scale modern industry and the first to provide techniques, finance and equipment to carry out major civil engineering projects throughout the world. Prominent figures in the early development of civil engineering included John McAdam, pioneer in road construction; Thomas Telford, builder of roads, bridges, canals, docks and railways; George and Robert Stephenson and Isambard Kingdom Brunel, pioneers of railway building.

Among important construction projects in hand in Britain in 1975 were several major conventional and nuclear power stations (see p. 272), offshore production platforms for North Sea oil—the two largest steel production platforms in the world, both designed by British firms, were installed in 1974 and 11 more were on order by July 1975—hospitals, large-scale housing developments, a scheme to extend the London underground railway system to London Airport (Heathrow) and the first stage of the new Fleet underground line in London. Projects for road construction, bridges and tunnels included about 185 miles (298 kilometres) of motorways under construction at the end of March 1975 in England alone, and a bridge across the river Humber (see p. 323).

Among important new construction projects being undertaken by British contractors in overseas countries were: a $\pounds 91$ million dry dock and ship-repairing scheme and a $\pounds 20$ million cement works contract in Dubai; contracts worth over $\pounds 54$ million for construction of seven airfields in Zaire; a contract worth $\pounds 8$ million for a marine terminal in Peru; a $\pounds 2\cdot 8$ million land reclamation scheme in Iraq; and a $\pounds 23$ million tower block project in Australia.

Civil Engineering Projects

Overseas Constructional Work

Output

Housing

British building and civil engineering firms are active in over 100 countries. In 1973/74 the value of new overseas contracts totalled about £500 million.

A substantial and growing amount of overseas business is also being done by British architects and surveyors, as well as by other types of consultant. At the beginning of 1975 British members of the Association of Consulting Engineers were engaged on projects worth nearly £6,000 million which brought some £90 million net in invisible earnings.

Research

The Director-General of Research in the Department of the Environment works closely with the building industry on many aspects of construction research. The Building Research Establishment is concerned with all aspects of building and provides a technical advisory service for construction firms. An Agrément Board, tests and certifies building products and methods.

The construction industry is served by several of the industrial research associations. The Construction Industry Research and Information Association is concerned with structural design, civil engineering construction, building design and construction, earthworks and foundations, hydraulic and public health engineering, and underwater engineering. The Heating and Ventilating Research Association deals with heating and air-conditioning in dwellings and commercial buildings. The application of materials is the main concern of the Timber Research and Development Association and the Cement and Concrete Association. Other research associations deal with bricks, paint, plastics in building, welding and civil engineering hydraulics. The major construction firms have research departments working on plant, materials and methods. Other bodies concerned with research include the universities and colleges of technology. Most of the producers of primary building materials have trade associations which maintain research institutions chiefly devoted to seeking new and more efficient use for their materials.

DISTRIBUTIVE AND SERVICE TRADES

Internal trade can be divided into two broad categories: trade in raw materials, capital goods and intermediate products (for example, vehicle components) and trade in consumer goods, involving the network of distributive trades by which home-produced or imported goods reach the consumer. (For the pattern of consumers' expenditure, see p. 203.)

While some of the trade in consumer goods passes through wholesalers to retailers, sales are also made directly to consumers through producers' own selling organisations (including their own retail outlets and mail order businesses), and other sales are made directly by producers to retailers.

Closely connected with the distributive trades are those which offer a service directly to the public, notably catering and hotel trades, laundries and dry cleaners, garage and motor repair trades, hairdressers and shoe repairers.

There have been a number of major official statistical inquiries into the distributive trades. The latest censuses taken in Great Britain refer to the wholesale trades in 1965¹ and the retail and certain service trades in 1971. Sample monthly and annual inquiries are also undertaken.

The 1965 inquiry into wholesale trades showed that a total of 23,643 business units were engaged in wholesale distribution in Great Britain; 3,435 dealt in clothing, footwear and textiles, 2,007 in grocery and provisions, 2,630 in

WHOLESALE TRADES

¹ Another census on wholesale trades for 1974 is being undertaken.

vegetables and fruit, and 3,469 in other food and in drink. In addition, there were 8,282 dealers (wholesale or retail) in coal, builders' materials, grain or agricultural supplies, and 9,117 dealers in other industrial materials and machinery. The book value of stocks held by wholesalers and dealers at the end of 1974 was \pounds 3,203 million; fixed capital expenditure by wholesale distributors amounted to \pounds 174 million in 1974 (valued at 1970 prices).

Methods of wholesale distribution vary according to the type of merchandise handled. Fish, for example, is auctioned at the ports to port wholesalers (who sell to inland wholesalers at the main distribution centres) or, increasingly, is sold by contract to fryers and processors, or direct to retailers. Fruit and vegetables may be sold by growers to commission agents (who dispose of the produce either to wholesalers or direct to retailers) or the grower may deal only with wholesale firms. The sale of some agricultural products is regulated by statutory marketing boards (see p. 296).

London's wholesale markets play a leading part in the distribution of foodstuffs, particularly imported supplies. Every year Covent Garden (see p. 297) handles over 1 million tons of fruit and vegetables, and about 200,000 tons of carcase meat and 53,000 tons of poultry pass through Smithfield market; Billingsgate is the principal distributing centre for fish.

The co-operative movement in Britain has established its own wholesale organisation to serve the needs of retail societies. The sales of the Co-operative Wholesale Society (CWS), whose membership is restricted to incorporated organisations, amounted to \pounds 903 million in 1974.

Since the early 1950s, many wholesalers have joined, either singly or in groups, with numbers of retailers to form voluntary groups to help to preserve the existence of retail outlets for the wholesaler and to give to smaller retailers the advantages of the lower costs of large-scale trading without significant loss of independence. The 1966 Census of Distribution showed that about 41 per cent of the turnover of independent grocers was attributable to wholesaler-sponsored voluntary groups and chains. About 25,000 shops, nearly a quarter of all independent grocers, are members of voluntary groups.

The number of Cash and Carry wholesale warehouses has increased in recent years. By bulk purchasing and limiting their expenditure on premises and credit and delivery facilities they can offer large price discounts to their customers. There are about 600 stores of this type with total sales of over $\pounds_{1,000}$ million a year. Cash and Carry wholesalers account for about half of all grocery warehousing by turnover.

RETAIL TRADE

Organisation and Turnover Retail businesses in Britain may be classified under four main headings: (1) multiple traders with ten or more branches; (2) retail co-operative societies; (3) independent retail businesses, including for this purpose the small multiple stores (that is, chains of stores with nine or fewer branches); and (4) department stores. Other retail outlets include gas and electricity showrooms and mail order houses (see p. 252).

The 1971 Census of Distribution covering retail and certain service trades in Great Britain, recorded some 473,000 retail establishments (Table 17). Out of this total, grocery and other food retailing groups numbered nearly 198,000 and the clothing and footwear group over 81,000.

Though the total value of retail trade in Great Britain (inclusive of electricity and gas showrooms and mail order business) rose by nearly 37 per cent between 1966 and 1971, rates of growth (measured in turnover) varied appreciably between different types of trade. The slowest growth was in confectionery, tobacconist, newsagent, clothing and 'other food' sectors. The fastest

growth was in department stores, mail order business, gas and electricity showroom sales, household goods, groceries and provisions, and 'other nonfoods'. However, the actual trends are blurred by the introduction into specialised shops of other specialities, for example, clothing multiples opening food sections, and vice versa. Final results of the 1971 Census of Distribution indicate a continuation of the trend for a larger volume of trade to be handled by rather fewer shops, particularly in the food sector, along with the continuing expansion of large multiple firms relative to other types of shop. Independent shops account for about half of the value of Britain's retail trade, although they make up more than four-fifths of the number of shops.

A very wide range is covered in the size of retailing establishments. Seven shops had a turnover in 1971 exceeding \pounds 10 million. At the other extreme there were some 6,500 shops with a turnover of less than \pounds 1,000 a year. In addition there were market and street traders, whose volume of business may be very small.

The expansion in the value of all retail sales in Great Britain between 1971 and 1974, when they were valued at about £23,300 million, was about 47 per cent. Taking into account the general increase in prices over this period, the real expansion of sales by all kinds of retail businesses between 1971 and 1974 was 10 per cent. Fixed capital expenditure by retail distributors in 1974 amounted to £371 million (at 1970 prices). About 2.5 million people are employed in retail shops.

The Northern Ireland 1965 Census of Retail Distribution and Other Services shows total sales of £385 million through 22,000 establishments. The value increased by 76 per cent between 1965 and 1974 to reach an estimated figure of £678 million.

According to the 1971 Census of Distribution there were over 66,300 shops owned by multiples (including multiple department stores) in 1971 with a total turnover of over £6,000 million. In 1966 there had been nearly 74,000 shops with sales of just under £4,000 million. The fall in numbers, combined with the increase in sales, reflects the trend for individual shops to become larger and handle a greater volume of sales. In 1971 the multiples' share of total turnover was about 38.6 per cent, compared with 34.5 per cent in 1966.

The share in total retail turnover of co-operative stores dropped from 11 to 9 per cent between 1961 and 1966 and fell again between 1966 and 1971 when it was 7 per cent. Their share of sales from food shops was 12 per cent compared with 18 per cent in 1961 and 15 per cent in 1966. Total sales of the retail co-operative societies in 1971 amounted to over $f_{\rm s}$ 1,100 million.

The retail co-operative societies are voluntary organisations controlled by their members. Membership is open to anyone paying a small deposit on a minimum share, which entitles the member to an equal voice with other members in the society. Share investment by individual members is limited to $f_{I,000}$ (less in some societies) and only a low rate of interest is normally paid on the shares. One large society has introduced a scheme of bonus shares carrying a higher rate of interest than the ordinary shares.

Traditionally the trading surplus was paid out to members in the form of a dividend in proportion to their purchases. A large number of societies, accounting for over four-fifths of total co-operative sales, have introduced dividend stamps redeemable for cash, other goods, or credit to a share account, at different redemption rates.

In March 1975 there were about 230 retail co-operative societies.

Multiples and Large Establishments

Retail Co-operative Societies

Amalgamations are rapidly diminishing the number of societies (the total in 1958 was 1,015). The largest single society in Britain is Co-operative Retail Services Limited.

Establishments Turnover Percen-Percen-Type of Trade Number tage £ million tage 1971 change 1971 change 1966 - 711966 - 71Grocers and provision dealers 105,283 -14.74,156 +42.9Other food retailers 92,524 -11.32,615 +25.6Confectioners, tobacconists and 52,064 -17.81,306 +24.9newsagents Clothing and footwear shops 81.279 -2.22,372 +37.9Household goods shops 70.342 + 6.82,007 +55.3Other non-food retailers 66,724 + 8.71.569 +53.9General stores +58.74,775 1,586 +48.8Total 472,991 - 6.2 15,611 +40.2Electricity and gas showrooms 2,359 -21.7283 +52.5Mail order businesses^a 772 +55.9633 +47.6Automatic vending machine operators^a 65 +16.0+ 9.212 Market stalls and mobile shops 31,790 n.a. 147 n.a.

TABLE 17: Retail Trades by Type of Business

Source: Final Results 1971 Census of Distribution a Number of organisations.

n.a. not available.

Independent Shops

Independent shops have been giving ground gradually in the face of increased competition from the larger undertakings. The number of independent shops fell by about 9 per cent between 1961 and 1966, but the decline has been partly reduced by the existence of voluntary buying groups (see p. 249) and between 1966 and 1971 the number fell by only 3 per cent. Although the independent shops' share of trade continued to fall—to 54.3 per cent—they still play an important role, often in terms of convenience, service, and range of goods stocked. The proprietors of some smaller shops have other means of livelihood.

Department Stores

Department stores were defined for the purposes of the census as having 25 or more persons engaged in selling a wide range of commodities, notably clothing and household goods.

There were 818 department stores in Britain in 1971 with a turnover of \pounds 950 million: 242 were owned by multiples; 343 by independents; and 233, with a turnover of nearly \pounds 160 million, by co-operative societies. Between 1966 and 1971 sales by department stores rose by some 45.5 per cent.

Development in Methods of Retailing The development of self-service trading has been a feature of the last two decades. In 1971 there were over 28,000 stores operating wholly or partly on self-service lines, compared with about 9,500 towards the end of 1961 and fewer than 500 in 1950. This development has been accompanied by a trend to larger shops in terms of both floor space and staff, though the number of staff per square foot of floor space has tended to decrease.

Supermarkets

Supermarkets are defined as self-service shops with a minimum selling area of 2,000 square feet. There were about 870 supermarkets in 1961, according

to the Census of Distribution; by 1971 it was estimated that there were some 4,800, handling nearly one-third of all retail food.

The number of very large stores, generally known as 'hypermarkets' or 'super-*Hypermarkets* stores', is increasing. With over 50,000 square feet of selling space they operate on supermarket lines but with a much wider range of goods. They are generally associated with exclusive car-parking facilities and situated away from established central shopping areas.

Mail order trading, which was one of the most rapidly growing forms of selling Mail Order in Britain between 1961 and 1966, slowed its growth rate between 1966 and Sales 1971, although the increase in sales over that period was still strong (48 per cent). Turnover was £633 million in 1971, when it accounted for nearly 4 per cent of total retail sales.

Some 31,790 mobile shops and market stalls were reported in the Census of Mobile Shops Distribution for 1971, with sales amounting to £147 million. Scotland (where the density of population is lower than in England) accounted for nearly 25 per cent of this turnover, compared with 10 per cent of all retail sales. Cooperative societies accounted for 39 per cent of sales through mobile food shops, against 12 per cent in ordinary food shops. Mobile shops were mainly concerned with food sales; about two-fifths were travelling grocers, and greengrocers and butchers each accounted for over one-fifth. Only a small proportion were non-food shops, and these specialised mainly in paraffin supplies and hardware.

New forms of vending machines have come to the fore since 1955. Organisa-Automatic Vending tions operating automatic vending machines (not otherwise engaged in retail Machines trade) numbered 65 in 1971, and sales from machines totalled nearly $f_{,12}$ million. In 1966 the turnover consisted of £6 million on sales of cigarettes and tobacco, f_2 million on confectionery, $f_2 \cdot 5$ million on hot and cold beverages and $f_{0.5}$ million on prepared foodstuffs and other commodities.

Forms of consumer sales promotion include reduced price offers, competi-Promotional tions, gift schemes, and stamp trading. Trading stamps are normally exchanged Offers for goods but, by law, have to be marked with a cash value and, where their aggregate value is £0.25 or more, redeemed for cash on request.

The credit card is widely used in Britain. The cards enable users to have Credit Cards their signatures accepted on bills in participating shops, hotels and restaurants. The issuers, which include banks, then meet the bills and recover the money from the card-holder through a single account presented periodically.

Sales by the 28 manufacturing and importing companies which are members Direct Selling of the Direct Sales and Service Association Limited and which sell all their products directly to consumers amounted to about £,350 million in 1974.

About 2.1 million people were employed in trades offering a service directly SERVICE TRADES to the public in 1974.

There were over 170,700 establishments concerned with catering (defined to Catering include public houses, canteens and fish and chip shops, as well as licensed hotels and restaurants) in 1973. There were 200 catering organisations and over 20,000 industrial and office canteens. In addition, about 100,000 offices and factories have installed coin-operated beverage and snack machines.

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The value of total turnover of all caterers in 1974 was $\pounds_{4,306}$ million, an increase of 70 per cent over the 1969 figure. Turnover of hotels and holiday camps increased by 87 per cent to \pounds_{763} million and that of public houses by 73 per cent to $\pounds_{2,334}$ million.

Laundries and Dry Cleaning In 1971 there were over 8,400 laundry, launderette, dry cleaning and towel, linen and overalls hiring organisations. Turnover in 1971 amounted to some $\pounds 212$ million.

- **Motor Trades** There were nearly 43,000 businesses in the motor trades in Britain in 1967 with 51,000 establishments and a total turnover of £4,234 million. Between 1967 and 1974 the motor trades' total turnover increased rapidly by about 107 per cent but in 1974 was only 8 per cent more than in 1973. Of the total turnover of about £8,800 million in 1974, sales of new vehicles accounted for some 36 per cent, sales of second-hand vehicles for 14 per cent and other sales for the remainder.
- Hairdressing The 1971 census recorded some 47,200 hairdressing establishments with a total turnover of \pounds 166 million. About two-thirds of the number are ladies' hairdressers.
- Shoe Repairs In 1971 there were some 5,500 boot and shoe repair establishments, the number having fallen by over a quarter since 1966; takings in 1971 were $\pounds 22.4$ million, slightly below the 1966 level.
- PackagingIn Britain the expansion of self-service shops, the spread of branded and
standardised products, and developments in partly prepared foods, for
example, ready-washed vegetables and ready-made cake mixes, have all been
major factors in the sweeping changes which have taken place in packaging
methods. Packaging products of paper and board remain the most extensively
used (turnover of some \pounds 1,094 million a year), the fastest growing sector being
paper sacks (\pounds 79 million in 1974). Other important materials are tinplate,
plastics and glass. New uses are being found for tinplate, especially in sales of
soft drinks and beer. The use of plastics continues to develop; annual sales of
polyethylene film and film products amount to 115,000 tons and 141,000 tons
respectively, while the annual sales of low-density polyethylene bottles has
risen to about 742 million, providing further competition for the traditional
glass bottle.

Instalment Credit The rapid growth of sales of household and durable consumer goods, such as cars, furniture, washing machines, television sets, refrigerators and cookers, has been greatly helped by instalment purchase (hire-purchase). Total new credit extended in 1974 amounted to $f_{2,517}$ million, 12 per cent less than in 1973 when sales of these goods were very high; about three-fifths was advanced by retailers and the rest by finance companies.

Hire-purchase in Northern Ireland directly financed by the major finance houses operating from offices in Northern Ireland amounted in 1974 to $\pounds 32.8$ million.

Advertising About £900 million is estimated to have been spent on all forms of advertising in 1974; as a proportion of the gross national product (1.3 per cent) and of consumer expenditure (1.8 per cent), it is about the same as it was 15 years ago. About £579 million was spent on display advertising and £321 million on

classified, financial and industrial advertising. Most of the advertising is carried out by agencies, which, in some cases, also provide marketing, consumer research and other services; their representative organisation is the Institute of Practitioners in Advertising. The trade association for the whole industry, including agencies, advertisers and media owners, is the Advertising Association. It was responsible for the setting up of the Advertising Standards Authority, an independent body whose objective is the promotion and enforcement of the highest standards of advertising, in particular through the British Code of Advertising Practice.

Public Relations

Industry and commerce pay great attention to improving public understanding of their work and objectives. Many have their own public relations advisers and staff, while consultancy firms provide general services and assistance for special public relations activities. Their professional body, founded in 1948, is the Institute of Public Relations which has some 3,500 members in commerce, industry, the professions, national associations, and central and local government.

13 Energy and Natural Resources

About half of Britain's energy requirement is supplied from domestic fuel minerals (defined, for the purposes of this handbook, as coal, oil and natural gas), and minerals in general make an important contribution to the economy. The approximate value of minerals produced in 1974 was $\pounds_{1,719}$ million, of which coal contributed 64 per cent and natural gas 9 per cent. The discovery of commercial oil fields on the British Continental Shelf is likely to increase the importance of domestically produced fuel minerals to the economy very considerably. Over the past ten years the production of non-fuel minerals has been increasing in terms of both value and quantity.

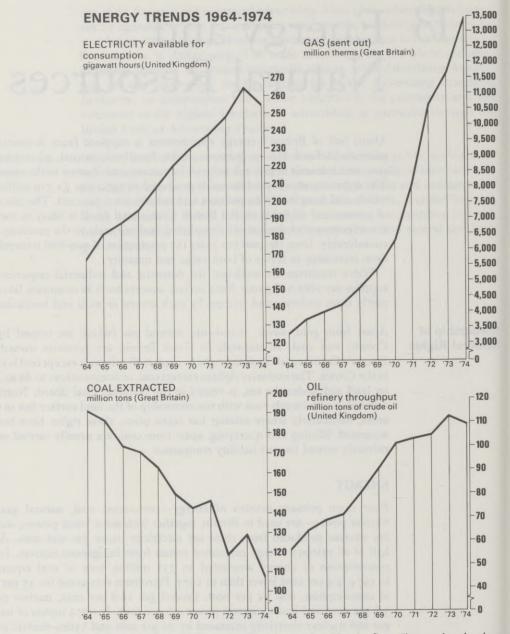
Water resources are sufficient for domestic and industrial requirements; supplies are obtained partly from surface sources such as mountain lakes and partly from underground sources by such means as wells and boreholes.

Ownership of Mineral Rights

Apart from gold, silver, petroleum, natural gas (which are owned by the Crown) and coal, all minerals in Great Britain are privately owned. On Britain's Continental Shelf the right to exploit all minerals except coal is vested in the Crown. The exclusive right to extract coal, or license others to do so, both on land and under the sea, is vested in the National Coal Board. Normally, ownership of minerals runs with the ownership of the land surface but in some areas, particularly where mining has taken place, these rights have become separated. Mining and quarrying, apart from coal, are usually carried out by privately owned limited liability companies.

ENERGY

Four main primary sources of energy-petroleum, coal, natural gas and nuclear power-are used in Britain, together with some water power; secondary sources produced from these are electricity, town gas and coke. About half of all primary energy consumed comes from indigenous sources. Inland consumption of energy amounted to 331 million tons of coal equivalent in 1974, 4.4 per cent lower than in 1973. Petroleum accounted for 45 per cent of consumption, coal 35 per cent, natural gas 15.8 per cent, nuclear power 3.6 per cent and hydro-electric power 0.6 per cent. In 1974 inputs of natural gas and nuclear electricity increased by 20 per cent and hydro-electric power 4 per cent; petroleum fell by 7 per cent and coal 12 per cent. Trends in primary energy consumption are shown in Table 18 and in the diagram on p. 256. The share of oil-almost all of it imported-in total energy consumption expanded rapidly from under 10 per cent in 1950 to a peak of 48 per cent in 1972, but has since fallen slightly. It is expected that offshore oil will supply or even exceed Britain's oil requirements by the early 1980s when almost all the energy consumed in Britain could be derived from indigenous sources. Although coal has accounted for a declining proportion of energy consumption, a major capital investment programme is planned to end the contraction of the industry. The share of natural gas in total consumption has



increased substantially, supplies from the North Sea discoveries having expanded rapidly since the first quantities were piped ashore in 1967. In 1974 natural gas accounted for about 95 per cent of the gas consumed in Britain. A programme for the establishment of nuclear power stations has been in progress since 1955 and nuclear power now provides a significant share of electricity supplies.

Energy consumption by final users in 1974 amounted to some 58,490 million therms¹ on a 'heat supplied' basis. Industrial users consumed about 41 per

¹ I therm = 100,000 British thermal units = 25,200 kilocalories.

cent of the total, domestic users 26 per cent, transport 21 per cent, public services about 6 per cent and agriculture nearly 1.5 per cent. Energy consumption figures for the main industrial groups are given in Table 19.

| | 1964 | 1969 | 1972 | 1973 | 1974 |
|----------------------|-------|-------|-------|-------|-------|
| Oil | 93.3 | 135.7 | 157.6 | 159.4 | 149.0 |
| Coal | 187.2 | 161.1 | 120.9 | 131.3 | 115.9 |
| Natural gas | 0.4 | 9.2 | 40.3 | 43.5 | 52.1 |
| Nuclear energy | 3.2 | 10.5 | 10.5 | 9.9 | 11.9 |
| Hydro-electric power | 1.9 | 2.0 | 2.0 | 2.0 | 2.1 |
| Total | 286.0 | 318.5 | 331.3 | 346.1 | 331.0 |

TABLE 18: Inland Energy Consumption (in terms of primary sources) million tons coal equivalent

Source: Department of Energy

The fuel and power industries, with the exception of most of the petroleum industry and part of that concerned with the extraction of natural gas, are under public ownership. In 1974 the Department of Energy (see p. 49) was set up to assume general responsibility for the effective and co-ordinated development of fuel and power resources in Great Britain; in Scotland the Secretary of State for Scotland is responsible for electricity. The Government's energy policy has been to ensure the best use of indigenous resources and so reduce the dependence on imported oil. The importance of this approach was illustrated by the shortfall in oil supplies in late 1973 and reinforced by the effect of increased oil prices in 1973–74 on the balance of trade and the cost of living.

 TABLE 19: Energy Consumption by Industrial Groups^a (Heat Supplied Basis)

 million therms

| Industry Group | 1965 | 1969 | 1972 | 1973 | 1974 |
|--|--------|--------|--------|--------|--------|
| Food, drink and | | | | | |
| tobacco | 1,819 | 1,880 | 2,027 | 2,105 | 2,129 |
| Iron and steel | 7,497 | 7,087 | 6,312 | 6,575 | 5,481 |
| Engineering and other metal trades | 3,485 | 3,748 | 3,702 | 4,242 | 4,119 |
| Chemicals and allied trades | 2,640 | 2,797 | 3,662 | 4,237 | 4,187 |
| Textiles, leather and clothing | 1,616 | 1,584 | 1,356 | 1,420 | 1,313 |
| Paper, printing and stationery | 1,397 | 1,491 | 1,464 | 1,466 | 1,381 |
| Bricks and other building materials | 966 | 836 | 602 | 676 | 590 |
| China, earthenware | | | | | |
| and glass | 670 | 675 | 693 | 701 | 720 |
| Cement | 1,127 | 1,236 | 1,213 | 1,274 | 1,178 |
| Other trades | 2,078 | 2,806 | 3,225 | 3,153 | 2,838 |
| Total | 23,295 | 24,140 | 24,256 | 25,849 | 23,936 |

Source: Department of Energy

a Excluding the fuel industries.

The publicly owned fuel and power industries in Britain employ in total some 600,000 people, or $2\cdot4$ per cent of the working population, and their annual turnover is about £5,800 million. The investment of the various statutory boards is financed through internal resources and borrowing from the Government (long term), the clearing banks (short term), and from overseas sources (long term). Research is undertaken by the fuel and fuel-using industries. The Secretary of State for Energy also has an Advisory Council on Research and Development. An Energy Technology Support Unit was set up in 1974 to help the Secretary of State to assess the need for further research into nonnuclear forms of energy. A Nuclear Safety Advisory Committee advises on nuclear safety issues. In each of the publicly owned fuel industries there are statutory bodies set up to protect the interests of consumers.

Following Britain's entry into the European Community in 1973 its fuel industries are co-operating to an increasing extent with those of the other member countries. The coal industry now conforms to the rules of the European Coal and Steel Community (ECSC, see p. 78); under the arrangements for British accession to the ECSC, trade restrictions between the coal markets of Britain and the other members were removed on 1st January 1973. A Community energy policy is in the early stages of development; it has the basic aim of guaranteeing certain and lasting energy supplies under satisfactory economic conditions.

COAL

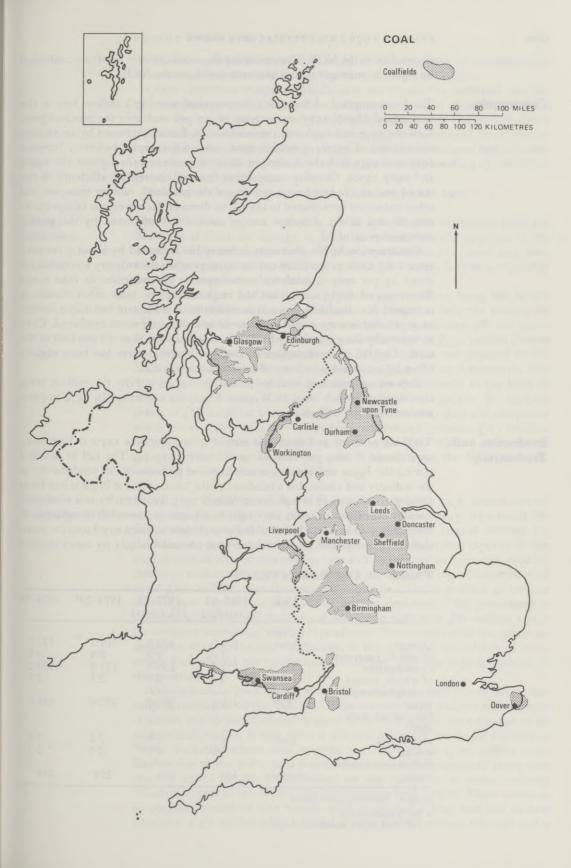
Coal has been worked in Britain for over 700 years and an organised coalmining industry has been in existence for over 300 years, some 200 years longer than in any other country. British coal exports dominated the world market until about 1910. In 1913—the peak production year—the industry produced 287 million tons of coal, exported 94 million tons and employed over a million workers.

In 1947 the coal mines passed into public ownership by means of the Coal Industry Nationalisation Act 1946, which set up the National Coal Board as a statutory corporation to manage the industry.

The National Coal Board The National Coal Board (NCB) consists of a chairman and between eight and fourteen members appointed by the Secretary of State for Energy. The NCB has, with minor exceptions, exclusive rights over the extraction of coal in Great Britain, but is empowered to license private operators to work small mines and open-cast sites. It has no monopoly in distribution, and retail sales remain largely in private hands, although it makes bulk sales to large industrial consumers.

Two holding companies, wholly owned by the NCB, came into operation in 1973 to run the NCB's non-mining activities. NCB (Ancillaries) Limited is responsible for certain retail fuel distribution operations, computer services, and engineering services. NCB (Coal Products) Limited is responsible for solid smokeless fuel manufacture, and chemical and by-products plants. It is also responsible for the NCB's North Sea exploration although this will become the responsibility of the British National Oil Corporation (see p. 267). The Secretary of State has power to issue general directions to the board on matters affecting the national interest, and to authorise borrowings to finance capital investment.

At the end of March 1975 there were 246 NCB collieries in operation, each on average producing some 466,100 tons of coal, compared with 192,000 tons in 1947. Of these, 243 were grouped into 12 areas, each controlled by a director



responsible to the NCB. The remaining three collieries (in Kent) are controlled by a general manager who is also responsible to the NCB.

Consumption Total consumption of coal (including exports) was 127.2 million tons in the year ended March 1975, an increase of 4.7 per cent over the previous year. Between 1947 and 1956 coal consumption in Britain increased by an average annual rate of nearly 4 million tons; sales fell sharply, however, between 1956 and 1959 and the decline in demand continued throughout the 1960s and early 1970s. Growing competition from oil, increasing efficiency in the use of coal and reduced requirements of the gas, steel, railway transport and other industries contributed to the fall in demand. However, the competitiveness of coal in the domestic energy market was improved by the greatly increased price of oil.

Consumption by the electricity industry has increased by about 3 per cent since 1964-65 to $71\cdot5$ million tons in 1974-75 when the industry accounted for about 57 per cent of total coal consumption. Consumption in coke ovens has remained fairly steady but the requirements of most other classes of consumer have declined. Coke ovens consume $16\cdot2$ per cent but only a further $20\cdot5$ per cent is consumed by industrial and domestic users combined. Consumption by the gas industry has fallen rapidly to less than $0\cdot1$ per cent of the total. The fall in consumption of coal by domestic users has been slightly offset by increased purchases of solid smokeless fuels.

Exports of coal and coal briquettes in 1974-75 were 2.1 million tons, almost all of which went to Western European countries. In 1974 imports amounted to 3.6 million tons.

Production and Productivity

Total deep-mined and open-cast output in 1974-75 was 125² million tons, an increase of 16⁹ per cent compared with 1973-74. The fall in demand during the 1950s and 1960s was accompanied by increases in productivity in the industry and resulted in a rundown of the labour force at NCB mines from some 700,000 in 1947 to 248,800 in March 1975. Productivity as a whole has risen by over three-quarters since 1961 to 2³ tons per manshift in 1974-75; at the coal face it has more than doubled over the last 20 years to 7⁸ tons per manshift in 1974-75. The increases have been obtained largely by concentration

TABLE 20: Coal Statistics 1965-75

| | Unit | 1965–69 (average) | 1972–73 (53 weeks) | 1973–74 ^b | 1974–75 |
|---|---------|----------------------|-----------------------|----------------------|---------|
| | million | | | | |
| Output | tons | 176.0 | 138.3 | 107.1 | 125.2 |
| of which, open-cast | 2.2 | 7.0 | 9.9 | 8.9 | 9.1 |
| Consumption | > > | 177.1 | 130.4 | 121.5 | 127.2 |
| of which, export | >> | 3.3 | 2.3 | 2.1 | 2.1 |
| Average labour force ^a Output per man- | '000 | 418.9 | 268.0 | 252.0 | 246.0 |
| shift ^a : | | | | 7.0 | 7.0 |
| at coal face | tons | 5.7 | 7.4 | 7.2 | 7.8 |
| overall | ,, | 1.9 | 2.3 | 2.1 | 2.3 |
| Collieries in opera- tion ^a | number | 404 | 281 | 259 | 246 |

Source: National Coal Board

a NCB mines only.

^b Affected by an industrial dispute.

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ENERGY AND NATURAL RESOURCES

on the more productive mines and faces, by the extension of mechanisation to nearly all coal faces and by the use of multi-shift working.

Other important measures which have contributed to increased productivity include new techniques for obtaining information about the reserves before they are worked, intensive training of management and men to obtain the maximum utilisation of equipment on highly mechanised faces, the increasing use of underground communications systems, the use of higher horsepower machines and improvements in the mechanised handling of coal below ground and on the surface.

Table 20 shows the main trends in the industry since 1965.

Financial Structure

Capital

Investment

The NCB raises capital, including working capital, by borrowing from the Secretary of State for Energy or with his consent and the approval of the Treasury from overseas sources. Within certain limits the board may also, with the permission of the Secretary of State for Energy, borrow temporarily (by way of overdraft or otherwise).

Under the Coal Industry Act 1973 some £450 million, being the NCB's accumulated deficit at the end of March 1973 together with the amount by which the board's capital assets were overvalued, was written off; the statutory limit on the NCB's borrowing was initially set at £550 million (it was later raised to £700 million) and a limit of £50 million was imposed on the NCB's accumulated deficit to be increased to £100 million if necessary. The Act also provided for government assistance to the industry in the form of improved redundancy terms and various operational grants. In 1974–75 grants of £68.2 million, contribution to increased pensions £8.3 million, coking coal subsidies £7.1 million, stocking aid £1.2 million and regional grants £37.8 million. In the year ended March 1975 the NCB made an operating profit of about £34 million.

In 1974 the Government, the NCB and the coalmining trade unions carried out a tripartite study of the policy towards the coal industry. As a result the Government accepted the board's Plan for Coal as a general strategy for the following ten years, involving maintenance of deep-mined capacity at the annual level of around 120 million tons and an increase in open-cast production to 15 million tons a year. Plan for Coal involves new capital investment of some £600 million over the period to 1985 in order to provide 42 million tons of new capacity to replace that lost by depletion. This investment is over and above the requirements of some £70 million to £80 million a year for ordinary continuing capital expenditure. The Government has given an assurance that short-term fluctuations in the price and availability of competing fuels should not be allowed to interfere with the implementation of the programme.

Although many good seams of coal have now been worked out due to the early development of the industry, there are still some 100,000 million tons of known coal deposits, of which about 4,000 million tons are estimated to be economically viable. A new mine is planned to exploit the Selby coalfield in North Yorkshire where total reserves are estimated at 1,000 million tons. Exploration in the Selby area is part of a national programme to prove new reserves either for the establishment of new mines or to extend existing collieries as part of the NCB's plan to maintain total output. Major schemes in progress include a \pounds_{13} million plan to expand coking coal pits in east Durham, a \pounds_{6} million plan to build a new mine at Betws (Dyfed) and a

 $\pounds 5.5$ million project to extend production at Lynemouth and Ellington in Northumberland, the world's biggest undersea mining complex. Many collieries on the north-east coast of England are being equipped to extend their operations offshore under the sea bed. The main coal-bearing areas are shown on the map on p. 259.

Research

The NCB has two research organisations: a Coal Research Establishment, at Stoke Orchard, Gloucestershire, concerned with the processing and utilisation of coal; and a Mining Research and Development Establishment, near Bretby, Derbyshire, for research on mining methods and equipment, the underground environment and coal preparation. There are also scientific control staff in the coalfields and a large operational research organisation.

The NCB, with the British Steel Corporation and others, supports research on carbonisation at the British Carbonisation Research Association. Much of the work of other bodies, such as the Safety in Mines Research Establishment (SMRE) (see p. 357), is closely related to the board's problems; the SMRE carries out research on explosions and fires, pneumoconiosis, engineering and metallurgy. In 1974-75 the NCB spent £8.3 million on research.

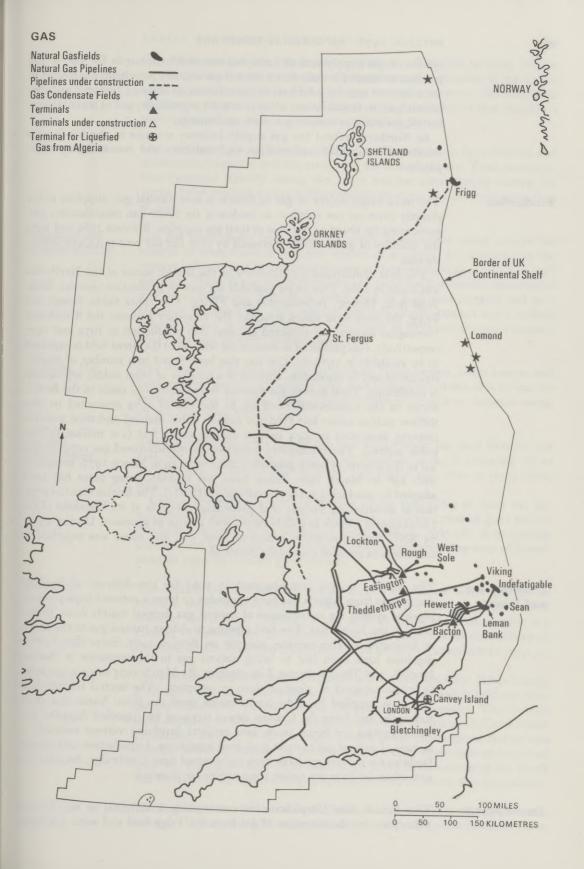
NORTH SEA GAS AND OIL Seismic prospecting in the British sector of the Continental Shelf for natural gas and oil has been going on since the early 1960s and full-scale exploration activities since 1964, following the enactment of the Continental Shelf Act 1964 and the subsequent award of a first round of licences. Further licences were issued in 1965, 1970–71 and 1971–72. The total area now under licence is 41,133 square miles (106,550 square kilometres) out of a total area, over which Britain has exercised its rights to explore and exploit the seabed and subsoil, of over 223,400 square miles (579,000 square kilometres).

Work on the development and production of natural gas and oil discovered in the British sector of the Continental Shelf is proceeding rapidly. By the end of 1974, 424 exploration or appraisal wells and 217 production wells had been drilled; of these 96 and 24 respectively were drilled in 1974. The total number of drilling rigs used rose from 25 in 1973 to 39 in 1974 and the maximum number of rigs in use at any one time rose from 18 to 29.

GAS

Public supply of gas in Britain dates from 1807, when Pall Mall, London, was first lighted with gas. In 1812 the London and Westminster Gas Light and Coke Company received a Royal Charter to supply gaslight in London. In the early years of the industry gas was used almost exclusively for lighting. However, between the two world wars it was displaced from this function by electricity and it is now mainly used for cooking and heating purposes, supplying 13.6 million customers.

Structure The Gas Act of 1948 brought the industry in Great Britain, in which about 100,000 people are at present employed, under public ownership and control in 1949. The industry's structure was adapted under the Gas Act 1972 to take account of the change from manufactured to natural gas necessitating more centralised control of production and transmission. The British Gas Corporation came into operation in 1973 taking the place of the Gas Council, the former central co-ordinating body in the industry, and assuming the responsibilities of the 12 area gas boards formerly carrying out the local manufacture and the distribution of gas to consumers. Members of the corporation are appointed by the Secretary of State for Energy. In connection with its main duty of developing and maintaining an efficient, co-ordinated and economical



system of gas supply and of satisfying reasonable demands for gas, it has powers: to search for and extract natural gas and any petroleum discovered in the course of searching for gas; to manufacture or acquire, transmit and distribute gas; to manufacture, supply, or sell by-products; and to manufacture, install, maintain or remove gas plant and fittings.

In Northern Ireland the gas supply industry remains in the hands of a number of municipal undertakings and statutory and non-statutory companies.

Production

The main single source of gas in Britain is now natural gas, supplied either directly (over 90 per cent) or as feedstock for town gas manufacture, and accounting for about 95 per cent of total gas supplies. Between 1969 and 1974 the quantity of gas available increased by over 140 per cent to 13,430 million therms.

The first commercial gas discovery in the British sector of the North Sea was made in 1965. Five major gasfields are now in production: Leman Bank, West Sole, Hewett, Indefatigable and Viking. Two other fields, Rough and Frigg, the large field which straddles the boundary between the British and Norwegian sectors, are expected to come into production in 1975 and 1977 respectively. Gas produced in association with oil in the Brent field is expected to be available in 1979-80. Gas has also been found in a number of smaller structures and in association with oil in a number of other fields; exploration is continuing. Total proven gas reserves from discoveries made in the British sector of the Continental Shelf up to the end of 1974 amounted to 26.9 million million cubic feet (762,000 million cubic metres) and total possible reserves amounted to 44.4 million million cubic feet (1.2 million million cubic metres). The consequent reduction in manufactured gas supplies has led to the closure of many gasworks; there were 50 in March 1975, compared with 246 in March 1965. Some town gas manufacturing plant has been adapted for producing substitute natural gas (SNG). The British Gas Corporation is undertaking various coal gasification projects at its Westfield (Fife) Development Centre in collaboration with groups of sponsors. During 1974-75 SNG was successfully produced from coal and some was supplied to customers in parts of south-east Scotland.

Transmission and Storage

The pipeline system commissioned in 1964 for the delivery of liquefied natural gas from Algeria has been expanded to form a national high-pressure pipeline system for transmission of natural gas derived mainly from British fields in the North Sea. The first pipeline to deliver natural gas to the shore, at Easington in Humberside, was put on flow in 1967. Since then further pipelines have been laid to bring natural gas to the terminals at Bacton, Norfolk, and Theddlethorpe, Lincolnshire. By March 1975 some 2,240 miles (3,605 kilometres) of pipeline were in operation. The central transmission system is supplied by eight feeder mains from the three North Sea shore terminals, and from the Canvey Island terminal for liquefied Algerian gas. Investigations are being made into projects involving various methods of storage of natural gas to meet peak load conditions. Liquefaction and storage facilities for natural gas have been constructed near Coatbridge, Strathclyde, and other facilities are under construction or planned.

Development The British Gas Corporation is constructing a terminal at St. Fergus, Grampian, for the reception of gas from the Frigg field and some 550 miles

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(885 kilometres) of new transmission pipelines will be laid to bring the gas into the national network. A phased programme of converting all gas appliances is nearly complete. About 90 per cent of consumers had had their appliances converted at the end of March 1975. It is expected that the switch over to natural gas will be completed by late 1977. Over half of all gas sold by the British Gas Corporation is for industrial and Consumption commercial purposes and the remainder for household use. Total consumption increased steadily during the 1960s and has risen rapidly during the 1970s. Sales reached 12,634 million therms in 1974, 153 per cent more than in 1969. Industrial and Gas has traditionally been used extensively in industries which require the Commercial Use control of temperatures to a fine degree of accuracy, for example, in the pottery industry and in certain processes in the manufacture of iron and steel products. Natural gas not required by the fixed tariff domestic, commercial and small industrial markets is being used in bulk fuel markets and as a chemical feedstock. In 1974 sales of gas to industry totalled 6,011 million therms, 24 per cent more than in 1973; sales to commercial users increased by 17 per cent to 1,263 million therms. The domestic load includes gas for cookers, space heaters, water heaters and

Domestic Use refrigerators, but an increasingly large part of domestic demand is for gas for central heating. In 1974, 5,360 million therms were sold to domestic users, II per cent more than in 1973.

> The borrowing limit for the British Gas Corporation has been fixed by the Gas Act 1972 at £2,500 million, to be raised by order if necessary up to £2,700 million. Within this limit the corporation may borrow (long term) from various sources.

Capital investment expanded sharply in the mid-1960s to meet the development of natural gas from the North Sea, reaching a peak of £282 million (excluding investment in subsidiary companies) in 1967-68. Subsequently capital needs have been at a lower level and the corresponding level of investment in 1974-75 totalled £216 million.

Research The British Gas Corporation has a research committee which advises on research policy at four research stations which are each responsible for a different area of work. Research is also done on behalf of the corporation at a number of universities and colleges. The corporation's total expenditure on research, development and testing amounted to nearly £12 million in 1974-75.

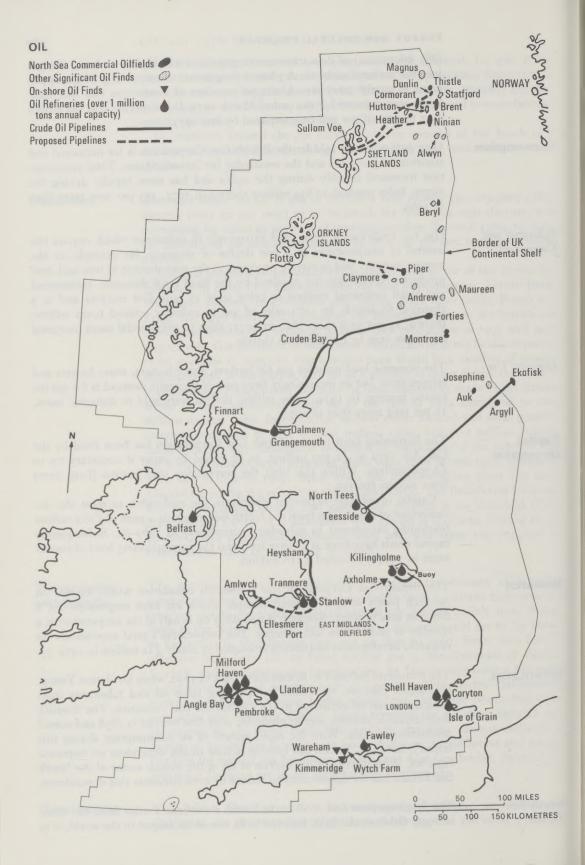
The petroleum industry in Britain dates back to 1850, when Dr. James Young, PETROLEUM a Glasgow chemist, succeeded in obtaining lamp oil and lubricants from natural mineral oil occurring in the Derbyshire coal measures. The Scottish shale deposits, yielding similar products, were first worked in 1858 and ceased production in 1962. With the rapid growth of oil consumption during this century, however, Britain has become almost totally dependent on imported supplies. With the recent discoveries of oil in the British sector of the North Sea Britain has the opportunity to reduce or even eliminate this dependence.

North Sea **Fields**

Capital

Investment

The first important find of oil in the British sector, the Forties field, was made in 1970. Oil from the field, believed to be one of the largest in the world, is to



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be brought ashore by a 105-mile (169-kilometre) submarine pipeline. A further 12 commercial fields have been discovered and several other significant finds may prove to be commercial after further appraisal. The first oil from the British sector was brought ashore by tanker from the Argyll field in June 1975. The Forties, Beryl and Auk fields are also expected to start production in 1975.

Latest government estimates indicate a production rate in 1980 of between 100 million and 130 million tons a year from existing fields and allowing for further discoveries. Proven reserves of the commercial fields amount to 995 million tons but possible reserves from present and future finds under existing licences total 3,100 million tons. The total reserves of the designated areas of the British Continental Shelf could amount to 4,500 million tons.

The Government is negotiating for a majority stake in existing commercial oilfields. A British National Oil Corporation (BNOC) will be established to hold the Government's participation interest in production licences and to take over the North Sea oil interests of the National Coal Board. It will have powers to extend its activities to the refining and distribution of oil. The Government is also taking powers to control the level of production and to provide for a tighter control of exploration and development. The Government's revenue from petroleum operations on the British Continental Shelf will be derived from a new petroleum revenue tax (see p. 367), corporation tax, royalties and revenues accruing to the BNOC from participation.

The Department of Energy's Offshore Supplies Office seeks to ensure that British industry can compete effectively for orders for offshore equipment by helping firms to identify the needs of offshore operators, assisting operators to identify British suppliers of offshore equipment and services, and promoting new ventures to increase British involvement in the industry.

Annual production of crude oil from land-based oilfields in Britain now totals some 86,000 tons. Prospecting for crude petroleum has so far led to the establishment of several small oilfields, notably in Nottinghamshire (Egmanton and Bothamsall), in Leicestershire (Plungar), in Lincolnshire (Gainsborough) and in Dorset (Kimmeridge and Wareham).

British and British-Dutch oil companies have been responsible for developing the oil resources of many countries to mutual advantage, especially in the Middle East, Far East, Africa and Caribbean areas.

Today production by these companies amounts to about 11 per cent of total world production and they operate a tanker fleet (partly owned by them and partly on charter) amounting to over one-tenth of the world's tanker tonnage. (British registered tanker tonnage is 12 per cent of the world's total.)

In 1974 Britain's net imports of crude oil were 110.8 million tons valued at $\pounds_{3,820}$ million, the largest single item among imported products. Saudi Arabia supplied approximately 32 per cent, Kuwait 15 per cent, Iran 13 per cent in Libya 8 per cent. Other major suppliers were Nigeria, Qatar and Abu Dhabi.

Consumption

Deliveries of petroleum products for inland consumption (excluding refinery consumption) in 1974 totalled 91.4 million tons, 7 per cent lower than in 1973.
Deliveries included 36.7 million tons of fuel oil, 18.8 million tons of gas and diesel oil (including derv fuel used in road vehicles), 16.2 million tons of motor spirit, 6.4 million tons of kerosene and 2.2 million tons of bitumen.

Government Policy

Land-based Fields

International Trade

The most important uses of gas and diesel oils in 1974 were for road vehicles and non-industrial central heating. Electricity generation accounted for 38 per cent of fuel oil consumption, followed by the iron and steel industry with 9 per cent, and non-industrial central heating with a further 6 per cent. Of the remainder, the largest users were the chemical, paper-making, glass, engineering and textile industries.

Refineries

Before 1939 three-quarters of Britain's supply of petroleum products was refined overseas, as it was considered more economic to refine at the source of production. Following the second world war refineries were mostly sited in the consuming areas, but there have recently been proposals for the construction of large refineries in some producer countries.

In 1975 gross refinery capacity in Britain amounted to about 150 million tons a year. Of the 22 refineries in operation, five have a capacity of under 1 million tons. The 15 largest are situated at Fawley, near Southampton (18.5 million tons); Stanlow, in Cheshire (18 million tons); Isle of Grain (10.7 million tons), Shell Haven (10 million tons), and Coryton (8.5 million tons), all three on the Thames Estuary; Teesport (6.3 million tons) and North Tees (4.9 million tons), both in Cleveland; Grangemouth, Central Scotland (8.7 million tons); three at Milford Haven (15.2 million tons, 5.1 million tons and 5 million tons) and one at Pembroke (9.3 million tons) in Dyfed; Llandarcy near Swansea (8.2 million tons); and two at Killingholme near Grimsby (9.6 million tons) and 4.2 million tons). The other two refineries are at Belfast (1.5 million tons) and Ellesmere, Merseyside (1.4 million tons). Proposals for further refineries are under consideration at Cliffe (Kent), Canvey Island (Essex) and in Scotland.

Output of refined products (excluding refineries' own consumption) fell by 3 per cent in 1974 to 101.4 million tons. There is a substantial external trade in refined products which tends to follow trading and seasonal requirements and the commercial arrangements of the major oil companies. Exports from Britain, mainly in the form of heavier products to other European countries, were valued at $\pounds 664$ million in 1974. Imports of refined products amounted to $\pounds 681$ million.

Oil Pipelines

Four main crude oil pipelines are in operation in Britain between harbours capable of berthing very large tankers and refineries: in central Scotland, from Finnart to Grangemouth; in south Wales, from Angle Bay, Milford Haven, to Llandarcy; in north-west England, from Tranmere to Stanlow and Heysham; and in the Humber area from a single buoy mooring in the Humber estuary to Killingholme. A fifth, from an offshore mooring, off Amlwch, Gwynedd, to Stanlow is under construction (see p. 314). A 131-mile (211-kilometre) pipeline has been built from Cruden Bay, Grampian, to Grangemouth, for oil from the Forties field in the North Sea. Pipelines also carry refined products to major marketing areas; for example, from the Humber to the Manchester area, from Fawley to Staines, Surrey, and Heathrow Airport, London, and from the Isle of Grain to Walton-on-Thames and Heathrow Airport. A 245-mile (394-kilometre) pipeline feeds refined products to north London and the Midlands from refineries and installations on the Thames and Mersey; a similar line 300 miles (480 kilometres) long from Milford Haven to the Midlands and Manchester is in operation. The pipeline from Fawley to Severnmouth originally used for ethylene has been extended to Avonmouth and is now used for refined products. Pipelines carrying petrochemical feedstocks run from Stanlow to Carrington, near Manchester, and from Teesside to Fleetwood, Lancashire, and Runcorn, Cheshire. The Pipelines Act 1962 is designed to secure the orderly development of privately owned industrial pipelines.

Research

Research into problems of petroleum technology is carried out mainly by the leading oil companies, which have also endowed research at the universities on a substantial scale. Research centres are situated at Sunbury-on-Thames (the British Petroleum Company), Chester, and Woodstock in Kent (Shell), and Abingdon, in Oxfordshire (Esso). The first of these covers the full range of petroleum research and development, from geology and production to product utilisation and petroleum chemicals. In general, the remainder are concerned with the evolution of new and improved fuels and lubricants and the development of new uses for petroleum products and of new products based on petroleum, especially chemicals, but also including new sources of protein.

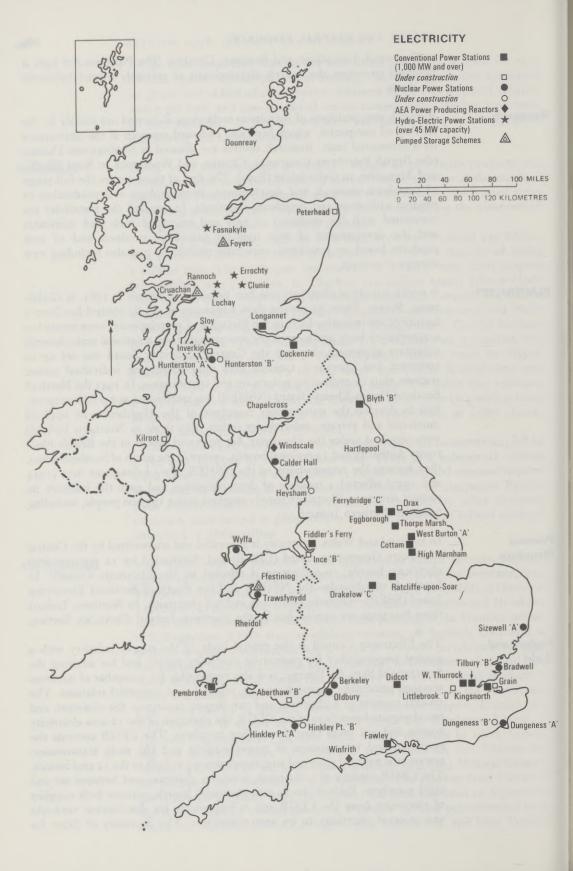
ELECTRICITY

A public supply of electricity was first provided in Britain in 1881, at Godalming, Surrey. From its earliest days a measure of public control has been a feature of the industry. In 1919 the Electricity Commissioners were created as a supervisory body and to promote reorganisation on a national scale through voluntary agreement. In 1926 the Central Electricity Board was set up to construct and operate a national grid inter-connecting individual power stations, thus co-ordinating generation and transmission. In 1943 the North of Scotland Hydro-Electric Board (NSHEB) was established as a public corporation to develop the water-power resources of the Highlands. In 1948 all municipal and private undertakings (other than those in Northern Ireland) were acquired under the Electricity Act 1947 and vested in the British Electricity Authority and 14 regional boards, except in the north of Scotland where they became the responsibility of the NSHEB. Two subsequent Acts (1954 and 1957) effected a measure of decentralisation and gave the industry its present structure. Electricity supply employs about 195,000 people, including 6.600 in Northern Ireland.

Present Structure

England and Wales In England and Wales, electricity is generated and transmitted by the Central Electricity Generating Board (CEGB) and distributed by 12 separate area electricity boards; co-ordination is effected by the Electricity Council. In Scotland, two boards—the NSHEB and the South of Scotland Electricity Board (SSEB)—generate, distribute and sell electricity. In Northern Ireland these functions are carried out by the Northern Ireland Electricity Service.

The Electricity Council is the central body of the supply industry with a general responsibility for promoting electricity supply and for advising the Secretary of State for Energy; it is also responsible for a number of common services, principally capital financing, research and industrial relations. The council consists of a chairman and two deputy chairmen, the chairman and two designated members of the CEGB, the chairmen of the 12 area electricity boards and not more than three other members. The CEGB controls the operation and maintenance of power stations and the main transmission system (the national grid) and supplies electricity in bulk to the 12 area boards. The CEGB consists of a chairman, a deputy chairman and between six and eight members. Each of the 12 area electricity boards acquires bulk supplies of electricity from the CEGB and is responsible for distribution networks and sales of electricity to its area consumers. The Secretary of State for



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Energy appoints the chairmen, deputy chairmen and members of the Electricity Council, the CEGB, and the area boards; approves each board's capital development programme and the industry's research programme; and approves, in consultation with the Treasury, the industry's borrowing requirements. A committee of inquiry is examining the structure of the electricity supply industry in England and Wales.

Scotland The boundary separating the areas covered by the two Scottish boards runs roughly from Dumbarton on the Firth of Clyde to Newburgh on the Firth of Tay. Members of both boards are appointed by the Secretary of State for Scotland; each board comprises a chairman and between four and eight members, one of whom is the chairman of the other board. The Secretary of State's responsibilities in relation to the boards are similar to those of the Secretary of State for Energy in England and Wales.

Northern Ireland In Northern Ireland electricity is generated at power stations in Belfast and at Ballylumford and Coolkeeragh. The Northern Ireland Electricity Service came into operation in 1973 as the result of the amalgamation of four former electricity undertakings.

Generation

Most of the CEGB's output capacity (about 68 per cent) is accounted for by coal-fired steam generating stations. Oil-fired stations account for 17 per cent and nuclear power stations for about another 6 per cent. The remainder is made up of natural gas, gas turbine, diesel and hydro-electric plant. Nuclear energy has become increasingly important since 1965. Water power resources are relatively small and in remote areas.

Generation for the public supply in Britain reached 250,500 gigawatt hours¹ (GWh) in 1974; conventional steam power stations provided 86 per cent of the total and nuclear and hydro-electric stations about 12 per cent and 2 per cent respectively. A high rate of expansion of output was a feature of the industry in its earliest years, but the rate has slackened recently and the total of electricity generated in 1974 was 3 per cent lower than in 1973.

The output capacity of the generating stations of the electricity boards in Britain at the end of 1974 totalled 69,011 megawatts (MW), an increase of 2 per cent on the previous year. Between 1965 and 1974 over 30,000 MW of output capacity was commissioned in England and Wales, including 1,735 MW in 1974, bringing total output capacity to 59,451 MW. The SSEB's total installed capacity in 1974 was over 6,100 MW and the NSHEB's total installed capacity is about 2,150 MW. In Northern Ireland total generating capacity was 1,909 MW in 1974, of which some 1,425 MW was installed in oil-fired stations and the remainder in coal-fired stations.

Generation of electricity outside the public supply system is relatively small -22,772 GWh in 1974. The major sources outside the fuel industries themselves are the chemical, engineering, paper, and iron and steel industries and the nuclear power plants of the Atomic Energy Authority and British Nuclear Fuels Ltd.

An analysis of electricity generation in Great Britain is given in Table 21.

The electricity authorities account for 57 per cent of the British consumption of coal and about 19 per cent of the consumption of oil.

Oil-fired stations of 2,000 MW have been commissioned at Fawley, on

Conventional Power

¹ One gigawatt hour = one million kilowatt hours = 1,000 megawatt hours.

| | Output capacity (end year) | Electricity supplied (net) GWh | |
|---|-------------------------------|--------------------------------------|---------|
| | MW | GWI | 1 |
| Central Electricity Generating Board | 59,475 | 202,954 | |
| South of Scotland Electricity Board North of Scotland Hydro-Electric | 5,785 | 19,637 | |
| Board | 1,978 | 4,868 | |
| Steam and oil engines | 61,296 | 198,536 | |
| Hydro plant | 1,286 | 3,521 | |
| Pumped storage | 910 | -203 | |
| Nuclear plant | 3,746 | 25,605 | |
| Total | 67,238 | : | 227,459 |

TABLE 21: Electricity Generation by the Public Supply System in Great Britain 1974

Source: Department of Energy

Southampton Water (one of the most fully automated stations in Europe), and at Pembroke, Dyfed. Other oil-fired stations are under construction at Grain, Kent (3,300 MW), Inverkip, Strathclyde (1,980 MW), Littlebrook, Kent (1,980 MW), Kilroot, near Carrickfergus (1,200 MW), and Ince, Cheshire (1,000 MW).

A dual-fired station to burn either coal or oil has been commissioned at Kingsnorth, Kent, two stations involving some 1,550 MW of plant have been converted to dual natural gas/coal-firing and the station at Peterhead, Grampian (1,320 MW), due to be commissioned in 1978, will burn natural gas as well as oil. Average thermal efficiency (that is, the ratio of the electrical energy output to the heat energy input of the fuel consumed) of conventional steam stations in England and Wales rose from 20.75 per cent in 1947 to 30.56 per cent in 1974–75 as new plant was brought into use. The 20 most efficient stations, containing much of the newest plant, had an average thermal efficiency of 33.87 per cent in 1974–75.

Striking advances have been made in the design of steam-generating plant. The installation of 49 single-shaft units of 500 MW in 14 stations has been substantially completed. Station capacities are also increasing. Ten stations, each with capacities of 2,000 MW, with four 500 MW single-shaft generating units, are now in service. Two 660 MW single-shaft generating units have been commissioned and a third has been synchronised at Drax, North Yorkshire.

Some 23 660 MW units are on order for installation: five for Grain, three each for Littlebrook and Inverkip, two for Peterhead, and two each for five nuclear power stations under construction (for locations see map, p. 270). A 2,400 MW station at Longannet, Fife, with four 600 MW cross-compound units, was commissioned in 1970.

Large gas turbine units of 55 MW and 70 MW, based on aero jet engines, have been introduced since 1965 for peak load operation. The CEGB and SSEB have installed 1,035 MW of such units including two 58 MW units at Leicester powered by industrial gas turbines and the CEGB plans to install a further 3,600 MW. Many others of 17 to 35 MW capacity are being used in new stations to safeguard the auxiliary supplies to the large new steam units, and also to provide capacity for peak operation.

Nuclear Power

In 1974 nuclear power stations provided some 29,400 GWh of electricity or 12 per cent of Britain's electricity generation by the public supply system.

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Britain has so far produced about 30 per cent of total world generation from nuclear sources. Nuclear capacity forms about 6 per cent of total output capacity of the public supply system.

The stations that generate nuclear electricity are owned by various authorities. The original prototypes built by the Atomic Energy Authority (AEA) at Calder Hall, Cumbria (198 MW)—the first in the world to generate electricity on a commercial scale—and at Chapelcross, Dumfries and Galloway (198 MW), are owned and operated by British Nuclear Fuels Ltd. (see p. 412). This company (along with The Radiochemical Centre Ltd.) was set up in 1971 and took over from the AEA the manufacture and processing of nuclear fuels for Britain and other countries. A new single company, the National Nuclear Corporation, has been set up with government encouragement to design and construct steam supply systems for nuclear power stations and has acquired the two previous design and construction consortia. The corporation has established an operating subsidiary known as the Nuclear Power Company.

The AEA has four experimental or prototype stations which feed electricity into the national grid: the Advanced Gas-Cooled Reactor (AGR) at Windscale, Cumbria (32 MW); the Steam Generating Heavy Water Reactor (SGHWR) at Winfrith, Dorset (100 MW); and the experimental fast breeder reactor (15 MW) and the Prototype Fast Reactor (PFR) (250 MW) at Dounreay, Highland.

Most of Britain's nuclear-generated electricity is, however, supplied by stations owned and operated by the electricity authorities. These, like Calder Hall and Chapelcross, are all magnox stations—graphite-moderated, carbondioxide cooled, using natural uranium metal fuel elements canned in magnesium alloy. Under the first commercial programme, originally announced in 1955 but since twice modified, nine magnox stations with a total design capacity of 4,500 MW were in operation by 1972: Berkeley, in Gloucestershire (276 MW design capacity), and Bradwell, in Essex (300 MW), were both commissioned in 1962; Hunterston 'A', in Strathclyde (300 MW), in 1964; and in the following year Hinkley Point 'A', in Somerset, Trawsfynydd, in Gwynedd (both 500 MW), and Dungeness 'A', in Kent (550 MW); Sizewell 'A', in Suffolk (580 MW), was commissioned in 1966; and Oldbury, in Avon (600 MW), in 1968. A ninth station, Wylfa, in Gwynedd (1,180 MW), was commissioned in 1971.

Under a second programme announced in 1964 and extended in 1965, a further five stations were planned which, when commissioned over the next three to four years, will provide over 6,000 MW of further capacity. The reactor design chosen for the programme is based on the AGR at Windscale, a logical development of the magnox system, which uses slightly enriched uranium dioxide fuel canned in stainless steel. AGR stations under construction are Dungeness 'B' (1,200 MW); and Hinkley Point 'B', Hunterston 'B', Hartlepool, Cleveland, and Heysham, Lancashire (each of 1,320 MW capacity).

A third programme using the SGHWR was announced in July 1974. In the initial phase a further 4,000 MW of nuclear capacity, based on reactor units of 600–660 MW, is planned. This will comprise two SGHWR stations— Sizewell 'B' with four reactor units and Torness (Lothian) with two. It is intended to build up orders for further nuclear plant steadily from the late 1970s, subject to the success of the initial programme. Commissioning of the AEA's large PFR (see above) took place during 1975 at Dounreay (where in 1962 the experimental fast reactor became the first of such type to produce electricity for public use and to operate at a high power level). The fast breeder reactor is capable of releasing up to 100 times as much energy from uranium as present nuclear power stations and is of great importance to the long-term supply of energy.

Hydro-electric Generation Hydro-electric generation is confined almost entirely to Scotland and Wales. Most of the water-power so utilised is drawn from high-level reservoirs with their own natural catchment areas. The setting up of the NSHEB in 1943 marked the beginning of an era of intensive water-power development in the Highlands.

In 1974–75, 2,899 GWh were sent out by the NSHEB from water-power, compared with 322 GWh in 1949. At the end of March 1975 there were 56 main hydro-electric conventional stations in operation in the north of Scotland with a total installed capacity of 1,052 MW and the largest—the Loch Sloy station—has a capacity of 130 MW. The Cruachan pumped storage section of the Awe scheme, with an installed capacity of 400 MW from four reversiblepump-turbines, came into full operation at the end of 1967. (In pumpedstorage schemes electricity generated in off-peak periods is used to pump water to higher levels from which it descends at peak periods to operate turbogenerators.) A 300 MW pumped-storage project, with two 150 MW reversiblepump-turbines, at Foyers, Loch Ness, has been commissioned. In addition, there are stations generating electricity by water power in the south of Scotland (123 MW) and in Wales (470 MW). The latter includes the 360 MW pumped-storage station at Ffestiniog, Gwynedd. Work has started on a 1,500 MW pumped-storage station at Dinorwic, Gwynedd.

Transmission and Distribution Main electricity transmission lines-the national grid-supply most of the country. By 31st March 1975 those of the CEGB totalled over 8,015 circuit miles (12,899 kilometres), of which 6,539 miles (10,523 kilometres) were at 400,000 volts, and 1,476 miles (2,376 kilometres) at 275,000 volts. Primary distribution in England and Wales is at 132,000 volts, secondary distribution at 33,000 volts, tertiary at 11,000 volts and general low voltage distribution at 240 volts. In Scotland there were nearly 5,200 circuit miles (8,400 kilometres) of main transmission lines at the end of March 1975, of which 90 circuit miles (145 kilometres) operated at 400,000 volts, over 1,900 circuit miles (3,100 kilometres) at 275,000 volts and the remainder at 132,000 volts. Primary distribution in Scotland is at 33,000 volts. Energy movements on the grid in England and Wales are controlled through the seven operational areas, set up for that purpose and distinct from the regions in which the generating side of the industry is organised; each area has a separate control, and the operations are co-ordinated by a National Control in London. The grid in Scotland is operated from the control centres at Pitlochry (NSHEB) and at Kirkintilloch (SSEB).

The development of the grid system has made the British system the largest fully interconnected power network under unified control in the world. Twin cross-Channel cables laid between Dungeness and Boulogne, capable of transmitting up to 160 MW at 200,000 volts (direct current), have been in operation since 1961; by this means advantage is taken of the differences between France and Britain in the timing of peak loads.

In England and Wales the area electricity boards distribute to consumers electricity acquired mainly from the CEGB, supplemented from other sources, such as industrial plants, and the nuclear power stations of the AEA.

Consumption

Total sales of electricity in 1974 amounted to 218,300 GWh, a fall of 3.1 per cent over the previous year. Domestic users took 42 per cent of the total,

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industry 38 per cent and commercial and other users about 20 per cent. About one-third of domestic sales is for space heating, one-quarter for water heating and one-tenth for cooking. Up to three-fifths of industrial consumption is for operating motors, about one-third for heating, metal melting and electrochemistry, and under one-tenth for lighting.

The electricity industry supplies about 21.5 million consumers of whom about 19 million are in England and Wales; of the remainder 1.5 million are supplied by the SSEB, 486,000 by the NSHEB and 492,000 by the Northern Ireland Electricity Service.

Capital expenditure of the electricity supply industry expanded rapidly from $\pounds 249$ million in 1956 to $\pounds 720$ million in 1966 but has since fallen to $\pounds 600$ million in 1974–75. About one-half of the industry's capital requirements has been financed from internal resources. The statutory limit to borrowings by the industry in England and Wales is $\pounds 6,500$ million and in Scotland $\pounds 1,200$ million. The Gas and Electricity Act 1968 empowered the industry to borrow (long term) from overseas sources.

The Electricity Council, in consultation with the Secretary of State for Energy, is responsible for drawing up a general programme of research, comprising direct research carried out by the electricity boards themselves, supported by co-operative research with selected industrial research associations and by research contracts placed with universities and other organisations. The council itself is empowered to conduct research. It is advised by the Electricity Supply Research Council. Collaboration on research between the supply industry and the plant manufacturers is co-ordinated by the Power Engineering Research Steering Committee set up in 1966.

The main research establishments of the industry are run by the CEGB and comprise the Central Electricity Research Laboratories at Leatherhead, Surrey, the Berkeley Laboratories in Gloucestershire, concerned with nuclear problems, and the Engineering Laboratories at Marchwood, on Southampton Water. Research on distribution technology and electricity utilisation is undertaken at the Electricity Council Research Centre at Capenhurst, Cheshire, and by the area boards.

Both Scottish electricity boards carry out research and experimental work on their own and in co-operation with other electricity authorities. They undertake a wide range of research and development work, both independently and in conjunction with the universities and manufacturers and are associated with the activities of the Electricity Council and CEGB.

The Government has introduced a large number of measures designed to conserve energy. It is estimated that voluntary conservation measures could have saved up to about 2 per cent of Britain's normal energy consumption in 1974. The Secretary of State for Energy is assisted by proposals on the promotion of energy efficiency from the Advisory Council on Energy Conservation. In addition, efficiency in the use of fuel, among both industrial and domestic users, is being promoted by various bodies representing producers and consumers and by the technical advisory services of the fuel and power industries.

Energy-saving investment in industry is being encouraged by the provision of financial assistance in the form of government loans. Energy prices have been increased as a step towards prices reflecting true costs, and value added tax on petrol has been increased to 25 per cent in order to discourage its

Capital Investment

Research

ENERGY CONSERVATION

excessive use. Some speed limits have been reduced (see p. 325). The standards of thermal insulation required in new dwellings have been doubled. Improved control equipment, draught-proofing and additional insulation are being installed in government buildings. Compulsory limits on heating levels in commercial and industrial buildings and restrictions on the use of electricity for external display and advertising during daylight hours were introduced in January 1975.

The Government is discussing with local authorities and other public bodies the scope for, and methods of achieving, energy saving. The Department of Energy is conducting a major publicity campaign to encourage the efficient use of energy.

NON-FUEL MINERALS

Although Britain's requirements of raw materials are met mostly by imports, non-fuel minerals produced in Britain make a useful contribution to the economy. Output of non-fuel minerals increased by 5 per cent in terms of quantity and 58 per cent in terms of value between 1970 and 1974. Capital expenditure in the non-fuel mining and quarrying industry in 1972 amounted to £37 million, most of which was on plant and machinery and the remainder on land and buildings. The total number of employees in the industry was 42,600 in 1974. The geographical locations of some of the more important minerals produced in Britain are shown on the maps on p. 277.

Exploration

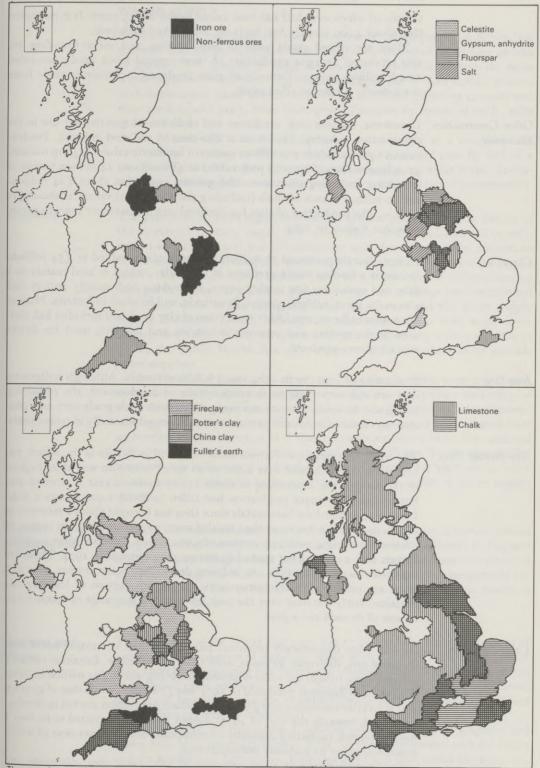
Under the Mineral Exploration and Investment Grants Act 1972 the Secretary of State for Industry can encourage exploration for mineral resources by providing financial assistance of up to 35 per cent of the cost of searching for mineral deposits in Great Britain and on Britain's Continental Shelf, and evaluating them for commercial purposes. Minerals included in the scheme are the ores of non-ferrous metals, fluorspar, barium minerals and potash. By the end of March 1975, 30 companies had sought assistance totalling $\pounds 1.5$ million in respect of 126 exploration projects, mainly for non-ferrous metals. Work on 74 projects has been completed. The assistance is to be repaid with interest if a project leads to the extraction of minerals in commercial quantities.

An exploration programme aimed at providing preliminary information on areas with potentially economic mineral deposits in Great Britain is being undertaken by the Natural Environment Research Council (NERC) on behalf of the Department of Industry. Under a three-year programme costing $\pounds 1\cdot 3$ million the Institute of Geological Sciences, a component body of NERC, is carrying out work aimed at providing basic geological information on five identified areas which may yield economic deposits of minerals.

Production The approximate value of non-fuel minerals produced in Britain in 1974 reached \pounds_{451} million, an increase of 12 per cent compared with 1973.

Sand and Gravel Sand and gravel are second only to coal in terms of tonnage of minerals produced in Britain. They are primarily used as an aggregate or bulking material, in the main for concrete (accounting for about 75 per cent of total production) and road construction. In 1974, 120 million tonnes of common sand and gravel worth over \pounds 100 million were produced; 15.3 million tonnes or 13 per cent of the total were marine-dredged. Britain is the world's largest producer of marine-dredged aggregates. Total past production is about 2,600 million

SOME MINERALS PRODUCED IN BRITAIN



The maps above are based on county boundaries (at 1973 for Scotland and Northern Ireland and April 1974 for England and Wales) and not those for geological outcrops.

tonnes, of which over half has been raised in the last 15 years. It is estimated that about 4,000 acres (1,600 hectares) are worked each year.

More specialised sands used in glass-making and metal-founding are also produced. In 1974 production of these special silica sands amounted to 4.6 million tonnes. Virtually all glass produced in Britain is made from domestically produced silica sands.

Limestone, igneous rock, sandstone and chalk are all quarried for use in the Other Construction construction industry. Limestone is also used by the steel industry. Produc-Materials tion in 1974 included: 101 million tonnes of limestone valued at £119 million; 42 million tonnes of igneous rock valued at £66 million; 14 million tonnes of sandstone (including silica stone and ganister) valued at about £24 million; and 20 million tonnes of chalk (including chert and flint) valued at about $f_{,12}$ million. The production of slate has declined steadily in recent years to a level of 64,000 tonnes in 1974.

In 1974 Britain produced 37 million tonnes of clays, valued at £54 million. Clays Britain is a leading world producer of china clay, which is used mainly as a filler and coater for fine quality paper, for making high quality pottery and also in the paint, rubber, plastics, insecticide, and fertiliser industries. Most of the output is for export. Other main types of clay produced included ball clay, used in the pottery and ceramics industries, and fireclays, used for bricks and refractory products.

Production of iron ore in 1974 was 3.6 million tonnes. Although indigenous Iron Ore iron ore was important to Britain's industrial development, the remaining low-grade domestic ores are not competitive with high-grade ores and concentrates from overseas and production has fallen substantially in recent years.

The most important non-ferrous metal produced in Britain is tin, which was Non-ferrous Ores first worked in Cornwall over 2,000 years ago. Production was at its highest in the early 1870s, amounting to about 15,000 tonnes a year of dressed ore, but by the early 1950s production had fallen to about 1,400 tonnes a year. Increasing demand for base metals since then has brought about a recovery in production, which has more than trebled since 1970 to reach 9,900 tonnes of dressed ore in 1974, with a tin content of 3,000 tonnes. Cornish mines supplied Britain with nearly 25 per cent of its tin ore requirements in 1974. There are now four mines and a fifth one is being developed. Some copper, zinc and silver are produced in association with the tin. Production of lead ore has remained fairly constant over the past few years in the range of 6,000-7,000 tonnes of dressed ore a year.

Among other domestically produced minerals Britain is a major world pro-Other Minerals ducer of salt, fluorspar, gypsum, anhydrite, and celestite. Britain is virtually self-sufficient in salt, the value of production being nearly £24 million in 1974. The value of fluorspar produced in 1974 was £7 million while that of gypsum and anhydrite combined was £9 million. Potash production started in Boulby, Cleveland, towards the end of 1973; output in 1975 is expected to be over 1 million tonnes, exceeding domestic consumption, about 95 per cent of which is accounted for by fertiliser manufacturers.

Britain also produces small amounts of talc, mica clay, diatomite and mineral pigments.

WATER SUPPLY

Britain's water resources are, with progressive development, sufficient for domestic and industrial requirements, despite the expected continuing growth in demand. The sources of water are, however, often distant from the areas where supplies are needed. Supplies are obtained partly from surface sources such as mountain lakes, streams impounded in upland gathering grounds and river intakes, and partly from underground sources by means of wells, adits and boreholes.

The householder receives his domestic water supply at a comparatively small charge, varying in different areas, which he usually pays by way of a water rate levied, like other rates, on the net annual value of his house. Industrial users are charged in most cases according to actual metered consumption.

Evolution

The provision of water supplies became a general public service in Britain in the nineteenth century, largely due to the efforts of Edwin Chadwick (a wellknown social reformer) and his colleagues who demonstrated the dangers to health arising from inadequate water supply and sanitation. Under the Public Health Act of 1848, which laid the basis for a long series of statutes dealing with public health, a number of statutory water undertakings were established to provide water to the expanding urban population and the water supply system developed rapidly although in piecemeal fashion with some overlapping and waste. Where no commercial undertaking was willing and able to do so, the Public Health Act 1875 empowered local authorities to provide water supplies.

The Water Act 1945 laid a structural basis for the water supply industry, and while embodying the principle of mixed public and private ownership of water undertakings, gave more central direction to the industry's development and fostered amalgamations. The Water Resources Act of 1963 created river authorities to administer, and a Water Resources Board to review, national water resources and requirements in England and Wales. There were similar arrangements in Scotland under the Water (Scotland) Act 1967 (see p. 281). Water supply continued to be provided mainly by statutory water undertakings.

Present Organisation

To meet the continuing increase in demand more effectively, a further radical reorganisation of the administrative structure of the water industry in England and Wales was brought about by the Water Act 1973 the main provisions of which were implemented in April 1974 alongside the new arrangements for local government (see p. 66). (For the position in Scotland and in Northern Ireland see p. 281).

England and Wales The main aim of the Water Act 1973 was to bring under the management of a single body all aspects of water services within any river basin or catchment area, thereby recognising the increasing interdependence of all parts of the hydrological cycle and securing the more effective use of available resources (a river can be used as a source of drinking water only if discharges of effluent to that river are strictly controlled).

Responsibility for promoting a national policy for water in England and Wales rests with the Secretaries of State for the Environment and for Wales and the Minister of Agriculture, Fisheries and Food who, under the 1973 Act, are charged with responsibility for securing the conservation, augmentation,

distribution and proper use of water resources and the provision of water supplies; the provision of sewerage and sewage disposal services; the restoration and maintenance of the wholesomeness of rivers and other inland waters; the use of inland waters for navigation and recreation; the provision of land drainage; and the protection and development of fisheries.

The Water Resources Board has been abolished and its function taken over by a Central Water Planning Unit and the Water Research Centre (see p. 282).

Nine regional water authorities in England and the Welsh National Water Development Authority in Wales were set up under the Water Act 1973 and the duties formerly scattered amongst a variety of bodies were transferred to them. The board of each water authority consists of a chairman and several members appointed by the Secretary of State for the Environment, a few members appointed by the Minister of Agriculture, Fisheries and Food and a small majority, usually of only one, of members appointed by the county and district councils within the area of the authority. District councils usually also act as agents of water authorities for the design, construction, operation and maintenance of public sewers in their areas.

The Act provides for the continued supply of water by some 30 statutory Statutory Water water companies for the water authorities both within and outside their limits Companies of supply. It makes special arrangements governing the relationship of statutory water companies to the water authorities and for control of the latter over them.

Among bodies set up under the Act is the National Water Council to advise National Water and assist ministers and water authorities. The council consists of a chairman Council appointed by the Secretaries of State, the chairmen of the water authorities, and ten other members with special relevant knowledge, of whom eight have been appointed by the Secretaries of State and two by the Minister of Agriculture, Fisheries and Food.

> A Water Space Amenity Commission has also been established to advise the Secretary of State for the Environment, the National Water Council and the water authorities on the discharge of their functions relating to recreational and amenity use of water space in England. The commission consists of a chairman appointed by the Secretary of State, the chairmen of the water authorities and not more than ten other members appointed by the Secretary of State-one in consultation with the Countryside Commission.

Public water supplies in England and Wales-reaching over 99 per cent of Supplies the total population-now total some 3,300 million gallons (15 million cubic metres) a day, out of a total estimated abstraction of nearly 5,500 million gallons (25 million cubic metres) a day (excluding water used for cooling in connection with electricity generation). Capital expenditure in 1974-75 on water supply, sewerage and sewage disposal is estimated at f_{452} million (at November 1974 prices).

The provision of piped supplies for rural districts has been assisted by grants under the Rural Water Supplies and Sewerage Acts 1944 to 1971. By March 1975 schemes costing over £125 million had been completed or were in progress with the aid of grants under these Acts, totalling £36 million.

The final report of the Water Resources Board on water resources in England and Wales was published in 1974 (see Bibliography, p. 478). It anticipates

Water Authorities

Water Space Amenity

Commission

ENERGY AND NATURAL RESOURCES

that no more than five new strategic reservoirs need be built in England and Wales this century and recommends the development of the Dee Estuary for water storage and the enlargement of a number of existing reservoirs. Since recent increases in demand for water have not been as great as at one time expected, no firm government decisions on the report's recommendations need to be taken for some time.

Scotland

The administrative arrangements for water supply and distribution in Scotland were reorganised by the Water (Scotland) Act 1967 under which the functions of 200 local water authorities were transferred to 13 regional water boards in 1968. The Act also established the Central Scotland Water Development Board to supply water in bulk to its seven constituent regional water boards; it does not supply direct to individual consumers. All the members of these boards were members of town or county councils.

The regional water boards were dissolved in May 1975 and their functions transferred to the new regional councils and island councils established then to carry out local government functions (see p. 68) except in the island areas; separate river purification authorities continue to be responsible for the regulation of the discharges of effluent to rivers and certain tidal waters. The Central Scotland Water Development Board has been reconstituted to carry out co-ordinating functions and administer water schemes supplying more than one regional council in central Scotland.

The water problem in Scotland is broadly similar to that in England and Wales except that there is not the same need to allocate water between competing interests and requirements are met almost entirely from surface sources. The Secretary of State for Scotland is responsible for general oversight and co-ordination and has a general duty to promote the conservation of water resources in Scotland; and to require regional and island councils to provide supplies of wholesome water everywhere in their regions, where this can be done at reasonable cost; at present, they supply over 98 per cent of the total population. A survey of currently available supplies and likely demands to the end of the present century and of potential services to be developed was carried out by the Scottish Development Department in consultation with the water boards (see Bibliography, p. 478). The Scottish Water Advisory Committee advises the Secretary of State on general questions relating to resources and supplies and the organisation of the water service. The Rural Water Supplies and Sewerage Act 1944, as amended, makes available to Scottish regional water boards and to local authorities grant assistance towards the cost of water supplies and sewerage schemes.

Northern Ireland

Northern Ireland has abundant potential supplies of water for both domestic and industrial consumption. Over 90 per cent of the population has a piped supply. Between 1945 and end-September 1973 over £100 million was expended on water and sewerage services—over £100 million by way of government grants. The Government, responsible for water conservation and pollution control under the Water Act (NI) 1972, took over from local authorities, on 1st October 1973, responsibility for water supply and sewerage services. The Water and Sewerage (NI) Order 1973 requires the Department of the Environment (NI) to provide these services. Capital expenditure on these services amounted to around £13.5 million between October 1973 and December 1974.

The largest new source for water supply is Lough Neagh and in order to conserve the potential and to co-ordinate the various interests and demands on this water resource system a comprehensive water management programme has been prepared.

- Measurement of Resources Information on the yield, behaviour and quantity of the nation's water resources is provided in the Surface Water Year Book of Great Britain, and in the Ground Water Year Book for England and Wales published annually by Her Majesty's Stationery Office. Detailed studies of the resources and use of water in specified areas have been published in the series of hydrological surveys which cover approximately half of England and Wales. General information on rainfall, published annually in British Rainfall, is the responsibility of the Meteorological Office.
- **Barrages** Barrage projects involve dams across or within tidal estuaries to form a lake of fresh water, and studies have been carried out for several estuaries in Britain. A report on a study for Morecambe Bay, Lancashire, published early in 1972, put forward several suggested schemes, including a barrage and storage reservoirs. Reports have also been prepared for plans for the Wash and the estuary of the Dee. A feasibility study for the River Parrett, Somerset, barrage scheme, completed in January 1975, adds land drainage, flood prevention, recreational amenity and road linkage to the water storage objective.

Central government functions concerning control of water pollution are the Pollution responsibility in England of the Department of the Environment, in Wales of Control the Welsh Office, in Scotland of the Scottish Development Department and in Northern Ireland of the Department of the Environment (NI). The regional water authorities in England and the Welsh National Water Development Authority in Wales are responsible for the control of pollution in rivers and certain tidal water in their areas and their approval must be sought before polluting effluents are discharged. Similarly in Northern Ireland the consent of the Department of the Environment (NI) is required for discharges into waterways or underground strata. In Scotland river pollution is controlled by river purification boards over the whole mainland, island councils being the river purification authorities for their areas. Under the Control of Pollution Act 1974, existing measures for protecting water against pollution have been strengthened.

The Government's aim is to improve the quality of water in all the main rivers by the early 1980s. *The River Pollution Survey* records in detail progress already made in reducing river pollution.

Research

A Water Research Centre co-ordinates water research in the whole of Britain (see p. 402). The Water Research Centre's station at Medmenham and the Hydraulics Research Station of the Department of the Environment at Wallingford carry out research into problems of the design and calibration of gauging weirs and flumes for the measurement of surface water, and into other hydraulic problems.

The Water Pollution Research Laboratory at Stevenage, also part of the Water Research Centre, investigates problems connected with the treatment of polluted water, the treatment and disposal of sewage and industrial waste water, and the effects and prevention of pollution of surface water and underground water.

14 Agriculture, Fisheries and Forestry

AGRICULTURE

Although Britain is a densely populated, industrialised country relying on imports for nearly half its food supply, agriculture remains one of its largest and most important industries. It occupies 678,000 people or $2\cdot8$ per cent of the total in civil employment, provides about $2\cdot6$ per cent of the gross domestic product, and uses 47 million of the 60 million acres (19 million of the 24 million hectares) of land.

THE LAND AND ITS USES The soils of the country are varied (see p. 4). Land used for farming is conventionally divided into land suitable for cultivation (crops and grass) and rough grazing. In hill country the area of cultivated land is often small, but is usually supplemented by grazing on a comparatively large area of hill land.

In Britain there are 30 million acres (12.1 million hectares) under crops and grass. Cultivated land, rough grazing, woodland (ancillary to farming) and other land on agricultural holdings together represent 79 per cent of the land area. The rest is mountain and forest, or put to urban and kindred uses. The area available for farming is gradually decreasing to meet the needs of housing and industry; so far, the loss has been offset by the increase in output from what remains. The ratio of rough grazing—used for stock, mainly sheep—to better quality agricultural land varies considerably throughout Britain. In the southern half of England, for example, it constitutes only about one-sixth of the total acreage, increasing to one-fifth in Northern Ireland, about a third in the hill regions of England and Wales and nearly three-quarters in Scotland.

Size of Farms

There are about 278,000 statistically significant farming units in Britain. Some 41 per cent are very small units, mostly farmed part-time, and accounting for less than a tenth of the industry's total output. Of the 176,000 full-time farm businesses some 41,100 are classified (by standard man-days) as large farm businesses (capable of employing four or more men full-time): these, accounting for some 14.8 per cent of the number of holdings, produce more than half the industry's total output. There are 55,000 medium-sized (two-three men) and 66,500 small farm businesses.

Amalgamation of small farms into larger, more viable units has been encouraged by successive governments. The average size of full-time holdings in Britain is 239 acres (97 hectares) of crops and grass (including rough grazings).

Some 35,000 of the total of significant farming units are in Northern Ireland: over half of these provide a full-time occupation for the owner and produce over four-fifths of the total output. The average farm size is 50 acres (21 hectares). Other holdings, of which there are about 16,000, are either extremely small or let in conacre (seasonal lettings for crops or grazing).

Types of Farming The increasing use of intensive methods of production both in crops and in animal husbandry has led to greater specialisation. Three-fifths of the fulltime farms in Britain are devoted mainly to dairying or beef cattle and sheep. One in six is a cropping farm and the remainder specialise in pigs, poultry or horticulture or are mixed farms. In England the farms devoted primarily to arable crops are in the eastern part of the country—in East Anglia, Kent, Lincolnshire and Humberside. In Scotland the rich lowlands of the east coast are also primarily arable. Potato and vegetable growing on a substantial scale marks the farming of the Fens (south Lincolnshire and Cambridgeshire), the alluvial areas around the rivers Thames and Humber and the peaty lands in south Lancashire. Early potatoes are an important crop in Dyfed and the southwest. Elsewhere, horticultural crops are widely dispersed amongst agricultural crops.

Dairying occurs widely, but there are concentrations in south-west Scotland, the western parts of England and south-west Wales, where the wetter climate encourages the growth of good grass. Sheep and cattle are reared in the hill and moorland areas of Scotland, Wales and northern and south-western England. Beef fattening takes place partly on better grassland areas and partly in yards on arable farms.

In Northern Ireland dairying is the main occupation on 40 per cent of the full-time farms, while a further 35 per cent concentrate on beef and sheep production. The remainder are either specialised cropping and horticultural holdings, intensive pig and poultry units or mixed farms with no predominant single enterprise. Oats and barley are widely grown, mainly for livestock feeding, and the only important cash crop is potatoes.

The increase in production which has occurred over the past decades is a result of the effort of individual farmers, of farmers' organisations, of research workers and advisers and of government action. The role of the Government is described on pp. 292–96.

The steady expansion in production and in yield per acre of arable land which has taken place since 1936 is summarised in Table 22. Apart from a slight decline between 1961 and 1964, and another in 1968, total cattle stocks have risen each year since 1957, to reach a record figure of 15.2 million in 1974. Over the past decade the beef herd has grown considerably, but expansion in the milk-producing herd has been less marked. Numbers of sheep and lambs reached their highest level in 1966; although they later declined, steady expansion is now evident again. Numbers of pigs have increased by over onequarter during the past decade, as have those of poultry. Arable production has shown a greater diversification since the second world war. Total cereals production has increased considerably since 1960, reaching about 17 million tons in 1974-75. Potato production is susceptible to weather conditions but, on average, adequate supplies are maintained from a steadily declining area. Between 1963 and 1973-74 output of pigmeat increased by one-quarter and eggs by one-tenth; these increases, together with those in beef and milk, resulted in higher consumption of feedingstuffs, mostly from home resources. Between 4 million and 5 million tons of concentrated feeds are imported each year, depending on the size of the home crop of cereals.

AGRICULTURAL PRODUCTION: CROPS AND LIVESTOCK

Production

AGRICULTURE, FISHERIES AND FORESTRY

TABLE 22: Land Use, Produce and Livestock.

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Source: Agricultural Departments.

^a From 1973 UK figures relate, with some exceptions, to holdings with 40 standard man-days or more. ^b Figures not collected before 1972. and a so rore.
b Figures not collected before 1972.
c Collected as 'Woodland ancillary to farming'.
d Collected as 'Other land used for agriculture'.
e 'ooo hectares. f Provisional. g tonnes per hectare.
h Raw equivalent basis.

j Million litres.

The index of agricultural net product (all holdings) at constant prices has risen steadily. By 1953-54 it was some 56 per cent above the immediate prewar average; it rose a further 36 per cent between 1954-57 and 1964-67. With the average of 1968-72 as a base, the index for all commercially significant holdings reached 117 in 1973-74; 117 is forecast for 1974-75.

The British climate suits grassland farming. Grassland forms an important Grassland section of the economy of most farms, whether as permanent grass, mostly occupying land less suitable for cultivation, or as sown grassland (leys), often part of the arable rotation. A wide range of herbage species and varieties are used, over half the total supply of herbage seed being produced in Britain. Grassland production has been enhanced over recent years by the develop-

ment and application of new techniques, notably the increased use of fertilisers (especially nitrogenous), methods of grazing control, improved herbage conservation for winter feed and irrigation. Rough grazings remain as seminatural grassland used for extensively grazed flocks and herds, producing young animals for fattening elsewhere.

Wheat is grown mainly in the eastern half of England. About 5.9 million tons were harvested in 1974, with average yields estimated at 1.95 tons per acre (4.89 tonnes per hectare). Between one-third and one-half of the wheat crop is used for flour milling, the remainder going mainly for animal feed.

Since 1961 the area under barley has increased by nearly 50 per cent and in general production has risen faster because yields have also increased. The malting and distilling market currently absorbs about one-fifth of the crop; most of the remainder is retained by farms or sold for animal feed.

The widespread use of combine harvesters has necessitated the installation of drying and storage facilities on many farms. Such equipment is also often used on a co-operative basis.

In Great Britain the total area of fodder crops has fallen because in many Fodder Crops cases farmers can provide winter feed more economically by increased grass production and improved methods of conservation. The principal fodder crops are beans and kale in England and turnips and swedes in Scotland.

Beet is grown mainly in East Anglia and Lincolnshire under contract to the Sugar Beet British Sugar Corporation (see p. 294), which also provides technical advice and assistance.

Potatoes are grown in most parts of Britain. First supplies of early potatoes Potatoes normally come at the end of May, and the lifting of main crop varieties usually starts in September. Seed potato production for Britain and for export is chiefly centred in Scotland and Northern Ireland.

Britain is normally self-sufficient in main-crop potatoes. As yields are increasing, requirements, including the increased demand for processed potatoes, can be met from a declining acreage. The area planted in 1974 was 532,000 acres (215,000 hectares) and the average yield per acre was 12.6 tons. This resulted in an overall balance of supply and demand. Although potato production is becoming increasingly mechanised, much hand labour is still needed.

In Great Britain more milk goes for liquid consumption than for manufacture, **Dairy Farming** but in Northern Ireland the greater part of the milk is used for manufactured

Crops

Cereals

AGRICULTURE, FISHERIES AND FORESTRY

products. Average consumption of liquid milk per head is 4.74 pints (2.69 litres) a week.

Average yields per dairy cow have increased during the last decade by about 11 per cent and now average some 864 gallons (3,927 litres) a year. Freedom from tuberculosis has reduced herd wastage, and a campaign to eradicate brucellosis is under way. The Friesian breed is dominant in the dairy herds of England, Wales and Northern Ireland, and the Ayrshire breed in Scotland. Average herd size is 39 cows. Milk production has been stimulated by advances in grassland management, intensive grazing techniques and new methods of making high quality hay and silage. Most dairy farmers practise some degree of intensive grass management, but hay or silage of the traditional type supplemented with purchased concentrates remain the basic winter feeds.

Livestock

A great number of specialised breeds of livestock have been developed over the centuries in Britain. Substantial sales of animals and semen are made to overseas buyers seeking to replenish and improve their herds and flocks.

British breeds have recently been joined by a number of continental breeds. Artificial insemination plays an important part in cattle breeding, about two-thirds of the dairy herd in Great Britain being bred in this way, through centres operated by the Milk Marketing Boards and other organisations.

Beef Cattle In the hill regions hardy herds of beef cattle are kept, especially of the Galloway and Welsh Black breeds and their crosses; in marginal land and lower areas the sires used are predominantly of the Aberdeen Angus and Hereford breeds. About two-thirds of home-fed beef production derives from the dairy herds, some females being mated to beef sires. There is a large and complex trade in store cattle (increased by animals imported from the Irish Republic), a typical movement being from the upland west to grazing areas in the Midlands. The demand for lean tender beef at an economic price has stimulated the development of intensive and semi-intensive systems of production.

> Britain has a long tradition of sheep production. More than 30 breeds and innumerable crosses are to be found in Britain, each breed having originated within a particular area. Research has provided vaccine and sera protection against nearly all the epidemic diseases.

In the hills, and especially in the Highlands, winter conditions are usually severe. Draft ewes and lambs are brought from the hill areas every autumn to swell the lowland flocks, usually in two stages; first, to farms at intermediate altitudes, where they are mated with rams of a larger and more rapidly maturing breed; then, the cross-bred progeny pass on to the more genial lowland conditions, where they become crossed again with Down rams for fat lamb production. The hill breeds bring in hardiness and the lowland sires fecundity and early maturity. Fat lamb production provides the main source of income for sheep farmers but wool is also of considerable importance, especially to farmers in hill areas.

Pig production is carried on in most parts of Britain but is particularly important in the eastern and southern counties of England and in Northern Ireland. There is an increasing concentration into specialist units and larger herds. The most frequently used breeds are the Large White and the Landrace though a large number of cross-bred sows are also used in commercial pigmeat production. Pig improvements are fostered through research by the Meat and Livestock Commission and by leading commercial firms. Artificial insemination is available nationally.

Sheep

Pigs

About 25 per cent of the pigmeat is used for bacon and 75 per cent for pork and manufacturing into sausages and other processed forms.

Poultry

The British poultry industry has expanded rapidly in recent years, aided by the application of improved husbandry and management techniques in intensive production units and to genetic improvements in stock. Only a small proportion of total production is in the hands of the smallest producers—75 per cent of the laying birds on farms are in flocks of 5,000 or more and 73 per cent of the broilers are in flocks of 50,000 or more. The average yield of eggs per bird is about 230 a year and nearly all eggs consumed in Britain are homeproduced. About 310 million broilers and other special table chickens were slaughtered in 1974.

Horticultural Industry

The horticultural industry produces a wide variety of fruit, vegetables and flower crops which are together worth nearly 12 per cent of the total value of agricultural output—an estimated £512 million in 1974–75 out of a total of $f_{.4,344}$ million.

At the June 1974 census the land on which these crops were grown amounted to nearly 704,000 acres (285,000 hectares) about 1.5 per cent of the land used for crops and grass. Of crops in the open, fruit accounted for 178,000 acres (72,000 hectares), vegetables, excluding potatoes, for 480,000 acres (194,000 hectares), and flowers, bulbs and nursery stock for 38,000 acres (16,000 hectares). Crops under glass, plastic and in sheds, including mushrooms, occupied 6,000 acres (2,400 hectares).

Horticultural crops are largely grown on specialised holdings where soil, climate, skilled labour and irrigation can produce maximum yields of high quality crops and where access to markets or good roads enable them to be sold at economic prices. Most horticultural enterprises are increasing output per unit area with the help of improved planting material, new techniques of cultivation and environmental control and the widespread use of machinery. Some horticultural crops form parts of general farm rotations but the returns from increased specialisation favour separate horticultural enterprises.

Of the land used for fruit growing in 1974, 44,000 acres (18,000 hectares) were devoted to small fruit and the remainder was under orchards. The acreage of apple orchards (excluding cider apples), some 75,000 acres (31,000 hectares), continues to decline, but yields have increased to some 5 tons per acre on average. Dessert apples are the most important fruit crop, grown mainly in Kent and neighbouring counties, in East Anglia and to the north and south of Bristol. Recent plantings are largely of Cox's Orange Pippin which is marketed throughout autumn and winter; many of the new orchards consist of closely planted dwarf trees which can be efficiently pruned, sprayed and picked. England and Northern Ireland are among the few countries which grow varieties of apples especially suitable for cooking, the best-known of which is Bramley's Seedling. There are 12,700 acres (5,150 hectares) under varieties of cider apples.

Although pears thrive best in the warmer continental climate, in the east and south-east of England where somewhat similar conditions prevail the Conference pear and a few other high quality varieties are produced. Cherries and plums are grown in Kent, and plums also in the Vale of Evesham and parts of East Anglia. Around Perth in Scotland is the largest concentration of raspberry plantations in the world. This forms the basis of an important processing industry.

Fruit

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AGRICULTURE, FISHERIES AND FORESTRY

Strawberries are the most widely grown soft fruit, accounting for some 17,700 acres (7,200 hectares), the main-crop areas being in Kent and East Anglia. Blackcurrants are also widely grown in Britain, mainly for the preparation of juice for the manufacture of soft drinks and flavours for confectionery. Other fruits include gooseberries, red and white currants, loganberries and blackberries. Almost all the nuts consumed in Britain are imported but a few cob nuts and filberts are still grown in parts of Kent.

Much of the glasshouse sector of the horticultural industry has been reequipped since the mid-1960s with the aid of grants. There are now, in many parts of the country, units with automatic control of heat, ventilation, and semi-automatic control of watering coupled with carbon-dioxide enrichment of the atmosphere. Tomatoes form the most important glasshouse crop, either as a single crop or in rotation with others, and together with lettuce and cucumbers represent some 95 per cent of the total value of glasshouse vegetable output. There is also increasing production of sweet peppers, aubergines, and celery. Cucumbers are extensively grown in the traditional glasshouse area in the Lee Valley to the north of London and more recently in Yorkshire. Mushrooms, whose farmgate value is forecast at over £26 million for 1974–75, are grown in specially constructed sheds in numerous parts of the country. Production in Northern Ireland, in particular, is steadily increasing each year.

Bulbs and hardy nursery stock each occupied some 18,000 acres (7,300 hectares) in June 1974; flowers in the open took 3,000 acres (12,150 hectares). Many nurseries concentrate on the production of plants in containers for sale through the garden centres which have been established on the outskirts of many towns.

Cut flowers are grown and bulbs cultivated in many areas but particularly in the Holland area of Lincolnshire, Norfolk, the east of Scotland, Cornwall and in the Isles of Scilly where more than 50 per cent of the cultivable land is devoted to bulbs which flower there from November to May.

Vegetables and outdoor salad crops are grown in the traditional areas of the Thames Valley, north Kent, Vale of Evesham, south Lancashire and Humberside, but newer areas, especially suited through soil type or climate to production of a particular crop, have come into prominence. West Cornwall, south Devon, Dyfed and Kent send winter cauliflowers and spring cabbage to most urban markets while almost half the summer and autumn cauliflowers come from the intensive horticultural holdings in Lincolnshire. The light soils of Norfolk and Cambridgeshire are especially suitable for carrots and onions, and the Holland area of Lincolnshire accounts for just over a quarter of the onion acreage. Brussels sprouts are grown extensively in Bedfordshire, the Vale of Evesham, and well up the east coast of England wherever freezing factories are sited for the processing of fish as well as vegetables. Peas and dwarf beans are increasingly sold frozen, canned or dried and so are grown close to factories in the east of England and in Scotland. Celery is mainly grown on the deep soils of south-east Lancashire, Norfolk and the fens of Cambridgeshire. Nearly three-quarters of the early rhubarb is produced in Humberside where plants grown in the open are then forced in unlit sheds.

Hops for the brewing industry are grown in Kent, East Sussex, Hampshire, and Hereford and Worcester. They occupy only about 16,000 acres (6,500 hectares) but have a very high yield per acre and value by weight.

Glasshouse Crops

Nursery Stock and Bulbs

Vegetables

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FOOD SUPPLIES Britain now produces just over half of its total food requirements or nearly 70 per cent of those supplies that can be produced in temperate climates.

Home Production Home production of the principal foods is shown as a percentage by weight of total supplies in Table 23. Table 24 shows how the level of the main food supplies passing into consumption has changed since the end of war-time rationing. Rising living standards have led to increased consumption of high protein foods. More recently the pattern of food consumption has tended to stabilise but with a more pronounced trend towards partly prepared and 'convenience' foods.

| Food product | 1956 | 1964 | 1974 (provi- sional) |
|--|------|------|----------------------------|
| Carcase meat and offal | 62 | 69 | 78 |
| Bacon and ham | 42 | 38 | 46 |
| Shell eggs | 96 | 98 | 98 |
| Milk for human consumption (as liquid) | 100 | 100 | 100 |
| Cheese | 43 | 42 | 64 |
| Butter | 9 | 6 | 10 |
| Oils and fats (crude oil equivalent) | 16 | 10 | 20 |
| Sugar (as refined) | 22 | 27 | 26 |
| Wheat and flour (as wheat equivalent) | 20 | 47 | 68 |
| Potatoes for human consumption | 93 | 95 | 95 |

TABLE 23: United Kingdom Production as a Percentage of Total Supplies

Source: Ministry of Agriculture, Fisheries and Food.

| TABLE 24: Food | I Supplies moving | into Consumption | (lb. per head) |
|----------------|-------------------|------------------|----------------|
|----------------|-------------------|------------------|----------------|

| | 1956 | 1964 | 1974 (P | rovisional) |
|-------------------------------|-------|-------|---------|-------------|
| | lb. | lb. | lb. | kg. |
| Carcase meat and offal | 101.5 | 103.7 | 98.7 | 44.8 |
| Bacon and ham | 23.3 | 25.3 | 20.5 | 9.3 |
| Poultry meat | 7.2 | 15.8 | 25.8 | 11.7 |
| Fish: fresh, frozen and cured | 19.3 | 17.0 | 11.9 | 5.4 |
| Eggs in shell ^a | 212 | 249 | 245 | |
| Liquid milk ^b | 323.0 | 323.3 | 315.2 | 179.1^{c} |
| Cheese | 9.3 | 10.6 | 13.0 | 5.9 |
| Butter | 15.5 | 19.8 | 18.4 | 8.3 |
| Margarine | 17.1 | 13.4 | 11.3 | 5.1 |
| Oils and fats | 21.2 | 26.0 | 26.3 | 11.9 |
| Sugar ^d | 109.8 | 108.0 | 103.7 | 47.0 |
| Flour | 178.7 | 156.1 | 137.1 | 62.2 |
| Potatoes | 224.5 | 226.9 | 219.9 | 99.7 |
| Fresh vegetables (including | | | | |
| tomatoes) | 107.3 | 115.3 | 112.5 | 51.0 |
| Fresh and dried fruit | 71.4 | 79.7 | 74.9 | 34.0 |
| Canned and bottled fruit | 13.8 | 19.5 | 17.8 | 8.1 |
| Tea | 10.1 | 9.4 | 7.8 | 3.5 |
| Coffee | 1.5 | 2.7 | 4.5 | 2.0 |

Source: Ministry of Agriculture, Fisheries and Food.

^a Number. ^b Pints. ^c Litres.

 d Including sugar in all home-produced and imported manufactured goods, and in brewing.

FARM EXPENDITURE AND EARNINGS

Estimates of farm expenses and sales and the aggregate net income of agricultural producers are prepared annually by the agricultural departments (see Table 25). The aggregate net income of farmers rose from $\pounds 462$ million in 1964-65 to $\pounds 1,283$ million in 1973-74, falling to an estimated $\pounds 1,133$ million

| | | 1 | 1 | | |
|---------------------------------|--------------|----------------------------------|------------------------------------|--------------|----------------------------------|
| Output | £ million | As a per- centage of total | Input | £ million | As a per- centage of total |
| Farm crops | 987 | 22.7 | Feedingstuffs | 1,234 | 48.1 |
| Horticulture | 512 | 11.8 | Seeds | 106 | 4.1 |
| Livestock | 1,588 | 36.6 | Imported livestock | 107 | 4.2 |
| Livestock products | 1,225 | 28.2 | Fertilisers and lime | 305 | 11.9 |
| Other | 32 | 0.7 | Machinery | 326 | 12.7 |
| | | | Farm maintenance | 152 | 5.9 |
| Total Output | 4,344 | 100.0 | Miscellaneous | | |
| | | | expenditure | 336 | 13.1 |
| Production grants and sundry | | | Total Expenditure Stocks change | 2,566 + 12 | 100.0 |
| receipts | 189 | | 0 | | |
| | | | Gross Input | 2,578 | |
| Total Receipts | 4,533 | | I | | |
| * | , | | Gross Product ^a | 2,343 | |
| Work in progress | | | Depreciation | 405 | |
| change | +388 | | 1 | | |
| | | | Net Product | 1,938 | |
| Gross Output | 4,921 | | Labour | 683 | |
| | | | Net rent and interest | 123 | |
| | | | Net Income | 1,133 | |

TABLE 25: Estimated Farm Output and Input 1974-75

Source: Annual Review of Agriculture 1974.

Figures may not add to the totals shown because of roundings.

^a Gross product = Gross output less gross input.

in 1974–75. The figures given in Table 25 show that Britain's farming is predominantly based on livestock enterprises. Nearly seven-tenths of total farm output is in the form of livestock or livestock products.

Of all farm expenses, purchased feedingstuffs amount to nearly two-fifths, wages to nearly one-fifth and machinery (including depreciation) and equipment to nearly one-fifth. Since 1960 male agricultural earnings have more than trebled, offsetting the manpower economies made possible by mechanisation and larger farms, while labour productivity has risen by about 6 per cent a year since 1964–65.

Capital Requirements

The capital required for land and buildings may be provided by the farmer, if he is an owner-occupier, or by the landlord, if the farm is let to a tenant. In 1974 provisional 'fixed capital' totalling £266 million was added to the value of buildings and works and £309 million was invested in new plant, machinery and vehicles. The bulk of the capital required to stock and run the farms is provided by the occupiers. Bank advances are an important source of outside capital, both fixed and working; about two-thirds of the total bank advances to agriculture are believed to be for short-term purposes. Agricultural merchants are also an important source of short-term credit. Mortgage loans form the chief source of long-term credit and are provided by specialised financial institutions (see p. 295) and private sources.

Accounts of some 3,000 farms in Britain, collected by agricultural economists in 1974, show average valuations of occupiers' capital ranging from about \pounds_{10} per acre (\pounds_{24} .7 per hectare) on hill farms with extensive rough grazings to over \pounds_{100} per acre (\pounds_{247} per hectare) on some lowland farms. On all types of farm investment in machinery is a heavy item: on dairy and arable farms it averages about \pounds_{15} per acre (\pounds_{37} per hectare); on stock-rearing farms it may amount to \pounds_{4} per acre (\pounds_{10} per hectare).

Mechanisation

Britain has one of the heaviest tractor densities in the world, with 515,000 tractors in 1974 or one to every 34 acres (14 hectares) of arable land. Power-take-off implements now characterise arable farming; and some 61,000 combine harvesters were in use in 1974. A wide variety of machines for harvesting and preservation of grass are employed. Milking machines are installed on all except the smallest farms.

Over 90 per cent of the farms in Great Britain have an electricity supply and accompanying equipment. There are about 1,700 farmers' machinery syndicates through which farmers have the use of expensive equipment without tying up their own capital.

Research, development and testing of farm machinery are carried out by the National Institute of Agricultural Engineering.

Net Incomes

The range of net incomes between individual farms is very wide, varying with the type and size of farm, quality of land, and managerial ability of the occupier. The average net income for farms in England and Wales of different types is generally within the range of $\pounds 20$ to $\pounds 45$ per acre ($\pounds 49$ to $\pounds 111$ per hectare) with the exception of pig and poultry farms and horticultural holdings, which are more intensive in their use of land. Net income per acre on dairy and arable farms has nearly always been higher than on stock-rearing farms, which are generally larger than the other types and are situated on poorer land.

THE ROLE OF THE GOVERNMENT The functions of government in relation to agriculture are mostly exercised by the agricultural ministers; for England and Wales the Minister of Agriculture, Fisheries and Food and the Secretary of State for Wales, for Scotland the Secretary of State for Scotland, and for Northern Ireland the Secretary of State for Northern Ireland. The Advisory Council for Agriculture and Horticulture in England and Wales exists to provide the Minister and his department with independent advice on any agricultural or horticultural subjects remitted to it.

The Ministry of Agriculture, Fisheries and Food operates through functional divisions. Its relations with individual farmers are conducted mainly through its local offices, grouped in England in regions, with regional managers. Local offices in Wales are grouped under a Welsh Secretary with similar functions and with special responsibility for Welsh affairs.

In 1966 an Economic Development Committee for agriculture was established, comprising representatives of farmers, workers and landowners, as well as official and independent members.

In Scotland most of the agricultural functions of the Secretary of State are discharged through the Department of Agriculture and Fisheries. The Secretary of State for Scotland also appoints the members of the Crofters Commission (see p. 295) and the Red Deer Commission, which deals with the conservation and control of red deer.

The Northern Ireland Department of Agriculture is responsible for implementing agricultural policy. It is organised on similar lines to the Ministry

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of Agriculture, Fisheries and Food, for which it acts as agent in the administration in Northern Ireland of United Kingdom agricultural schemes.

Britain began to take part in the European Community system of agricultural support under the Common Agricultural Policy (CAP) on 1st February 1973. The Intervention Board for Agricultural Produce was set up in 1972 to administer the system; although administratively separate from the agricultural departments, the board maintains close working links with them and is responsible to the agricultural ministers, who remain responsible for policy.

Annual Review

Each year, the agricultural ministers review the economic condition and prospects of the industry in consultation with representatives of agricultural producers (in practice, the three farmers' unions in Britain). They consider such factors as production trends and market requirements, world market prospects, the cost of subsidies, income trends in the industry as a whole, the increasing efficiency of the industry and changes in production costs. The conclusions drawn from the review form the background for the determination of guaranteed prices in Britain and contribute together with views expressed on behalf of agricultural workers, landowners and the food industry to the formulation of government agricultural policy generally.

The cost of government support to the industry in 1974–75 is estimated at $\pounds 296$ million. Expenditure under the CAP arrangements is estimated at about $\pounds 193$ million, of which some $\pounds 147$ million is likely to be reimbursed from the European Agricultural Guidance and Guarantee Fund (FEOGA).

The objectives of the CAP are to increase agricultural productivity and earnings, to stabilise markets and to provide adequate supplies at reasonable prices to the consumer. For most commodities there is free trade within the Community with a common system of variable levies on imports from third countries, and common support prices within the Community designed to give producers an adequate return from the market. For some of the more important products support buying is undertaken when necessary. There is also provision for certain payments to producers, including variable premiums payable on cattle and beef. For most commodities Britain is gradually adopting full Community support price levels over the five-year transitional period. During this period there is free trade between Britain and the other Community members in the main agricultural products subject to arrangements to compensate for the differences in price levels and currency values. For fresh fruits and vegetables the market organisation is similar, although third country trade is subject to a common customs tariff and not to variable import levies. Items of particular importance to Community producers are covered by a market intervention system and a form of minimum import prices.

The principal tasks of the Intervention Board in administering this system are the issue and control of export/import licences and the payment of export and import refunds; market support for certain commodities, including support buying, aids to private storage and the payment of denaturing premiums. The board also pays the minor Community production and producer subsidies not administered by the agricultural departments.

In the light of the Annual Review the agricultural ministers determine guaranteed prices for the coming year for cereals, potatoes, fat sheep, milk and wool. By the end of the transitional period (31st December 1977) the guarantees for all commodities for which the Community has a common market organisation will have been ended. There is no common market organisation for sheep,

Common Agricultural Policy

Price Guarantees

wool and potatoes. The guarantee for fat cattle ended in March 1973, that for rye in July 1973, that for eggs in March 1974, and that for sugar beet in June 1974. The guarantee for fat pigs ended on 31st July 1975. Deficiency payments are made, designed to make up the deficit between the market price of a commodity and the price guaranteed by the Government. The level of the guaranteed prices for commodities for which there is a Community common market organisation are subject to rules under the Treaty of Accession.

For cereals payment is made by the agricultural departments on the acreage harvested. Deficiency payments for fatstock are made weekly to producers on certified sales on a liveweight or deadweight basis.

For milk and wool in the United Kingdom, and potatoes in Great Britain the Government operates the guarantee through the appropriate marketing boards which take account of any payments from or to the Government in deciding what to pay producers for their produce. In the case of milk there are five boards; the Government pays the guaranteed price on a 'standard quantity' which for 1975-76 will be broadly the same as total production. Any milk produced in excess of this would be sold for manufacturing and the returns from these two sources averaged by the boards to give the 'pool price' paid to producers. Recent government decisions to subsidise the retail price have resulted in a deficit which is being met by the Exchequer. For potatoes, ministers fix each year a target acreage designed to achieve self-sufficiency. In Great Britain the Potato Marketing Board ensures, as far as possible, that this acreage is planted and may with government agreement undertake support buying of any surplus, re-selling as much as possible for stockfeed. In Northern Ireland the Department of Agriculture undertakes any support measures. Most of the cost is met by the Government.

For wool a fixed price is guaranteed to the British Wool Marketing Board for every pound of fleece wool it buys from producers. This enables it to fix in advance a schedule of producers' prices, based on types and quality, after making allowance for the board's marketing costs.

The British Sugar Corporation Ltd. contracts annually for the acreage from which it will buy sugar beet. The contracted acreage has risen over the past few years and for the 1975 crop was 490,000 acres (198,000 hectares). For production within Britain's maximum quota under the CAP (over 1.5 million tonnes of refined sugar in 1975–76) the corporation must pay not less than CAP minimum prices. Any additional sugar must, except in case of shortage, be exported outside the European Community and the price paid will reflect prices on the world market. The Commonwealth Sugar Agreement under which the Government was committed to take certain quantities of sugar annually from Commonwealth exporters, expired at the end of 1974. It was replaced early in 1975 by provisions in the Convention of Lomé (see p. 387).

Under these provisions the European Community is committed to taking certain quantities of sugar annually from developing sugar-exporting countries, most of whom are Commonwealth members, at a price related to that applicable within the Community. In practice most of the sugar is expected to continue to come to Britain for refining.

Other Grants and Subsidies The relative importance of the price guarantees has declined in recent years. The Government does, however, offer to farmers a wide range of other inducements to increase productivity. The cost amounted to \pounds 290 million in 1974–75, and is estimated at \pounds 220 million in 1975–76. These government payments include grants to maintain breeding herds of cattle and sheep,

Marketing Boards



Transport

SD3, 30-seater shorthaul airliner, the first to be produced to meet new regulations governing commuter operation in the United States.

Hawk, a new ground attack/trainer aircraft for RAF service.

The Anglo-French multirole high-speed *Lynx* helicopter. A British commercial version is under development.



Transport

New Rolls-Royce twodoor saloon car *Carmargue*.



Triumph *TR7* sports car designed for the 1980s.





British Rail's highspeed passenger train runs on existing track; it set the world speed record for a diesel.

Interceptor, a new 25 ft (7·6 m) glassreinforced-plastics highperformance catamaran.

Transport

New electric delivery van which is noiseless, free from fumes, cheap to run and easy to maintain. Its maximum speed is 33 mph (53 km/h) with a range of 50 miles (80 km).

Britain's first commercial battery-powered bus, rechargeable in only $3\frac{1}{2}$ hours, has a range of up to 40 miles (64 km) and a top speed of 40 mph (64 km/h).



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particularly in upland areas, and to encourage the retention of calves suitable for beef production. In addition grant aid is available towards the cost of certain capital expenditure and towards the cost of farm amalgamations and other measures to improve farm structure.

In England and Wales finance for the purchase or improvement of agricultural land and buildings is available from the Agricultural Mortgage Corporation Ltd. whose funds are derived mainly from public issues of stock, with some government support. Loans for agricultural purposes secured on agricultural land in Scotland are granted by the Scottish Agricultural Securities Corporation Ltd. which works on a similar financial basis to the Agricultural Mortgage Corporation Ltd.

Loans for carrying out improvements to agricultural land and buildings are also available to landowners from the Lands Improvement Company.

In Northern Ireland loans are available to farmers from the Agricultural Loans Fund, administered by the Department of Agriculture and financed out of public funds. Short-term finance for agricultural machinery is arranged on a hire purchase basis, whilst medium- or long-term loans are arranged for such purposes as the purchase of livestock, the erection and improvement of farm buildings and farm dwellings, and the purchase of land for amalgamation and subsequent restructuring.

The Government can make loans in Great Britain to help finance the purchase of land acquired for approved amalgamations of small farms and approved remodelling expenditure. These loans may be granted up to 90 per cent (100 per cent for certain small amalgamations) of the valuation of the combined unit determined by the Agricultural Mortgage Corporation Ltd. in England and Wales and the Scottish Agricultural Securities Corporation Ltd. in Scotland, which act as the Government's agents.

oldings In England and Wales, about 10,300 smallholdings are provided by local authorities and about 870 lettable holdings by the Ministry of Agriculture, Fisheries and Food. For financial assistance in improving smallholdings, authorities can obtain the amalgamation and capital grants available to farmers generally. The minister and local authorities may make loans of up to 75 per cent of required working capital to their smallholding tenants.

Land settlement in Scotland has always been carried out by the central Government, which now owns and maintains about 415,000 acres (167,900 hectares) of land settlement estates, comprising some 3,010 crofts and holdings.

Within the crofting counties of Scotland (comprising the former counties of Argyll, Caithness, Inverness, Orkney, Ross and Cromarty, Sutherland and Shetland) much of the land is held by crofters or tenants whose holdings are generally either rented at a cost of not more than $f_{.50}$ a year or have an area not exceeding 75 acres (30 hectares).

The Crofters Commission, with headquarters in Inverness, is responsible for the administration and regulation of crofting. Its functions are to reorganise, develop and regulate crofting in the crofting counties, to promote the interests of crofters and to keep under review matters relating to crofting. The commission's statutory powers include supervising the letting of crofts and collaborating with other organisations whose activities affect crofting interests. It also acts as the Secretary of State's agent in administering grants to crofters for cropping and land improvement.

OTHER GOVERNMENT ASSISTANCE AND ACTION

Agricultural Credit

Smallholdings

Crofting

Arterial Drainage and Sea Defence On 1st April 1974, responsibility for land drainage (including flood prevention) in England and Wales was transferred from the former river authorities and catchment boards to ten new regional water authorities. There are no comparable authorities in Scotland, where arterial drainage of agricultural land is the owners' responsibility.

The work of the water authorities includes, in both urban and agricultural areas, the improvement of land drainage, the prevention of inland flooding, and the construction and maintenance of defences to protect low-lying coastal areas from tidal flooding. Most of the funds needed for this work are obtained from local authorities, but the Government pays grants toward the cost of improvement schemes varying from 10 per cent to 80 per cent according to the financial position of the authority, with an additional premium for sea defence works.

Within the water authority areas, in low-lying areas where there are special local problems of land drainage, there are 314 internal drainage districts administered by internal drainage boards who carry out work for the special benefit and protection of their districts. These boards finance their work from drainage rates levied on owners and occupiers. They also receive government grant at a flat rate of 50 per cent for improvement schemes.

Local authorities in England and Wales also have general land drainage powers and may receive government grants of between 20 per cent and 50 per cent of the cost of improvement work. In Scotland 60 per cent grants (70 per cent if for the benefit of hill land) are available to owners or occupiers of agricultural land.

In Northern Ireland the Department of Agriculture is the drainage authority for watercourses designated by the Drainage Council as main or minor watercourses and also has responsibility for urban drainage.

Land Tenure In Great Britain more than half, and in Northern Ireland almost all, farms are owner-occupied. In order to protect the respective interests of landlords and tenants and to eliminate uncertainty as to their rights and liabilities, a code of landlord and tenant relationships has been written into legislation.

Legislation provides for any tenancy of agricultural land, with the exception of certain short-term lettings, to continue in force from year to year until terminated by a valid notice to quit. With certain exceptions the tenant can contest it by serving a counter-notice; the notice to quit then becomes inoperative unless the landlord can satisfy an independent body (in England and Wales the Agricultural Land Tribunal and in Scotland the Scottish Land Court) that his claim for possession is in the interests of sound estate management or good husbandry or that the land is required for certain specified purposes.

There is a code of compensation to which the tenant is entitled on termination of the tenancy. Rent is a matter for negotiation between landlord and tenant and may be varied by agreement at any time or, failing agreement, by arbitration.

MARKETING

Agricultural products are marketed mainly through private trade channels, through producers' co-operatives or through marketing boards operating under the Agricultural Marketing Act 1958 or Northern Ireland legislation. The practice of selling under contract is growing. The marketing boards are producers' organisations with statutory powers to regulate the marketing of particular products. The schemes under which they are constituted and operate must be approved by Parliament and, except in Northern Ireland, confirmed by a poll of the producers. Most board members are elected by the

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producers but a minority are appointed by the agriculture minister or ministers concerned. Further safeguards serve to protect consumers and other interests affected by schemes and the public interest generally.

Marketing boards fall into two broad categories: first, those which are sole buyers of the regulated product from all producers not specially exempted or those which exercise a comparable influence by controlling all contracts between producers and first buyers; and, secondly, boards which maintain only a broad control over marketing conditions, leaving producers free otherwise to deal individually with buyers. The boards for hops, milk and wool and the Northern Ireland pigs and seed potato boards fall into the first category and the Potato Board into the second.

For certain other commodities there are broadly based organisations representing producer, distributor and independent interests.

The Home-Grown Cereals Authority was set up to improve the marketing of home-grown cereals. It provides market intelligence, operates a wheat classification scheme, and promotes research and development of value to the cereals market. It also acts as agent for the Intervention Board for Agricultural Produce in respect of the support buying, storage and disposal of cereals and oilseed rape.

The Meat and Livestock Commission is charged with improving the production, marketing and distribution of livestock and meat in Great Britain. It has a range of executive functions extending from breeding to retail distribution, including acting as agent for the Intervention Board. It is not empowered to trade in either livestock or meat.

The Eggs Authority, which represents the industry and consumers, was set up with the general duty of improving the marketing of eggs. It provides market intelligence, carries out promotional work and undertakes research and development projects.

Grants of up to one-third are available for the modernisation of major wholesale horticultural markets; Covent Garden has been moved to a new site in south London.

Under the CAP a wide range of fresh horticultural produce and also cut flowers and flowering bulbs are subject to common quality standards which, with certain minor exceptions, apply at all stages of distribution. The Community standards apply to all produce entering Britain and, since 1st February 1975, to British produce sold on the domestic market.

Community regulations prescribe grades consisting of a range of up to four classes and specify requirements concerning colour, sizing, etc., and relating to packing, presentation and labelling. All fruit and vegetables subject to the standards which are exported from or imported into the Community must meet the requirements of at least Class II.

The Central Council for Agricultural and Horticultural Co-operation was

established to promote and develop co-operation in agriculture and horticulture and to administer a scheme of grants. The Agricultural and Horticultural Co-operation Scheme 1971 provides grants for co-operative production and marketing of agricultural and horticultural produce, including capital grants on similar terms as are available under the schemes for individual producers (see p. 295). The Federation of Agricultural Co-operatives represents British

Co-operation

CONTROL OF DISEASES AND PESTS The day-to-day work of treating animal disease is the responsibility of the practising veterinary surgeon. Control of animal disease nationally in accordance with the Government's policy is the responsibility of the State Veterinary

co-operatives both in Britain and in the Community.

Animals

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Service, which is part of the Agricultural Development and Advisory Service. The Veterinary Service is also responsible for the administration of legislation providing for the welfare of farm livestock.

For many years Great Britain has been free from many serious animal diseases including rinderpest, contagious bovine pleuro pneumonia, sheep pox, glanders and rabies, except for two isolated cases of rabies in imported dogs in 1969-70. Measures against rabies were strengthened by the Rabies Act 1974 and orders made under it. Sheep scab, eradicated in 1952, reappeared in 1973: control measures reduced the disease to a low level by the end of the year. The campaign to eradicate swine fever was successfully completed in 1966 and although three cases of the disease occurred in 1971 the infection was quickly eliminated. An epidemic of a previously unknown swine vesicular disease began in December 1972; it is being combated by a stringent slaughter policy. A major epidemic of foot-and-mouth disease was experienced in 1967-68 but was successfully eradicated. In 1960 the whole of Britain became a bovine tuberculosis attested area. The incidence of the disease is now very low; cattle (except for certain categories) are tested at regular intervals and reactors to the test are slaughtered, compensation being paid to the owners. Voluntary schemes for the eradication of brucellosis have been in operation since 1967: compulsory eradication on an area basis began in 1972. By the end of 1974 nearly 60 per cent of all herds in Great Britain were subject to eradication measures. Newcastle Disease (fowl pest) which had declined considerably since 1963, reappeared in serious epidemic proportions in a series of outbreaks in 1970 and early 1971 in England and Wales and then declined again to a low level.

The work of the service is backed by the extensive facilities of the Central Veterinary Laboratory at Weybridge, Surrey, and those of its subsidiary laboratory at Lasswade, near Edinburgh. In addition, there are 24 investigation centres with well-equipped laboratories in England and Wales. These centres perform work requiring specialist knowledge and give advice on disease problems to private practitioners. In Scotland a similar service is provided by the investigation centres of the three Scottish agricultural colleges.

In Northern Ireland the veterinary services are organised similarly to those in Great Britain but are administered separately by the Department of Agriculture for Northern Ireland. Animal health control policies and the geographical situation have kept the country free from nearly all the major epizootic diseases, including swine vesicular disease. A Brucellosis Eradication Scheme has been successfully carried out and in December 1971 Northern Ireland was declared a brucellosis-free country. The full-time veterinary service is supplemented by the central veterinary laboratory at Stormont, Belfast.

Plants

The plant health services, operated by the agricultural departments, are responsible for statutory controls designed to limit the spread of plant pests and diseases present in Britain and prevent the introduction of new ones from abroad. They also issue the health certificates required by other countries to accompany plant material imported from Britain. Voluntary certification schemes are operated to encourage the development of healthy, vigorous and true-to-type planting stocks. The Plant Pathology Laboratory at Harpenden, Hertfordshire, and the Agricultural Scientific Services Station, East Craigs, Edinburgh, provide scientific and technical advice on which statutory controls and certification schemes are based.

AGRICULTURE, FISHERIES AND FORESTRY

Pests and Storage The Ministry of Agriculture's Pest Infestation Control Laboratory provides scientific and technical advice on harmful mammals and birds and on insects, mites and moulds associated with grain and other stored food products. The laboratory's headquarters is at Slough, Berkshire, where storage problems are studied; vertebrate pests are studied at Tolworth, Surrey, and Worplesdon, Surrey. The laboratory works closely with Regional Pest Officers who advise farmers, local authorities and others on control techniques.

Agricultural Chemicals

Veterinary

Medicinal

Products

Safeguards against the dangers which could arise from uncontrolled use of pesticides have been devised and are operating successfully. Regulations provide protection for operators using the more toxic chemicals. The nonstatutory Pesticides Safety Precautions Scheme ensures that new pesticides intended for use in agriculture and the home garden, forestry and food storage, or new methods of using existing pesticides, are not introduced until enough experimental work has been done on their possible hazards (including those of users, consumers of treated produce, livestock or domestic animals and wild life) to allow the Government to make recommendations for their safe use. Products cleared for safety under the Pesticides Safety Precautions Scheme may then be submitted through the Agricultural Chemicals Approval Scheme for efficiency approval. The purpose of this scheme is to enable users and advisers to choose efficient proprietary brands of agricultural chemicals.

A key role in the administration of the safety scheme is played by the Government's Advisory Committee on Pesticides and Other Toxic Chemicals which keeps under review all risks that may arise from the use of pesticides.

The Medicines Act 1968 provides through a system of licensing for the control of the manufacture, sale and supply of both human and veterinary medicinal products (including those used in animal feedingstuffs). These controls are being brought into operation in stages. The licensing authority (the British health and agriculture ministers) is advised by the Medicines Commission, the Veterinary Products Committee, on the safety, quality and efficacy of veterinary medicinal products, and by other expert licensing committees. Until the Medicines Act is fully in operation, existing controls restricting the use of certain antibiotics in animal husbandry and veterinary medicine will be kept in force.

The Safety Inspectors of the agricultural departments advise farmers and Safety at Work workers about health and safety with particular reference to the Health and Safety at Work Act 1974. They are also responsible for enforcing the relevant statutory provisions including regulations which cover such matters as the guarding of field and stationary machinery, the safeguarding of work-places, and the fitting of safety cabs to tractors.

AGRICULTURAL ADVISORY SERVICE

In England and Wales scientific, technological and management advice and services are available through the Agricultural Development and Advisory Service (ADAS) which operates mainly from the ministry's regional and divisional offices. The service also helps to identify problems requiring investigation and research; to suggest priorities for such work and where appropriate to contribute to possible solutions. ADAS provides free and impartial advice to landowners, farmers and growers but charges are made for certain laboratory and other services.

In Scotland the agricultural advisory service is provided by the three regional independent colleges which are financed almost entirely by public funds. The nature of service is similar to that provided by the ADAS and covers all branches of advice.

Advisory work in Northern Ireland is under the direction of the Chief Inspector of the Department of Agriculture and Advisory Centres are located in the main provincial towns. The resources of the agricultural colleges, the research centres and the specialist divisions of the department are available to the advisory service.

Agricultural research and development in Britain, including that carried out by the Agricultural Research Council (ARC) and the universities, is mentioned on p. 410. The Ministry of Agriculture, Fisheries and Food carries out research and development at its own laboratories and on the 22 experimental farms and horticulture stations operated by ADAS, and has funds which are used to commission work from the ARC, the Natural Environment Research Council and outside research organisations. In England and Wales, research in agricultural economics is undertaken by 12 university departments of agricultural economics. Nine of these and one college of agriculture conduct work on farm incomes and the economics of particular products for the ministry (see p. 292). In Scotland, agricultural economists are on the staff of the three agricultural colleges and the Department of Agriculture and Fisheries for Scotland.

The Northern Ireland Department of Agriculture has an Economics and Statistics Division and eight other research divisions.

Thirteen universities in England and Wales, three in Scotland and one in Northern Ireland provide degree and postgraduate courses in agriculture or agricultural sciences. The National College of Agricultural Engineering at Silsoe, Bedfordshire, offers degree and postgraduate courses. Sandwich courses leading to a Higher National Diploma are available at eight agricultural colleges in England and Wales and there are nearly 50 local authority and other agricultural colleges providing full-time courses on different aspects of agriculture, horticulture, forestry and farm management. A centre for European agricultural studies is based at London University's Wye College at Ashford. In Scotland the three agricultural colleges which provide the advisory services are also teaching establishments, associated with the agricultural departments of the neighbouring universities. They mainly provide sandwich courses leading to Higher and Ordinary National Diplomas, post-diploma courses and certain short courses. In Northern Ireland degree courses in agriculture and food science are provided at Queen's University, Belfast. Courses below this level are provided at three residential colleges run by the Department of Agriculture.

Local education authorities throughout Britain provide full-time, blockrelease, day-release and other part-time courses for farmers, farm workers and horticulturists, as well as an advisory service for domestic producers.

The Agricultural Training Board, established under the Industrial Training Act, provides a training advisory service and organises training courses in agricultural and horticultural subjects. The board pays grants towards the cost of career training for new entrants, for attendance at approved short courses, training groups and schemes of training at places of work for those already engaged in the industry.

RESEARCH, EDUCATION AND TRAINING

Economic and Market Research

Agricultural Education and Training

FISHERIES

The industry falls into three main divisions, concerned respectively with white fish, pelagic fish and shellfish. The major element of the catch (about 89 per cent by weight) is white fish: the catches of pelagic fish comprise about 2 per cent and shellfish 9 per cent of the total catch. The principal white fish (in terms of value) are demersal species which live near the sea bed, such as cod, haddock, plaice, coalfish (saithe), whiting, soles and skate. The pelagic species live mainly in midwater or near the surface: they include herring, sprats and mackerel, of which herring is the most important. Shell-fish include crustacea (such as lobsters, nephrops and crabs) and molluscs (such as escallops, mussels, cockles, queens and oysters).

Britain's exclusive fishing limits were extended to 12 miles in 1964, although a number of states enjoy historic rights allowing them to fish in designated parts of 6–12-mile belt for designated species for which they have traditionally fished. Under the terms of the Common Fisheries Policy of the European Community, vessels registered in member states may also fish within British waters although, by virtue of arrangements embodied in the Treaty of Accession, which are due for revision by 1982, they are currently excluded from all areas within 6 miles and certain areas between 6 and 12 miles.

Fishing Ports The principal fishing ports in England and Wales are Hull, Grimsby, Fleetwood, North Shields, Lowestoft, Brixham, Newlyn and Milford Haven. In Scotland the chief ports for white fish are Aberdeen, Peterhead, Fraserburgh, Lossiemouth, Buckie and Lerwick. Herring landings are made mainly at the east coast port of Fraserburgh, the west coast ports of Stornoway, Ullapool, Mallaig, Oban and Ayr and in the Shetland Islands. In Northern Ireland the main fishing ports are Kilkeel, Portavogie and Ardglass.

> The chief methods of catching fish are by trawling, seining, purse-seining, lining and ring netting. Trawling is carried out in the distant and near waters for all species of demersal fish. Seining is also used for catching demersal fish all the year round, mainly in the North Sea, the Minches, the Firth of Clyde and the Irish Sea.

The pelagic fisheries are seasonal. There is summer fishing for herring based on the Shetlands, the east coast ports of Scotland and the north-east coast ports of England. Other seasonal fisheries take place off the west coast of Scotland, in the Isle of Man area and off southern Ireland and off East Anglia. A mackerel fishery takes place, mainly during the winter, off south-west England.

The inshore fisheries comprise a great diversity of types of vessels and methods of capture; there are extensive fisheries for crabs, lobsters, shrimps, mussels, escallops, cockles and oysters, and, off Scotland, north-east England and in the Irish Sea there are valuable catches of nephrops (Norway lobsters or Dublin Bay prawns).

Distant water trawlers, which operate mainly from Hull, Grimsby and Fleetwood, number about 160. They are 140 feet (42.5 metres) and over in length and most of them make voyages lasting up to 80 days to fishing grounds off Iceland, in the Barents Sea, around Bear Island and off the coasts of Norway and Greenland. Freezer trawlers and factory ships, which spend from one to six months at sea and freeze much or all of their catch, in some cases as fillets, have become an important part of the distant water fleet in recent years and number about 38. There are about 430 Scottish seiners, and about 210

Methods of Sea Fishing

The Fishing Fleet

operating from English ports. Excluding seiners, there are about 200 near and middle water vessels of between 80 and 139 feet (24.5 and 42.5 metres) long and most of them work nearer home, making voyages lasting from a few days up to more than two weeks, although some of the larger vessels fish regularly off the Faroes and seasonally as far afield as Iceland. Included in the near water group are vessels engaged in fishing for herring which normally make daily landings. The inshore group consists of some 2,000 vessels of over 40 feet (12.3 metres) and over 4,000 smaller vessels, many of which do not fish regularly. The majority are seldom at sea for longer than two or three days and more usually make daily landings, often fishing within sight of land, although some seiners operate for up to three weeks in the North Sea.

In the British fishing industry in 1974 there were about 18,000 fishermen in regular employment and some 4,500 occasionally employed; about twofifths of the former and one-third of the latter were from Scottish ports. In Northern Ireland there are about 600 regular fishermen and 200 part-time.

In 1974 landings of all types of fish (excluding salmon and trout) by British fishing vessels totalled 470,000 tons (369,000 tons of demersal fish, 60,000 tons of pelagic and 41,000 tons of shellfish), valued at £88 million. Cod accounted for 43 per cent of the total value of demersal and pelagic fish landed by British vessels; haddock (19 per cent) and plaice (6 per cent) were the other most important sources of earnings to the industry.

Imports of all fresh, frozen and cured fish and shellfish totalled 125,000 tons valued at nearly £58 million. Imports of canned and preserved fish and shell-fish amounted to 64,000 tons valued at nearly £62 million. Imports of fish meal amounted to 195,000 tons, worth £36 million, and those of fish oils to 179,000 tons, worth over £39 million. Exports and re-exports of fish and fish products amounted to 170,000 tons and were worth over £53 million.

Weekly disposals of fresh, frozen and cured fish (excluding shellfish and imported canned fish) in Britain averaged about 14,000 tons landed weight in 1974. Total fish consumption, which has declined from its peak of 28.7 lb. (13 kg.) per head in 1948 on an edible weight basis, was running at a level of approximately 15.3 lb (6.9 kg.) a head in 1974. Home production provided about 85 per cent of supplies.

Processing and packaging of fish are the subject of continuing research and development. The growth of quick-frozen fish production has radically altered the structure of the industry. With the increase in quick-freezing (which now processes just over a quarter of all white fish landings), new export outlets have opened up for white fish, which account for almost half the total exports of fish and fish preparations. Experiments are being carried out in the catching and processing, for human consumption and fish meal, of previously underexploited species of fish of which large stocks are known to exist in the sea adjacent to the British Isles.

A valuable by-product of the industry is the manufacture of fish meal for animal food and, to a much lesser extent, for fertilisers. Home production of white fish meal and herring meal in 1974 was 68,000 tons.

The most valuable freshwater fish are salmon and sea-trout. Sea fishing for salmon is prohibited in a wide area around the British Isles outside exclusive fishery limits. Within the limits drift netting and certain other methods are prohibited off the coast of Scotland but are permitted under licence off England, Wales and Northern Ireland. In Scotland, where salmon fishing is a

Sea Fish Processing

Supplies

Freshwater Fisheries

AGRICULTURE, FISHERIES AND FORESTRY

private right, the main commercial methods are fixed nets on the coast outside estuaries and sweep netting within estuaries and in rivers. Water authority licences are required for the limited amount of estuary and river netting carried out in England and Wales. In England and Wales the landed value of the salmon catch is approximately £600,000 a year, in Scotland it amounts to about £3 million, and in Northern Ireland to some £243,300. In Northern Ireland, eels worth £360,000 were captured in 1974 by long lines and by eel nets placed in river weirs.

Distribution System

The principal method of distribution is through wholesalers, located at the ports, who buy at the auctions and sell to inland wholesalers as well as directly to retail outlets; the port wholesalers prepare the fish for onward shipment. Fish lorries, including insulated and refrigerated vehicles, transport the catch daily from the ports to inland centres, although rail transport is still used from some ports. The principal inland wholesale distributing centre for fish is Billingsgate Market in London, which handles about 180 tons a day, but other large cities also have central fish markets. Retail sales are handled by fishmongers and fish friers; the latter use about a third of the landings of white fish.

Trawler-owning companies have entered into the marketing and distributive system. This process has been encouraged by the growing popularity of quick-frozen consumer packs, which are sold mainly by other retail outlets.

The government departments mainly responsible for the administration of

Promotion and **Regulation** of the Industry

Policy

legislation concerning the fishing industry are the Ministry of Agriculture, Fisheries and Food, the Department of Agriculture and Fisheries for Scotland and the Department of Agriculture for Northern Ireland. The safety and welfare of crews of fishing vessels and other matters common to shipping generally are provided for under the Merchant Shipping Acts administered by the Department of Trade. Research is carried out by the fisheries departments.

Common Fisheries From 1st February 1973 the provisions of the Common Fisheries Policy of the European Community, based on the establishment of a common organisation of the market and a common structural policy, have applied in Britain. The common organisation of the market aims at assisting in the adaptation of supplies to marketing requirements while ensuring, as far as possible, a reasonable return to producers, by means of the establishment of a common grading and price system, and common rules on competition. The responsibility for market organisation is placed largely in the hands of the industry itself through producers' organisations established on the initiative of the industry. Tariff adjustments for intra-Community trade in fish and trade with third countries are following the general agricultural timetable (see p. 293).

The common structural policy covers measures aimed at promoting the harmonious and balanced development of the fishing industry and the rational exploitation of resources. It covers access to waters under the jurisdiction of member states, conservation in coastal waters and common measures for the financing of the improvement of the structure of the fishing industry and the provision of an equitable standard of living for those engaged in it.

The Herring Industry Board The Herring Industry Board was set up to reorganise, develop and regulate the herring industry and consists of a chairman and two other members, all part-time and independent of the industry, who are appointed jointly by the Minister of Agriculture, Fisheries and Food, and the Secretaries of State for

Scotland, Wales and Northern Ireland. The board, whose activities are financed partly by levies and licence fees and partly by government grants and loans, is advised by the Herring Industry Advisory Council, which represents all sections of the industry and consumers.

The functions of the board include the promotion of sales of herring, both at home and abroad, and the application of the benefits of technical progress to the industry, including the adoption of new methods of catching, processing and distributing herring. The board administers the government grant and loan schemes which provide for assistance towards the purchase of new fishing vessels, and the improvement of existing vessels. Fishermen may also obtain loans from the board towards the purchase of second-hand vessels under 80 feet in length and towards the cost of new nets and gear. Up to 31st March 1975 about £5.7 million in loans and £6.9 million in grants had been approved.

The function of the White Fish Authority is to reorganise, develop and regulate the white fish industry, and that of its Committee for Scotland and Northern Ireland is to advise the authority about the exercise and performance of its functions in Scotland and Northern Ireland. The authority is composed of a chairman and six members, and the Scottish and Northern Ireland Committee of five members and a chairman who is a member of the authority; membership is by appropriate ministerial appointment. The White Fish Industry Advisory Council, which represents the various interests of the fishing industry, advises the authority about the exercise and performance of its functions.

The White Fish Authority administers government grant and loan schemes for the purchase of new fishing vessels and engines and the improvement of existing vessels. It administers loans for the purchase of nets and gear and loans are made available to processors, co-operatives, etc., to acquire, recondition or improve facilities. Up to 31st March 1975 about \pounds 43 million in loans and \pounds 52 million in grants had been approved. Its other activities are financed by levies on first-hand sales of most white fish, and a government grant towards research and development. In 1973 the Herring Industry Board and White Fish Authority formed a unified administration for the expected development of fisheries administration under the common fisheries policy.

FORESTRY

The estimated total area of woodland in Great Britain is 4.8 million acres (1.94 million hectares), or about $8\frac{1}{2}$ per cent of the total land area; nearly half of the area is in England, two-fifths in Scotland, the remainder in Wales.

The area of productive forest managed by the Forestry Commission, at 1.98 million acres (0.80 million hectares) represents 41 per cent of the total. The annual rate of productive forest expansion is currently about 45,000 acres (18,000 hectares) by the commission mainly in Scotland, and a similar area by private woodland owners. The commission's programme includes considerable planting in upland areas, and consists mainly of conifers because of the difficult site conditions encountered and because over 90 per cent of industrial demand which the commission is primarily charged with supplying is for softwoods. The major species used are Sitka spruce, Lodgepole pine, Scots pine, Corsican pine and larches. In the older woodlands and taking the country as a whole, the most common coniferous trees are Scots pine, Sitka spruce, Norway spruce and the larches; among the broadleaved, beech and oak occur widely.

The White Fish Authority Total employment in state and private forests was 22,000 in 1974 and a further 11,000 were engaged in the transport and milling of home-grown timber.

Except for the period of the two world wars, when much over-felling took place, home woodlands have until recent years made only a limited contribution to the nation's consumption of wood and wood products, as only some 30 per cent of the commission's woodlands are yet in production. Britain imports 92 per cent of its needs by volume and a higher proportion still by value, the total import cost of wood and wood products including pulp and paper being nearly $\pounds_{1,684}$ million in 1974 of which \pounds_{588} million was for timber imports.

The Forestry Commission is the national forestry authority charged with promoting the interests of forestry, the development of afforestation and the production and supply of timber in Great Britain. The commission consists of a part-time chairman, a full-time director general, three full-time executive commissioners and five part-time commissioners. The commissioners comply with directions given by the forestry ministers, who are the Minister of Agriculture, Fisheries and Food and the Secretaries of State for Scotland and Wales. Northern Ireland has its own separate organisation (see p. 307). New policies, resulting from an earlier forestry review, were announced in 1974. Since 1974 the main objective of forestry in Great Britain, timber production, has taken account of amenity, environmental and employment criteria.

The commission's total estate covers some 3 million acres (1.2 million hectares) and includes 2.2 million acres (0.89 million hectares) of forest land, of which over 1.9 million (0.80 million hectares) are under trees in 250 forests distributed throughout England, Scotland and Wales. All these forests are covered by management plans which provide for such work as planting, road construction, thinning, fire protection and timber production, facilities for public recreation, wildlife conservation and the landscaping of plantations.

Much of the Forestry Commission's new planting in Scotland is in the Highland counties, where poorer types of land, such as sour, peaty soil which is unsuitable for agricultural purposes, are used, having become suitable for forestry as a result of deep ploughing and fertilisation.

As more of its coniferous woods reach the production stage the commission, as managers of the National Forestry Enterprise, has assumed an increasingly important role as a timber seller and has encouraged the setting up of some 20 major new timber-using industries since the mid-1960s.

Production of felled and thinned timber from commission woodlands amounted to 1.6 million cubic metres in 1974–75. Some of this produce is meeting traditional requirements of the coal mines but much is taken by the paper pulp industry, by sawmills and by factories established to make chipboard, fibreboard and wood wool.

Finance

Private

Forestry

The Forestry Fund was constituted under the 1919 Forestry Act; from it is paid all the expenditure of the Forestry Commissioners and into it are paid amounts voted annually by Parliament, together with the commission's receipts from sales of produce, rentals and other sources. In the period ended 31st March 1974 drawings from funds voted by Parliament amounted to £13.5 million, and receipts were £16.9 million.

Privately owned woods comprise nearly 60 per cent of the total forest area in Great Britain and contain most of the mature and semi-mature timber. The size of woodlands in individual ownership ranges from a few acres to several

The Forestry Commission and Forestry Policy

thousand acres, and some 40 per cent of the private woodland area is in small ownerships—that is, owners of up to about 200 acres (80 hectares).

The effective management of private woodlands is encouraged by the provision of grants. In 1974 a single woodlands dedication scheme replaced the three earlier schemes. Under the new arrangements once-for-all planting grants, based on acreage, are made available, in return for which owners accept a continuing obligation to manage their woodlands in accordance with sound forestry practice. There are premium rates of grant for planting hardwoods. The Forestry Commission consults with the agricultural departments and local planning authorities before administering grant aid for private forestry. Woodland owners are represented, in their relations with the Forestry Commission, by the Forestry Committee of Great Britain, which co-ordinates the work of two associations of woodland owners: the Timber Growers' Organisation (for owners in England and Wales) and the Scottish Woodland Owners' Association.

Under the Forestry Act 1967, the Forestry Commissioners have set up for Great Britain the Home Grown Timber Advisory Committee (HGTAC) to advise on certain statutory functions, including promoting the interests of forestry and the production and supply of timber. The HGTAC includes representatives of associations of woodland owners, timber merchants, processors, and other major timber users and the trade unions, under an independent chairman. The HGTAC maintains a technical sub-committee to advise it on subjects such as harvesting, transport and utilisation of homegrown timber.

The Forestry Commissioners also maintain National Committees for England, Scotland and Wales, which act in an advisory capacity, particularly on the social, recreational and amenity aspects of the commissioners' activities and relationships with other land users. The commissioners also maintain a regional advisory committee for each conservancy, whose members represent local amenity and planning interests as well as the forestry industry, and, because of its special nature, a consultative panel for the New Forest.

Forestry education is the responsibility of the education departments. Degree courses in forestry and associated studies are provided at four universities (Aberdeen, Bangor, Edinburgh and Oxford) and supervisory level courses are run at Newton Rigg, near Penrith in Cumbria.

The Forestry Training Council, whose membership is representative of forestry employers (both commission and private) and the trade unions, the education services, the forestry societies and the relevant industrial training boards, makes recommendations to the industry for meeting requirements for training and associated further education, and encourages co-operation at all levels between the agencies and authorities concerned. The Furniture and Timber Industry Training Board is concerned with training for private sector employees in the home timber trade.

Research at the commission's Southern Forest Research Station at Alice Holt Lodge in Surrey is largely concerned with lowland forests, landscaping and amenity problems, and with the study of hardwood trees. Work at the Northern Research Station at Roslin near Edinburgh is linked to the needs of forest management and upland forestry. Expenditure on research work in Great Britain amounted to $\pounds_{1.51}$ million in 1973–74. This sum included grants for special forestry research work to various institutions and to university departments including the Commonwealth Forestry Institute at Oxford,

Advisory Bodies

Forestry Education and Research

AGRICULTURE, FISHERIES AND FORESTRY

which is also financed by the university, the Ministry of Overseas Development and overseas governments. Research into the qualities and uses of homegrown timber is carried out by Princes Risborough Laboratory, and also by grant-aided research associations.

Forestry in Northern Ireland The Department of Agriculture is the forest authority for Northern Ireland. It can acquire and manage land, and give financial and technical assistance to private planting. It has introduced measures for the protection of all woodlands against destruction by over-cutting, fire or depredation by animals.

The state forest area has grown steadily since the end of the second world war. Over 157,000 acres (63,500 hectares) have been acquired, of which over 113,000 acres (45,700 hectares) have been planted.

Financial provision is made by sums voted annually by Parliament and from receipts from forest produce and other sources. About 1,600 people are employed in the state forests. There are also about 36,000 acres (15,000 hectares) of privately owned forests, and private planting is assisted by schemes for the supply of young trees from the department's nurseries at a low cost, by grants towards the cost of the establishment and maintenance of plantations and by free technical advice.

15 Transport and Communications

Transport and communications employed some 1.5 million people in Great Britain in June 1974 and accounted for 6 per cent of the employed labour force. Of these, 449,000 employees were engaged in road passenger transport and road haulage contracting, 220,000 in railways, 434,000 in postal services and telecommunications, 76,000 in port and inland water transport, 86,000 in sea transport, 78,000 in air transport and 140,000 in other transport services and storage. Transport and communications contribute over 9 per cent of the gross national product and are responsible for a rather higher proportion of the nation's gross domestic fixed capital formation.

SEA TRANSPORT

SHIPPING

Of the world's active sea-going tonnage of 100 gross tons¹ and over, some 10 per cent is registered in Britain, making the British merchant fleet, at 31.6 million gross tons, the third largest in active employment after those of Liberia and Japan. The oil tanker fleet, at 15.2 million gross tons, is the world's third largest, and the ore and bulk carrier fleet, at 7.6 million gross tons, the fourth largest. The British fleet has grown steadily, particularly over the last few years; since 1969 it has increased by 32 per cent, much of the new tonnage consisting of purpose-built container, tanker and bulk carrier vessels.

Role of the Government

The Department of Trade is the government department responsible for most matters connected with merchant shipping. Under the Merchant Shipping Acts, it administers many regulations for marine safety and welfare, for instance: certifying the load-line (or Plimsoll line) that shows that a ship is not overloaded; ensuring that standards of safety are observed in ship construction; ensuring the provision of adequate life-saving, fire-fighting and radio equipment; and dealing with the discipline, professional standards, health and accommodation of seamen. Most of the work which these responsibilities entail is carried out by the staff of the Marine Survey and Mercantile Marine Offices at the ports. There is also a Registrar General of Shipping and Seamen, in whose office at Cardiff a complete record of all British ships is kept.

THE MERCHANT FLEET

In July 1974, 29.4 million gross tons of trading vessels of 100 gross tons and over were both owned and registered in Britain.² These ships are usually employed as follows: 5.3 million gross tons as foreign-going passenger and cargo liners, 8.1 million gross tons as foreign-going tramps; 15.2 million gross

¹ One gross ton (g.t.) = 100 cubic feet (2.83 cubic metres). One deadweight ton (d.w.t.) = 1 long ton (2,240 lb. or 1,016 kilogrammes). Gross tonnage indicates the total capacity of the enclosed space on a ship. Deadweight tonnage denotes the maximum load which a vessel can carry before submerging the load-line.

² The remaining tonnage included fishing vessels, tugs, river and estuary craft, Ministry of Defence vessels (mostly tankers) not usually engaged in the commercial carriage of cargo, and shipping registered in Britain but owned in other Commonwealth countries.

tons as foreign-going tankers; and 755,000 gross tons in coasting and trade with ports between the Elbe and Brest (home trades). Rapid technological change in the merchant fleet is reflected in the current composition. Vessels are becoming obsolete over a shorter period and as they do so are being replaced by larger ships, with generally lower building costs per ton. Labour-saving devices and faster turn-round facilities are helping to combat rising costs, while shipowners are paying greater attention to operating vessels at speeds of optimum fuel efficiency following increased fuel costs.

The tendency to greater average size has been most marked in tankers, bulk carriers and container vessels. Tanker size has increased from a maximum of about 20,000 deadweight tons in the early 1950s to nearly 500,000 deadweight tons for the largest ocean-going tankers, but the recent depression in the world tanker market is resulting in a trend towards tankers in the medium tonnage range. Several combined carriers of over 200,000 deadweight tons are now in operation. The largest modern container ships of up to 60,000 gross tons have a capacity of 2,800 containers of 20-foot (6-metre) equivalent units. The growing use of container and roll-on/roll-off vessels has resulted in the safer and quicker carriage of a wide range of goods.

OWNERSHIP

Nearly the whole of the British merchant fleet is privately owned, apart from some ships which are owned and/or operated by nationalised industries as part of their normal commercial operations, one example being British Rail (see p. 316). About two-thirds of the tanker fleet belongs to the oil companies, although there are a few independent tanker operators. British liner tonnage is dominated by a relatively small number of large groups. Some shipowners have delegated the management of their fleets to specialist ship management companies. Several companies are participating in consortia, particularly where heavy investment in ships and facilities is required, as with container and bulk cargo vessels.

TRAFFIC

Almost all Britain's overseas trade by weight, nearly four-fifths by value, is carried by sea. Ships registered in Britain carry 33 per cent by weight, 45 per cent by value, of foreign seaborne trade. Tanker cargoes, mostly imports of crude oil, account for over half seaborne foreign trade by weight but less than one-tenth by value, and foodstuffs and manufactured goods account for over four-fifths by value.

The proportion of passengers travelling to or from Britain by sea is less than one-third, compared with about one-half in the early 1960s. Sea traffic between Britain and the continent of Europe has doubled since the early 1960s, reflecting the growing popularity of motoring holidays, while the number travelling on routes between Britain and countries outside Europe and the Mediterranean has fallen by three-quarters, with the growing competition of air travel.

EMPLOYMENT OF SEAFARERS

There were some 89,000 seamen employed by the merchant fleet in 1971, according to a census of seamen, of whom some 55,000 were domiciled in Britain.

Qualifications and Training

The Department of Trade holds examinations for, and issues certificates of competency to, ship's officers as master, first mate and second mate of foreigngoing ships, or master and mate of home trade ships and as first-class engineer and second-class engineer. Officers may not normally serve on board ships in these grades unless they hold the appropriate, or a higher, certificate.

Radio officers are required to hold certificates of competency in radiotelegraphy issued by the Home Office on the results of an open examination.

A seaman may not be rated an efficient deck hand unless he holds a certificate issued by the Department of Trade. To qualify for this certificate he must be not less than 18 years old, have not less than one year's sea service and pass a Department of Trade examination. To become rated as able seaman a seaman must have served at least three years at sea on deck. Seamen qualify by seniority and efficiency for promotion to the rating of petty officer. Service as a deck rating qualifies for the purpose of admission to the examination for a second mate's foreign-going or home trade mate's certificate.

There are some 50 establishments providing full-time vocational training for seafarers. Most deck and catering junior ratings are trained at the National Sea Training School at Gravesend, Kent, claimed to be the world's largest and most modern ratings' establishment. It trains some 2,000 ratings a year. The Merchant Navy Training Board promotes the instruction and studies of apprentices, cadets and ratings who are preparing for their examinations for the various certificates of competency.

Wages and conditions of employment of the majority of seafarers are nego-**Conditions** of tiated by the National Maritime Board, composed of equal numbers of Employment representatives of the General Council of British Shipping and seafarers' trade unions. Most officers and ratings are registered with the Merchant Navy Establishment Administration. Minimum wages and holidays with pay are guaranteed for both officers and ratings. The Merchant Navy Established Service Scheme, introduced in 1947, removed a great deal of the uncertainty formerly associated with a seafaring life. Under the latest scheme seafarers are employed either as 'registered seafarers' or they may enter into a company service contract, for a minimum of one year, for employment on the ships of a particular company. Registered seafarers receive special benefits between voyages in addition to the normal state benefits. The benefits paid to company service contract seafarers must be at least equivalent to those paid to registered seafarers.

SHIPPING ORGANISATIONS The main organisations concerned with the activities, interests and common problems of the industry are as follows:

Lloyd's Register of Shipping by 378) which surveys and classifies ships with particular regard to their safety and operational efficiency. It accepts responsibility for surveying and giving technical advice on vessels of all flags from the initial stages of building, at regular intervals during their service, and after casualties.

Shipowners' and Shippers' Organisations The representative body speaking for shipowners generally (excluding, for the most part, owners of fishing vessels) is the General Council of British Shipping which became fully operative on 1st March 1975 as a result of the merger of the Chamber of Shipping of the United Kingdom and the British Shipping Federation. Other organisations represent companies specialising in a particular trade or type of cargo.

The British Shippers' Council, formed in 1955, represents the shipping interests of exporters and importers in matters of both national and international concern.

Conferences British shipping companies operating liners have associated with each other and with the companies of other countries operating on the same routes in a

series of 'conferences' designed to secure standardisation and stability of rates, and to maintain frequency and regularity of services. The essential principle of a conference is the establishment of a common tariff of freight rates or passenger fares from each port of departure. Each conference meets from time to time to review and revise existing rates and practices. There are about 100 conferences dealing with trade to and from Britain.

The Baltic Exchange The Baltic Mercantile and Shipping Exchange, which originated in one of London's seventeenth-century coffee houses, is the world's largest market for the chartering of ships of all nationalities. Shipbrokers and merchants' representatives meet there to arrange the chartering of dry-cargo tramp ships for the carriage of goods to and from all parts of the world. In addition sale and purchase of ships, chartering of aircraft and trade in certain commodities are carried on there.

SAFETY AT SEA The Department of Trade's responsibilities for safety include administration of the Coastguard Service, and certain administrative functions concerning lighthouses and pilotage. The department makes regulations to ensure safety of navigation and conducts inquiries into shipping casualties and accidents.

Sea Rescue The Coastguard Service co-ordinates search and rescue measures for vessels in distress off the coasts of Britain, and gives direct assistance where appropriate. There are some 600 regular coastguards and about 8,000 part-time auxiliary coastguards. Constant watch is maintained all the year round at certain main stations and where necessary at a number of others. During 1974 life-saving action was taken on 5,572 occasions.

The Coastguard Service calls upon shipping, the lifeboats of the Royal National Life-boat Institution, and Service aircraft to assist as necessary. It may call upon the services of long-range civilian helicopters based at Aberdeen and Sumburgh (Shetland). The Royal National Life-boat Institution is supported entirely by voluntary contributions, and depends for its operation on voluntary workers. From its foundation in 1824 to the end of 1974 it saved 99,819 lives. Lifeboats were launched 2,890 times in 1974 and rescued 1,351 people.

Lighthouses

The general lighthouse authority for England and Wales, the Channel Islands and Gibraltar is the Corporation of Trinity House, which received its first Royal Charter in the sixteenth century and is administered by a board of Elder Brethren elected from the Royal Navy and the Merchant Navy. Lighthouses in Scotland and Ireland are the responsibility respectively of the Northern Lighthouse Board and the Commissioners of Irish Lights. These authorities control about 180 lighthouses, many minor lights and buoys, and a number of lightships, some of which are being replaced by unattended sea marks or by light towers.

Pilotage

Trinity House is the chief pilotage authority, licensing some 725 pilots in 41 districts in England and Wales, including London, Southampton and Milford Haven. In some cases the harbour authority or local council is the pilotage authority. In Britain there are 45 pilotage authorities for the 90 pilotage districts and over 1,600 licensed pilots.

Traffic
ControlThe first traffic separation scheme adopted by the Inter-Governmental Mari-
time Consultative Organisation (IMCO—a United Nations agency with

headquarters in London) was introduced in the Dover Strait, one of the world's most congested seaways, on a voluntary basis in 1967. It was revised, extended and made mandatory in 1972, and now stretches from the Greenwich meridian in the Channel as far as other separation schemes operating in the southern North Sea. It consists of inshore traffic zones on each side of the Channel for coastal shipping, and main traffic lanes in the centre. Britain and France operate radar surveillance services which keep watch on ships not conforming to the traffic separation scheme and broadcast navigational information to ships in the Dover Strait. The two countries have joint plans to develop these services with the establishment of further radar stations in the Dover Strait area.

The discharge of oil into British territorial waters was first restricted in 1922. **POLLUTION OF** Britain is a party to the International Convention for the Prevention of the Pollution of the Sea by Oil 1954. Amendments to the convention agreed upon in 1969 prohibit the discharge of persistent oil or mixtures containing any oil anywhere at sea except at a rate which has been shown not to cause harmful pollution; no oil whatever may be discharged from cargo spaces of tankers within 50 miles (80 kilometres) of land. Britain enforces these restrictions on British registered ships through the Prevention of Oil Pollution Act 1971, administered by the Department of Trade. The International Convention for the Prevention of Pollution from Ships 1973, concluded in London, will eventually supersede the 1954 convention.

Dumping at sea is controlled by the Ministry of Agriculture, Fisheries and Food and the appropriate departments in Scotland and Northern Ireland, through the Dumping at Sea Act 1974 which gave statutory backing to voluntary arrangements which had been operated for several years. Under the Act dumping is prohibited unless a licence has been obtained from the appropriate department.

There are some 250 port authorities or public wharf operators in Britain, and about 800 other undertakings engaged in various harbour operations, such as stevedoring, towage, warehousing and lighterage. Port authorities are of four main types: nationalised bodies, public trusts, local authorities and statutory companies. The Government intends that all commercial ports and cargohandling facilities should eventually be brought under public ownership and control; this would involve the establishment of a new National Ports Authority to exercise essential central controlling functions.

Ports run by nationalised undertakings represent over a quarter of total capacity, the majority including Southampton, Hull, Immingham, Newport, Cardiff and Swansea, being owned by the British Transport Docks Board. In 1974 shipping arrivals and departures at the board's docks totalled 136.3 million net registered tons (including fishing vessels) and total cargo handled was 84.8 million tonnes. The British Railways Board controls certain ports, which are largely used for the cross-Channel services of the railways (for example, Folkestone, Holyhead, Heysham, Stranraer and Parkeston Quay at Harwich) while the British Waterways Board owns Sharpness (Gloucester) and Weston Point (Manchester).

The constitutions of public trust port authorities vary considerably. Traditionally they consist of representatives of shippers, importers, exporters, shipping companies, local authorities and trade unions. Examples of such public trusts are the Port of London Authority, the Tees and Hartlepool Port Authority, and the Belfast Harbour Commissioners. The reconstitution of a number of port trusts is in progress. The main features are fewer members, a

THE SEA

PORTS

greater proportion of executive members and the appointment of non-executive members by the Government. Local authorities own about one-third of Britain's ports, including Bristol, Preston and Sunderland. Port undertakings owned by statutory companies include Manchester, Liverpool and Felixstowe. Many private ports deal with the traffic of individual industrial firms in commodities such as petroleum, china clay and paper pulp.

Port authorities, in the main, operate with statutory powers and responsibilities set out in private Acts of Parliament. Most are members of the British Ports Association which aims to further the common interests of port authorities in their relations with the Government, shipowners and traders.

National Ports Council

The National Ports Council, set up as a statutory body under the Harbours Act 1964, is financed by a levy on port authorities. It advises the Government on major port developments and has various responsibilities in relation to research, training, statistics and charges. It has encouraged the amalgamation of harbour authorities in certain estuaries into single port authorities, as on the Forth, Clyde and Tees.

Port Traffic

Over 360 million tonnes of cargo a year pass through the ports of Great Britain. Of this total, coastal traffic accounts for over 100 million tonnes consisting mainly of petroleum and coal. Of nearly 211 million tonnes of imports from overseas some 127 million tonnes consist of petroleum and petroleum products. Manufactured goods form over one-third of exports.

A large proportion of the general cargo traffic through British ports is handled by unitised transport methods in containers and roll-on goods vehicles, which carried 30 million tonnes of goods in 1974. London, Southampton, Felixstowe, Dover and Hull all handled large amounts.

Principal Ports London is Britain's largest port for non-fuel traffic. In 1974, 46 million tonnes of goods were handled, including 24.6 million tonnes of petroleum. South-ampton is Britain's second seaport by value of trade, the chief port for ocean passenger traffic and the main trading port on the south coast. In 1974 it handled 27.5 million tonnes of goods. It has the advantages of deep water and double tides. Medway is an important port for petroleum and petroleum products. Some of the ports in the South East and East Anglia, particularly Dover, Felixstowe and Harwich, are growing rapidly with modern facilities especially for roll-on/roll-off and container traffic. Dover is Britain's leading port for passengers and roll-on/roll-off traffic.

Liverpool is a very important export outlet, especially to countries outside Europe and the Mediterranean. The inland port of Manchester, reached from the Mersey via the 36-mile (58-kilometre) Manchester Ship Canal, exports manufactured goods and chemicals.

The port of Tees and Hartlepool handles petroleum products, chemicals, iron and steel, and iron ore. The port of Tyne and some other north-east coast ports, such as Blyth and Sunderland, have an important outward trade in coal. Grimsby and Hull are Britain's two main fishing ports; with Immingham they also serve the industrial areas of northern England and the Midlands, especially in trade with Scandinavian and Baltic ports. Immingham handles imports of iron ore and crude oil and exports of coal and petroleum products.

Milford Haven, handling 59 million tonnes a year, is Britain's major oil port and now Britain's leading seaport in terms of tonnage handled. Much of the traffic through the other south Wales ports is connected with the local steel industry—imports of iron ore and exports of iron and steel, and tinplate.

In Scotland the principal port facilities serving the central industrial area are Greenock (handling particularly containers and raw sugar) and Glasgow (iron ore and grain) on the Clyde, and Grangemouth (containers and timber) and Leith (grain and whisky) on the Forth. The Clyde also has a major crude oil terminal at Finnart. Aberdeen is Britain's third largest fishing port.

Belfast is the principal port of Northern Ireland and with Larne handles the main traffic across the Irish Sea.

Most of the oil tankers coming to Britain to discharge crude oil are berthed at special tanker terminals owned and operated by the oil companies to serve their own refineries.

British ports offer the deepest water access in Northern Europe for fully laden tankers to pipe crude oil direct to refineries. Milford Haven can accommodate fully laden vessels of up to 275,000 deadweight tons on all tides at five private oil company terminals. Finnart on the Clyde will accept vessels of 325,000 deadweight tons; it is frequently used in lightening operations to allow part-laden vessels to proceed with shallower draft to other ports in Northern Europe. At Tetney Haven off the mouth of the Humber, fully laden tankers discharge at Britain's first offshore mooring monobuoy, a large buoy anchored in deep water with a connecting pipeline to the shore. A single-buoy deep-water mooring is under construction at Amlwch, Gwynedd, to accommodate the largest tankers afloat or projected. With the development of oilfields in the North Sea, major new terminals for handling crude oil for export are being provided on the Tees, at Hound Point on the Forth, Scapa Flow in Orkney and Sullom Voe in Shetland.

Development

Large-scale modernisation of the port transport industry has been taking place in recent years, as a result both of the increase in Britain's trade, especially with other European countries, and of technological changes affecting seagoing traffic. The growing size of tankers and bulk carriers has necessitated more deep-water berths, while development of mechanical handling methods, packaging of general cargo, containers and 'roll-on/roll off' services has created a demand for new types of port facilities.

A major development at Tilbury, Port of London, costing £30 million over a number of years, has provided 12 deep-water berths, four of them for container traffic, and a riverside grain terminal. Another major scheme has been the construction of the £,50 million Royal Seaforth dock complex at Liverpool which provides ten deep-water berths including four container berths, a grain terminal and refrigerated meat berth, and two timber berths. A new dock under construction at Bristol at a cost of some £28 million will provide six berths and have the largest entrance lock in Britain; it is due to open in 1976. Container facilities have been expanded at a cost of some £14 million for the Far East traffic at Southampton and new facilities are being built to accommodate the container service to South Africa, due to start in 1977. Deep-sea container facilities have also been constructed at Felixstowe, the Clyde, and Manchester. At Hull a major extension of roll-on/roll-off facilities was completed in 1974. In Northern Ireland an expansion scheme at Warrenpoint, providing new container and roll-on/roll-off facilities, was completed in 1975. Modern ore terminals have been built at Port Talbot, Redcar and Immingham and another is planned at Hunterston on the Clyde.

Port developments in connection with the exploration for, and production of, offshore oil and gas are mainly in Scotland. Supply bases for offshore vessels have been or are being built at Leith, Dundee, Montrose, Aberdeen,

Peterhead, Lyness (Orkney), and Lerwick and Sandwick in Shetland. Facilities have been developed at Leith, Invergordon and Immingham for handling steel pipe and coating materials for submarine pipelines. Three new harbour authorities have been established, partly to provide for the development of facilities for offshore activities, for the Cromarty Firth, Orkney and Shetland.

Labour

About 70,000 people are employed in Britain's port transport industry; of these, 34,600 dockers, responsible for the physical and mechanical handling of cargo, were registered with the National Dock Labour Board at the end of 1974.

The system of casual labour common among dock workers in the past has gradually been superseded. In 1947 the National Dock Labour Board was established to administer the Dock Workers Employment Scheme under which registered dock workers received a minimum wage for attendance even when no work was available. In 1967 each registered dock worker was placed in employment on a permanent basis with an employer licensed by the port authority, under the provisions of the Docks and Harbours Act 1966. Port authorities are becoming more involved in cargo-handling and by the end of 1974 employed over half the registered dock workers. The Government is proposing to extend the Dock Workers Employment Scheme so that it will cover all significant cargo-handling activities at ports and wharves.

HOVERCRAFT

The hovercraft, a vehicle which rides on a cushion of air over both land and water surfaces, was invented in Britain and has been in regular public passenger service around the coasts of Britain since 1965. Services are run by several privately owned firms including Hoverlloyd Ltd., which has a purpose-built hoverport at Pegwell Bay in connection with its car and passenger ferries between Ramsgate and Calais, and Hovertravel Ltd., which operates across the Solent to the Isle of Wight and has a subsidiary which does training and charter work. Two publicly owned bodies, the British Railways Board and the Scottish Transport Group, have hovercraft interests. British Rail's subsidiary, British Rail Hovercraft Ltd. ('Seaspeed'), was set up in 1966, and is the world's largest commercial hovercraft operator. It runs regular services across the Channel between Dover and Boulogne, and Dover and Calais, carrying passengers and accompanied cars. It also operates two services across the Solent, and takes on charter work.

INLAND TRANSPORT

The passenger and freight traffic of Great Britain is carried mainly by road. However, rail, coastal shipping and, to a lesser extent, pipelines and inland waterways are important in carrying certain types of freight, particularly bulk goods. In 1974 about 65 per cent of freight, in terms of ton-mileage,¹ travelled by road, 17 per cent by rail, 15 per cent by coastal shipping, and 3 per cent by pipeline and inland waterway.

Part of the inland transport system of Great Britain is publicly owned: the railways, a large proportion of road passenger and some road haulage services, most of the inland waterways and some of the vessels on them. Road haulage is largely, and coastal shipping almost entirely, in the hands of private enterprise.

¹ Ton-mileage is calculated by multiplying the tonnage carried by the actual distance it is transported.

In the third quarter of 1974 there were 17.2 million vehicles licensed for use on the roads. Of these 13.6 million were motor cars, one million motor cycles, scooters and mopeds and 1.8 million road goods vehicles; about two-thirds of the 79,000 public road passenger vehicles (excluding taxis) were publicly owned. Private ownership of cars has been growing rapidly for many years and the car is now the most popular form of travel within Great Britain.

RAILWAYS

The railways first came under government direction during the first world war, and afterwards some 130 private companies were amalgamated into four large regional groups under the Railways Act 1921. Thereafter they suffered from the prolonged industrial depression and growing competition from road transport, and following the second world war the Transport Act 1947 brought the railways in Great Britain under public ownership as a single enterprise, British Railways. Under the Transport Act 1962 the British Railways Board was set up and came into existence in 1963 with sole responsibility for managing railway affairs.

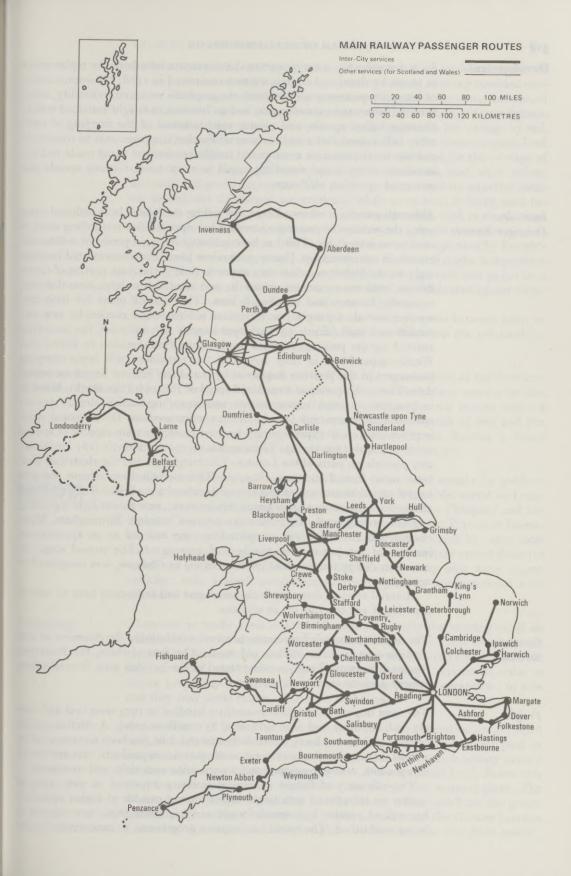
The Transport Act 1968 reduced the board's capital debt and introduced a system of grants to support individual unremunerative passenger services which the Government considered necessary for social or economic reasons. Following a comprehensive review of railway policy by the board and the Government, completed in 1973, the Government decided to retain and improve the railway network at roughly its present size. Under the Railways Act 1974 the system of specific grants was replaced by a new general scheme of government compensation to the British Railways Board for operating the railway passenger network from 1st January 1975; the Act also reduced the board's capital debt and increased its borrowing powers.

Operations In 1974 the railway network operated by British Rail amounted to 11,289 route-miles (18,168 kilometres) of which 2,266 miles (3,647 kilometres) were electrified. A total of 733 million passenger journeys was made and 175 million tons of freight traffic carried by rail. Total railway receipts amounted to \pounds 622 million (excluding grants). The board made a loss of \pounds 157.8 million following interest payments of \pounds 71.9 million. Capital expenditure amounted to about \pounds 129 million. At the end of 1974 it employed 255,900 people and operated 3,619 diesel and 352 electric locomotives, 3,427 diesel and 7,156 electric passenger multiple-unit vehicles, 7,154 passenger carriages and a fleet of 241,400 freight vehicles. Several companies also own or lease rolling stock.

Subsidiaries

In 1974 British Transport Hotels Ltd. owned 30 hotels of which it managed 29. It controls Travellers-Fare, responsible for catering facilities on trains and at stations. British Rail's Shipping and International Services division, which carries more sea-going passengers than any other fleet in the world, operated a fleet of 63 vessels in 1974, providing passenger and freight services on most of the important routes between Britain and the Irish Republic and on the shortsea routes to the continent of Europe, as well as on some domestic routes. British Rail Hovercraft Ltd. runs hovercraft services (see p. 315). In 1974 British Rail Engineering Ltd. had 14 main workshops, employing about 33,700 people, mostly on the repair and construction of British locomotives, rolling stock and containers, although some manufacturing work is done for export.

The Railway Technical Centre at Derby employs about 2,000 people and controls a comprehensive research and development programme costing over $\pounds 5$ million a year, part of which is met by direct government grants.



Development

In recent years the most important developments have been the replacement of steam by diesel and electric traction completed in 1968; the improvement of inter-city passenger services with the emphasis on speed, reliability, comfort and better train connections; and an increase in freight trainload traffic, allowing higher speeds, and greater mechanisation in the carrying of coal, other bulk commodities and containers. Further improvements to commuter and inter-city passenger services and freight services are being made and the standards of track and signalling raised to allow faster running speeds and improved operating efficiency.

Inter-city Passenger Services

Although passenger route-mileage and rolling stock have been reduced since 1963, the number of passenger journeys has declined less and rolling stock is used more intensively. This has been achieved during a period of substantial growth in car ownership. Passenger services have been concentrated increasingly on the high-speed inter-city network, linking the main centres of Great Britain, and on commuter routes in and around the large conurbations, especially London and the South East. The board's plans for inter-city services include a programme to replace old passenger coaches by new airconditioned stock. Some 59 'high speed trains' are on order; the prototype entered regular passenger service on the route from London to Bristol and Weston-super-Mare in May 1975 and the remainder will begin carrying passengers in the Western Region in 1976 and the Eastern Region at a later date. They will operate at a sustained speed of 125 mph (201 km/h). Work is in progress on track improvements and signalling, which already permit speeds of up to 100 mph (161 km/h) in certain sections. Development work is proceeding on an experimental advanced passenger train capable of speeds up to 155 mph (250 km/h). Train speeds of up to 100 mph (161 km/h) are also possible on parts of the London-Edinburgh line and the electrified west coast route from London to Glasgow. This electrification scheme was the largest capital investment project ever undertaken by the British Railways Board and included station reconstruction, bridgeworks, new colour-light signalling and new rolling stock. The first stage between London, Birmingham, Manchester and Liverpool was completed in 1967 and led to an approximate increase of 150 per cent in numbers of passengers. The second stage, an extension of 235 route-miles (378 kilometres) to Glasgow, was completed in 1974.

Motorail services (carrying both passengers and their cars) have an annual capacity of 135,000 cars on 40 services.

Commuter Services

Freight

The board's proposals for commuter services include the development of new multiple-unit trains to replace old stock. The first of these, the Prototype Electro-Pneumatic Train, is being tested in the London area. Several urban railway projects are in progress (see p. 321).

The most important freight commodities handled in 1974 were coal and coke (87 million tons) and iron and steel (31 million tons). A decline in the carriage of these products, particularly coal and coke, has been accompanied by a small increase in other traffic, especially petroleum products, cars and motor components, refuse, roadstone and construction materials, and containers.

The efficiency of freight operations is being improved as new types of wagon are introduced with larger capacities and capable of higher speeds; a network of regular high-speed freight services using these new wagons is being established. The board has begun a programme to concentrate freight

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traffic at fewer and better equipped and sited marshalling yards and terminals. A computer-based total operations processing system, allowing constant control of all consignments and freight train and wagon movements, introduced in south-west England in 1973 has been extended to the whole of Great Britain. The board is concentrating on traffic particularly suitable for carriage by rail, especially long-distance and bulk trainload traffic, often between specialised company terminals. Long-term contracts are in operation for the carriage of cars, oil, china clay, milk, newspapers, grain, chemicals, coal, steel, refuse, and sand and gravel aggregates. The 'merry-go-round' system, whereby trains are loaded and discharged automatically while in motion, is being used increasingly where there are heavy flows of mineral traffic, such as the carriage of coal to power stations and iron ore to steelworks. Express container services are growing in importance. The freightliner services are operated by Freightliners Ltd., a company jointly owned by the National Freight Corporation (see p. 321) and the British Railways Board (with 51 per cent and 49 per cent of the shares respectively) and serve a network of terminals throughout Great Britain, with connections to the continent of Europe.

Discussions initiated by the Government are in progress between many of Britain's largest firms and the British Railways Board on the potential for transferring freight to the railways.

The Northern Ireland Railways Company Ltd., a subsidiary of the Northern Northern Ireland Ireland Transport Holding Company, operates the railway service on 200 miles (322 kilometres) of track. Improvements to the rail system under a modernisation scheme involve the re-opening of a stretch of line and the introduction of new rolling stock. The Belfast Central Railway is being rebuilt for passenger traffic and should be open by late 1975.

> Public road passenger transport in Britain is provided mainly by publicly owned operators but partly by private firms. In the public sector in Great Britain 25,000 vehicles are operated by the National Bus Company and the Scottish Transport Group, 11,000 by the seven Passenger Transport Executives, 6,700 by the London Transport Executive and 6,000 by other local authority undertakings. There are more than 5,000 privately owned fleets (of which the majority have fewer than five vehicles) comprising some 25,000 vehicles; only a small proportion of these operators are concerned with scheduled bus services.

There are 11 traffic areas in Great Britain each under the jurisdiction of an Licensing independent body of three traffic commissioners. The commissioners are responsible for ensuring the fitness of vehicles used to carry passengers for hire or reward, and for licensing public road passenger services in order to secure proper co-ordination and to avoid unnecessary competition; to this end they may settle routes, timetables and fares.

A new system of grants for local transport came into operation on 1st April 1975 in England and Wales, replacing a number of grants previously paid on specific services at varying rates. A block grant is paid to each county council on expenditure on local transport services above a certain level. Below this level transport expenditure qualifies for the normal rate support grant. The Department of the Environment and the Welsh Office distribute the grants following the annual submission by county councils and the Greater London Council of their five-year transport plans. In Scotland the new grant system,

Railways in

PUBLIC PASSENGER TRANSPORT

Grants

which came into operation on 16th May 1975, is based on an extension of the rate support grant.

In addition, grants at the rate of 50 per cent are available towards the cost of new buses complying with specifications approved by the Department of the Environment. The Government also makes grants to offset the duty charged on fuel used on local bus services.

Publicly Owned Bodies

Passenger Transport Authorities

London Transport

The London Transport System The National Bus Company operates in England and Wales through locally based subsidiaries such as the Western National Omnibus Company, Ribble Motor Services Ltd. and Crosville Motor Services Ltd. At the end of 1974 it owned some 20,500 vehicles and employed 69,600 people. In 1974 passenger journeys on the company's buses amounted to 2,200 million.

The Scottish Transport Group operates bus services in Scotland and shipping services on the Clyde and to the Western Isles. It has 4,500 vehicles.

In Northern Ireland almost all road passenger services are provided by subsidiaries of the Northern Ireland Transport Holding Company. Citybus Ltd. operates services in the city of Belfast and Ulsterbus Ltd. operates most of the services in the rest of Northern Ireland. These companies have 305 and 977 vehicles respectively.

The Transport Act 1968 enables Passenger Transport Authorities (PTAs) to be set up to control and co-ordinate the different forms of transport in any particular area. PTAs have been set up in England and Wales in the conurbations of Greater Manchester, Merseyside, West Midlands, Tyne and Wear, South Yorkshire and West Yorkshire, and in Scotland in Greater Glasgow. In each case in England the PTA is the metropolitan county council, which is also responsible for land use policy and transport matters in general; in Scotland the Strathclyde Regional Council is the PTA although the passenger transport area does not cover all of the region. The PTAs are responsible for policy as a whole, and appoint professional Passenger Transport Executives (PTEs) to be responsible for day-to-day management and operations. The PTEs operate the former municipal passenger transport undertakings in their areas and are responsible for reaching agreements with the British Railways Board concerning the provision of such services as are considered necessary by the PTAs. Several similar agreements have been reached with other bodies, including National Bus Company subsidiaries.

The Greater London Council (GLC) is the transport planning authority for London as a whole and is responsible for the central bus and Underground rail services, managed and operated by the London Transport Executive which is appointed by the GLC. The buses serving areas around London and the long-distance Green Line coach services are run by London Country Bus Services Ltd., a subsidiary of the National Bus Company. Some 10,400 taxicabs that ply for hire in the streets are privately operated by companies or owner-drivers and are licensed annually by the Metropolitan Police. There are about 15,200 licensed cab drivers. In addition, numerous car-hire firms are in operation.

London Transport's railway network stretches 22 miles (35 kilometres) from north to south and 35 miles (56 kilometres) from east to west. In January 1975 the total length of the railway over which London Transport trains operated was 252 miles (406 kilometres), of which 99 miles (159 kilometres) were underground. London Transport trains serve 279 stations and its buses travel

over 1,732 miles (2,787 kilometres) of roads. To carry traffic over all this area London Transport owns 4,318 railway cars and 6,735 buses. The total staff employed is over 56,500.

London Transport is engaged on a 20-year modernisation programme for the Underground. Improvements planned include an extension of automatic ticket issue and control and the introduction of new signalling and train control techniques. Work is in progress on the construction of the first stage of the new Fleet line, which is projected to link north-west and central London, and on a scheme to extend the Piccadilly line to Heathrow airport the section to Hatton Cross was opened in July 1975 and the extension should be completed in 1977.

One-man operation of buses is being steadily extended over a period of years although certain heavily used routes in central London will continue to be operated by two-man crews. The first one-man-operated double decker buses were introduced in 1969; some 1,363 of these buses are in service.

London Transport operates an international advisory service for city transport.

Development

Improvements to public transport services and passenger facilities are being undertaken in many areas of Britain. Express and/or limited-stop bus services, which have been a feature of some areas for many years, have been introduced in several towns and cities. 'Park and ride' bus services are providing services between large suburban car parks and the centres of several towns including Leicester, Mansfield, Norwich and Oxford. 'Dial-a-bus' services, which pick up passengers as a result of a telephone call to a central control point, are being evaluated in a number of areas including Harlow (where the largest and most advanced experiment of its kind in Europe is being carried out).

In Greater Glasgow two major rail projects are being undertaken by the PTE. A £12 million scheme for the modernisation of Glasgow's underground system includes provision for new rolling stock, track and signalling equipment; station improvements; and interchange facilities. Work is in progress and should be completed by 1977-78. A f, 15 million scheme for the reopening and electrification of Glasgow's central low-level line, the major part of the 'Clyderail' scheme, is designed to improve access to the centre of Glasgow and integrate rail services on the north and south banks of the Clyde. On Merseyside a £14 million scheme, due for completion in 1976, will provide an extension of the Mersey underground railway in central Liverpool and an fii million scheme to provide an underground link between Liverpool's main railway stations will be completed in 1977. A light rapid transit system under construction on Tyneside involves the electrification of two suburban railway lines, linked by new tunnels under Newcastle upon Tyne and Gateshead, and a new bridge over the Tyne. The system, which should be operating in 1980, will be 34 miles (55 kilometres) long with 46 stations. The project is the largest provincial urban transport scheme to have been prepared in Britain in the twentieth century.

ROAD HAULAGE

There are some 140,000 operators in the road haulage industry. Many are small firms, the average size of a vehicle fleet being only about four. Most of the industry is privately owned, but the biggest operator in Great Britain is the National Freight Corporation (NFC), a public corporation established under the Transport Act 1968 to operate road and intermodal freight services. Its turnover amounted to $\pounds 264$ million in 1974 and at the end of 1974 it had 49,400 employees and owned or leased 23,700 vehicles, 19,800 trailers and

12,000 containers and demountable bodies. The Government's policy is to extend public ownership in the road haulage industry. Public haulage (private road hauliers and the NFC carrying other firms' goods) accounts for 64 per cent of freight carried in Great Britain in terms of ton-mileage. In Northern Ireland the biggest operator is Northern Ireland Carriers Ltd., owned jointly by the Northern Ireland Transport Holding Company and the NFC.

Licensing and Other Controls Under the Transport Act 1968 those operating vehicles of over $3\frac{1}{2}$ tons gross weight (with certain special exemptions) require an operator's licence, obtained on showing good repute and ability to maintain vehicles properly and control loading and hours worked by drivers. It may also be necessary to demonstrate adequate financial resources for compliance with these conditions. Over 1 million goods vehicles not exceeding $3\frac{1}{2}$ tons gross laden weight are exempt from operators' licensing.

Regulations control the emission of smoke and noise by lorries and the carriage of dangerous goods by road. There are limits on the hours worked by drivers of goods vehicles. European Community rules, limiting driving in general to eight hours a day and 48 hours in any seven consecutive days, apply to drivers of goods vehicles over $3\frac{1}{2}$ tonnes gross weight on international journeys. Journeys entirely within Britain are due to become subject to these rules on 1st January 1976. European Community legislation also requires commercial vehicles to be fitted with a tachograph, an instrument which automatically records driving hours and a vehicle's speed and distance covered. In Britain a tachograph is due to become a required fitting on most goods vehicles over $3\frac{1}{2}$ tonnes gross weight, from 1st January 1976 for new vehicles and those carrying dangerous goods, and from 1st January 1978 for other vehicles.

There are three main categories of road in Great Britain: trunk roads (including motorways), classified roads and unclassified roads. Trunk roads form a national strategic network linking industrial areas, centres of population and ports. Motorways are roads specially designed for high-speed traffic only.

The Government's road programme is intended to complete a network of routes of high quality linking the major centres of population with the most important ports and airports, by the construction of new roads and improvement of existing roads. About 1,800 miles (2,897 kilometres) of these routes are in use in England and Wales and a further 1,300 miles (2,092 kilometres) should be completed by the early 1980s. The Government is generally opposed to the building of new urban motorways because of their environmental impact and high cost, although in exceptional circumstances their construction may be required. In Scotland the highest priority in the road programme is being given to oil-related road developments.

In mid-1975 Great Britain had about 214,600 miles (345,400 kilometres) of public highway. There were 9,600 miles (15,450 kilometres) of trunk roads, of which 1,190 miles (1,915 kilometres) were motorways; 20,500 miles (33,000 kilometres) of principal roads, of which some 58 miles (93 kilometres) were motorways; and 184,500 miles (297,000 kilometres) of other roads, including unsurfaced roads.

In Northern Ireland in mid-1975 there were 14,406 miles (23,184 kilometres) of public roads comprising 390 miles (628 kilometres) of trunk roads, 1,033 miles (1,662 kilometres) of Class I roads, 1,759 miles (2,831 kilometres) of Class II roads, 2,940 miles (4,731 kilometres) of Class III roads and 8,284 miles (13,332 kilometres) of unclassified roads.

ROADS

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Motorways and Trunk Roads At the end of March 1975 in England 1,066 miles (1,716 kilometres) of trunk motorways had been opened for traffic and construction had started on a further 174 miles (280 kilometres). There were some 55 miles (89 kilometres) of local authority motorway in use and a further 11 miles (18 kilometres) under construction. In Wales 27 miles (43 kilometres) of trunk motorway were in use and 13 miles (21 kilometres) under construction. In Scotland about 109 miles (175 kilometres) of trunk and local authority motorway had been opened and construction had started on a further 15 miles (24 kilometres). About 61 miles (98 kilometres) of motorway were in use in Northern Ireland. (See map on p. 324.)

Bridges and Tunnels

A large programme of bridge and tunnel building has been undertaken in recent years. Modern bridges include the suspension bridge across the Firth of Forth and the Severn Bridge, both incorporating major advances in suspension bridge design, and a \pounds 10 million continuous steel box-girder bridge across the river Clyde at Erskine. A bridge across the river Humber, with a span of 4,626 feet (1,410 metres)—longer than any existing bridge span in the world—is to be completed in 1977.

Among major recent tunnel schemes has been the second Mersey crossing of which the first twin tunnel was opened in 1971 and the second in 1974. A second crossing of the Thames at Dartford, Kent, is under construction and should be completed in 1977.

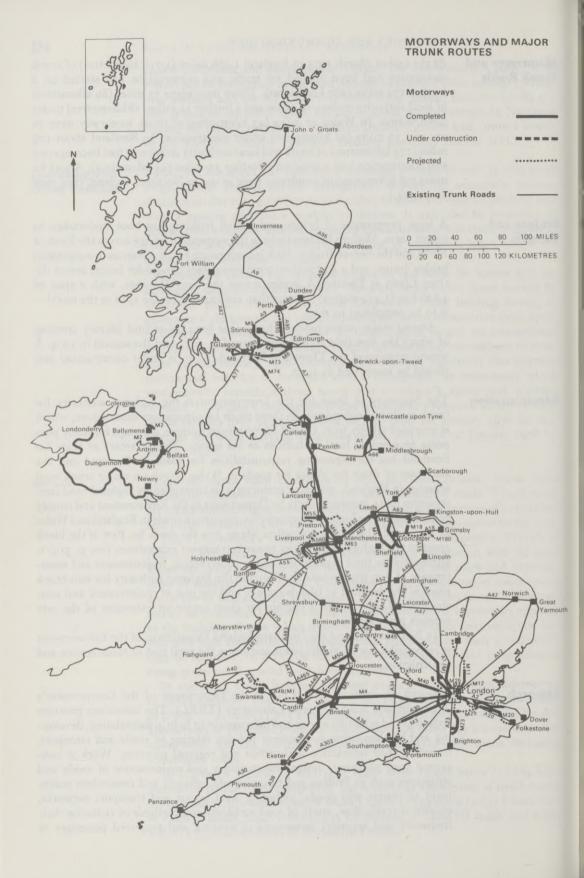
Administration

The Secretary of State for the Environment is the highway authority for trunk roads in England and on these roads he administers expenditure, which is provided wholly from central Government sources, although for many purposes he employs local authorities as his agents. The Secretary of State for Scotland has corresponding responsibilities for roads in Scotland and the Secretary of State for Wales for roads in Wales. Work on major trunk road schemes in England, including motorways, is controlled by regional road construction units, manned jointly by Department of the Environment and county council staff. The highway authority for non-trunk roads in England and Wales is, in general, the county council in whose area the roads lie. Part of the block grant to the highway authorities towards transport expenditure (see p. 319) is attributable to their expenditure on the construction, improvement and maintenance of non-trunk roads. In Scotland the highway authority for non-trunk roads is the regional or islands council and the cost of maintenance and construction of these roads is eligible for grant under an extension of the rate support grant system.

In Northern Ireland the Northern Ireland Department of the Environment is responsible for all public roads and bears the total cost of maintenance and construction.

Research

Research on roads is carried out at the Department of the Environment's Transport and Road Research Laboratory (TRRL). The laboratory provides technical and scientific advice and information to help in formulating, developing and implementing government policies relating to roads and transport, including their interaction with urban and regional planning. Work is concerned with planning, design, construction and maintenance of roads and structures such as bridges and tunnels; safe, efficient and convenient movement of people and goods, including road layout and transport networks, control of traffic flow, study of road accidents and methods of reducing their frequency and severity; assessment of existing and projected passenger or



freight transport systems and investigation of technical developments and their environmental effects. The TRRL employs over 1,000 people of whom about half are scientists and engineers.

Road Safety

Britain has one of the highest densities of road traffic in the world but a relatively good accident record, the fatal accident rate per vehicle being lower than that in most other European countries. In 1974, 6,900 people were killed on the roads, about 82,100 seriously injured and 235,900 slightly injured. Road accident statistics are compiled and published by the Government Statistical Service from reports made by the police.

Modern roads, designed for present-day traffic and segregating pedestrians from vehicles, are safer than the roads they replace and surveys have shown they result in a marked fall in casualties. There are speed limits of 30 mph (48 km/h) in most built-up areas, 40, 50 and 60 mph (64, 80 and 97 km/h) on selected roads and up to 70 mph (113 km/h) on motorways. In December 1974 speed limits of 50 mph (80 km/h) on single-carriageway and 60 mph (97 km/h) on dual-carriageway roads were introduced, except on those which already had a lower limit, as a contribution to fuel saving and road safety; the 70 mph (113 km/h) limit on motorways was retained. Other measures directed primarily towards road safety include the provision of pedestrian crossings and the system of road markings and traffic signs. A centrally controlled computerised signalling system is being installed on certain motorways to warn motorists of advisory speed limits in certain conditions and of lane closures.

The design of vehicles, their use on the roads, and the maintenance of their mechanical condition are controlled by regulations. The regulations are kept under constant review, and amended whenever necessary in the interests of safety or for control of pollution and noise. The fitting of seat belts to the front seats is compulsory for cars first registered in or after 1965 and for light goods vehicles first registered in or after 1967. In Great Britain private cars and light vans which are three or more years old must be tested annually at private garages authorised as test stations. In Northern Ireland a scheme to test private cars, initially ten or more years old, at vehicle driving test centres was introduced in July 1975. Heavy goods vehicles must be specially approved before being licensed to carry passengers, and are tested at regular intervals. Any vehicle may be stopped on the road at any time by the police and examined

All drivers of motor vehicles, unless they have either held a full British licence or passed the driving test in the last ten years, are required to pass the test before being granted a full licence to drive. Until they pass the test they must obtain a 'provisional' licence and display 'L' (Learner) plates on their vehicle. In Northern Ireland a driver having passed the test is required to display an 'R' (Restricted) plate for a one-year period during which he must not exceed 45 mph (72 km/h). With the exception of solo motor-cycles and motor-cycle combinations, where vehicles are constructed to carry passengers, learner drivers must be accompanied by a qualified driver. (Newly arrived residents of Britain may drive under their overseas driving licences for three months before becoming subject to these rules.) Professional driving instructors must be approved by the Department of the Environment. There is a scheme for special licensing and testing of drivers of heavy goods vehicles. The Driver and Vehicle Licensing Centre at Swansea, which began operating in 1973, will eventually deal with all licensing and registration of vehicles and drivers in Great Britain.

The Road Traffic Acts, which embody the law relating to road users, are enforced by the police and the courts. A person convicted of any of the 26 most serious offences is liable to be disqualified from driving for a period. The standard of conduct for all road users and a summary of the requirements of the law are set out in easily understandable form in the *Highway Code*. A failure to observe the code does not of itself render a person liable to criminal proceedings but may be taken into account in any such proceedings. The Road Safety Act 1967 made it an offence to drive with more than a prescribed level of alcohol in the blood, at present 80 milligrammes of alcohol per 100 millilitres of blood.

National campaigns to persuade people to take greater care on the roads are conducted by the Department of the Environment and the Royal Society for the Prevention of Accidents with assistance from the local authorities, which also help by arranging courses of instruction, especially courses for children. In recent years major publicity campaigns have been undertaken to increase the wearing of seat belts and reduce pedestrian casualties.

With the exception of trunk roads, which are the concern of the central Government, traffic is the responsibility of local authorities. Urban transport planning has involved the development of medium-term transport studies, which have been carried out or are in progress in many cities and towns in Great Britain. Following a study the local authority adopts a preferred strategy which provides the framework for more detailed short-term traffic management and public transport operational measures.

Several cities have abandoned extensive urban motorway schemes in favour of limiting the amount of traffic permitted to enter central areas and providing better public transport. Limited urban road improvements are continuing, but local authorities are relying on measures to improve traffic flow and road safety, and, in some cases, to assist the flow of certain types of vehicle, usually buses. Comprehensive traffic management schemes may include 'one-way' systems, improved traffic signal control and area traffic control systems, parking controls, pedestrian precincts and bus lanes. Following experiments on methods to control by computer a large number of traffic signals in an urban area, several local authorities are installing these systems. The first purposebuilt automatic traffic control system for a whole city was opened in Leicester in 1974. In most town centres street parking is permitted for limited periods only; in London and many other towns schemes for payment at parking meters or residents' parking spaces are under the supervision of traffic wardens. In many big cities new shopping precincts are specially designed for pedestrians and motor traffic is excluded. Streets in many town centres have been converted wholly or partly to pedestrian use.

The Government's road programme (see p. 322) is designed so that eventually heavy goods vehicles will be able to avoid town centres and residential suburbs wherever possible. The Government is devising, in co-operation with local authorities, a system of lorry routes.

Since 1963 control of the majority of inland waterways has been vested in the British Waterways Board. Under the Transport Act 1968 a grant-in-aid is being paid primarily to enable the board to maintain an extensive network of amenity waterways; in 1974 £5.3 million was paid and a further £1.4 million for improving bridges.

The board's turnover in 1974 amounted to $\pounds_{7,4}$ million, including receipts of $\pounds_{0,5}$ million from its own freight-carrying activities, $\pounds_{1,7}$ million from

Transport Planning in Towns

INLAND WATERWAYS

warehousing and terminal services, and $\pounds_{1:4}$ million from the docks. The sale of water for industrial and agricultural purposes brought in $\pounds_{1:2}$ million. Receipts from pleasure boating were $\pounds_{368,400}$. The number of pleasure craft licensed or registered in 1974 was nearly 25,200.

The System

There are about 2,500 miles (4,023 kilometres) of navigable inland waterways in Great Britain, some 2,000 miles (3,219 kilometres) of which belong to the British Waterways Board; the remainder are mainly in the hands of water authorities or private companies. Many of the board's canals are narrow waterways which can generally be used only by boats not exceeding 7 ft (2·13 metres) in width; others are broad waterways, ship canals and canalised rivers, some of which can be used by craft of up to about 1,000 tons capacity. Of the inland waterways under the control of the British Waterways Board some 340 miles (547 kilometres) are commercial waterways, which are mainly canalised river navigations. A substantial additional mileage (1,100 miles—1,770 kilometres known as cruising waterways) is being maintained for recreational purposes; a statutory Inland Waterways Amenity Advisory Council advises the Secretary of State for the Environment and the British Waterways Board.

Engineering, commercial and estate work is directed from the board's headquarters in London. There are also principal offices at Leeds and Gloucester. In Scotland the Caledonian Canal and the other Scottish canals are, for engineering and estate purposes, under the control of the board's office in Glasgow, with direction as a whole from London.

In 1974 traffic on the board's waterways amounted to 3.9 million tonnes, of which 1.3 million tonnes were coal, 1.1 million tonnes liquids in bulk and 1.5 million tonnes general cargo. Some 97 per cent of the traffic is carried on the commercial waterways.

Although the British Waterways Board is one of the largest single carrying operators, most of the traffic is handled by independent carriers or by traders in their own craft. The board also operates 3 docks and 19 warehousing depots.

In Northern Ireland the only inland waterway which is still used for commercial transport purposes is the Lower Bann Navigation.

Development

The British Waterways Board is developing its cruising waterways for purposes of recreation and amenity. Among the most popular are the Llangollen branch of the Shropshire Union Canal, the Oxford Canal, and the Leeds and Liverpool Canal. Many disused waterways are being restored in co-operation with local authorities and voluntary societies. The principal commercial waterways are the river navigations and broad canals in the Yorkshire-Humberside area, the Trent Navigation, and the Gloucester and Sharpness Canal. New facilities and waterway improvements are being undertaken to increase freight traffic. The board has devised and is already operating on some of its commercial waterways a specially designed interlocking modular barge system. A new barge-carrying ship entered service in 1974 between the Humber estuary and Rotterdam.

CIVIL AVIATION

Airline services are operated by British Airways and by a number of independent airlines. In 1924 four small British companies merged to form Imperial Airways Limited and this company pioneered the commercial development of intercontinental air routes. The two public corporations, the British Overseas Airways Corporation (which took over the undertakings of

Imperial Airways Limited and British Airways Limited in 1940) and British European Airways (established under the Civil Aviation Act 1946), became divisions of British Airways under the Civil Aviation Act 1971 which created the Civil Aviation Authority (CAA) and the British Airways Board (BAB). The new bodies became fully operative in 1972.

Role of the Government The Secretary of State for Trade is responsible for international matters (including negotiation of air service agreements with other countries, the licensing and control of public transport operations into Britain by overseas operators and British participation in the activities of the International Civil Aviation Organisation and other international aviation bodies), airport policy, amenity matters such as aircraft noise, aviation security policy and investigation of accidents. The Secretary of State appoints the chairman and other members of the CAA, and is empowered to give written guidance on the general policies to be followed. The guidance must be approved by both Houses of Parliament.

The Secretary of State may also give directions, after consultation, to the CAA, concerning Britain's relations with other countries, membership of international organisations or adherence to international agreements, or to deal with problems of noise, vibration, pollution or other disturbances arising from the activities of civil aviation. He may also give directions, after consultation, to the BAB concerning matters affecting the public interest. He has powers to make funds available to the CAA and the BAB, with the approval of the Treasury and within limits laid down by Parliament.

The Civil Aviation Authority is an independent statutory body, responsible **Civil Aviation** for the economic, technical and operational regulation of the industry, the provision by the National Air Traffic Services of air navigation services and the aerodrome navigation services at certain British airports and the operation of eight airfields in Scotland. It issues licences and certificates to airlines, aircraft, aerodromes and personnel, including pilots, air traffic controllers and maintenance engineers.

The CAA has been given the objective of recovering as far as possible, by 1977-78, the whole of its costs and a reasonable return on capital from the users of its services. Meanwhile the Government is paying the CAA a grant to meet its deficit on revenue account, assessed annually in advance; it amounted to £34.5 million in 1974-75.

Licensing

Authority

The Civil Aviation Authority operates an air transport licensing system, within which British operators, both state-owned and independent, apply on an equal footing for licences for scheduled and charter services, or for revocation or variation of existing licences. It determines categories of licence, content of applications, and conditions and tariff provisions of licences. It also has power to exempt particular flights or categories of flights from licence requirements. In issuing licences the CAA must consider the applicant's financial resources, staffing and organisation, the need for the proposed services, their adequacy and possible effect on existing services, and any representations made by interested parties. Appeals may be made to the Secretary of State for Trade. A CAA scheme for licensing air travel organisers came into operation in 1973. The Airline Users Committee was established by the CAA in 1973 to assist in protecting the interests of passengers and other airline users, and to investigate individual complaints against airlines.

Safety

Air Operators' Certificates

Flight Crew Qualifications and Training

Air Traffic Control and Navigation Services

Technical Provisions The CAA is responsible for the regulation of the safety of civil aircraft registered in Britain. Its Operations Division deals with the preparation and application of safety requirements concerning airline operations, flight crew licensing and training, aerodromes and fire or rescue services. A mandatory system of reporting of incidents and structural or mechanical defects is being developed for introduction in 1976. The Airworthiness Division is responsible for British Civil Airworthiness Requirements, a code with which all aircraft built in Britain or flown by British airlines must comply. Continued airworthiness is ensured by regular inspection and by requiring aircraft to be maintained in accordance with a schedule approved by the CAA. The authority is advised by an Airworthiness Requirements Board representing various interests including manufacturers, operators, pilots and insurers.

Every operator of aircraft above a certain weight used for public transport must possess an Air Operator's Certificate which is granted by the CAA when it is satisfied that the operator is competent to secure the safe operation of its aircraft. The CAA's flight operations inspectors (who are experienced airline pilots) check that satisfactory operating standards are maintained by these operators.

Each member of the flight crew of a British registered aircraft must hold the appropriate official licence issued by the CAA. Applicants for professional pilots' licences are required to attend approved courses of training before attempting qualifying examinations and flight tests. The CAA has approved such courses at training schools at Carlisle, Oxford and Perth, as well as the College of Air Training at Hamble, Hampshire. The latter was set up in 1960 to increase the supply of well-trained pilots for civil airlines and is sponsored by British Airways.

Responsibility for policy planning and execution of both civil and military air traffic control over Britain and the surrounding seas rests with the National Air Traffic Services, under the joint control of the Civil Aviation Authority and the Secretary of State for Defence.

A system of airways, introduced in 1950 and covering the main traffic routes with control zones around the major airports, has been gradually extended. The primary navigation aids have been the very high frequency omnidirectional ranges (VORs) and distance measuring equipment. Re-equipment with the more accurate Doppler VOR system began in 1974 and should be completed before 1980. During the last few years virtually the whole of the airspace over Britain above 5,000 feet (1,500 metres) has been brought under surveillance by modern primary and secondary radar equipment to provide data for use in two air traffic control centres, located at West Drayton (near London) and Prestwick. The first stage was introduced at West Drayton in 1971. Early in 1975 a subsidiary centre was opened at Manchester to deal with traffic in the Manchester terminal control area. A new Scottish centre under construction at Prestwick is due to enter service early in 1977. Extensive use is being made in these centres of automatic data processing and other advanced electronic techniques.

The development of all-weather landing systems, on the basis of an improved version of the standard instrument landing system, was pioneered by the Royal Aircraft Establishment at Bedford, airlines and private industry. All Britain's major airports are now fitted for use with this improved version.

Eurocontrol

Britain is a member of Eurocontrol, a European international agency concerned with the traffic control problems arising from the increasing use of high-flying, high-speed jet aircraft. Set up in 1963 it provides control at the higher flight levels for civil aircraft and for military aircraft operating according to civil procedures.

Noise Control

Since 1971 all new types of subsonic jet aircraft using British airports have been required to hold a 'certificate of quietness'. From 1st January 1976 the older types of subsonic jet aircraft will also have to hold a certificate and extension of the regulation to cover propeller aircraft is in preparation. The noise standards follow the recommendations of the special meeting held by the International Civil Aviation Organisation in Montreal in 1969, subsequently embodied in an annex to the Chicago Convention on International Civil Aviation.

Noise abatement measures in force at various airports include limitations on noise levels at take-off, route restrictions, limits on the number of jet movements during summer nights and other procedures designed to lessen noise on the ground.

British Airways The board of British Airways controls the activities of the seven divisions of British Airways—British Airways European Division, British Airways Overseas Division, British Airways Regional Division, British Airways Associated Companies Ltd., British Airways Engine Overhaul Ltd., British Airways Helicopters Ltd. and International Aeradio Ltd. The chairman and members of the board are appointed by the Secretary of State for Trade. British Airways' total borrowing limit is fixed at $\pounds 560$ million, but may be increased up to $\pounds 700$ million by statutory order. During the year 1974–75 the board's turnover was $\pounds 748$ million. Revenue earned by the airline divisions amounted to $\pounds 665$ million. Some 13.3 million passengers were carried on scheduled services. At March 1975 British Airways employed about 59,000 staff. Its assets of $\pounds 555$ million included $\pounds 408$ million of aircraft and spares and $\pounds 89$ million of land and buildings.

British Airways has the largest route network in the world, almost 500,000 miles (800,000 kilometres), covering nearly 200 destinations in 88 countries.

The Overseas Division is engaged on long-haul operations. Its scheduled ser-British Airways vices link Britain with continental Europe, the Middle East, the Far East, Overseas Division Australasia, Africa and North and South America, and also provide complete round-the-world services. The European Division operates on short-haul and medium-haul services in British Airways Britain and the rest of Europe and to North Africa and the Middle East. In European Division January 1975 it introduced Europe's first air 'shuttle' service (a regular scheduled no-reservation service with back-up aircraft to carry extra passengers) between London (Heathrow) and Glasgow. The Regional Division is responsible for secondary domestic services and for British Airways a network of services to Europe. Its services in Britain include a number which **Regional Division** meet a vital social need, mainly the services to and from the Highlands and Islands of Scotland. British Airways Associated Companies Ltd. is responsible for the group's Other Divisions investments connected with some 42 hotel companies and 6 air companies in

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Lockheed TriStars for the European Division.

different parts of the world. The helicopter division—British Airways Helicopters Ltd.—operates a scheduled service between Penzance, Cornwall, and the Isles of Scilly, undertakes charter work, provides links between oil rigs in the North Sea and the mainland and operates the air-sea rescue service from Aberdeen and Sumburgh. Engine overhaul work for British Airways and other airlines is carried out by British Airways Engine Overhaul Ltd. International Aeradio Ltd. plans, installs, operates and maintains airport technical services and general communications and manufactures specialised equipment for use in these services. Other operations controlled by British Airways Include British Airtours which operates charter flights, British Airways Travel Division which handles sales of passenger tickets in Britain and British Airways Cargo UK which handles British Airways' cargo sales in Britain and controls cargo-handling facilities at 18 airports in Britain.

The British Airways fleet of some 196 aircraft in May 1975 is the world's largest passenger fleet operating international services. Aircraft in the Overseas Division consist of Super VC10s (15), VC10 (1) Boeing 707-436s (6), Boeing 707-336s (11), and 17 Boeing 747s. The European Division contains BAC One-Elevens (18), Trident Threes (26), Trident Twos (15), Trident Ones (9) and 6 Lockheed TriStars. British Airways has converted the Vanguard aircraft into the Merchantman used solely for freight and six are now in service. The Regional Division's fleet consists of BAC One-Elevens (7), Viscounts (35) and 4 Trident Ones. British Airtours has 8 Boeing 707-436s. Helicopters in the helicopter division include Sikorsky 61Ns (10), Bell Jet Ranger (1) and Bell 212 (1). British Airways plans to introduce Concorde supersonic aircraft early in 1976; five Concordes have been ordered. Other major orders include nine

Aircraft

The Independent Airline Companies

The independent companies compete with British Airways over several domestic and international routes. In 1973 they carried some 5.9 million passengers on scheduled services. British Caledonian Airways, the leading independent airline, has a fleet of some 31 aircraft, used on chartered and scheduled passenger and freight services, and carries about 1.3 million scheduled service passengers a year. In addition to the public transport operators many companies are engaged in miscellaneous aviation activities such as charter operations, supplying North Sea oil rigs, crop-spraying, aerial survey and photography, and flying instruction. There are over 40 companies engaged in air-taxi operations; they carried a total of over 400,000 passengers in 1974.

Growth of Air Services

In 1955, 2.5 million passengers entered or left Britain by air, compared with 5.7 million who arrived or departed by sea; in 1962 there were for the first time more air than sea passengers, and the latest annual figures are 31 million by air (international terminal passengers) and 13.8 million by sea. British Airways accounts for some 92 per cent of scheduled services flown by British airlines. The charter market is dominated by independent companies; British Caledonian has 26 per cent of the market, other independent airlines 53 per cent and British Airways' charter subsidiaries 21 per cent. Total capacity offered on all services by British airlines amounted to 9,003 million capacitytonne-kilometres in 1973.

Air Freight

Freight traffic in 1973 amounted to some 699,500 tonnes, 8 per cent higher than in 1972. The value of overseas trade by air rose by 28 per cent to $f_{2,5,731}$

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million in 1974, but the proportion of Britain's overseas trade carried by air (13 per cent of the value of imports and 17 per cent of exports) did not increase for the first time in ten years, partly reflecting the large increase in the value of oil imports. Among the main commodities exported by air are machinery, medicinal and pharmaceutical products, and diamonds.

Private Flying The estimated number of aircraft on the British register used for business and private purposes is 4,000 while approximately 950 are owned by clubs, groups and training schools. About 19,300 private pilots hold licences. About 100 companies use corporate aircraft and 65 companies are members of the Business Aircraft Users' Association. There are some 9,000 glider pilots.

Airports In 1974 Britain's civil airports handled 41.2 million passengers, slightly below the level of 1973 following several years of rapid growth. The leading airports were Heathrow—14 miles (23 kilometres) west of central London—20.4 million passengers, Gatwick 5.2 million, Manchester 2.4 million, Luton 2 million, Glasgow 2 million, Belfast 1.2 million, Birmingham 1.1 million, Edinburgh 810,000 and Prestwick 564,000. Air transport movements have grown at a slower rate than passenger movements; in 1974 there were 710,000 movements of aircraft engaged on commercial transport operations.

Ownership and Control

There are approximately 150 civil airports in Britain; in addition, 50 Service aerodromes are available for civil use.

The British Airports Authority (BAA), an independent statutory body operating on a commercial basis, was created in 1966 to own and manage London's airports (Heathrow, Gatwick and Stansted), together with Prestwick in Scotland. The BAA acquired responsibility for Edinburgh airport in 1971, Aberdeen at the beginning of 1975 and Glasgow on 1st April 1975 and has established a new division to administer its Scottish airports. Eight small airfields in the Highlands and Islands of Scotland are controlled by the Civil Aviation Authority and Belfast's airport (Aldergrove) is managed by the Northern Ireland Airports Ltd., a subsidiary of the Northern Ireland Transport Holding Company. Most of the other public airports are controlled by local authorities. Municipally or privately owned airports or airfields which are used for the public transport of passengers and/or flying instruction are subject to licensing, inspection and regulation by the CAA, which is also responsible for navigation facilities at the BAA's airports and a number of the main municipal airports.

Development

For international scheduled services Heathrow and Gatwick are the main airports and Heathrow is the busiest centre of international travel in the world. An $\pounds 8$ million programme is under way at Heathrow for the improvement of terminal facilities to accommodate wide-bodied aircraft.

The airport at Gatwick, 28 miles (45 kilometres) south of London, was opened in 1958 as the second airport for the London area and was the first in the world to contain road, rail and air transport in one unit. A \pounds 65 million redevelopment programme at Gatwick is in progress; a new international arrivals terminal was opened in 1974 and further major improvements to passenger facilities are planned.

Work is in progress to develop facilities at many of Britain's other airports. A \pounds_7 million extension to Manchester airport, controlled by the Manchester District Council and the Greater Manchester County Council, was opened in 1974. The extension doubled the airport's passenger handling capacity and

enabled it to accommodate *Boeing* 747 (jumbo jet) aircraft. Prestwick airport has been developed to accommodate the world's largest aircraft. A £13 million redevelopment scheme for Edinburgh airport involves the construction of an 8,400-foot (2,560-metre) runway and a new terminal building which will be opened in late 1975 and early 1977 respectively. The BAA has plans to expand the terminal facilities at Aberdeen airport and there is a £10 million expansion programme for Glasgow airport. A scheme has recently been completed by the CAA to strengthen and lengthen the main runway at Inverness airport. At Sumburgh (Shetland), an important staging post for communications between the Scottish mainland and many North Sea oil rigs, a £7 million scheme is being undertaken to improve the runway.

THE POST OFFICE

The Post Office, founded in 1657, provides postal, public telecommunications, data processing and Giro services. It was set up as a public authority under the Post Office Act 1969, having previously been a government department. The chairman and members of the board are appointed by the Secretary of State for Industry. It has some 430,000 employees and 23,660 post offices. Income excluding internal transactions totalled £2,123 million in 1974–75. The Post Office is investing some £3,700 million in the period 1975–79; capital expenditure on fixed assets amounted to £826 million in 1974–75.

Postal Services

Some 201 million parcels and 10,878 million items of other correspondence (including 10,234 million inland letters) were handled by the Post Office in 1974-75. An increasing amount of correspondence is sent by air, reaching 492 million items in 1974-75; 2.8 million parcels were sent by air in that year.

New highly mechanised sorting office buildings are being opened in Britain. Letter segregating and facing machines have been installed at some 39 centres. Postal address coding (postcode) is in operation over the whole country.

'Datapost', a door-to-door overnight collection and delivery service for computer data and important packages, provides over 20,000 services each week. International datapost services are also available to eight overseas countries.

The British Postal Consultancy Service offers professional advice on all aspects of postal business to overseas administrations and work was done in 1974–75 for 11 overseas postal administrations.

At the post office counter, besides making use of its postal and telegraph facilities, a person may draw a pension or a family allowance, buy a licence for his dog, a licence for his television receiving set, renew his motor vehicle licence, obtain a British visitor's passport, buy national insurance stamps, and use the savings and investments facilities of the National Savings Bank (see p. 374) and the money transmission services of the National Giro (see p. 372). In much of its counter service the Post Office acts as agent for government departments and local authorities.

Britain has one of the world's most up-to-date telegraph systems which is directly connected through a computer-controlled telegram retransmission centre, the biggest of its kind in the world, to most of the principal overseas telegraph offices. With the exception of those offered by the small number of foreign telegraph companies licensed to operate in Britain, all international public telegram services are operated through the provincial and London

Counter Services

Public Telegram Services

offices of the Post Office International Telegraph Service. Direct connection is available to the main towns in the rest of Europe and to 60 other countries throughout the world.

Telex Service

The telex service combines the speed of the telephone with the accuracy of the printed word. The British telex service is fully automatic. Calls may be made direct between the rapidly increasing number of telex users in Britain (estimated at 56,000 by mid-1975) and also to well over 759,000 subscribers throughout the world. Britain is linked to over 177 countries by telex and about 98 per cent of international calls are directly dialled. These include calls to virtually the whole of Europe. Calls to countries not available through the automatic service are connected through the International Telex Exchange in London. The Post Office is planning for a system of about 100,000 British subscribers by 1980.

The demand for data communications is increasing and the trend is towards higher speeds. The Post Office offers a range of datel services providing for transmission at rates of up to 110 bits per second (bit/s) over telegraph circuits or up to 2,400 bit/s (to be increased to 4,800 bit/s) over speech circuits. Higher speeds up to 50,000 bit/s are available over special wideband circuits. International services allow data transmission to the rest of Europe, the United States and a number of other countries. In 1975 there were 34,900 Post Office datel terminals in Britain, more than three times the number in any other European country. An experimental packet switched service is being implemented, with packet exchanges at London, Manchester and Glasgow. Plans for digital services to cater for future data communications requirements are under consideration.

The Post Office operates the largest telephone system in Europe and the third largest in the world. At the end of March 1975 there were 6,254 local telephone exchanges and 20.4 million telephones. During 1974–75, 1.4 million new lines were installed. Trunk dialling by subscribers (STD) began in Bristol in 1958; virtually all local and trunk calls can be dialled direct. In 1974–75 some 15,909 million telephone calls were made comprising 13,523 million local calls, 2,313 million trunk calls and 73 million international calls.

Hull District Council is the only municipality to exercise its option of operating its own service under licence from the Post Office; this service is connected to the Post Office trunk network.

The first operational electronic exchange in Europe was opened at Ambergate, Derbyshire, in 1966. There are now over 600 such exchanges in Britain. Large electronic exchanges with capacities of up to 40,000 lines are due to come into service in major cities from 1976. Mobile electronic exchanges were introduced in 1973. Pulse code modulation systems are being used to increase the circuit capacity of lines on routes between exchanges. Nearly 3,300 were in service by the end of 1974.

International subscriber dialling operates from London and other major cities to 24 countries including most of western Europe, the United States, Canada and New Zealand. The Post Office is engaged in a five-year programme costing f_{250} million to expand Britain's international telephone exchange network.

Operator-connected calls are handled at London, Glasgow and provincial international exchanges, which have direct telephone circuits to European countries. Direct links via transatlantic and Commonwealth cable networks,

Communications Services

Data

Telephone Services

TRANSPORT AND COMMUNICATIONS

communications satellites and high frequency radio provide service to countries outside Europe. Almost every country can be reached from the international exchanges, via intermediate points where necessary.

A radio tower, 620 feet (189 metres) high, in London provides microwave radio links for carrying long-distance telephone and television circuits. There are over 200 Post Office communications masts and towers in use.

Several specialised services are available by telephone, including the '999' Special Telephone emergency dialling service enabling subscribers to be connected as quickly as possible, and free of charge, to the police, ambulance or fire brigade services. A public radiotelephone service operating in Greater London, south Lancashire, the Midlands and the east Pennines enables users of vehicles fitted with suitable equipment to make or receive calls to or from any telephone in the British network; the service is being extended to three other areas in Britain. Recorded information services include: the speaking clock, weather forecasts, motoring information, recipes, cricket scores, Financial Times Share Index and Business News Summary, and 'Dial a Disc'. In London a recorded service provides details in five languages of events taking place, and a similar service, in English only, is provided in Edinburgh during the summer.

Private Telecommunications Services

Services

Submarine Cables

Satellite Communications

There are over 266,000 private circuits not connected with the public exchange networks. These are associated with circuits rented for private use for telephone conversations, teleprinter connections, photo-telegraphy, television, music, or for the transmission of signals which represent data for computers or operate other devices.

There are some 39 submarine cable systems between Britain and Europe and five between Britain and North America, covering a total of about 18,000 miles (28,970 kilometres). Cable systems using transistors in place of thermionic valves have been developed by British manufacturers in consultation with the Post Office Research Station and are used in many new systems. A comprehensive Commonwealth telephone cable plan, completed by 1967, covered the construction of three long-distance telephone cable systems: CANTAT 1 (2,100 nautical miles), from Scotland to Canada; COMPAC (8,130 nautical miles), connecting Canada, Hawaii, Fiji, New Zealand and Australia; and SEACOM (7,070 nautical miles), connecting Australia, New Guinea, Guam, Hong Kong, Malaysia and Singapore. The submarine cables are linked overland across Canada and Australia by radio microwave systems. CANTAT 2, which entered service in 1974, has doubled telephone links across the Atlantic, with its 1,840 circuits. It covers 2,800 nautical miles between Cornwall and Nova Scotia.

The Goonhilly satellite communication earth station in Cornwall was brought into operation in 1962, and took part in the first experimental satellite communications using the Telstar and Relay satellites. A second aerial was introduced in 1968 and a third was brought into use in 1972. The three aerials provide commercial telephone and television circuits via high-capacity geostationary satellites positioned over the Atlantic and Indian Oceans. In May 1975 Britain operated some 1,150 satellite telephone circuits to 40 countries. The satellites used in the global communications systems are provided by the International Telecommunications Satellite Organisation (see p. 414) of which Britain is the second largest shareholder.

Radio Communications with Ships at Sea and Offshore Installations

cates with ships in all parts of the world. These coast stations are an important part of the search and rescue services concerned with safety of life at sea (see p. 311). They keep continuous watch on the international radiotelegraph and radiotelephone frequencies for distress calls from ships or aircraft and take immediate action to obtain assistance for any vessel in distress. During 1974–75 the stations handled 792 urgency and distress calls.

In addition to the radio stations for overseas telecommunications, the Post

Office has 11 coast radio stations in Britain which provide radiotelegraph and

radiotelephone communications with ships at sea at ranges of up to some 500

miles (805 kilometres) and 250 miles (402 kilometres) respectively, and with

oil rigs and pipe-laying barges in the North Sea. There is also the long-distance

radiotelegraph and radiotelephone station, Portishead Radio, which communi-

In addition to the services for safety of life at sea, the stations exchange radiotelegrams with ships and connect radiotelephone calls between telephone subscribers ashore and suitably equipped ships. Radio teleprinter facilities are being introduced at selected coast stations to enable ships to be connected to telex subscribers ashore. The stations also broadcast navigational warnings and weather bulletins.

An £8 million microwave radio system is being developed to link oil and gas production platforms in the North Sea with the mainland. Two new radio stations under construction at Peterhead (Grampian) and Scousburgh in the Shetland Islands are expected to enter service in October 1975.

The Post Office is one of the largest users of automatic data processing equipment and techniques in Britain. Its computer organisation is divided into two parts: the Post Office Data Processing Service for its own internal services, and the National Data Processing Service for services to business firms and other external users.

'Confravision' The world's first purpose-built system of conferences by television, 'Confravision', was introduced by the Post Office in 1971. Using Post Office video circuits the service allows private communication between studios in London, Birmingham, Bristol, Glasgow, and Manchester. An international Confravision link to Sweden was opened in 1974 and a further extension to the Netherlands began operating in April 1975.

Research The Post Office is spending some \pounds_{29} million a year on research and development, in collaboration with industry and the universities. A \pounds_{12} million research centre, the largest complex of its kind in Europe, at Martlesham Heath, Suffolk, is nearing completion.

Data Processing Service

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16 Employment

Employment policy in general, industrial relations and pay policy are the responsibility of the Department of Employment (see p. 49), while the Manpower Services Commission (see p. 339) is responsible for the public employment and training services and for advising the Government on manpower questions generally. In Northern Ireland employment matters are the responsibility of the Department of Manpower Services.

MANPOWER

The total working population of Britain at the middle of June 1974 was 25.7 million, about 46 per cent of the total population. If the unemployed, the self-employed, and the Armed Forces are omitted from the working population, there remained 22.8 million employees (13.7 million men and 9.1 million women) in employment. The percentage of women (particularly those working part time) in the labour force continues to rise. The great majority of the working population work for a wage or salary, but about 1.9 million are employers or self-employed.

Northern Ireland, which has $2\cdot 8$ per cent of the total population of the United Kingdom, has $2\cdot 3$ per cent of its working population (see p. 338). Farmers and smallholders working their own holdings account for about 6 per cent of the working population.

The working population increased slowly until 1966, and declined between 1966 and 1971, since when it has been rising again (see Table 26). One reason for the fall after 1966 was the increased number in full-time education. During the late 1970s the number of males in the labour force is expected to remain approximately constant, while the number of females is expected to continue to increase.

Though successful development policies in the less-prosperous regions may raise the working population above the levels forecast, any increasing demand for labour must in general be met by better deployment of manpower, improved productivity and more training. In general, non-employed married women form the only substantial reserve.

Deployment of Manpower The industrial distribution of employees is shown in Table 27.

Most industries employ women as well as men though not always for the same types of work; for example, few women are managers and few personal secretaries are men. Although it is illegal to employ women in certain jobs, such as underground work in coal mines, the Government has introduced legislation which would, in general, forbid discrimination against women in opportunities for employment (see p. 345). Women are chiefly employed in the food, drink and tobacco industries; the manufacture of electrical goods, textiles and clothing; the distributive trades; the financial, professional, scientific and miscellaneous services; and public administration.

It is estimated that in October 1974 in manufacturing industries in Great Britain (comparable figures for Northern Ireland are not available) 27 per cent were administrative, technical and clerical employees (the ratio ranged

Growth in Working Population

according to industry from 14.7 per cent in clothing and footwear to 38.8 per cent in chemicals and allied industries).

Manpower **Research** and Planning

As an aid to government manpower policies the Manpower Services Commission, both independently and through its Employment Service Agency (see p. 340), maintains a continuing study of manpower resources and requirements for the whole economy and for certain industries and occupations in particular.

The commission, through its Training Services Agency (see p. 343), also co-operates with industrial training boards on technical problems connected with industrial and manpower planning, recruitment, training and careers advice.

Unemployment

The general unemployment rate in Britain as a whole was among the lowest in the world during the 20 years prior to 1967—usually between 1 and 2 per cent and, although it has risen since then, it was still lower and rising more slowly in 1975 than in other developed countries.

TABLE 26: Manpower in Great Britain 1965-74ª

Thousands^b

| Year | Employees in employment ^c | Employers and self-employed | Unemployed | Armed Forces ^d | Total working population ^d |
|------|--|---|------------|------------------------------|---|
| 1965 | 22,619 | $1,623 \\ 1,614 \\ 1,703 \\ 1,723 \\ 1,806 \\ 1,825 \\ 1,843 \\ 1,872 \\ 1,916 \\ 1,91$ | 270 | 423 | 24,936 |
| 1966 | 22,787 | | 253 | 417 | 25,071 |
| 1967 | 22,347 | | 466 | 417 | 24,933 |
| 1968 | 22,186 | | 506 | 400 | 24,815 |
| 1969 | 22,148 | | 483 | 380 | 24,817 |
| 1970 | 21,993 | | 524 | 372 | 24,714 |
| 1971 | 21,648 | | 687 | 368 | 24,546 |
| 1972 | 21,650 | | 767 | 371 | 24,660 |
| 1973 | 22,182 | | 546 | 361 | 25,005 |
| 1974 | 22,297 | | 516 | 345 | 25,0074 |

Source: Department of Employment

a Estimates are consistent over the whole period.

^b Discrepancies between totals and their constituent parts are due to rounding.

c Part-time workers are counted as units.

d The working population figures and the Forces figures include ex-Service personnel on leave after completing their service.

It has been relatively low in the south-east of England, and consistently higher in those parts of the country which have the greatest dependence on shipbuilding, coalmining, and certain branches of the heavy engineering and metal manufacturing industries, notably parts of Scotland and Wales, and north-east England and Merseyside. These areas have been the subject of a series of measures of selective assistance to stimulate industrial expansion; and counter-measures have been taken to limit expansion in areas of manpower shortage (see p. 212). The general unemployment rate in Great Britain in July 1975 was 4.1 per cent: the areas with the highest rates were Wales and Scotland and the North and North-West regions.

Northern Ireland

The total working population of Northern Ireland-including employers and self-employed but excluding certain unpaid helpers-was 582,000 in June 1974 (374,000 males and 208,000 females). The number of employees in employment was 494,000. The largest non-service industries are agriculture,

engineering, textiles and clothing. Most of the agricultural workers in Northern Ireland are family workers.

| Industry or Service | Great Britain | Northern Ireland | Total | |
|---|------------------|---------------------|--------|--|
| Employees: | | | | |
| Agriculture, forestry and fishing | 404 | 13 | 417 | |
| Mining and quarrying | 347 | 2 | 349 | |
| Manufacturing industries: | | | | |
| Chemicals and allied industries | 432 | 3 | 435 | |
| Metals, engineering and vehicles | 3,996 | 50 | 4,046 | |
| Textiles | 546 | 39 | 585 | |
| Clothing and footwear | 404 | 22 | 426 | |
| Food, drink and tobacco | 740 | 26 | 766 | |
| Other manufactures | 1,587 | 26 | 1,613 | |
| Total: manufacturing industries | 7,705 | 166 | 7,871 | |
| Construction | 1,290 | 39 | 1,329 | |
| Gas, electricity and water | 337 | 10 | 347 | |
| Transport and communications | 1,483 | 23 | 1,506 | |
| Distributive trades | 2,707 | 54 | 2,761 | |
| Professional, financial, scientific and | | | , | |
| miscellaneous services ^b | 6,473 | 142 | 6,615 | |
| National government service | 573) | 45 | 1 506 | |
| Local government service | 978 (| 45 | 1,596 | |
| Total: employees | 22,297 | 494 | 22,791 | |
| Employers and self-employed persons | | | | |
| (all industries and services) | 1,916 | 61 | 1,977 | |
| Total in Civil Employment | 24,213 | 555 | 24,768 | |

TABLE 27. Analysis of Civil Employment in Britain mid-1974 Thousandsa

Sources: Department of Employment and Northern Ireland Department of Manpower Services

a Discrepancies between totals and their constituent parts are due to rounding.

^b Excludes private domestic service.

The unemployment rate in Northern Ireland has remained higher than in other parts of the United Kingdom. In July 1975 it was 7.4 per cent of all employees. The Northern Ireland Department of Commerce has wide powers (similar to those of the Department of Industry in Great Britain) to assist the development and diversification of industry. It is using these powers vigorously in an attempt to improve the situation (see p. 59).

EMPLOYMENT AND TRAINING SERVICES

In Great Britain the Manpower Services Commission (MSC), set up under the Employment and Training Act 1973, runs the public employment and training services previously provided by the Department of Employment. Its responsibilities are exercised through two agencies, the Employment Service Agency (ESA, see p. 340) and the Training Services Agency (TSA, see p. 343), both of which are statutory organisations headed by a chief executive appointed by the MSC with the approval of the Secretary of State for Employment. The MSC has a chairman and nine other members representing employers and employees, and local government and educational interests; responsibility for the management and development of the commission's services thus belongs directly to representatives of those who use them.

Manpower Services Commission The MSC carries out its functions within a general policy framework agreed with the Secretary of State, and is responsible for expenditure in excess of f_{100} million a year. Most of its activities are financed from public funds, and it receives an annual grant-in-aid from the Department of Employment. The MSC is advised by a network of local consultative committees on which employers, employees and other local interests are represented, so that it may secure the full benefit of local knowledge and the co-operation of employers and employees.

The main duty of the MSC is to make such arrangements as it considers appropriate for assisting people to select, train for, obtain and retain employment, and for assisting employers to obtain suitable employees. Its responsibilities include running the offices of the employment service, Professional and Executive Recruitment (PER), the Occupational Guidance Units and other employment services, operating the Training Opportunities Scheme (TOPS) and co-ordinating the activities of the industrial training boards (see p. 343). The services in Northern Ireland are run on similar lines by the Department of Manpower Services but there are some variations related to the much smaller area of administration. Reference is made to these variations where they exist.

While many of the employment and training functions of the Secretary of State have been transferred to the MSC, he retains responsibility for general manpower policy, manpower aspects of regional policy and regional economic planning, and for the department's unit for manpower studies, the race relations employment advisory service, certain executive duties under the Race Relations Act 1968 (see p. 147), certain functions in relation to redundancy payments, the issue of work permits to immigrants and international aspects of employment and training matters, and the wages inspectorate. Management of unemployment benefit has been separated from that of the employment services and is administered under a regional benefit manager at each of the department's regional offices.

The main government employment services are provided in Great Britain through a country-wide network of jobcentres (see below) and employment offices which are run by the Employment Service Agency (ESA) of the Manpower Services Commission.

Employment offices provide a comprehensive service for employers needing staff and for people, whether or not already in employment, seeking jobs. Information and advice on any employment problem is available to all. Use of the service is voluntary. Employers and individuals alike remain free to use general or specialised fee-charging private employment agencies and direct recruitment by advertisement or personal introduction. There are some 1,000 local offices, which placed people in more than 1.5 million jobs in 1974, some 15 to 20 per cent of total adult placings in Britain.

The employment offices handle the full range of occupations and deal with full-time, part-time and temporary vacancies. Details of unfilled vacancies (or of people seeking jobs) can be circulated quickly in the 'travel to work' area, or more widely if necessary.

Jobcentres

EMPLOYMENT

SERVICES

Employment offices are being replaced by jobcentres which provide selfservice facilities in addition to other services. The first jobcentre was opened in Reading in May 1973 and a network of 800 is to be in operation by the end of the 1970s.

Special Services A commercial employment service for office and shop work is available at all employment offices and also at a number of specialised commercial employment offices. In the hotel and catering industry a specialist service is based on the Hotel and Catering Trades Exchange in London and more than 20 hotel and catering trades sections of employment offices elsewhere.

The Regular Forces Resettlement Service, in which the Department of Employment collaborates with the Ministry of Defence and the voluntary organisations concerned with former regular servicemen, helps members of the Forces to achieve a satisfactory transition to civilian life.

In areas where there are large groups of hospitals, there are specially trained officers in the employment service to deal with the employment problems of nurses, midwives and those in related occupations or who wish to enter those professions. Elsewhere nursing employment work is done as part of the general employment service.

In large-scale redundancy situations, teams of officers from local employment offices visit firms to assist in the redeployment of redundant workers to new jobs or training.

Professional and Executive Recruitment (PER) provides a specialised service for men and women looking for professional, managerial, technical and scientific appointments. Each of the 38 offices is staffed by experienced consultants who can quickly identify job opportunities in any part of the country by use of a computer-assisted matching and selection system. The service is free to candidates, while employers are charged a fee on all successful placings, based on the starting salary. A broadly similar service, free to both employers and candidates, is operated in Northern Ireland.

Occupational guidance units are situated in 44 centres of population. They are available free to anybody who wishes to take expert advice before choosing or changing his occupation.

Since the implementation of the Employment and Training Act 1973 young people have had a choice of employment services. All local education authorities have a duty to provide a vocational guidance service for people attending educational institutions and an employment service for those leaving them. In addition these authorities have powers, which they must exercise as required by the Secretary of State for Employment, to extend these services to people in their early years in employment. At the same time the ESA (see p. 340) offers its services to young people who have left school and who are faced with the need to choose their career.

In Northern Ireland the Youth Employment Service has recently been absorbed into the Department of Manpower Services, which provides a single comprehensive guidance and placement service for people of all ages.

The Disablement Resettlement Service is designed to help disabled people to get and keep suitable work. It is available to anyone over school-leaving age who is substantially handicapped. All aspects of the service, which is administered by the ESA (see p. 340), are under review.

Vocational guidance and help in finding jobs is given at employment offices by specialised disablement resettlement officers (DROs) who, where necessary, arrange for a course of industrial rehabilitation or training or both. A Register of Disabled Persons is maintained and all employers of 20 or more persons are

Professional and Executive Recruitment

Occupational Guidance Units

Youth Employment

Disablement Resettlement Service

required to employ a quota (3 per cent for all industries, except shipping in respect of the manning of ships) of registered disabled persons.

Employment rehabilitation is provided at 26 centres (including one linked with a medical rehabilitation unit). Attendance at a centre is voluntary and maintenance allowances are paid. Financial assistance is also given to various voluntary and other organisations operating approved employment rehabilitation.

There are vocational training facilities for the disabled at skillcentres (see p. 344), educational institutions and employers' establishments. For the more seriously disabled there are special residential training colleges run by voluntary organisations with the help of the Training Services Agency. Grants are available to disabled people qualified to undertake study or training for professional or comparable employment.

Remploy Ltd., a non-profit-making company, partly supported by public funds, provides sheltered employment in 87 factories in Great Britain for about 8,300 registered severely disabled people who are unlikely to obtain work except under special conditions. (A similar organisation, Ulster Sheltered Employment Ltd., exists in Northern Ireland.) In March 1974 the ESA was helping local authorities and voluntary organisations with the cost of providing facilities for sheltered employment for 2,062 blind workers and 113 partially sighted workers, and 46 trainees.

Mobility of Labour As part of the policy of assisting geographical mobility of labour within Britain to balance resources and demands, the ESA also makes grants and allowances to help with costs of fares, temporary lodging and acquisition of and removal to a new home, in specified instances. The grants are available to unemployed workers moving away from home to take up employment; to key workers transferred by a firm to a new plant in an assisted area (see p. 210); and to local unemployed workers recruited to new plants in areas of high unemployment and sent to the parent works for preliminary training.

Regional Employment Incentives

Immigrant

Workers

The Government offers incentives both to encourage industrial expansion and reduce unemployment in the assisted areas. The incentives include grants towards the cost of new buildings and equipment; tax allowances; help with training; and a regional employment subsidy.

In general, people coming to Britain for employment (including Commonwealth citizens who do not have the right of abode, see p. 11, but excluding nationals of European Community countries) need a work permit issued by the Department of Employment. This must be applied for by the prospective employer and is issued for a specific job and for a fixed initial period not exceeding 12 months in the first instance. People admitted as holders of work permits may only change their jobs with the approval of the department. Normally their stay is extended if they remain in approved employment. After four years' approved employment the time limit on their stay may be removed and a worker may change employment without restriction. Nationals of the European Community countries do not require permits (see below) but for other overseas workers permits are in general issued only for work requiring a professional qualification, skill or experience, where the Department of Employment is satisfied that the worker is necessary, and where the wages and conditions are not less favourable than those generally available in the area for similar work.

Subject to an annual quota for both men and women (other than the more

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highly skilled), permits may, however, be issued for work in the hotel and catering industry, hospitals, and resident domestic work.

Commonwealth citizens and foreign nationals (other than nationals of European Community countries) are generally eligible for permits on the same terms. In addition Commonwealth citizens may be admitted for fixed periods of training 'on the job' arranged in advance if they hold student trainee permits issued by the Department of Employment. Foreign nationals may also enter Britain as holders of student employee permits for short-term employment, thus enabling them to improve their English and widen their experience.

In Northern Ireland employment permits are issued by the Department of Manpower Services and are required for non-Northern Ireland workers. Legislation defines Northern Ireland workers and makes certain occupations exempt.

The European Community regulations, now enforced in Great Britain, establish the rights of workers to move freely between member states for the purposes of employment. In Northern Ireland there is a transitional period extending up to 31st December 1977 before this applies. Workers entering another member state are entitled to be treated in the same way as nationals of that state as regards facilities of the national employment services, pay and working conditions, trade union rights, vocational training and retraining facilities, access to housing and property, and insurance and industrial injury benefits. Workers who wish to remain in the United Kingdom for longer than an initial period of six months are expected to apply for a residence permit. If they are in permanent employment the residence permit is valid for five years. If the employment is temporary (that is, expected to be of less than 12 months' duration) the permit is valid for the expected duration of the employment.

Britain, as a member of the Organisation for Economic Co-operation and Development, participates with 13 European countries in the arrangements for assisting nationals of the countries concerned to obtain employment in other member countries.

Race Relations

Race relations employment advisers, based in the Department of Employment's regional offices, provide advice and information to employers, trade unions, and other organisations with the aim of improving employment opportunities for immigrant workers.

TRAINING SERVICES The task of managing and developing the country's training programme, expenditure on which is planned to double between 1974–75 and 1978–79, is the responsibility of the Training Services Agency (TSA) of the Manpower Services Commission.

Most industrial and commercial training has always been carried out by individual employers, but in recent years the Government has taken a number of measures based on the need to provide trained manpower to sustain the growth of the economy, and to provide opportunities for people to make the best use of their skills in the right jobs and to acquire new skills when old ones are no longer in demand.

Industrial Training Act The framework of training in industry and commerce is mainly based on the Industrial Training Act 1964, as revised by the Employment and Training Act 1973. There are 23 industrial training boards and the Foundry Industry Training Committee appointed to be responsible for the quantity and quality

of industrial training in the industry concerned; 12 million employees or about 60 per cent of those in industry and commerce are covered.

Under the Employment and Training Act 1973 most of the Secretary of State for Employment's previous responsibilities for exercising control over the activities of industrial training boards were transferred to the Manpower Services Commission. Exchequer funds are available to cover the boards' operating expenses, including advisory services, and for grants for certain key training activities; the boards also have powers to raise levies to finance other training activities, the levy rate normally being limited to 1 per cent of employers' payrolls. The boards' plans and budgets are agreed with the TSA for a running 5-year period.

A body sponsored by the MSC is the Industrial Training Service (ITS) which is independent and non-profit-making and helps companies, employers' associations and industrial training boards in any industry in the identification of training needs, the formulation of training policy, job analysis for any occupational categories, training programme design and the assessment of training effectiveness.

The Training Opportunities Scheme (TOPS) is intended to supplement the training given by industry by providing individuals over the age of 19 with the opportunity to acquire a skill or to retrain. Training is carried out at over 50 skillcentres (SCs) which are within easy reach of the main industrial areas of the country. Courses are available in over 60 different trades. Most courses last for six months but a few are longer. Training under the scheme is also provided in colleges and employers' establishments. For severely disabled people training is provided at four residential training colleges run by voluntary organisations with government financial assistance. Trainees are paid allowances which vary according to the number of their dependants and their former earnings. Allowances are substantially higher than unemployment benefit.

The Government is expanding the scheme substantially. Some 40,000 people were trained under TOPS in 1973, and it is hoped to increase the numbers to between 70,000 and 75,000 by 1976.

The Government also offers industry a wide range of training facilities outside the scope of the TOPS. The Training Within Industry Scheme (TWI) is intended to develop the skills of supervisors in instructing and communicating, in improving methods and in preventing accidents. Special courses are available for supervisors employed in offices, retail distribution and hospitals, and for staff engaged in export procedures, and there is also an in-plant training development service to aid selection and further the training of operatives and clerks as instructors. Courses in industrial instruction techniques are available to firms and SC staff at the Training Services Agency's two Instructor Training Colleges (one in England and one in Scotland) and at six Instructor Training Units attached to SCs.

Training services at SCs, TWI courses, and courses at Instructor Training Colleges are available to trainees from overseas under approved schemes (for instance, those of the International Labour Organisation or technical assistance provided jointly by the Department of Employment and the Ministry of Overseas Development).

Certain training services, previously available free to firms expanding in assisted areas, are now available to all firms; these services comprise the training of firms' own instructors, training of experienced workers in instructional

Training Opportunities Scheme

Other Training Services

techniques, provision of mobile instructors to train people in employers' own premises, and training of supervisors.

TERMS OF EMPLOYMENT AND WORKING CONDITIONS

Legislation and Conventions

Though Britain has been a pioneer in the introduction of protective legislation for the safety, health and welfare of employees and in providing certain legal immunities for trade unions, until recently there were relatively few legal restrictions on the right of an employer to hire an employee on any terms which he would accept and to dismiss him at will. The employee in general looked to his trade union to protect him. The determination by statute of minimum wages, holidays and holiday pay was in principle confined to those trades and industries where the organisation of employers or workers, or both, was inadequate to negotiate collective agreements and to ensure their observance (see p. 348). However, recent legislation provides considerable safeguards for the employee in his terms of employment as well as working conditions. The Terms and Conditions of Employment Act 1959, as amended under recent legislation, provides machinery, under certain conditions, for enforcing the observance of terms or conditions established by collective agreement. The Contracts of Employment Act 1972 requires an employer to give an employee written information on his terms and conditions of employment, and the procedure available to him where he has a grievance about his employment; it also lays down the right of both employers and employees to minimum periods of notice when employment is to be terminated. Under the Redundancy Payments Acts 1965 and 1969 employees with a minimum period of service of 104 weeks are entitled to lump-sum redundancy payments if their jobs cease to exist (for example, because of technological improvements or because of a fall in demand) and their employers cannot offer suitable alternative work, the cost being partly met from a fund subscribed to by industry as a whole. The Trade Union and Labour Relations Act 1974 gives protection against unfair dismissal by providing machinery under which an employee may bring an action against an employer for unfair dismissal, and obtain either reinstatement, re-engagement or compensation; give legal support to the right to trade union organisation by making it illegal to dismiss, or to discriminate against, a person because he is or proposes to become a member of an independent trade union; and lays down that written collective agreements between trade unions and employers are presumed to be intended to be legally binding only if they contain a provision to that effect. The Employment Protection Bill (introduced in March 1975) would provide for the extension of the rights of employees regarding unfair dismissal and to discrimination short of dismissal because of trade union membership, and to payment when work is not available for reasons other than as a result of a trade dispute.

The Race Relations Act 1968 (see p. 147) makes it illegal for an employer to discriminate on the grounds of race, colour or ethnic or national origin in the engagement, dismissal or employment of workers.

In March 1975 the Government introduced a Sex Discrimination Bill which would make it unlawful, with some limited exceptions (for example, for employment in a private house or in a firm of five employees or less), for an employer to discriminate against women in recruitment or treatment of existing employees regarding promotion, training, transfer, dismissal and benefits.

Other legislation prescribes minimum standards of safety, health and welfare in most places of employment (see p. 355). However, it is recognised that the causes of many accidents are not amenable to statutory control. Therefore, voluntary action taken by employer organisations, often in association with trade unions, is encouraged.

Wage Rates and Earnings Minimum rates of pay for many manual workers are determined by national collective agreements or statutory wages regulation orders. For men these range from about $\pounds 0.50$ to $\pounds 1.50$ per hour. Separate rates for men and women are less frequently specified as the date for full implementation of the Equal Pay Act 1970 approaches (see below). Many employers pay above the national minima. Higher rates are also usually paid for shift-work and overtime, and weekly earnings may be further increased by piecework rates and other incentive schemes. Piecework rates are of declining importance in a number of industries, where methods of production tend to dictate the output of a worker.

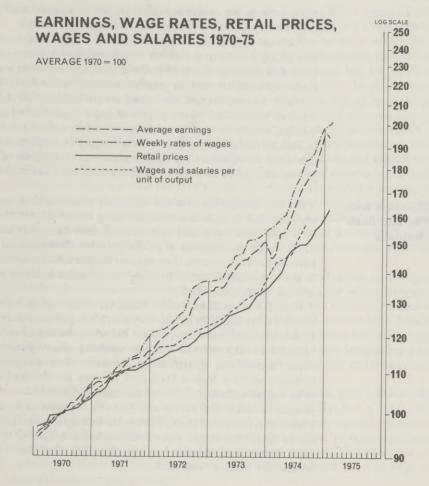
On the basis of the latest survey in a series conducted every year by the Department of Employment into earnings and hours of work in manufacturing industries and some non-manufacturing industries throughout Britain, the average earnings of full-time male adult manual workers in October 1974 were $\pounds_{1.08}$ an hour and $\pounds_{48.63}$ a week. Full-time women manual workers at the same date earned an everage of $\pounds_{0.72}$ an hour and $\pounds_{27.01}$ a week.

Minimum rates for women manual workers tend to be lower than the corresponding rates for men though the gap is gradually closing. Women's earnings are markedly lower than those of men, partly because on average they work shorter hours, with less overtime paid at premium rates, but also because a smaller proportion of women do skilled work. The Equal Pay Act 1970 provides that from 29th December 1975 a woman doing the same or broadly similar work to a man will qualify for equal pay and conditions of employment.

Between October 1964 and October 1974 average weekly wage rates increased by 158 per cent and the average weekly earnings of manual workers, before tax and national insurance deductions, by 168 per cent. Part of the increase has been offset by a rise in retail prices of about 100 per cent and by larger national insurance contributions and income tax. The trends of earnings, wage rates, retail prices, wages and salaries per unit of output since 1970 are shown in the diagram opposite.

Salaries and Fees Remuneration in commercial, technical and professional careers is normally by annual salary, often on a scale carrying annual increments, and such careers generally afford opportunities for promotion to posts with higher remuneration. Starting salaries may be in the range of $\pounds_{2,000}$ to $\pounds_{2,400}$ (lower for trainees in their teens and higher for some graduates entering industry). The average weekly earnings of full-time non-manual adult workers in April 1974 were about \pounds_{54} for men and \pounds_{29} for women. On average, salaries more than doubled between 1964 and 1974.

Most of the senior posts in business, the professions and the Civil Service are in the range of £7,000 to £15,000 a year gross before tax. The posts with salaries in the range of £15,000 to £25,000 a year include those of Cabinet Ministers, top-ranking judicial appointments, the highest positions in government departments and the largest municipal authorities, editors of daily newspapers, some persons outstanding in their professions and in the higher managerial posts in industry, commerce and banking. The earnings of a few persons in business, star entertainers and certain other very successful people exceed £50,000 a year gross. Net earnings of highly paid people are considerably lower because of the incidence of taxation (see p. 365).



A Royal Commission on the Distribution of Income and Wealth was set up in July 1974 to inquire into, and to report on, such matters concerning the distribution of personal incomes, both earned and unearned, and wealth as may be referred to it by the Government. The work of the commission forms an integral part of government policy on industrial relations and collective bargaining and helps secure a fairer distribution of income and wealth. It works in close co-operation with other bodies involved.

Women have the same right of entry as men to nearly all public offices, administrative posts and professions. As civil servants, Ministers of the Crown, Members of Parliament, salaried magistrates and solicitors, and in most professions they are paid the same salary as men for doing the same kind of work. Women in independent professions are not expected to charge lower fees than men. Equal pay as between men and women will be enforced in all occupations from the end of 1975 (see p. 346).

Hours of Work

The normal working week in Britain is in the range 39-40 hours for manual work and 37-38 for non-manual work; a five-day week is usually worked. Actual hours worked by men in manual occupations are usually somewhat longer than their standard hours; in October 1974 they were 45.1 compared with 37.4 for women. Men and women in non-manual occupations generally

work little or no overtime, although senior salaried staff may from time to time be required to work substantial (unpaid) overtime.

National legislation limits and defines permissible hours of work for women and young people in a number of industries or trades—the maximum, with limited exceptions, being 48 hours a week and 10 hours a day (9 hours a day for 6-day-week workers) in premises covered by the Factories Act (see p. 355) for adult women over 18 and young people between 16 and 18. The employment of women and young people at night is prohibited in industrial undertakings, except for young men over 16 working in some continuous-process industries (subject to certain conditions). The Department of Employment can make exemptions from these restrictions on grounds of public interest. In general the hours of work of adult men are not restricted by statute.

With few exceptions, manual workers (including shop assistants) in industries covered by agreements or statutory orders are entitled to paid holidays of at least three weeks and over one-half have basic entitlements of more than three weeks, in addition to public holidays. Non-manual workers generally have higher entitlements than manual workers. Some agreements, particularly in the non-manual sector, provide for extended holidays related to length of service, or status, or both.

Payment is made for public holidays, which are as follows: in addition to Good Friday and Christmas Day there are public holidays in England and Wales on New Year's Day, Easter Monday, the last Monday in May, the last Monday in August, and the first weekday after Christmas (Boxing Day); while in Scotland, though there are many local variations, there are bank holidays on New Year's Day, 2nd January (in the civil service, banks and most major industries but on another additional day elsewhere) and 3rd January if either the 1st or 2nd January happens to be a Sunday, the first Monday in May, and the first Monday in August. Northern Ireland observes all the English holidays and, in addition, has a holiday on St. Patrick's Day (17th March) and on 12th July; the Tuesday after Easter is also a customary holiday for industry and trade.

'Fringe' A variety of additional benefits exist in varying degree. It has been estimated that at the end of 1971 II'I million employees were covered by occupational pension schemes. Many employees are also covered by occupational sick pay schemes (additional or complementary to the State schemes, see p. 127). A smaller number are covered by schemes for redundancy payments above the statutory minimum (see p. 345). Such benefits are more usual among clerical and professional employees receiving a standard salary than among manual workers, who have a chance to increase their pay—for example, by working overtime. Senior members of firms may use a company car and some firms provide profit-sharing and share-saving schemes.

Office of Manpower Economics The Office of Manpower Economics, established in 1971 as an independent non-statutory body, acts as secretariat for the three review bodies set up to advise on the remuneration of certain groups in the public sector for which negotiating machinery is not appropriate, such as Members of Parliament, the judiciary, the armed forces, and doctors and dentists; it also services inquiries on particular pay structures and related problems.

INDUSTRIAL RELATIONS The structure of labour relations in Britain has been established mainly on a voluntary basis. The system chiefly rests on the organisation of employers and

Holidays with Pay and Bank Holidays

workers into employers' associations and trade unions. These organisations discuss and negotiate terms and conditions of employment and other matters affecting people at their work. In the past the emphasis has been on industrywide agreements supplemented as necessary by local agreements in firms or factories, but a gradual change of attitudes and structure has led to more emphasis being placed on agreements at firm and factory level. In some industries, firms and factories, negotiations are conducted simply by meetings of employers' and employees' representatives, which are held when necessary; in others, voluntary joint councils or committees have been established on a permanent basis. The scope of the various joint bodies-from the national joint industrial councils for whole industries to the works councils and committees in individual workplaces-varies widely. Although some of them only negotiate and others discuss a wide range of topics, the scope of the bodies is tending to widen and the distinction between discussion (or consultation) and negotiation to become blurred. Normally these arrangements for collective bargaining suffice to settle all questions which are raised, but provision is sometimes made for matters not so settled to be referred for settlement to independent conciliation or arbitration.

Under the Industry Bill introduced in 1975 (see p. 208) trade unions may obtain information concerning the future plans of an enterprise whose contribution to a particular sector of industry is important to the economy, unless it is considered that this would be contrary to the national interest or in breach of a statute or trust of confidence. The Employment Protection Bill (see p. 345) also makes provision for information needed for collective bargaining purposes to be disclosed by employers to trade unions, subject to certain safeguards.

Standing arrangements exist for consultation at national level between the Government, the Confederation of British Industry (CBI) (see p. 351), the Trades Union Congress (TUC) (see p. 352) and the nationalised industries through the National Economic Development Council (see p. 194) on matters in which employers and workers have a common interest. The operation of collective bargaining has from time to time been restricted in an attempt to control inflation (see p. 196).

Both official and voluntary organisations are concerned with promoting better human relationships in industry. The Government has sought to extend by research the available knowledge of the factors influencing human relations in industry and human efficiency. Such research is sponsored or conducted by the Social Science Research Council (see p. 415) and the Medical Research Council (see p. 410). In addition, the Department of Employment has set up a Work Research Unit to provide information on how particular jobs can be redesigned to create greater satisfaction, and to help industry and others in initiating and evaluating changes in the content of work. Voluntary organisations include bodies which deal with management problems and provide a service to subscribing firms; professional associations, linking individuals with a common interest in particular functions of management; and bodies providing specialist services, usually on a fee-paying basis.

Wages Councils

In a number of industries and trades where the organisation of employers or employees or both is not strong enough to provide a basis for successful voluntary arrangements, there are statutory wage-regulating bodies, known as wages councils. These are composed of equal numbers of representatives of employers and employees in the respective sectors of industry, with three independent members. Wages councils may submit proposals for fixing

minimum remuneration and holidays with pay to the Secretary of State who must then make orders giving statutory force to such proposals, subject only to his right to return them as a whole for further consideration by the councils. The Department of Employment's Wages Inspectorate helps employers and workers to interpret the provisions of wage regulation orders and sees that they are complied with. About 3:25 million workers are covered by such arrangements.

Agricultural wages boards (there are separate boards for England and Wales and for Scotland) perform similar functions in relation to employment in agriculture.

The Employment Protection Bill (see p. 345) would make a number of important changes in the role, operation and procedure of wages councils, designed to encourage the transition from statutory regulation to voluntary collective bargaining and give the councils a greater measure of independence from the Government by enabling them to make their own wage regulation orders instead of submitting proposals to the Secretary of State for Employment. The changes proposed in the Bill would also widen the scope of the councils by enabling them to regulate any terms and conditions of employment in addition to remuneration and holidays, and give the Government power to convert a wages council into a statutory joint industrial council where facilities for collective bargaining are thought to have become adequate.

The Trade Union and Labour Relations Act 1974 (see p. 345) defines the Legal status of trade unions and employers' associations and sets out certain legal requirements which they must observe. The Act confers immunities on them in respect of actions taken in the course of a trade dispute; confirms the right to picket peacefully and also provides that collective agreements shall not be legally enforceable unless they specifically provide for this.

> Many employers in Britain are members of employers' organisations wholly or partly concerned with labour questions. The primary aims of such organisations are to help to establish suitable terms and conditions of employment, including a sound wage structure and proper standards of safety, health and welfare; to promote good relations with employees and the efficient use of manpower; and to provide means of settling any disputes which may arise.

> Employers' organisations are usually organised on an industry basis rather than a product basis. A few are purely local in character or deal with a section of an industry; others are national in scope and are concerned with the whole of a particular industry. In some of the chief industries there are local or regional organisations combined into national federations, while in others, within which different firms are engaged in making different principal products, there is a complex structure with national and regional federations for these different sections of the industry as well as for the industry as a whole. Although there are some 1,100 employers' organisations dealing with labour matters, most of these are local branches of national organisations. There are about 50 of these, most of which belong to the CBI, and they negotiate the national collective agreements for their industry with the trade unions concerned.

> The final authority of a local or small national organisation may be a meeting where all member firms are directly represented; but in larger organisations some form of indirect representation is necessary, either through local organisations or through regions or sections into which these are grouped.

The representatives thus chosen, together with a number of office holders,

Framework

Employers' Associations

form a general council or central committee, which meets perhaps once a quarter, mainly to make major policy decisions, to elect committees and to ratify their work. A paid staff under a director or secretary carries out the organisation's day-to-day work. There is usually a small working group, consisting of senior officials and committee chairmen, which meets to deal with urgent questions and co-ordinate the work of committees.

The Confederation of British Industry The principal organisation representing employers is the CBI, which deals with all matters (not only labour relations) affecting the interests of employers and represents them nationally to the Government and the public and also internationally, for instance, in the International Labour Organisation and in the various institutions of the European Community. It is also the British member of UNICE (the organisation of industrial federations of the European Community). The majority of national employers' organisations and nationalised industries and a large number of individual companies, both large and small, belong to the CBI. Its representatives sit on the National Economic Development Council, on various government advisory committees, and on other statutory bodies, such as the Manpower Services Commission and the Health and Safety Commission (see p. 355). It is also consulted regarding appointments to the council of the Advisory, Conciliation and Arbitration Service (see p. 353).

Trade Unions

In nearly all industries and occupations some workers—and in some industries nearly all workers—are organised into trade unions. These have grown up gradually and independently over many years and, consequently, their form and organisation vary considerably as do their traditions and attitudes. Trade unions started more than two hundred years ago among the skilled craftsmen and spread later to the general labouring and unskilled classes. More recently trade unionism has increased among clerical, supervisory, technical and administrative workers. The qualification for membership of some unions is occupational (for instance, they may recruit clerks or fitters wherever employed), while in most others the qualification is industrial (that is, they seek to recruit all employees in an industry, whatever their occupation). In many unions recruitment is based on a combination of these principles.

At the end of 1973 the total membership of British trade unions was about 11.5 million. There were 495 unions, but nearly 77 per cent of all trade unionists were in the 24 largest unions, each with a membership of 100,000 or over, while under 1 per cent were in the 253 smallest unions with under 1,000 members each.

The number of trade unionists has increased during the last decade but the number of unions has fallen owing to amalgamations.

The Registrar of Friendly Societies (RFS) is required to maintain a list of trade unions. To be eligible for entry on the list their principal purposes must include the regulation of relations between workers and employers, or between workers' and employers' associations or their constituent or affiliated organisations. Under the Employment Protection Bill (see p. 345) the functions of the RFS in this respect would be transferred to a certification officer.

The central organisation of most large unions consists of a national executive council, usually elected by and responsible to the annual conference of delegates from local branches. Between conferences, councils are the highest authority of unions, and carry out policy decisions made by conference delegates. Most unions also have regional and district organisations. At the level of the individual member there are local branches, covering one or more factories.

Members may attend branch meetings, make suggestions about terms and conditions of employment, discuss the work of the union, and take part in the election of the union's officers. The branch takes action on certain matters considered to be entirely, or mainly, of local interest and forwards its views on wider issues for action by the union's national or regional bodies. The organising of members in individual places of work, and the negotiation of local pay agreements with managements at the factory or plant, may be done by full-time district officials of the union, or, increasingly, by 'shop stewards', who are chosen by their fellow members in the place of work to represent them. Trade unions vary in the degree to which shop stewards are integrated into their organisation. Where two or more unions have members in the same workplace, shop stewards' committees may be formed to discuss matters of common concern.

Unions often provide dispute benefit ('strike pay') for members involved in official industrial action. They also provide legal advice for members who suffer injury or contract diseases at work, and may pay members' legal costs where a case for compensation goes to court. Some unions pay benefits in case of illness, accident, death and retirement (additional to those payable under the national insurance scheme) financed out of membership contributions. Many trade unions are affiliated to the Labour Party.

Trades Union Congress In Britain the national centre of the trade union movement is the TUC, which celebrated its centenary in 1968. The TUC's objects are to promote the interests of its affiliated organisations and to improve the economic and social conditions of working people. Its membership comprises 112 organisations, some of which are themselves federations of smaller organisations. Together they represent about 10 million workpeople. The TUC deals with all general questions which concern trade unions both nationally and internationally and gives assistance on questions relating to particular trades or industries.

The annual Congress convenes in September to discuss matters of concern to trade unionists and to employees generally. It elects a General Council which represents it between successive Congresses and is responsible for carrying out Congress decisions, watching economic and social developments, providing educational and advisory services to unions, and presenting to the Government the trade union viewpoint on economic, social and industrial issues. The council is also empowered to mediate in inter-union disputes in certain circumstances and its activities for this purpose were enlarged following a special Congress in 1969 and subsequent agreement with the Government. The General Council undertook to use its authority to deal with unauthorised and unconstitutional stoppages of work, as well as the interunion and official disputes with which it had dealt previously.

The TUC as well as many individual unions conduct extensive educational services for members, mainly concerned with industrial subjects, trade unionism and principles and practice of industrial relations.

The TUC plays an active part in international trade union activity, through its affiliations to the International Confederation of Free Trade Unions and the European Trade Union Confederation. It also nominates the British workers' delegation to the annual International Labour Conference.

There are eight TUC regional councils in England, based on the Government's eight planning regions (see p. 195), with a further similar body for Wales known as the Wales Trades Union Council. These bodies, whose function is to make representations to the Government's various regional bodies, came into operation in May 1974 and replaced the previous twelve TUC

regional advisory committees. They also co-ordinate the activities of trade unions in the regions, and keep them in touch with the policy of the TUC at national level.

Scotland and Northern Ireland

Scottish trade unionists have also their own national central body, the Scottish Trades Union Congress (STUC) which is similar in constitution and functions to the TUC. Trade unions whose membership includes Scottish workers may affiliate to the STUC and a number of trade unions are in fact affiliated to both bodies. Trade unions in Northern Ireland are represented by the Northern Ireland Committee of the Irish Congress of Trade Unions (ICTU), though the majority of trade unionists in Northern Ireland belong to unions based in Great Britain. Almost 90 per cent of Northern Ireland trade unionists are members of organisations affiliated to the ICTU, while the majority belong to unions which are also affiliated to the TUC.

TUC-Labour Party The TUC-Labour Party Liaison Committee was set up in January 1972 after the general council of the TUC, the national executive committee of the Liaison Committee Labour Party and the parliamentary committee of the Labour Party had agreed to establish a liaison committee to discuss policies on industrial relations and management of the economy. In February 1973 the committee reached an agreement on the 'social contract' (see p. 196).

Advisory, Conciliation and Arbitration Service

In September 1974 the Secretary of State for Employment set up an independent Advisory, Conciliation and Arbitration Service (ACAS), which is controlled by a council consisting of a chairman and nine other members experienced in industrial relations. The Employment Protection Bill (see p. 345) provides for the ACAS to be placed on a statutory basis. The service has taken over the former conciliation and advisory services provided by the Department of Employment.

The service may offer conciliation in industrial disputes in both the public and private sectors where this is considered likely to be of assistance, and has discretion in meeting requests for conciliation subject only to the need to encourage the use of appropriate agreed procedural arrangements. Where there are such procedures, the service does not normally intervene unless efforts to obtain a settlement within these procedures have failed.

The service also, subject to the consent of the parties in dispute, appoints single arbitrators or boards of arbitration to determine differences on the basis of agreed terms of reference. It is estimated that the service has helped a settlement to be reached in about 70 per cent of cases referred to it.

Although the primary responsibility for intervention in disputes rests with the ACAS, the Secretary of State retains powers to appoint a court of inquiry or committee of investigation into a dispute, whether existing or foreseen.

The service gives advice on all aspects of industrial relations and personnel management. It conducts surveys to diagnose the causes of industrial relations problems and suggests remedial action to management and trade unions or employee representatives. It also carries particular responsibility for dealing with complaints of unfair dismissal.

The service is concerned with the long-term improvement of collective bargaining and, with the consent of the parties involved, conducts detailed inquiries in particular firms or industries. It also examines questions relating to claims for trade union recognition.

Labour Relations of Public Authorities there are some special features. While industrial relations in government service and in the nationalised industries are, in general, organised on the same principles as in private industry,

Central and Local Government

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Non-industrial employees in central Government service, where salaries and conditions of service are dealt with by the Civil Service Department (see p. 46), are permitted and encouraged to join the appropriate Civil Service associations and there is a highly developed system of negotiation and joint consultation by means of the National and Departmental Whitley Councils (see p. 64). If there is failure to reach agreement by negotiation a department or association may, subject to certain limitations, report the dispute to the Secretary of State for reference to the Civil Service Arbitration Tribunal, an independent body appointed by the Secretary of State by powers under the Industrial Courts Act 1919. Government industrial employees are similarly encouraged to belong to trade unions and machinery exists for joint consultation. There are four Trades Joint Councils on which representatives of the Government and the trade unions sit to consider pay and conditions of employment affecting individual grades and certain other limited matters. A Joint Co-ordinating Committee, on which the Government and Trades Joint Councils are represented, deals with national pay negotiations, conditions of service and other matters of general application. In the main employing departments there are departmental joint councils for the discussion of domestic matters. Disputes on wages or conditions of employment that cannot be resolved by the existing machinery can be referred to the Industrial Arbitration Board.

In local government service there are separate National Joint Councils for the main grades of employees (such as manual, clerical and technical employees) which deal with wages and conditions of service as well as other matters. There are corresponding regional and district councils.

Nationalised Industries

The major nationalised industries have a statutory duty to establish satisfactory arrangements for collective bargaining and for joint consultation with their employees; in carrying out these duties they are free to choose suitable arrangements. Unlike firms in the private sector, the corporations are not usually members of employers' associations (although the majority are 'public sector members' of the CBI). In some industries they are sole or main employers, but even where part of the industry is in private hands, as for example in road transport, the corporations are separately and directly represented on wage-negotiating bodies.

Wages and conditions of service in the nationalised industries are generally settled by negotiation between representatives of management and trade unions at the national level; in most cases there are also regional and local bodies, similarly representative, to deal with local implications but not normally to negotiate separate local agreements. Most of the industries use the facilities for arbitration offered to industry generally by the ACAS (see p. 353), but coalmining and rail transport have their own special arrangements. Consultation at all levels, including the workplace, has been arranged in all the nationalised industries.

As in many other countries, time lost through industrial disputes has risen in Britain in recent years, though it is still very much less than time lost through sickness, accidents and absenteeism.

The number of working days lost reached a peak of nearly 24 million in 1972, when major disputes occurred in coalmining, docks, engineering and

Industrial Disputes building, involving some 1.7 million employees; but this figure has since dropped sharply, being 7.1 million days in 1973 and 14.7 million in 1974, though the number of workers involved has tended to remain fairly constant.

Northern Ireland Northern Ireland has its own, though broadly similar, system of industrial relations under which certain powers and responsibilities devolve upon the Department of Manpower Services.

HEALTH AND SAFETY AT WORK Employees have a duty at common law to take reasonable care of their employees and provide a safe system of working, while employees have a duty of care towards each other. In addition, minimum required standards of safety in certain kinds of workplaces or work are laid down under a number of statutes; some of these also deal with health and welfare. The Health and Safety at Work etc. Act 1974 reorganised the system under which safety and health at work was safeguarded and extended it to cover everyone at work and to further the protection of the general public from industrial hazards.

> A Health and Safety Commission, with members representing employers, trade unions and local authorities, together with an Executive as its operational arm, has taken over responsibility for the existing government inspectorates covering factories, mines and quarries, explosives, nuclear installations and alkali works; the commission and its executive also develop and carry out policy on health and safety matters.

> The basic obligations laid down in the Act are supported by ministerial powers to make regulations dealing with a wide range of health and safety matters. Regulations will be supplemented where appropriate by codes of practice approved by the commission. In particular the Act gives inspectors the power to issue improvement and prohibition notices, which enable them to require practical improvements to be made within a specified time or to require preventive measures immediately without first having to obtain a court order. There are provisions for appeals to industrial tribunals against such notices.

> About 270,000 industrial premises (factories, warehouses, shipyards, docks and construction sites) are regulated under the Factories Act 1961, which is enforced by the Factory Inspectorate, part of the Health and Safety Executive. Likewise about 750,000 premises are subject to the Offices, Shops and Railway Premises Act 1963, whose enforcement is shared by the Factory Inspectorate, the Mines and Quarries Inspectorate (also part of the new Executive), and local authorities.

> The Acts and regulations made under them are designed to secure the health, safety and welfare of employees, and deal with such matters as the fencing of machinery; precautions against fire and special risks; the safe. condition of premises; and cleanliness, lighting, temperature and ventilation. Anyone intending to employ other people in industrial or commercial premises to which either the Factories Act or the Offices, Shops and Railway Premises Act applies has to notify the enforcing authority of his intention and every accident which is either fatal or causes more than three days' incapacity must be reported. The Factories Act includes provisions for the compulsory notification and investigation of certain types of dangerous occurrence. It also contains provisions for precautions against dangerous substances and the employment of women and young people.

Comparable provision with appropriate variations covers mines and quarries

Health and Safety Commission

Safety Regulations

under the Mines and Quarries Act 1954; two statutes are concerned with agriculture—the Agriculture (Poisonous Substances) Act 1952 and the Agriculture (Safety, Health, and Welfare Provisions) Act 1956; and specialised statutes and delegated legislation are concerned with transport—the Railway Employment (Prevention of Accidents) Act 1900, the Merchant Shipping Acts, the Road Traffic Acts and the Air Navigation Order and Regulations.

As with the Factories Act these other provisions are, with some exceptions, enforced through inspectorates-the Mines and Quarries Inspectorate, the Agricultural Inspectorate of the agricultural departments, and the Railway Employment Inspectorate of the Department of the Environment. (The Health and Safety at Work etc. Act 1974 provides for separate administration of the Agricultural and Railway Employment Inspectorates, and of the Building Regulations.) The Department of Trade is responsible for administering the Merchant Shipping Acts and for safety in air transport (most of the powers in respect of airworthiness are delegated to the Civil Aviation Authority, see p. 329), and the Department of the Environment is responsible for road and rail transport safety matters. Safety requirements in all other places of work including hotels, places of entertainment and educational establishments are covered by the Health and Safety at Work etc. Act in addition to the Fire Precautions Act 1971 or (in respect of their offices and shops) by the Offices, Shops, and Railway Premises Act. The Health and Safety at Work etc. Act 1974 amends the Fire Precautions Act to allow for the transfer to the fire authorities of responsibilities for general fire precautions and means of escape. The Radiological Protection Act 1970 has been amended to provide for co-ordination of the activities of the commission and the National Radiological Protection Board (see p. 404).

The Department of Energy has responsibility for the safety of offshore oil and gas operations and has prepared a comprehensive code of health and safety regulations under the provisions of the Mineral Workings (Offshore Installations) Act 1971.

Other Measures

Transport operators and ministries concerned with road and air travel give high priority to safety measures affecting crews and passengers. Every effort is made to counter the higher risks resulting from rising traffic densities by improving the design of vehicles and transport equipment, by control of standards of maintenance, by traffic regulations and by training crews in safety awareness.

To safeguard the many interests which might be adversely affected by the use of chemicals in agriculture and food storage, a voluntary scheme is operated by the Government with the help of an advisory committee and with the full co-operation of the chemical industry.

The National Coal Board has its own safety organisation—a Standing Committee on Safety, a chief safety engineer, and safety engineers at divisions, areas and the largest collieries.

The Promotion of Safety Measures The Health and Safety Commission encourages the development of voluntary central organisation within each industry at national level for the consideration of safety matters and the formulation of policy and accident prevention. Its Factory Inspectorate, besides inquiring into notified accidents and safety aspects of machine design and specification, circulates expert advice and encourages the appointment of safety officers and the formation of works safety committees, and maintains an industrial health and safety centre in London, at which various types of machinery demonstrating the effectiveness of guards are displayed, as well as a wide range of protective clothing and equipment.

Organisations in industry participate also in joint standing and advisory committees appointed by the Secretary of State for Employment, but these arrangements are being replaced. The Health and Safety Commission is to appoint three major advisory committees in addition to the Committee on Major Hazards set up in January 1975; these include one on toxic substances, one on dangerous substances and one on medical matters. Proposals have also been made for the appointment of 18 industry-based committees. The Royal Society for the Prevention of Accidents (RoSPA) and the British Safety Council are two major national bodies concerned with accident prevention. A number of local accident prevention groups are affiliated to either RoSPA or the British Safety Council. These groups serve as forums where questions of industrial safety can be examined and information on accident prevention exchanged.

Training is important in accident prevention and the Training Services Agency provides a course in job safety for supervisors in its TWI scheme (see p. 344). The industrial training boards usually include specific provisions for safety training in their training recommendations.

RoSPA provides a variety of safety courses for special needs mainly at its Industrial Safety Training Centre in Birmingham and also helps the accident prevention movement by providing publicity and organising conferences; its regional industrial safety officers work to promote safety activity among toplevel managers. The British Safety Council also offers safety training courses. Other courses are organised by local accident prevention groups and organisations such as the Federation of Civil Engineering Contractors.

A substantial amount of research is being done by industry, universities and other academic bodies, and government research organisations into problems of guarding machines, ergonomics, safe handling, electrical hazards, protective personal equipment, construction methods, fires and explosions, psychological factors and causes of accidents, both generally and in particular sectors of industry. A register of research into industrial health and safety matters has been compiled by the Department of Employment to give an indication of the scale and nature of research being undertaken. Industrial research associations include among their more purely economic research projects the improvement of working conditions and the reduction of hazards.

The National Coal Board conducts courses of safety training for workmen and officials. Its research programme includes a number of projects with a direct bearing on safety. In addition, the Health and Safety Executive has a statutory responsibility for research concerning the safety and health of coal miners. This responsibility is largely exercised through its Safety in Mines Research Establishment.

The University of Aston has established a Chair in Safety and Hygiene to help meet the need for academically trained safety officers and engineers whose careers will be concerned with the technical aspects of insurance and forensic work.

Local authorities have power, under the Public Health Acts, to regulate the provision of suitable sanitary accommodation at places of work and to treat the conditions of workplaces which are dirty or badly ventilated or overcrowded as nuisances the abatement of which can be enforced. Factories, certain other industrial premises, offices, shops and railway premises must comply

Training and Research in Safety

Health and Welfare

with the health and welfare requirements of the Factories Act or the Offices, Shops and Railway Premises Act. These include the cleanliness of workrooms, adequate ventilation and suitable temperature and lighting, the avoidance of overcrowding, the provision of sanitary accommodation, the protection of workers against inhaling harmful dust or fumes, the provision of washing facilities, lockers or other accommodation for outdoor clothing, drinking water, first aid and seats. Other places at work are covered by the Health and Safety at Work etc. Act.

Legislation, besides forbidding employment of children under 13 years of age, forbids the employment of children who have not reached the statutory minimum school-leaving age (see p. 154) in any industrial undertaking; of women and young people underground in mines and in certain other dangerous occupations (for example, certain processes connected with lead manufacture); and of women in factories and workshops within four weeks after childbirth. It also limits and defines the permissible hours of employment for women and young people (see p. 348). Local authorities, moreover, have wide powers under the Children and Young Persons Acts 1933–63 as well as the Education Acts 1944–48, to regulate hours and conditions of employment of children within their areas.

Employment Medical Advisory Service There are special arrangements for the medical care of people at work. The Employment Medical Advisory Service (EMAS), set up under the Employment Medical Advisory Service Act 1972 and now part of the Health and Safety Executive, provides a nation-wide service of advice on the medical aspects of employment problems to employers, employees, trade unions, doctors and others. It carries out medical examinations of workers in hazardous occupations and surveys of employment hazards, advises the staff of the Manpower Services Commission on medical aspects of job placement, rehabilitation and industrial training and co-operates with school medical officers and careers officers in helping to solve the employment problems of handicapped school leavers.

The service, headed by the Health and Safety Executive's Director of Medical Services, has over 100 employment medical advisers based in the country's main industrial centres. The TUC, the CBI and other interested organisations are associated with the work of the service through advisory committees.

The Occupational Health Laboratory of the Health and Safety Executive at Cricklewood, north London, gives advice on occupational hygiene problems, and its medical division assists the EMAS in the conduct of blood tests. There are some six centres in Great Britain (including the TUC's Institute of Occupational Health) which undertake studies of particular problems or health risks and also carry out routine physical, chemical and biological tests for industry.

Research facilities are provided by government agencies such as the Medical Research Council; by university faculties of industrial health and social medicine; and by the research departments of various industries and large industrial concerns. Field investigations are carried out by the Factory Inspectorate, which has specialised technical branches, and by the EMAS.

Many employers voluntarily maintain medical services for their employees over and above the statutory requirements. It is estimated that there are some 400 factories with doctors providing full-time medical cover and some 4,000

Advice and Research on Industrial Health

Employers' Health Services

factories with part-time medical cover. In addition several thousand nurses are employed in industry. The big employers, including the State and the boards of nationalised industries, have taken the lead but a number of smaller factories also provide medical services and in a few cases have joined together in group medical services.

Other Amenities An increasing number of firms pay part or all of the cost of recreational facilities. Some have their own rehabilitation centres or support convalescent homes. The provision of low-priced meals at the place of employment has become usual in large undertakings and quite common in smaller ones. Many offices and shops which are unable to provide canteen facilities for their staff have adopted luncheon voucher schemes.

Safety, Health and Welfare in Northern Ireland The safety, health and welfare of employees in Northern Ireland have been the subject of legislation which is embodied in the Factories Act (Northern Ireland) 1965 and the Office and Shop Premises Act (Northern Ireland) 1966. A number of firms voluntarily employ safety officers, and industrial safety groups, supported by representatives of industry, insurance companies and public authorities, make a valuable contribution to industrial accident prevention.

17 Finance

THE PUBLIC SECTOR

PUBLIC EXPENDITURE Public expenditure comprises the current and capital expenditures of central Government and local authorities, together with the debt interest and capital expenditure of the nationalised industries and other public corporations. Public expenditure in 1974–75 amounted to about £44,700 million, of which 60 per cent was undertaken by the central Government and 30 per cent by local authorities, and 10 per cent represented the capital expenditure of the nationalised industries and other public corporations.

The wide range of functions and purposes of this expenditure and its distribution is shown in Table 28.

Between 1964 and 1974 total public expenditure grew in real terms by 66 per cent.

The social services programmes now take 39 per cent of the total, whereas in 1960 they represented just over 35 per cent. On the other hand defence expenditure has declined from 17 per cent to just over 9 per cent.

Out of the total public expenditure of £44,700 million in 1974-75, some £26,000 million or 58 per cent was spent by the public sector directly on goods and services (wages and salaries, other current expenditure on goods and services, gross domestic fixed capital formation and stocks). Transfer payments to individuals, companies and other institutions in the private sector (for example, social security payments, capital grants, subsidies, and debt interest) made up the balance. Unlike public authorities' direct purchases of goods and services, transfer payments do not represent a direct demand on the nation's resources. The gross sums transferred create a proportionately lower indirect demand for goods and services because of taxes paid and savings made by the recipients.

Public Expenditure Surveys Each year a survey is made of the whole range of projected public expenditure, including total expenditure of central government departments (most of which is covered by Supply Estimates—see p. 361—and the national insurance fund), the nationalised industries' capital expenditure, and local authorities' expenditure. The survey, which covers the period five years ahead, is carried out by officials in the Treasury and other government departments, under the direction of the Public Expenditure Survey Committee.

The primary purpose of the survey is to present to ministers an up-to-date assessment of the cost of their existing policies as a basis for decisions about the total and the composition of public expenditure over the whole area over which the Government has control or influence. The five-year period gives the Government the opportunity to plan ahead significant changes without causing wasteful disruption in existing services, and to have regard to the overall economic outlook when taking decisions.

The initial review normally takes place in the first half of the year, to be followed by ministerial consideration of the survey report. Since 1969 the public expenditure plans as settled by the Government have been published (see Bibliography p. 482) around the end of the year, forming the basis of an annual public expenditure debate in the House of Commons. The supply estimates are classified functionally in the same way as the public expenditure

FINANCE

surveys (see Table 28) to assist comparison. The House has a standing select committee on expenditure to consider public expenditure, and its reports provide further information on which the debates can draw. The committee has a number of sub-committees, one to consider general Government financial control and the presentation of information about public expenditure, and others considering public expenditure in particular areas: defence and external affairs; education, the arts, and the Home Office; social services and employment; trade and industry; and environment. These committees can question departmental ministers as well as their officials, and can take evidence also from witnesses outside Government.

TABLE 28: Public Expenditure 1974-75

| | £, million |
|---|----------------------------------|
| Defence and external relations (UK) Defence Overseas services | 4,169 698 |
| <i>Commerce and industry^a</i> Agriculture, fisheries and forestry Trade, industry and employment | 1,264 2,626 |
| Nationalised industries ^a Nationalised industries' capital expenditure | 2,911 |
| Environmental services ^a Roads and transport Housing Other environmental services Law, order and protective services Social services ^a | 2,053 4,059 2,036 1,270 |
| Education and libraries, science and arts Health and personal social services Social security | 5,871 4,719 6,966 |
| Other services ^a | -, |
| Other public services Common services | 588 547 |
| Northern Ireland ^b | 1,099 |
| Total programmes Debt interest | 40,876 3,851 |
| Fotal | 44,727 |

Source: National Income and Expenditure 1964-74.

a Excluding Northern Ireland.

^b All services shown above except Defence and external relations.

Estimates

Each department submits its estimates of cash requirements to the Treasury in the December before the financial year beginning on the following 1st April. After they have been approved by the Treasury, the Supply Estimates are presented to Parliament shortly before the Budget (see p. 363) and are approved by Parliament for one year ahead, by means of an annual Appropriation Act, in July (expenditure to this date from 1st April is covered by a Vote on Account approved by Parliament before the beginning of the financial year). There are 29 allotted days (known as supply days) in each session on which the choice of subject for debate rests with the Opposition and on which estimates can be debated. Broad issues of policy are normally discussed. Certain expenditures are not approved annually, but are covered by Acts of Parliament allowing payments to continue from one year to another and are paid direct from the Consolidated Fund. These include the financial provision for members of the royal family, and salaries and pensions of judges. The Consolidated Fund, into which tax revenue and other receipts are paid, finances most of the Government's expenditure; its balance is held in the Exchequer account at the Bank of England. The National Loans Fund covers most of the Government's domestic lending and borrowing, and is operated as an official account at the Bank of England. The two funds deal only with sterling receipts and payments; official dealings in foreign exchange are carried out by the Exchange Equalisation Account (see p. 370).

Treasury Control The Treasury's authority is required for any new item of expenditure, for any increase in expenditure beyond that originally authorised, for any change in policy which means an increase in expenditure, and for extra-statutory payments. This requirement is, however, subject to any delegated authority which may be given to departments to deal with particular types of expenditure. Treasury control does not imply final sanction by the Treasury—in the last resort the decision is taken by the Government as a whole, and carried out subject to Parliamentary consent.

The Comptroller and Auditor General

The Public

Committee

Accounts

Control over issues of money to departments and the audit of accounts is exercised by the Comptroller and Auditor General, a permanent officer of the Crown. Since 1866 he has had two functions: as Comptroller he controls receipts and issues of public money to and from the Consolidated Fund and the National Loans Fund, and as Auditor General he audits departmental accounts and submits his report on the Appropriation Accounts and other accounts, as required by statute, to Parliament. His statutory function is to ensure that all expenditure is properly incurred, for example, that no payments are made which go beyond any relevant statutory authority, and that Treasury sanction has been obtained wherever necessary. In addition, however, he has been asked by successive Public Accounts Committees (see below) to examine departmental expenditure for cost-effectiveness with a view to drawing their attention to any cases of apparent waste or extravagance.

The accounts of each department and the reports on the accounts made by the Comptroller and Auditor General are considered by a House of Commons select committee called the Public Accounts Committee. This was first set up in 1861 for the purpose of ensuring that expenditure was properly incurred in accordance with the purpose for which it was voted and with any relevant Acts of Parliament. The terms of reference of the committee are simply to examine the accounts and these terms have been widely interpreted by successive committees which have investigated whether full value has been obtained for the sums spent by departments and have examined cases in which the administration appears to have been faulty or negligent. The committee has therefore become a powerful instrument for the exposure of waste and inefficiency. It embodies the findings in reports which may be debated in the House of Commons. Its recommendations are considered by the Treasury in consultation with departments and put into effect, so far as they are accepted, according to Treasury instructions. A reply to each report is submitted to Parliament by Treasury Minute and both documents are debated at the beginning of the following session.

THE BUDGET

The Budget (an old word which meant a bag containing papers or accounts) is a set of proposals made usually once a year in either March or April, for financing Government expenditure. Supplementary budgetary measures may also be introduced at other times of the year and in November 1974 there was a second full budget. The proposals are described by the Chancellor of the Exchequer in the Budget speech, against the background of a statement of the Government's past and prospective revenue and expenditure, and the Chancellor's assessment of the position and prospects of the economy.

The Budget speech is followed by the moving of a set of Ways and Means resolutions, in which the proposals are embodied. These resolutions, when passed by the House, become the foundation of the Finance Act, which expresses the proposals in statutory form.

A major function of the Budget is to act as an instrument of economic management, and the Budget speech is normally the main occasion for a review of general economic policy. The scale of public expenditure and taxation has an important influence on the general level of output and distribution of resources. The Budget judgment is therefore concerned with the balance between the total of goods and services which are likely to be available to the nation and the total claims which are likely to be made on them. Taxation provides the Government with a means of exerting a considerable influence on the pressure of demand. Taxation measures can also have a broader influence on the pattern of demand and the long-term performance of the economy.

The Budget deals with the means of financing expenditure and particularly with changes in taxation and not primarily with expenditure itself. On occasions, changes affecting expenditure, such as increases in pensions and family allowances, have been announced in the Budget speech as have financial and monetary measures not related to the Finance Act, such as changes in exchange control policies. Such measures, however, are not reflected in the resolutions or the Finance Act but are applied by whatever procedure is appropriate to implement them—separate legislation, statutory instruments or administrative action.

The scope of the Budget and that of the Finance Act which follows it are different although they are closely interrelated. The Budget is essentially concerned with the measures that give effect to the Chancellor's decision to increase or reduce to an appropriate extent the predicted level of demand on economic resources by use of the instruments at the Chancellor's disposal, and especially by increasing or reducing the yield of central Government taxes. The tax changes made necessary by the Budget judgment are enacted in the Finance Act. But the Finance Act also provides the annual opportunity for non-Budgetary changes in the tax system and for certain other financial matters, such as provisions relating to Government borrowing.

The bulk of the taxation proposals in the Budget are concerned with changes in the rates or coverage of existing taxes, the introduction of new taxes or the abolition of existing ones, and changes in the administrative machinery relating to taxation. In two cases however (income tax and corporation tax) annual Ways and Means resolutions followed by a Finance Act clause are necessary to maintain the taxes in existence at all, since they are annual taxes. It is this which makes a Budget at or about the beginning of each financial year a necessity.

New taxes and changes in certain existing taxes, like other changes in statute laws, do not come into effect until the appropriate Act—in this case the Finance Act—has received Royal Assent (in the case of the spring Budget,

normally at the end of July) or at some other date laid down in the Bill. Some changes, however, come into effect earlier, usually from Budget Day or from the start of the tax year, under the Provisional Collection of Taxes Act. This enables the Government to collect certain taxes provisionally, income tax for example, either at the rates previously in operation or at new rates following the passing of the appropriate Ways and Means resolutions. Tax proposals may be made at other times in the year to meet changes in economic circumstances.

Public Sector Accounts

The economic background to the spring Budget and the transactions of the central Government and the public sector as a whole are presented in the *Financial Statement and Budget Report* (see Bibliography p. 482) which is laid before the House of Commons by the Chancellor of the Exchequer when he presents the Budget. The report is in three parts: the economic context of the Budget; the accounts of the public sector for the past financial year and the one immediately ahead; and the accounts of the central Government for the same two years. The accounts are designed to assist in assessing the impact of changes in revenue and public expenditure on the economy.

The accounts of the public sector show the transactions of the central Government, local authorities, nationalised industries and other public corporations combined into a consolidated account covering the whole of the public sector. The transactions within the public sector cancel out on consolidation and the net balance on the consolidated account represents therefore the borrowing required by the public sector from the private and overseas sectors.

The accounts of the central Government show transactions both on the conventional cash basis of Exchequer accounting and in accordance with the framework of the national income accounts.

Central Government borrowing may be in the form of borrowing from the public either through the National Savings Movement (see p. 373) or by borrowing on the market by means of new issues of securities. New issues of government securities are made from time to time for the purpose of refinancing maturing issues (conversion loans) or to raise new money (issues for cash). The capital requirements of the nationalised industries are met to some extent by the central Government through the National Loans Fund, while those of the local authorities are met partly by the central Government through the Public Works Loan Board and partly by borrowing directly from the public. Some nationalised industries and local authorities also borrow, under special statutory power and with Treasury consent, in foreign currencies. The euro-currency market has become an increasingly important source of public sector borrowing. After allowing for the changes introduced by the Budget of April 1975 the central Government's borrowing requirement for 1975-76 was expected to be £7,827 million, compared with £5,109 million in 1974-75 and that for the public sector as a whole £9,055 million compared with £,7,602 million in 1974-75.

Table 29 shows total revenue from taxation and other sources in 1974-75 and 1975-76 together with the effects of the Budget changes.

Budget Changes In the Budget presented in April 1975 the Chancellor of the Exchequer introduced measures designed to release resources for export (so that the economy would be in a position to take advantage of the expected increase in world trade in 1976) and so reduce the balance of payments deficit. Action was also taken to strengthen Britain's industrial base and reduce the public sector borrowing requirement as a percentage of gross national product.

FINANCE

SOURCES OF REVENUE

The three principal sources of tax revenue are first, taxes on income, which include income tax and corporation tax; second, taxes on capital, which include capital transfer tax and capital gains tax (for proposed new taxes, see p. 367); and third, taxes on expenditure (including taxes on the ownership or use of certain assets)-these include protective and revenue duties, value added tax (VAT), local rates (see p. 72), stamp duties and licence duties (for example, on motor vehicles). Taxes on individual (but not corporate) incomes are progressive in that large incomes bear a proportionately higher rate of tax. The Board of Inland Revenue assesses and collects the taxes on income and capital and the stamp duties; the Board of Customs and Excise collects the most important taxes on expenditure (the customs and excise duties and VAT) while a variety of authorities is responsible for the collection of the remainder.

Income Tax

Taxes on Income Income tax is imposed for the year of assessment beginning on 6th April. The rates of tax introduced in the April 1975 Budget are as follows: the basic rate of 35 per cent applies to the first $f_{,4,500}$ of taxable income (that is, total income less deductions and personal allowances), a rate of 40 per cent is charged on the £4,500-£5,000 band of taxable income, and the rate for successive bands rises generally in steps of 5 per cent until a maximum rate of 83 per cent is reached at a level of over £20,000 of taxable income. These rates are charged on both earned and investment incomes. Investment incomes are also liable to a surcharge on the amount by which they exceed £1,000 (£1,500 for the elderly); the surcharge is 10 per cent on the first $f_{1,000}$ ($f_{1,500}$ for the elderly) of investment income above the relevant threshold and 15 per cent on the remainder. The tax imposed on an individual is graduated by means of personal allowances and reliefs. In general, married couples receive higher allowances than a single person. Husband and wife may choose to have the wife's earnings charged separately for tax on condition that the former receives the single instead of the married personal allowance.

A single person earning $f_{,3,000}$ a year pays $f_{,813,75}$ in income tax, while a married man with the same earned income pays $f_{.715,75}$; if he has two children under the age of 11 and his earnings plus the family allowance total $f_{3,000}$ his tax falls to $f_{555.95}$. The amount of tax payable by a single person varies from, for example, £113.75 on an earned income of £1,000 a year to £11,118.75 on an earned income of £,20,000.

Most wage and salary earners pay their income tax under a PAYE ('Pay as You Earn') system whereby tax is deducted (and accounted for to the Inland Revenue) by the employer, thus enabling them to keep as up to date as possible with their tax payments.

In general, income tax is charged on all income which originates in the United Kingdom and on all income arising abroad of persons resident in the United Kingdom. Interest on certain United Kingdom government securities belonging to persons not ordinarily resident in the United Kingdom is exempt. The United Kingdom has entered into agreements with many countries providing for relief from double taxation; where such agreements are not in force unilateral relief is allowed.

Company Taxation

Companies pay corporation tax at a single rate on all their profits, whether distributed or not. However, only a proportion of any capital gains is included in total profits, with the result that chargeable gains as a whole are subject to a lower effective rate of tax. Income tax is not deducted from dividends but a company which distributes profits to its shareholders is required to make to the Inland Revenue an advance payment of corporation tax. In general, this

advance payment is set against a company's corporation tax bill and the recipient of the distribution in respect of which the advance payment was made is entitled to a tax credit, which satisfies the liability to income tax at the basic rate.

The rate of corporation tax is fixed retrospectively in the Budget for the past financial year; for 1974–75 it is 52 per cent with a reduced rate of 42 per cent for small companies (as defined in the Finance Acts 1972 and 1974). The tax is assessed on the profits of accounting periods, the rate of tax being the rate for the financial year in which the accounting period falls. Where an accounting period straddles 31st March the profits are apportioned on a time basis. Relief for the effect of inflation on the value of stocks was given in the November 1974 budget and further extended in the April 1975 budget.

TABLE 29: Taxation and Miscellaneous Receipts 1974-75 and 1975-76

f. million

| Inland Revenue: 10,237 13,830 14,008 Surtax 186 85 85 Corporation tax 2,850 2,085 2,125 Capital gains tax 381 325 325 Estate duty 339 165 165 Capital transfer tax - 150 150 Stamp duties 197 220 220 Other 1 - - Total Inland Revenue 14,191 16,860 17,078 Customs and Excise : 2,497 3,054 3,275 Value added tax 2,497 3,054 3,275 Oil 1,337 1,410 1,675 Spirits, beer and wine 1,133 1,180 1,475 Betting and gaming 238 273 275 Car tax 122 168 170 Other revenue duties 40 10 10 Protective duties, etc. 499 530 530 Agricultural levies 532 525 773 Selective employment tax 2 <t< th=""><th></th><th></th><th></th><th>to million</th></t<> | | | | to million |
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| Total 23,570 26,859 28,110 | Other | | | |
| 1 Utut | Total | 23,570 | 26,859 | 28,110 |

Source: Financial Statement and Budget Report 1975-76.

^a Includes customs duties and agricultural levies accountable to the European Communities as 'own resources'.

Petroleum Revenue Tax

Under the Oil Taxation Act 1975 a petroleum revenue tax of 45 per cent (deducted in computing profits for corporation tax) is to be imposed on profits from the winning, as opposed to refining or other form of processing, of hydrocarbons under licence in Britain and on its continental shelf. Each licensee of an oilfield is to be charged on the profits for that field, computed for half-yearly periods.

Taxes on Capital

Capital Transfer Tax A new comprehensive tax on all transfers of personal wealth, capital transfer tax, was introduced in the Finance Act 1975. The tax applies to transfers in three main areas: lifetime gifts; transfers on death; and transfers relating to settled property (that is, any property held in trust). The tax is chargeable in respect of a person's lifetime transfers as they occur and on a cumulative basis. The final stage of cumulation is the inclusion of the property 'passing' on an assumed transfer of the whole of the deceased's estate immediately before the death. The rates of tax applicable are progressively higher on successive slices of the cumulative total of chargeable transfers, with a lower scale of tax for lifetime transfers is exempt; the rates on the remainder rise from 5 per cent on the slice between £15,000 and £20,000 to 75 per cent on the excess over £2 million for lifetime transfers and from 10 per cent on the slice between £15,000 and £20,000 to 75 per cent on the excess over £2 million for transfers on death.

Capital Gains Tax

Proposed Taxes

Taxes on Expenditure Capital gains accruing on the disposal of assets are liable to capital gains tax or, in the case of companies, to corporation tax. The rate of tax is normally 30 per cent, but in the case of individuals may be less, depending on their circumstances. Certain assets may be exempt from tax, including the principal private residence, chattels worth less than $\pounds_{1,000}$ (and any chattels, except those used for the purpose of a trade, with a predictable life of less than 50 years), private motor cars, and National Savings Certificates. An individual is exempt from capital gains tax where the total proceeds of disposals do not exceed \pounds_{500} in any year. In addition gains on gilt-edged securities are exempt from capital gains tax if the securities were held for more than 12 months. Certain gains arising on the disposal of land in Britain with development value or potential are taxed as income.

In March 1974 the Chancellor of the Exchequer announced the Government's intention to introduce an annual tax on wealth, but only after a thorough public discussion of its form, rates and relationship with other forms of taxation had taken place. As a first step towards this a consultative document was published in August 1974. A Select Committee of the House of Commons has now been set up to examine the Government's proposals.

The Government intends to introduce a development land tax (DLT) which will apply to interests in land situated in Britain. Realisations of development value from land will be chargeable to DLT at a rate set initially at 80 per cent.

The largest group of taxes on expenditure are those administered by the Customs and Excise Department, namely VAT, car tax and the duties on tobacco, hydrocarbon oil and alcoholic drinks, protective duties, betting and other revenue duties of customs and excise. In Britain it has been the practice that a commodity which is taxed to provide revenue bears a customs duty if it is imported and an excise duty if it is home produced. These taxes are usually referred to as indirect taxes since they are normally paid by the importer,

manufacturer, or wholesaler, who adjusts the prices charged to customers accordingly. Under the Treaty of Accession to the European Community Britain undertook gradually to convert revenue duties into internal taxes chargeable alike on imported and home-produced goods. The Finance (No. 2) Act 1975 provides for the conversion of the customs revenue duties into internal taxes on 1st January 1976 (except in the case of tobacco, the conversion date for which is scheduled for 1st January 1978). The conversion provides that fiscal charges, to be known as excise duties, will be charged on imported goods at the same rates as the duties on similar home-produced goods, and that any protective charges will be levied as import duties under the Import Duties Act 1958, as are all other protective duties. Protective customs duties are being brought into line with the Community's common customs tariff (see p. 386). All the revenue duty goods (other than hydrocarbon oil) are subject to the standard rate of VAT.

The Chancellor of the Exchequer has power to vary between Budgets the VAT rates by up to 25 per cent, and the rate of any of the other main groups of customs and excise duties (that is, tobacco, alcoholic drinks, oil and the minor revenue duties) by up to 10 per cent. This power, known as the 'regulator', requires annual renewal. The April 1975 Budget increased the duty on tobacco, spirits, wine and beer.

Value Added Tax Value added tax (VAT) is collected at each stage in the production and distribution process. The final tax is borne by the consumer. A taxable person (generally, a trader carrying on a business with a turnover of more than £5,000 a year) is charged by suppliers of goods and services with VAT ('input' tax). The trader then charges the customer with VAT on goods and services supplied ('output' tax). The trader pays to Customs and Excise the difference between output and input tax. Although VAT falls on imported goods, most exports are zero-rated and VAT entering directly into export costs can be reclaimed.

VAT is a broadly-based tax falling on final consumers' expenditure except where there are strong social or economic reasons for giving relief. There are two basic methods by which supplies of goods and services may get relief from VAT: zero-rating, when a trader does not have to charge tax to a customer, but can reclaim any input tax paid to suppliers, and exemption, when a trader does not have to charge a customer any output tax but is not entitled to deduct or reclaim any input tax relating to the goods or services which he sells. The most important supplies to which zero-rating applies are most types of food (except in the course of catering); books, newspapers and periodicals; fuel (except for petrol and other fuels for road use); construction of buildings; exports (goods and most services); public transport fares; young children's clothing and footwear; and drugs and medicines supplied on prescription. Exemption applies to land (including rents); insurance; postal services; betting, gaming and lotteries; finance; education; health; and burial and cremation.

VAT is chargeable at a standard rate of 8 per cent except for certain goods which are charged at a higher rate of 25 per cent. These include petrol, most domestic electric appliances (excluding cookers, space heaters and fitted water heaters), radios, televisions, hi-fi equipment, boats, aircraft, caravans, cameras, binoculars, furs and jewellery.

New cars, whether British made or imported, are chargeable with car tax at 10 per cent on the wholesale value. VAT falls on the price including car tax.

Car Tax

FINANCE

Betting and Gaming Duties

Motor Vehicle Licence Taxes

rate of 7.5 per cent of stake money except for on-course betting which is charged at 4 per cent. Gaming is taxed at different rates mainly by licence fees. Taxes on motor vehicles are collected for the Department of the Environment by local post offices; the proceeds are paid into the Consolidated Fund. The

The principal betting duties are: the pool betting duty (which applies to

football pools and betting by coupon at fixed odds) charged at a rate of 40 per cent of the stake money; and the general betting duty, which is charged at the

The National Debt

licence duty on a private motor car is $f_{,40}$ a year; motor cycles and three-wheel vehicles, etc., pay £4, £8 or £16 a year according to engine capacity. Goods vehicles are taxed by unladen weight, and taxis and buses by seating capacity.

The National Debt increased rapidly during and immediately after the first and second world wars. It rose from £650 million in 1914 to £7,435 million at the end of the first world war, and from £7,131 million in 1939 to £23,647 million in 1946. On 31st March 1975 the total National Debt was estimated at £45,883 million, of which £2,323 million was repayable in currencies other than sterling, mainly to the United States and Canadian Governments. Of the £43,560 million of internal debt, £8,499 million was short-term debt, mainly in the form of 91-day Treasury bills, while the long-term loans included a variety of stocks, bonds, loans and certificates carrying fixed rates of interest (ranging from $2\frac{1}{2}$ to $12\frac{3}{4}$ per cent) and with fixed or indeterminate dates of repayment.

PUBLIC FINANCE IN NORTHERN IRELAND

The general system of public finance in Northern Ireland is, in its main features, similar to that operating in the United Kingdom as a whole. The major sources of revenue are the main national taxes imposed by the United Kingdom Parliament over the whole country. The Northern Ireland share of the yield of United Kingdom taxes is paid out of the Consolidated Fund of the United Kingdom into that of Northern Ireland. Revenue also accrues from taxes levied locally such as the regional rate and from certain non-tax revenue. This revenue is supplemented by an annual sum voted to the Secretary of State for Northern Ireland. Loans from the United Kingdom National Loans Fund are available (up to a limit of £450 million) to finance capital expenditure programmes in Northern Ireland.

Various funds have been established in Northern Ireland, in addition to statutory Reserve and Sinking Funds, for specific purposes. In general, these funds follow the United Kingdom pattern, the principal funds being those relating to national insurance and government loans. The latter constitutes a pool of money available mainly for local and public authority borrowings; on 31st March 1975 a sum of approximately £,448 million was outstanding against such borrowers.

THE CENTRAL BANK

The British banking system comprises a central bank; deposit banks which perform the usual main banking services; the United Kingdom offices of banks whose main business is in other countries; merchant banks and other specialised institutions.

The Bank of England was established in 1694 by Act of Parliament and Royal Charter as a corporate body; the entire capital stock was acquired by the Government under the Bank of England Act 1946. As the central bank, the Bank acts as banker to the Government, to overseas central banks and to

deposit banks and is the lender of last resort to the banking system (see p. 372); it is the note-issuing authority and the registrar for some 200 government, nationalised industry, local authority, public board and Commonwealth government stocks. As agent for the Government the Bank administers exchange control. On behalf of the Treasury it manages the Exchange Equalisation Account (EEA), which holds Britain's official reserves of gold, foreign exchange and Special Drawing Rights (SDRs) on the International Monetary Fund. Using the resources of the EEA the Bank designs its interventions in the foreign exchange market both to prevent undue fluctuations in the exchange value of sterling and to conserve the means of making payments abroad.

As banker to the Government the Bank examines and seeks to anticipate banking and financial problems and undertakes the appropriate operations in the money, capital and the foreign exchange markets; consequently the Bank has a major responsibility for advising the Government on the formulation of monetary policy and for its subsequent execution.

In implementing monetary policy the Bank is ready to act daily in the money market, by buying or selling Treasury and other bills, and similarly in the market for government stocks. When necessary, the Bank may exert influence on interest rates through market operations; an important indication of its intentions is the minimum lending rate (known as 'Bank rate' until 1972), which is the minimum rate at which the Bank will normally lend to the members of the London Discount Market and closely reflects short-term market rates, being normally $\frac{1}{2}$ per cent above the average rate of discount for Treasury bills. The Bank can also influence market and money supply conditions through its power to call for special deposits.

The Bank is the recognised channel of communication between the deposit banks and other financial institutions of the City of London on the one hand, and the Government on the other.

The Bank of England has the sole right in England and Wales of issuing bank notes. The note issue is fiduciary, that is to say, it is no longer backed by gold but by government and other securities. The Scottish clearing and Northern Ireland banks have limited rights to issue notes; these issues, apart from an amount specified by legislation for each bank, must be fully covered by Bank of England notes. The provision of coin for circulation is the responsibility of the Royal Mint, a government department.

Following discussions by the Bank of England with the banks, the hire purchase finance houses and the discount houses, new arrangements for the control of credit came into effect in 1971. While it is still necessary for the Government, as an indispensable part of economic management, to regulate the development of credit and the money supply, the new system has replaced rigid quantitative controls over lending in sterling with policies for influencing bank and finance house lending which are designed to combine effective control with greater flexibility and freedom for these institutions. The techniques now in operation involve more reliance upon changes in interest rates, in particular through calls by the Bank for special deposits from other banks superimposed on a minimum reserve assets ratio of $12\frac{1}{2}$ per cent of eligible liabilities.¹ Calls for special deposits also restrict the growth of money supply by reducing the banks' lending base. The ceiling controls on lending by the banks and finance houses have been removed and the London and Scottish

¹ Basically sterling deposits of two years or less from outside the banking system together with any foreign currency changed into sterling.

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clearing banks have abandoned their collective agreements on interest rates. Moreover they now set their base rates for lending independently of the minimum lending rate. Greater potential for competition and innovation by these institutions has thereby been introduced into the domestic economy.

In February 1975 the Bank suspended a supplementary scheme designed to improve its control over the money supply and bank lending. The scheme had come into effect during 1974 and penalised any growth in the banks' interest-bearing deposits above a specified rate by requiring the placement of non-interest-bearing supplementary special deposits with the Bank.

OTHER BANKS AND INSTITUTIONS

The primary business of the deposit banks is the receipt, transfer and encashment of deposits. The principal deposit banks are the six London clearing banks, three Scottish clearing banks and two Northern Ireland banks. Mergers have resulted in the formation of six banking groups, four based in London and two in Scotland. The two Northern Ireland banks are owned by London clearing banks, but two groups of banks based in the Irish Republic also operate in Northern Ireland.

In March 1975 current and deposit accounts with deposit banks operating in Britain totalled some $f_{28,035}$ million, and accounted for nearly 33 per cent of the total deposits (in sterling and foreign currencies) of the banking sector, which also includes the National Giro, the accepting houses, overseas banks, other banks and the discount market. The deposit banks provide full banking services throughout Britain, and operate through over 14,000 branches. Several of them have interests in British overseas and Commonwealth banks, and in other banks which have been formed specially to compete in international markets. They have also acquired substantial interests in hire-purchase finance houses, and some have set up their own unit trusts.

Together with the Bank of England the London clearing banks make up the membership of the London Bankers' Clearing House. In 1974 cheques, drafts, bills and bankers' effects passing through the interbank debit clearing system averaged in value nearly $\pounds_{136,760}$ million monthly, while the average monthly value of the credit transfer clearing was over $\pounds_{1,545}$ million.

Current account balances with the deposit banks are repayable on demand and no interest is paid on them, but on deposit account balances interest is paid at a rate below individual banks' base rates. The deposit banks' more liquid assets consist of cash, balances at the Bank of England, money at call (mainly loans to discount houses), and their holdings of Treasury and commercial bills. The banks also hold a proportion of their assets as portfolio (mainly British Government securities) or trade investments.

The banks' profits are largely earned through their advances to customers partly in the form of overdrafts and partly in the form of loans (with or without collateral security). The ratio of London clearing bank advances to total deposits in April 1975 was 63.5 per cent.

The bank giro, a credit transfer scheme, and the direct debiting system, by which a creditor with the prior approval of the debtor may claim money due to him direct from the latter's banking account, have helped to improve the money transmission services. Another banking innovation has been the introduction by some banks of automatic cash dispensing machines. Credit cards are in widespread use for the settlement of accounts in retail shops; and cheque cards enable the card holder to cash a cheque up to \pounds_{30} at any office of the major British and Irish banks, and at offices of many banks overseas.

THE BANKING SYSTEM

The Deposit Banks

National Giro

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The Post Office National Giro, which was introduced in 1968 to provide a low-cost current account banking and money transfer service, is operated through most post offices in Britain. All accounts and transactions are maintained by means of a computer complex at the National Giro Centre near Liverpool. In March 1975, Giro had 493,000 accounts with deposits of nearly f_{s120} million. The number of weekly transactions had risen from 500,000 in September 1969 to 3.33 million by March 1975 when the weekly turnover was £483 million. In addition to its services to individuals Giro's services to commerce, industry and the public utilities include a facility whereby organisations with dispersed branches, depots and representatives can rapidly channel receipts into their central accounting system. Many local authorities use Giro's rent collection services. Giro's international services also provide money transfer facilities in Europe linking over 16 million account holders in the European Community and other countries in Western Europe. Giro has been authorised to offer personal loans and overdrafts, as well as overdrafts for corporate customers. These new facilities are being introduced on a phased basis.

Overseas Banks The overseas banks, some of which have their headquarters in London, provide a comprehensive banking service in many parts of the world and engage in the financing of trade not only between Britain and other countries but also between third countries. There are 57 United States banks, 24 banks from the European Community, 17 Japanese banks, 29 consortium banks, and 76 others, including Commonwealth and other European banks.

The Merchant Banks The merchant banks have an influence on Britain's financial affairs which is much greater than their size in relation to other financial institutions might suggest. Traditionally merchant banks have been primarily concerned with acceptance credits¹ and with the sponsoring of capital issues on behalf of their customers. Today they have a widely diversified and complex range of activities with an important role in international finance and the short-term capital markets, the provision of expert advice and financial services to British industrial companies especially where mergers, takeovers and other forms of corporate reorganisation are involved, and the management of investment holdings, including trusts, pensions and other funds.

The Discount Market The Money or Discount Market is an institution which is unique to the City of London. Its function in the monetary system is to provide a financial mechanism designed to promote an orderly flow of short-term funds. The market consists of 11 discount houses which borrow money 'at call' or short notice and lend for somewhat longer periods. They have recourse to the Bank of England as lender of last resort and the Bank lends to the houses generally overnight or for seven days at minimum lending rate, although it may charge a higher rate. Most of the market's borrowed funds come from the banks, which are thus provided with a flexible means of earning a yield on surplus funds which they have at any given time.

The assets of the discount houses mainly consist of Treasury and commercial bills, government and local authority securities and negotiable certificates

¹ Acceptance credits are usually short-term (90 days) arrangements to finance exports from, and imports to, Britain and other markets. The expression is derived from the method of financing trade by which commercial bills are 'accepted' or guaranteed by a merchant bank against documents, after which they may be discounted for cash by a discount house.

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of deposit denominated in both sterling and US dollars. The market accepts as an informal responsibility that it should cover the Government's need to borrow on Treasury bills which are offered on tender each week.

The National Savings Movement

National Savings

Securities

The National Savings Movement started in 1916 to help finance the war by promoting savings. The present movement encourages the widespread investment of savings in Trustee Savings Banks and the National Savings Bank (see p. 374) and in National Savings securities. The movement is led by the National Savings Committee for England and Wales and similar committees for Scotland and Northern Ireland. The committees consist of representatives of the voluntary savings movement in the regions and of various national institutions connected with finance, industry and education. They have a staff of civil servants. Voluntary local savings committees, often supported by local authorities, co-ordinate the work of voluntary local savings groups. The administration of the National Savings Bank and other forms of national savings is carried out by the Department for National Savings. At the end of June 1975 National Savings totalled £10,977 million.

Five forms of National Savings securities are on sale: National Savings Certificates, British Savings Bonds, Premium Savings Bonds, National Savings Stamps, and Gift Tokens. National Savings Certificates, in units of £1, are encashable at par at any time; interest, which is free of income tax and capital gains tax, is paid only on encashment; the limit on individual holdings is 1,000 units of the current 'fourteenth issue' introduced in 1974. British Savings Bonds, 9.5 per cent, sold in units of $f_{5,5}$, are repayable at par on one month's notice. If the bonds are held to maturity (five years from the date of purchase) they are repaid with a bonus of 3 per cent tax free. Maximum holding is £10,000. Premium Savings Bonds are in units of £1 (minimum purchase is f_{2}) and individual holdings are limited to f_{2} ,000. After a qualifying period of three months the bonds give investors a chance to win tax-free prizes instead of receiving interest. There is a weekly draw for a prize of £,50,000 and 25 prizes of $\pounds_{1,000}$ and a monthly draw for prizes ranging from \pounds_{25} to $\pounds_{75,000}$. At the end of June 1975 £1,079 million was invested in this form of savings. A selection of British Governments ecurities is held on the National Savings Stock Register. Trustee Savings Banks also deal in stock on the National Savings Stock Register.

In June 1975 the Government introduced index-linked National Savings Certificates costing £10 each. The certificate is available only to men aged 65 and over and women aged 60 and over up to a maximum of £500 per person. These certificates have a life of five years and if they are held to maturity will attract a tax-free bonus of 4 per cent of the purchase price in addition to any increase due to the upward movement of the retail price index. If the certificate is encashed before maturity but after one year repayment will include any increase due to movement in the retail price index but no bonus will be payable.

Northern Ireland issues separately Ulster Savings Certificates and Ulster Development Bonds on similar terms to the corresponding National Savings Certificates and British Savings Bonds.

Contractual Savings An index-linked contractual savings scheme was introduced in July 1975 under the terms of the Third Issue of the Save as You Earn (SAYE) scheme. The new scheme enables savings to be made in regular monthly amounts with a minimum of \pounds_4 and a maximum of \pounds_20 in deposits with the Department

for National Savings, by means of deductions from pay or by other regular payments. Indexation only applies to completed savings contracts. At the end of five years, the repayment value will be the total contributions plus any increase due to index-linking of monthly contributions. Completed savings which are not withdrawn will qualify for further index-linking and a bonus equal to two monthly contributions at the end of seven years. Savers who wish to stop payments will be able to withdraw the total sum saved (but there cannot be partial withdrawals). Tax-free compound interest will be paid at the rate of 6 per cent a year on amounts withdrawn after the first but before the end of the fifth year or where the contributions cease but the savings are left invested for the remainder of the five years.

National Savings Bank The National Savings Bank provides a countrywide system for depositing and withdrawing small savings and has over 22 million active accounts. Ordinary Accounts bear interest at 4 per cent and the first \pounds 40 of annual interest is tax free. Up to \pounds 20 can be withdrawn on demand at any savings bank post office, but a few days' notice is required for larger amounts. The money is lodged with the National Debt Commissioners and is invested in government securities. Deposits bearing a higher rate of interest (at present 9 per cent) may be made in Investment Accounts. All deposits carry a government guarantee. At the end of June 1975 the sum of the two accounts totalled \pounds 2,122 million.

The Trustee Savings Banks, most of which were founded in the nineteenth Trustee Savings century, operate under their own trustees but are subject to government Banks supervision through the National Debt Office and the Trustee Savings Banks Inspection Committee. In June 1975 there were 67 individual banks with over 1,570 offices and 10.8 million depositors, but by early 1976 there are expected to be fewer than 20 individual banks as a result of the planned programme of amalgamations. Deposits can be made in the Ordinary Department, the Special Investment Department or the Current Account Department. Savings in the Ordinary Department earn interest at 4 per cent and the first \pounds_{40} of interest is tax free. Withdrawals can usually be made on demand though notice is required for large sums. Deposits are invested with the National Debt Commissioners and both capital and interest are guaranteed by the Government. The Special Investment Department offers a higher rate of return, which is taxable.

At the end of June 1975 total sums in Ordinary Departments of the Trustee Savings Banks were $\pounds 1,528$ million and in the Special Investment Departments $\pounds 2,127$ million. Most Trustee Savings Banks operate cheque services on deposits in the Current Account Departments which were valued at $\pounds 86$ million. In 1974 the Government announced that the role of Trustee Savings Banks was to be expanded and to include personal loans to depositors. The Trustee Savings Banks operate their own unit trust and units may be purchased by depositors and non-depositors alike.

Many special financial facilities, which are supplementary to the credit facilities of the banks, are provided through institutions outside the banking system. These include finance corporations, hire-purchase finance companies, the stock exchange, investment trust companies, unit trusts, building societies and the insurance market. The firms engaged in such activities are in the main highly specialised, for example, finance houses, stockbrokers, insurers and insurance underwriters and brokers.

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OTHER

FINANCIAL

INSTITUTIONS

FINANCE

Finance Houses

Finance

Corporations

There are about 1,900 firms engaged in the financing of hire-purchase and other instalment credit transactions, and of these 37 constitute the Finance Houses Association and together cover 90 per cent of all finance house business. At the end of May 1975 the value of instalment credit debt outstanding to finance houses amounted to $\pounds_{1,466}$ million, compared with about \pounds_{845} million at the end of 1970. About 60 per cent of the assets of finance houses consists of hire-purchase agreements and other instalment credit. Of this amount about 60 per cent relates to cars and commercial vehicles, the remainder relating to industrial and building equipment and household and other goods.

Since 1965 the leading finance houses have complied with the authorities' policies on lending similar to those applied to banks, and all finance houses have been required to observe term controls affecting the minimum deposit and maximum repayment period for specific goods financed by certain forms of lending. The system of credit control introduced in 1971 (see p. 370) has been applied to those larger finance houses whose total eligible liabilities exceed $\pounds 5$ million.

Finance for Industry Ltd. was formed in 1973 as a result of the merger of the Finance Corporation for Industry and the Industrial and Commercial Finance Corporation. It provides capital for the re-equipment and development of industry when finance cannot readily be obtained elsewhere; and provides capital, financial advice and computer and other services to small and medium-sized companies, especially those concerned in technical development. The resources of the company are being expanded substantially to enable it to provide up to $f_{1,000}$ million of medium-term funds at commercial rates of interest for investment in industry over a period of about two years.

The Commonwealth Development Finance Company (CDFC) is no longer confined to the Commonwealth in its activities. It supports business enterprise overseas by providing finance in the form of share capital and loans on mutually acceptable terms. Its authorised share capital is £30 million, of which about 14½ million 'A' ordinary shares of £1 (£0·10 paid) are held by industrial, shipping, mining and banking interests in Britain, and 11¾ million 'B' ordinary shares of £1 (£0·50 paid) are held by the Bank of England and certain central banks in the Commonwealth. At 31st March 1975 the CDFC held investments worth about £34 million spread over a wide range of industries placed in 39 countries.

The Agricultural Mortgage Corporation was established in 1928 for the purpose of making loans to farmers. Its authorised share capital is $f_{1.5}$ million and at 31st March 1975 loans and investments amounted to f_{290} million.

The Commonwealth Development Corporation (CDC) was set up in 1948 and undertakes projects for the promotion and expansion of a wide range of enterprises within and outside of the Commonwealth. At the end of 1974, CDC had a total capital commitment of $\int_{C} 257$ million.

Investment In Trust Companies ri and Unit Trusts

Investment trust companies and unit trusts enable investors to spread their risks and obtain the benefit of skilled management.

The usual type of investment trust company is constituted as a public company registered under the Companies Acts with limited liability; its business is to invest its capital in a range of stocks and shares. Like other companies, it may issue several types of stocks or shares and may retain part of its profits to build up reserves. Investment trust companies grew to importance in the latter half of the nineteenth century and have been prominent in directing capital towards overseas investment. At the end of 1974 such companies held assets worth $f_{3,709}$ million, of which over one-third were in overseas securities.

Unit trusts are constituted by trust deed between a management company and a trustee company which holds the assets. Normally, the managers sell units to the public and must invest the proceeds in a fairly wide range of stock exchange securities. The costs of running the trust are defrayed partly by an initial charge which forms part of the price of a unit and partly by a halfyearly service charge which is usually taken out of the income of the trust. The level of both charges is controlled by the Department of Trade, whose authorisation is required before units can be offered to the public; this is only granted if the trust deed is drawn according to the Department's requirements.

The first British unit trust was formed in 1931 and by 1939 there were 98 trusts, with assets estimated at £80 million. This medium of saving has grown considerably since 1957. At the end of June 1975 there were 2.2 million unit holdings. The value of the funds invested in authorised trusts depends on the value of the underlying securities; from only £60 million at the end of 1958 they had risen to £2,203 million at the end of June 1975 (having reached £2,647 million at the end of 1972 and fallen to £1,310 million at the end of 1974). There is now a wide variety of trusts, both as regards the range of investments covered and the ways in which they cater for the differing needs of investors.

The principal function of building societies is to supply long-term loans on the security of private dwelling-houses purchased for owner-occupation, though loans are occasionally made on the security of commercial and industrial premises and farms. The funds of building societies are derived mainly from the general public who invest in shares or deposits. The amount of share capital is not fixed; shares are not dealt in on the stock exchange but may be withdrawn at par in cash if notice is given. The Building Societies Act 1962, which consolidated all earlier legislation, prescribes the general way in which societies must conduct their business. The Chief Registrar of Friendly Societies has discretionary powers to stop a society either advertising or accepting money from investors if he considers that the way in which the society's business is conducted is jeopardising investors' money. The rapid expansion of building society activity in the twentieth century has been accompanied by a concentration of most of the business in the hands of a few large societies. At the end of 1974, 416 societies were registered, with total assets of about £20,000 million; just over half of this amount is accounted for by the five largest societies. The amount advanced on mortgage in 1974 was nearly £2,912 million, 18 per cent less than in 1973.

The stock exchanges of the United Kingdom and Irish Republic amalgamated on 25th March 1973. Dealings with the public remain unchanged, but brokers may open offices nationally and firms wherever situated trade on equal terms. The main exchange and central administration are in London. There are also trading floors in Glasgow, Liverpool, Manchester, Birmingham, Bristol, Cardiff, Belfast and Dublin.

The number and variety of securities officially listed on the Stock Exchange are greater than in any other market in the world and its turnover of company securities is roughly equivalent to that of all the European bourses combined. Some 10,000 securities are quoted on the Stock Exchange; at the end of March 1975 these had a total market value of £210,269 million. About

Building Societies

The Stock Exchange

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7,607 securities of companies were quoted, including a number of leading overseas companies. Company issues represented more than four-fifths of the securities at market valuation, the remainder being United Kingdom, Irish Republic and other overseas government and corporation stocks.

The Stock Exchange does not fix dealing prices; the terms on which bargains are made between members reflect the interaction of supply and demand for the securities concerned. The Stock Exchange operates under strict rules of conduct which it formulates itself.

There has been substantial growth in demand for ordinary (equity) shares, partly in expectation that such shares will maintain or increase their real value. This demand, however, is very sensitive to the state of the economy, and economic uncertainty in 1973–74 caused large falls in share values which recovered substantially in the first half of 1975. There is a growing level of institutional investment on the London market by insurance companies, pension funds, and by investment and unit trusts.

The market consists of about 250 authorised banks and several firms of foreign exchange brokers which act as intermediaries between the banks. It provides those engaged in international trade with foreign currencies for their transactions. The foreign exchange banks are in close contact with financial centres abroad and are able to quote buying and selling rates for both spot and future delivery. An important function of the market is to engage in arbitrage transactions which serve to eliminate differentials in exchange rates between different centres. The forward market enables traders, who at a given date in the future are due to receive or make a specific foreign currency payment, to determine in advance the precise sterling equivalent of the foreign currency.

All authorised banks may deal in gold but, in practice, dealings are largely concentrated in the hands of the five members of the London gold market. The five members meet twice daily to fix a price for all transactions which customers ask to have executed at the fixing. The London fixing price remains the basis on which most of the world's non-monetary gold is traded. Forward prices may also be quoted on request.

ance Although a certain amount of insurance is provided by friendly societies and trade unions, most insurance services in Britain are in the hands of mutual or joint stock insurance companies or Lloyd's underwriters.

There are about 614 insurance companies incorporated in the United Kingdom. Most British insurers undertake several classes of business although some specialise in one class, particularly in life assurance, where about 150 companies deal with only that type of business. A few specialise in re-insurance.

In addition about 184 overseas companies carry on business (and even more companies are represented) in the United Kingdom, which illustrates the international nature of the London market. Some of the large British companies, however, have their administrative headquarters in the provinces.

At the end of 1974 the total assets of the British insurance companies amounted to about £24,357 million, the bulk of which was life assurance companies' investments. Some 282 companies belong to the British Insurance Association which accounts for just over 95 per cent of total insurance business in Britain.

The Government's supervisory powers over insurance companies under the Insurance Companies Acts 1958–74 are exercised by the Department of Trade.

The Foreign Exchange Market

The London Gold Market

The Insurance Market

Insurance Companies

Lloyd's

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Lloyd's is an incorporated society of private insurers in London. The name 'Lloyd's' is derived from Edward Lloyd's coffee house, established in the late seventeenth century, where merchants with maritime and other interests gathered to transact business. By the middle of the eighteenth century, Lloyd's coffee house had become the principal centre of underwriting business and intelligence of shipping movements. Although in its earlier history the activities of Lloyd's were confined to the conduct of marine insurance business, there has also been built up at Lloyd's a very considerable world-wide market for the transaction of other classes of insurance business in non-marine, aviation and motor markets.

Lloyd's is regulated by a series of special Acts of Parliament starting in 1871. The affairs of the Society of Lloyd's in its corporate capacity are administered by the Committee of Lloyd's. The society does not accept insurance itself.

Lloyd's is not a company but a market for insurance, where business is transacted by individual underwriters for their own account and risk and in competition with each other. Insurance may only be placed through Lloyd's brokers, who negotiate with Lloyd's underwriters on behalf of the insured. Only elected underwriting members of Lloyd's, who must transact insurance with unlimited liability and who have met the most stringent financial regulations laid down by the Committee of Lloyd's, are permitted to transact business at Lloyd's; these financial safeguards give security to the Lloyd's policy. Since 1969 non-Commonwealth underwriters have been admitted to membership of Lloyd's if they satisfy the requirements.

There are about 7,740 underwriting members of Lloyd's grouped into some 360 syndicates and represented at Lloyd's by underwriting agents who accept risks on behalf of the members of their syndicates.

In conjunction with its marine insurance business Lloyd's has built up a world-wide organisation for the collection and diffusion of shipping intelligence.

Insurance Brokers

The insurance market is completed by the insurance brokers, acting on behalf of the insured; brokers are an essential part of the Lloyd's market and a valuable part of the company market. Many brokers specialise in re-insurance business, acting as intermediaries in the exchange of contracts between companies, both British and overseas, and often acting as London representatives of the latter.

International Insurance Services About two-thirds of British insurers' general (that is, non-life) business is carried on overseas, partly by re-insurance on the London market and partly through branches and agencies established in over 100 countries. The basic principle of this international business is that resources capable of meeting any potential loss are instantly available for use in any part of the world.

Behind this large and international volume of business stand the very substantial assets of the companies, in addition to substantial reserves of uncalled capital, and the deposits, underwriting trust funds and other resources of Lloyd's underwriters.

In accordance with the Treaty of Rome, insurance and re-insurance in the European Community are regulated by directives addressed to the governments of member states. The purpose of the directives is to harmonise the legislation of the various member countries, thus providing a 'common market', which would avoid distortion of competition. Two directives have been approved by the Council of Ministers. The first deals with the conditions of access to non-life insurance business and the second requires member

FINANCE

countries not to discriminate in law or practice between their own subjects and those of other member states. Draft directives on life insurance, insurance contracts, and the taxation of insurance policies are also being considered.

Commodity Markets Britain remains the principal international centre for transactions in a large number of commodities, although most of the sales negotiated in these markets relate to consignments which never pass through the ports of Britain. The need for close links with sources of finance and with shipping and insurance services often determined the location of these markets in the City of London. Among the more important are the Baltic Exchange (shipping and aircraft charter markets), the London Commodity Exchange (cocoa, coffee, copra, rubber and sugar), and the London Metal Exchange. A new market for soya bean meal was set up in 1975. In addition to these formal markets, almost any product can be traded through an intermediary in Britain.

The Crown Agents

The Crown Agents for Oversea Governments and Administrations provide financial, professional and commercial services for about 90 governments, mostly of independent countries, and some 200 overseas public authorities and international bodies. The chairman of the Crown Agents is appointed by the Minister for Overseas Development, but the office is not a government department. It is a non-profit-making public service which is responsible to its principals for business operation and dependent on them for fees to cover administrative costs, a working balance, and a contingency reserve. The Crown Agents have a staff of about 1,800, including 200 professional and technical officers.

18 Trade and Payments

Although small in area and accounting for only about 1.4 per cent of the world's population, Britain is the fifth largest trading nation in the world—and, as a member of the European Community, part of the world's biggest trading area which accounts for about 35 per cent of all trade.

Since the mid-nineteenth century, when the rapid growth of Britain's industry, commerce and shipping was accompanied by its development as an international trading centre, overseas trade has been of vital importance to the country's economy. Britain relies upon imports for almost half its total consumption of foodstuffs and most of the raw materials needed for its industries. It is among the world's largest importers of foodstuffs, metals and ores, textile raw materials, petroleum and many other products. Its exports of goods represent more than one-fifth of the gross domestic product. It is a major supplier of machinery, vehicles, aircraft, metal manufactures, electrical apparatus, chemicals and textiles.

The existence of a sound commercial banking system and a wide range of financial institutions ensures that commercial needs are met for both shortand long-term finance for international trade. The facilities provided by merchant banks and accepting houses, for example, have long been used to finance shipments of goods not only to and from Britain, but also between overseas countries.

This chapter describes the pattern of British overseas trade including its commodity and area distribution, outlines British commercial policies and government services to overseas trade, summarises Britain's balance of payments and gives an account of government aid to developing countries.

OVERSEAS TRADE

Changes in the value, volume, composition and geographical distribution of imports and exports are outlined in the following paragraphs.

In 1974 Britain's exports of goods were valued at about £15,886 million f.o.b. on a balance of payments basis. On the same basis, after excluding payment for freight and insurance and making some other adjustments, imports in 1974 were about £21,120 million. Between 1973 and 1974 the value of exports rose by 35 per cent while that of imports increased by 51 per cent. Over the same period the volume index of exports rose by 7 per cent, and of imports by only 1.2 per cent; but the unit value of exports rose by 29 per cent while import unit values rose by 56 per cent, largely because of higher commodity prices and a further depreciation of sterling (see p. 199).

Following the devaluation of sterling in 1967 exports rose rapidly until 1972 when they increased by only 4 per cent in value compared with 11 per cent in 1971. In 1973 there was a marked recovery with the value of exports growing by 25 per cent, around half of which represented an increase in volume; this

PATTERN OF TRADE

Value and Volume

sharp increase was generated in part by the upswing in world trade in manufactures in 1973 and in part by the initial effects of the depreciation of sterling since mid-1972 on the competitiveness of British goods overseas. Exports continued to rise rapidly in 1974 but fell slightly towards the end of the year. There was a large increase in the value of imports in 1973, mainly owing to the effects of increased commodity prices, and a further sharp increase early in 1974 due to a fourfold increase in oil prices.¹ However, the volume of imports showed a continued decline during 1974, following a reduction of the level of activity and demand in the domestic economy.

From 1964 to 1967 there had been a steady improvement in Britain's terms of trade, that is, export prices rose faster than import prices. Following an initial fall in the terms of trade index after the devaluation of the pound in November 1967, it continued to increase until 1972, when it stood at 101.7 (1970 = 100). With the sharp rise in commodity prices and the lower exchange value of sterling in 1973, the index fell to 90.2 and then to 74.9 in 1974. At the end of the first half of 1975 it stood at 82.1.

The value and volume of exports and imports from 1969 to 1974 are shown in Table 30.

| TABLE | 30: | Imports | and | Exports: | Annual | Figures |
|-------|-----|---------|-----|----------|--------|---------|
|-------|-----|---------|-----|----------|--------|---------|

| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|-------|-------|-------|--------|--------|----------|
| Value (£, million): | | | | | | |
| Imports ^a c.i.f. ^b g | 8,315 | 9,037 | 9,821 | 11,138 | 15,840 | 23,117 |
| Imports, f.o.b. ^{c f} | 7,221 | 7,919 | 8,528 | 9,830 | 14,066 | 21,120 |
| Exports of British produce and | | | | | | <i>,</i> |
| manufactures, and re-exports | | | | | | |
| f.o.b. ^c d g | 7,339 | 8,061 | 9,181 | 9,746 | 12,454 | 16,494 |
| Exports f.o.b. ^{c f} | 7,074 | 7,907 | 8,810 | 9,140 | 11,771 | 15,886 |
| Volume Index Nos. ^{f} (1970 = 100 |)) | | | | | |
| Imports | 94.5 | 100 | 104.2 | 116.6 | 134.0 | 135.4 |
| Exports | 96.8 | 100 | 106.7 | 106.7 | 121.8 | 130.1 |
| Unit Value Index Nos. ^f (1970 = | 100) | | | | | |
| Imports | 95.6 | 100 | 104.3 | 109.2 | 139.7 | 217.3 |
| Exports | 93.0 | 100 | 105.6 | 111.0 | 126.0 | 162.7 |
| Terms of Trade ^{e f} (1970 = 100) | 97.3 | 100 | 101.2 | 101.7 | 90.2 | 74.9 |

Source: Department of Trade.

^a The import figures are shown exclusive of purchases of United States military aircraft (including some missiles) which are being financed by a special United States Export/Import Bank credit.

^b 'Costs of insurance and freight', that is, including shipping, insurance and other expenses incurred in the delivery of goods as far as their place of importation in Britain. Most of these expenses represent earnings by British firms.

" 'Free on board', that is, all costs accruing up to the time of placing the goods on board the exporting vessel having been paid by the seller.

^d Including, for the years 1967-70, an allowance for under-recording of exports (details first published in June 1969).

e Export unit value index as a percentage of the import unit value index.

f On a balance of payments basis.

g On an overseas trade statistics basis.

Although Britain is still the largest importer of food in the world the value of its imported food supplies has been growing less rapidly than the value of total imports and the ratio of imported foodstuffs to total imports, on an

¹ As a result of decisions by oil-producing countries beginning in October 1973, oil prices had increased fourfold by January 1974 (and fivefold by the end of the year).

Commodity Composition Imports

overseas trade statistics basis, has fallen from 39 per cent in 1954 to less than 15 per cent in 1974. There has been a similar downward trend in the proportion accounted for by basic materials—from 30 per cent in 1954 to about 11 per cent in 1974.

| Exports | £ million (f.o.b.) | Per cent |
|-----------------------------------|-----------------------|-------------|
| Food, beverages and tobacco | 1,064 | 6.4 |
| Basic materials | 577 | 3.5 |
| Fuels | 768 | 4.7 |
| Manufactures: | 13,685 | 83.0 |
| Machinery and transport equipment | 6,052 | 36.7 |
| Non-electric machinery | 3,081 | 18.7 |
| Electric machinery | 1,132 | 6.9 |
| Road motor vehicles | 1,305 | 7.9 |
| Other transport equipment | 535 | 3.2 |
| Chemicals | 2,146 | 13.0 |
| Metals and metal manufactures | 1,713 | 10.4 |
| Textiles | 746 | 4.5 |
| Other manufactures | 3,027 | 18.4 |
| Miscellaneous | 401 | 2.4 |
| Total | 16,494 | 100.0 |
| Imports | | |
| Food, beverages and tobacco | 3,779 | 16.3 |
| Fuels | 4,627 | 20.0 |
| Industrial materials: | 8,953 | 38.7 |
| Basic materials | 2,580 | 11.2 |
| Chemicals | 1,584 | 6.8 |
| Other semi-manufactures | 4,789 | 20.7 |
| Finished manufactures: | 5,555 | 24.0 |
| Machinery and transport equipment | 3,902 | 16.9 |
| Machinery | 2,969 | 12.8 |
| Road motor vehicles | 645 | 2.8 |
| Other transport equipment | 287 | 1.2 |
| Other manufactures | 1,653 | 7.2 |
| Miscellaneous | 203 | 0.9 |
| TOTAL | 23,117 | 100.0 |

| TABLE 31 | Commodity | Composition of | Trade 1974 |
|----------|-----------|----------------|------------|
|----------|-----------|----------------|------------|

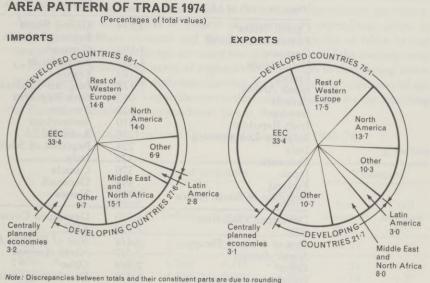
Source: Department of Trade.

Imports of petroleum and petroleum products are by far the biggest single item by value, amounting to about 20 per cent of the total value of imports during 1974 when their value was $\pounds 4,142$ million, having increased by 223 per cent between 1973 and 1974.

In recent years there has been a significant rise, in Britain as in other industrial countries, in the proportion of imports of finished manufactures, particularly capital goods and industrial components. Such imports rose from about 6 per cent of the total imports in 1957 to 29 per cent in 1973, falling, however, to 24 per cent in 1974, when they were valued at £5,555 million. Imports of semi-manufactures have also been increasing and since 1962 have formed a larger part of the total import bill than basic materials, partly because the countries producing the basic materials increasingly carry out the subsequent stages of manufacture themselves. Imports of semimanufactured goods (including chemicals) totalled £6,373 million in 1974 and accounted for 28 per cent of total imports.

Exports

About 83 per cent of Britain's exports consist of manufactured goods both finished and semi-manufactured. By far the most important group is machinery and transport equipment exports of which have been increasing rapidly and accounted for 37 per cent of total exports in 1974. The share of chemicals has grown fairly steadily, exports of chemicals having grown by 69 per cent in 1974. The share of metals was little changed in 1973 and 1974 following a steady fall over a number of years to 10.4 per cent in 1972.



Geographical **Distribution** of Trade

Trade between Britain and Western Europe has been increasing in recent years-particularly rapidly in 1973 and 1974-and conversely there has been a decline in the proportion of Britain's exports going to primary producing countries. Exports to Western Europe formed just over half of the total in 1974, having risen by 34 per cent during the year; their share in 1958 was only 31 per cent. Exports to the enlarged European Economic Community (EEC) rose by 37 per cent to account for over 33 per cent of Britain's total.

Imports from Western Europe rose by 40 per cent in 1974 forming 48 per cent of the total, the same proportion as in 1973.

Imports from the EEC rose by 48 per cent in 1974 to form one-third of all imports, again the same proportion as in 1973.

Exports to developing countries, having declined in recent years as a proportion of total exports, rose by 39 per cent in 1974 forming 22 per cent of the total, while imports from the same countries rose sharply by 81 per cent in 1974 (largely owing to increases in oil prices), forming 28 per cent of the total. Exports to the oil-exporting countries1 rose by 51 per cent in 1974 and imports by 156 per cent. Canada, Australia, South Africa and the Irish Republic are still among Britain's leading trading partners but since 1957 the United States has been Britain's largest single market and source of imports. In 1974 North America accounted for about 14 per cent of Britain's exports and imports. The value of exports to Latin America increased by 38 per cent in 1974 and the value of imports by 35 per cent. Exports to the centrally

Abu Dhabi, Algeria, Bahrain, Brunei, Dubai, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, Trinidad and Tobago, Venezuela.

planned economies1 rose by 26 per cent and imports by 25 per cent. Trade with Japan continued to grow; exports rose by 17 per cent in 1974 while imports maintained a high rate of growth, with a 29 per cent increase. (See also Table 32 and the diagram on p. 383.)

TABLE 32: Principal British Markets and Sources of Supply, 1974

f, million

| Imports from (c.i.f.) | | Exports to (f.o.b.) | |
|--------------------------------------|--------|--------------------------|--------|
| United States ^a | 2,254 | United States | 1,770 |
| Federal Republic of | , | Federal Republic of | |
| Germany | 1,893 | Germany | 1,011 |
| Netherlands | 1,637 | Netherlands | 982 |
| France | 1,349 | France | 915 |
| Saudi Arabia | 1,178 | Belgium-Luxembourg | 838 |
| Canada | 982 | Irish Republic | 820 |
| Sweden | 929 | Sweden | 723 |
| Irish Republic | 810 | Switzerland | 600 |
| Belgium-Luxembourg | 730 | Australia | 599 |
| Italy | 724 | Republic of South Africa | 526 |
| Denmark | 577 | Italy | 510 |
| | 570 | Canada | 488 |
| Japan Finland | 493 | Denmark | 427 |
| Republic of South Africa | 465 | Norway | 334 |
| Developed Countries | 15,970 | Developed Countries | 12,370 |
| EEC | 7,722 | EEC | 5,508 |
| Rest of Western Europe | 3,416 | Rest of Western Europe | 2,877 |
| North America | 3,237 | North America | 2,258 |
| Other ^b | 1.594 | Other ^b | 1,700 |
| Developing Countries | 6,375 | Developing Countries | 3,577 |
| Latin America | 648 | Latin Âmerica | 489 |
| Middle East and | 0,0 | Middle East and | |
| | 3,499 | North Africa | 1,320 |
| North Africa | 2,228 | Other | 1,768 |
| Other Controller planned | 2,220 | Centrally planned | |
| Centrally planned | 748 | economies | 514 |
| economies Oil-exporting countries | 3,785 | Oil-exporting countries | 1,209 |

Source: Department of Trade.

^a Including dependencies.

^b Australia, New Zealand, South Africa, Japan.

Invisible Transactions

As far back as estimates have been made, that is, for nearly two centuries, Britain has usually earned a surplus from its invisible transactions: the receipts and payments arising from services (as distinct from goods) supplied to and received from overseas residents; the income arising from outward and inward investment; and transfers between Britain and other countries.

The invisible transactions involved are divided for statistical purposes into six main groups: government services and transfers; transport (shipping and civil aviation); travel; other services (which covers a variety of items including the financial services of the City of London); interest, profits and dividends; and private transfers (migrants' funds, legacies and private gifts). Table 33 shows the breakdown of the figures from 1964 to 1974. The total invisible balance in 1974 was £1,566 million. Gross earnings of £9,975 million from

¹ Soviet Union, Poland, German Democratic Republic, Hungary, Czechoslovakia, Albania, Bulgaria, Romania, Chinese People's Republic, North Korea, North Vietnam (Democratic Republic of Vietnam), Mongolia. total invisible exports were about two-thirds of the total of \pounds 15,886 million from visible exports.

As shown in Table 33 in recent years there has been a considerable and rapidly rising net surplus on 'other services' and another large surplus on interest, profits and dividends. There has also been a surplus on civil aviation services throughout the past decade. Sea transport transactions have been in deficit since 1969. Except in 1973, travel credits have exceeded debits since 1968, mainly because of the continuing increase in the number of travellers (including tourists) visiting Britain and in the average expenditure per visitor. About half the total debits in respect of government expenditure relate to military expenditure overseas and this has remained steady or fallen in real terms in recent years, though currency changes have caused the sterling value to rise; other substantial items of expenditure are grants to developing countries, expenditure on the diplomatic service, subscriptions to international organisations, and Britain's contribution to the common budget for the financing of European Community expenditure (see p. 81).

TABLE 33: Britain's Invisible Overseas Transactions 1964-74

| £ | m | ıl | 11 | 0 | n |
|---|---|----|----|---|---|
| ~ | | | | | |

| | | Total invisibles | | | Transport | | |
|--|-----------------------------------|--|--|--|---|------------------------------|--|
| | Invisible balance | Debits | Credits | Govern- ment (net) | Sea transport (net) | Civil aviation (net) | |
| 1964 | +145 | 2,501 | 2,646 | -432 | -37 | + 27 | |
| 1969 1970 1971 1972 1973 1974 | +609 +747 +766 +818 +1,460 +1,566 | 3,706 4,259 4,763 5,274 6,843 8,409 | 4,315 5,006 5,529 6,092 8,303 9,975 | 467 485 527 564 798 880 | $ \begin{array}{r} -33 \\ -76 \\ -57 \\ -81 \\ -122 \\ -170 \end{array} $ | +41 + 37 + 45 + 64 + 61 + 58 | |
| | Travel (net) | ser | ther vices net) | Interest, profits and dividends (net) | d Pa s tra | rivate insfers (net) | |
| 1964 | -71 | | -275 | +393 | -10 | | |
| 1969 1970 1971 1972 1973 1974 | +35 +50 +47 +19 -1 +151 | +583 + 698 + 760 + 857 + 1,015 + 1,146 | | $+499 \\ +557 \\ +511 \\ +580 \\ +1,396 \\ +1,352$ | $ \begin{array}{r} -49 \\ -34 \\ -13 \\ -57 \\ -91 \\ -91 \end{array} $ | | |

Source: United Kingdom Balance of Payments 1964-74.

In addition, since its accession to the European Community in 1973 (see p. 77) Britain has been paying £24 million in three annual instalments into the European Coal and Steel Community, a capital subscription of £37.5 million in five instalments ending in 1975 to the European Investment Bank and a contribution of £20 million to the Bank's reserves over the same period.

Tourist Trade

Travel yields a substantial income from overseas; in the ten years 1965–74 overseas visitors spent nearly £4,270 million in Britain. For 1974 these travel

and tourist receipts, excluding fares, are estimated at about £833 million. United Kingdom residents on holiday, or travelling for business or other purposes overseas, spent about £682 million (excluding fares) in the same year. The almost continuing increase in both the average expenditure per visitor and in the number of travellers visiting Britain has produced the surpluses on the travel account mentioned above in 1968–72 and 1974. The estimated total number of visits to the United Kingdom in 1974 including visitors from the Irish Republic, was a record figure of 7.9 million—twice the level of 1966 and an increase of $2\cdot7$ per cent over the 1973 level.

Britain's national tourist organisation consists of four independent government-financed statutory bodies—the British Tourist Authority, which is responsible for the overseas promotion of tourism in Britain and for certain general matters affecting the country as a whole, and the English, Scottish and Wales Tourist Boards which are responsible for encouraging the development and improvement of facilities and amenities for tourists in their respective countries, and for tourist promotional work and publicity within Britain —and a separate statutory Tourist Board for Northern Ireland. The English, Scottish and Wales boards offer financial assistance to selected tourist projects in development areas.

COMMERCIAL POLICY Britain has long been an advocate of the removal of artificial barriers to trade, and to this end has taken a leading part in the activities of such organisations as the General Agreement on Tariffs and Trade (GATT), the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD). As a member of the European Community, Britain is committed to working for the development of world trade by the progressive reduction through reciprocal measures of both tariff and non-tariff barriers. The Community's Common Customs Tariff (CCT) is lower than that of several other major industrial countries.

General Agreement on Tariffs and Trade

Britain's protective tariffs have been considerably modified in recent years as a result of negotiations held under the auspices of GATT which also seek to increase the volume of world trade by reducing tariffs and other barriers to trade, and by eliminating discrimination in international commerce.

As a result of the 'Kennedy Round' (May 1964–June 1967), a series of GATT tariff negotiations, average reductions of over 30 per cent were made by the major trading countries, including Britain, in their tariffs on industrial goods. The reductions made between 1968 and 1972 in the British tariffs on dutiable industrial goods imported from the EEC, the United States and Japan amounted to about 37 per cent, 40 per cent and 34 per cent respectively. This was closely in line with the reductions made by these countries which affected well over 70 per cent of British exports of dutiable industrial goods. A new series of negotiations was formally launched in Tokyo in September 1973 and substantive discussions began in Geneva in February 1975. The negotiations cover a wide range of both tariff and non-tariff barriers to trade.

Community Preference All tariffs on trade in industrial products between Britain and the other European Community countries are being eliminated in five equal stages over the transitional period ending 1st July 1977. By the same date Britain will be applying the common customs tariff to all countries neither belonging to, nor having any special arrangement with, the Community, subject to special

arrangements for some industrial materials. By the same date also virtually all industrial tariff barriers between the European Community and the remaining member countries of the European Free Trade Association (EFTA), to which Britain belonged between 1960 and 1972, will have been dismantled.

Commonwealth and Developing Countries Reciprocal preferential tariff treatment for trade between Britain and other independent Commonwealth countries dates from the Ottawa Conference of 1932.

The special trading relations between Britain and 22 developing Commonwealth countries in Africa, the Caribbean and the Pacific (ACP)¹ were replaced by the Convention of Lomé, signed in February 1975. This established new trade, aid and co-operation links between the Community and a total of 46 developing ACP countries.² The Convention safeguards the interests of Commonwealth and other countries dependent on the export of particular agricultural products, including sugar for which access to Community markets has been guaranteed for an indefinite period at prices related to those in the Community and in quantities which the producing countries have undertaken to supply.

All British dependent territories (with the exception of Gibraltar, Hong Kong and Bermuda), together with the Overseas Countries and Territories (OCT) of other Community members, are to be linked with the Community as a whole during 1975 under arrangements similar to those embodied in the Convention of Lomé. The preference for imports from Commonwealth countries which are neither signatories of the Lomé agreement nor members of the OCT will be phased out by 1st January 1977.

Other special arrangements have been agreed relating to continued access into the Community for New Zealand dairy products.

The Community has stated its continuing objective of expanding and reinforcing existing trade relations with the Commonwealth countries of Asia, taking into account the scope of the generalised system of preferences (see below) from which they derive considerable benefit. A commercial cooperation agreement between the Community and India came into effect in April 1974, and negotiations are proceeding for similar agreements with Bangladesh and Sri Lanka. The Community is also engaged in discussions with Pakistan.

Generalised System of Preferences The establishment of a generalised system of preferences for manufactures and semi-manufactures exported by developing countries was agreed in principle at the second UNCTAD Conference in New Delhi in 1968. Britain's scheme started early in 1972, but, as a member of the European Community, Britain adopted in 1974 the scheme of the enlarged Community. The EEC's scheme has been considerably improved since the Community's enlargement by the establishment of more liberal access into the Community for imports of manufactured and processed agricultural products from developing countries. Continued improvement of the scheme is to be made with the interests of the

¹ The Commonwealth ACP countries are: The Bahamas, Barbados, Botswana, Fiji, The Gambia, Ghana, Grenada, Guyana, Jamaica, Kenya, Lesotho, Malawi, Mauritius, Nigeria, Sierra Leone, Swaziland, Tanzania, Trinidad and Tobago, Tonga, Uganda, Western Samoa and Zambia.

² The non-Commonwealth ACP countries are: Mauritania, Mali, Senegal, Ivory Coast, Upper Volta, Niger, Togo, Dahomey, Cameroon, Chad, Central African Republic, Gabon, Congo, Zaire, Rwanda, Burundi, Malagasy Republic, Somali Democratic Republic, Ethiopia, Liberia, Sudan, Guinea, Equatorial Guinea, Guinea-Bissau.

poorest developing countries (particularly those of Asian members of the Commonwealth) in mind.

GOVERNMENT SERVICES The Government assists exporters by its efforts to create conditions favourable to the export trade and by providing credit insurance facilities and information and advice about opportunities for trade in other countries. Export promotion is also assisted by the Scottish Council (Development and Industry), the Development Corporation for Wales and in Northern Ireland by the Department of Commerce.

British Overseas Trade Board Trade Board Export intelligence, help to exporters at trade fairs and other promotional events overseas, and support for firms participating in missions overseas and for inward commercial visits to Britain. It includes representatives of commerce and industry, the Trades Union Congress, and the Department of Trade and the Foreign and Commonwealth Office, and operates under the general authority of the Secretary of State for Trade who is the President.

Information and Advice to Exporters Exporters wanting assistance and advice can consult Department of Trade offices throughout Britain and, through these offices, the commercial posts of the British Diplomatic Service overseas.

Overseas officers regularly report on local economic and commercial conditions and (together with the Export Services and Promotions Division of the BOTB) generally assist the exporter to overcome any difficulties he encounters in trade with the country in question, particularly those arising out of governmental regulations. Assistance is also given to British exporters in appointing agents and locating potential importers.

Export Credit Insurance

The Export Credits Guarantee Department (ECGD) provides credit insurance for more than a third of the country's export trade and for much of the external trade of British merchants.

The main risks covered include insolvency or protracted default of the buyer, governmental action which stops the British exporter receiving payment, new import restrictions, war, or civil disturbance in the buyer's country. Cover may commence from the date of contract or (at lower premiums) from the date of shipment.

This insurance may be supplemented by unconditional guarantees of repayment given direct to banks financing the exporter. Alternatively, for contracts over £250,000, the ECGD will guarantee loans direct to overseas buyers enabling them to pay on cash terms, or 'lines of credit' similarly covering an agreed buying programme of an overseas country, with the minimum value of the individual contracts often as low as £10,000. The banks provide finance against these guarantees.

Since 20th February 1975 ECGD has offered a measure of cover against high and unpredictable cost escalation to exporters with capital goods contracts worth over $\pounds z$ million which involve a manufacturing period of over two years. Since the same date it has also been prepared to support the issue of performance bonds in the commercial market in respect of cash or nearcash contracts worth over $\pounds z$ million.

Investment insurance is also provided for new British investment against expropriation, war damage and restrictions on remittances.

goods and services.

imports and exports for specific purposes.

Trade Fairs

Britain stages many exhibitions and trade fairs and British products are shown at most of the large international trade fairs throughout the world.

Participation in trade fairs, 'British weeks' and store promotions overseas is a form of export promotion for which the Government provides information and financial assistance to exporters. In September 1973 a British Export Marketing Centre was opened in Tokyo to provide exhibitions and other marketing facilities for individual British firms or organisations.

CONTROLS ON TRADE AND PAYMENTS

Import and Export Control

Under the Import, Export and Customs Powers (Defence) Act 1939 the Department of Trade is empowered to prohibit or regulate the import or export of goods. Several other departments have separate powers to control

There are now very few restrictions imposed by Britain on the movement of

Import Controls

In accordance with its international obligations under the GATT and the IMF, and its European Community membership, Britain has progressively removed quantitative restrictions from almost all its imports from the market economies. There has also been a continuing substantial relaxation of quantitative restrictions on imports from centrally planned economies. In 1975 the importation of gold coins, gold medals and similar articles, minted or made after 1837, was made subject to individual licensing; the remaining controls include those recognised internationally on a few goods such as arms, ammunition and radioactive materials. Controlled goods require a specific import licence and quotas have been set up for many of them. Some further restrictions or prohibitions are applied under separate legislation for the protection of health or public safety, in the interest of conservation, and for other non-economic reasons (for example, on animals, drugs and explosives). There is also a general import restriction on goods from Rhodesia as part of the Government's sanctions policy against the illegal régime.

Export Controls

Except for the control necessary to ensure that exports to destinations outside the scheduled territories¹ are paid for in the proper manner most British exports are not subject to any government control or direction. The few controls that are in operation are imposed to supervise exports of military and strategic importance; to conserve materials which may be in short supply; on diamonds to assist exchange control operations (see below) in preventing the export of capital in that form; to ensure the humane treatment of cattle, sheep and pigs; and to prevent the export of antiques (including works of art and documents), and documentary and photographic material over 70 years old, on grounds of national importance. There is a general export restriction on goods to Rhodesia.

Exchange Control Britain applies exchange control mainly in order to conserve its reserves of gold and foreign exchange. The powers under the Exchange Control Act 1947 are conferred mainly on the Treasury which has delegated the administration of most parts of the Act to the Bank of England. The Bank has in turn authorised most commercial banks in Britain to execute a wide range of transactions.

¹ The scheduled territories comprise the United Kingdom, the Channel Islands, the Isle of Man, the Irish Republic and Gibraltar.

The general effect of exchange control regulations is to control transactions between residents of the scheduled territories and non-residents. Payments in sterling may in general be made freely between residents, but the acquisition of other currencies by them is subject to control.

The aim of exchange control policy is not to discourage investment abroad but to regulate the manner in which investment outside the scheduled territories is financed. Official exchange is usually available only for projects which promise early and continuing benefits to the balance of payments. Where the use of official exchange is not permitted investors can finance their approved projects in other ways, for example, by borrowing foreign currency or purchasing investment currency (which, because it is drawn from a limited pool of currency, normally changes hands at a premium). Payments for goods exported to destinations outside the scheduled territories have in general to be in foreign currency or in sterling from an external account, and must be received within six months of export unless they are covered by an approved export credit arrangement. Control is also exercised over imports to ensure that currency authorised for their payment is used for that purpose.

There are certain restrictions on dealings in gold bullion and on the use of gold for manufacturing and industrial purposes. Purchases of gold coins minted after 1837 by residents other than authorised dealers in gold are allowed only if the coins are in Britain and are being sold by a resident who is not selling on behalf of a non-resident.

Residents are entitled to purchase up to f_{300} in foreign currency for their travel expenditure on each journey outside the scheduled territories, other than to Rhodesia, irrespective of the purpose of the journey. Further travel funds may be obtained for business, professional or other reasons. Non-residents may hold an external account in a British bank and are entitled to change their sterling on external account for other currencies and to make and receive payments in any currency to and from non-residents in any other part of the world. Special restrictions apply to transactions with residents of Rhodesia.

People living outside the scheduled territories who visit Britain temporarily are regarded as non-resident and not subject to the exchange control provisions. On the other hand, people coming to Britain from outside the scheduled territories and intending to take up permanent residence in Britain are normally regarded as resident, though they may be eligible for certain exemptions from their obligations under the Exchange Control Act 1947.

Visitors to Britain may import notes in any currency, travellers' cheques and letters of credit without limit. On departure, visitors may take with them sterling or scheduled territory notes up to a value of £25, foreign currency notes up to a value of £300 and any foreign currency notes which they brought in with them.

BALANCE OF PAYMENTS

Britain's balance of payments has usually been characterised by a deficit on visible trade more than offset by a surplus on invisible earnings. Estimates of the balance of payments and its main constituent items are given in summary since 1967 in Table 34 and in greater detail since 1972 in Tables 35 and 36. The balance of payments statistics contain two indicators of particular importance. The first is the balance on current account, covering both visible

(exports and imports of goods) and invisible (trade in services, investment income and transfers) transactions. This, together with capital transfers, provides a measure of how far Britain is paying its way abroad and thus adding to or using up overseas assets. The second indicator is the total currency flow.

| | | | | | | 75 million |
|--|--|---|---|--|--|---|
| | | Total | Gold sub- scription | (| Official finance | cing |
| | Current balance | currency flow | to IMF. SDR al- location ^{a} | Total | Official borrowing ^b | Official reserves ^c |
| 1967 1968 1969 1970 1971 1972 1973 1974 | $-301 \\ -275 \\ +462 \\ +735 \\ +1,048 \\ +128 \\ -835 \\ -3,668$ | $\begin{array}{r} -671 \\ -1,410 \\ +743 \\ +1,287 \\ +3,228 \\ -1,265 \\ +210 \\ -565 \end{array}$ | +133 +125 +124 | $^{+671}_{-743}$ -1,420 -3,353 +1,141 -210 +565 | +556 +1,296 -699 -1,295 -1,817 +449 +644 | $^{+115}_{-144}$ $^{-125}_{-1,536}$ $^{+692}_{-210}$ $^{-79}_{-79}$ |

TABLE 34: United Kingdom Balance of Payments 1967-74

| million |
|---------|
| |
| |

Source: United Kingdom Balance of Payments 1964-74.

^a Gold subscription to IMF in 1970 was $-f_{38}$ million.

b Drawings (+)/ repayments (-).
c Drawings on (+)/ additions to (-).

This is the net result of all external flows, that is the current account, capital transfers, investment and other capital flows (including official long-term capital transactions, investment flows, trade credit, and changes in Britain's external banking and money market liabilities in sterling) and other flows which are unidentified transactions reflected in the balancing item. The total currency flow shows the impact of all external flows on the reserves and debt position, that is, how much is available to add to the reserves and to repay any official borrowing in the case of a net inflow, or how much must be financed by drawing on the reserves or by borrowing if there is a net outflow. Table 35 gives details of the current account since 1972. Both exports and imports rose strongly after the devaluation of sterling in 1967. In 1971 exports rose in value faster than imports resulting in the highest-ever surplus on visible trade of £282 million which, together with a substantial surplus on invisibles, produced a record current account surplus of £1,048 million. This trend was reversed in 1972 and 1973 with the development of a visible trade deficit reflecting both the rise in world commodity prices and the depreciation of sterling from June 1972. The rise in commodity import prices continued in 1974 but the increase in oil prices (see p. 381) was the main cause of a substantial rise in the visible deficit in 1974 to £5,234 million, offset to some extent by a surplus on invisibles of £1,566 million. The non-oil deficit in the second half of 1974 was 14 per cent lower than in the same period of 1973. During 1975 there was a reduction in the deficit on oil and a general improvement in the trade balance on other goods.

In the period 1963-68, there was a total currency outward flow of £3,778 million (including a gold subscription of £44 million to the IMF) financed mainly by official borrowing totalling £3,134 million, but also by transfers to the reserves of the dollar portfolio totalling £520 million; and a reduction of f_{124} million in the reserves. In 1969 there was a reversal of the net currency flow, and a rapidly increasing currency inflow which in 1971 reached £3,228

million. During this period almost all short- and medium-term official borrowing was repaid, and there was a substantial increase in the reserves. In 1973, there was a net currency inflow of \pounds_{210} million despite the large current account deficit. There was a net outflow of \pounds_{505} million in 1974.

. . . .

| T. | ABL | Æ | 3. | 5: | Current | Account | 19 |)72 | 74 | r |
|----|-----|---|----|----|---------|---------|----|-----|----|---|
|----|-----|---|----|----|---------|---------|----|-----|----|---|

| | | | £, million |
|--|------------------|---|--------------------|
| | 1972 | 1973 | 1974 |
| Visible trade: Exports (f.o.b.) Imports (f.o.b.) | 9,140 9,830 | 11,771 14,066 | 15,886 21,120 |
| Visible balance | -690 | -2,295 | -5,234 |
| Invisibles: Government services and transfers (net) Private services and transfers (net) | -564 + 802 | $\begin{array}{c} -798 \\ +862 \end{array}$ | 880 +1,094 |
| Interest, profits and dividends (net): Private sector Public sector | $^{+714}_{-134}$ | $^{+1,591}_{-195}$ | $^{+1,708}_{-356}$ |
| Invisible balance | +818 | +1,165 | +1,566 |
| Current balance | +128 | -835 | -3,668 |

Source: United Kingdom Balance of Payments 1964-74.

There was a net inflow in 1974 on identified investment and other capital transactions of some $\pounds_{2,716}$ million, reflecting in particular public sector overseas currency borrowing of about $\pounds_{1,260}$ million, mainly under the exchange cover scheme (see p. 204). Overseas investment in the private sector rose in 1974 to about $\pounds_{2,110}$ million reflecting, among other factors, investment by foreign oil companies in North Sea operations. Private investment overseas, at $\pounds_{1,128}$ million, was lower than in 1972 and 1973 mainly owing to reduction by British investors of their holdings of foreign securities. Direct investment overseas, which included a substantial element of reinvested profits in both 1973 and 1974 and also a number of large acquisitions of overseas companies by British ones in 1973, declined somewhat in 1974 as the number and level of acquisitions fell.

Britain participates in the Special Drawing Rights (SDRs) scheme which came into effect in 1970 in order to supplement world reserves. SDRs are reserve assets created and distributed by decision of the members of the IMF. Any member of the IMF may join the scheme, and its share is based on its IMF quota. Participants in the scheme accept an obligation to provide convertible currency, when designated by the IMF to do so, to another participant in exchange for SDRs up to a total amount equal to twice the net amount of their own allocation of SDRs. Only those countries with a sufficiently strong balance of payments are so designated by the IMF. SDRs may also be used in certain direct payments between participants in the scheme and for payments of various kinds to the IMF.

In 1972 Britain's official financing requirement was reduced to \pounds 1,141 million by an IMF allocation of \pounds 124 million of SDRs which was taken into the reserves. Britain participates in the IMF oil facility and the OECD Financial Support Fund (see p. 200).

Britain has also taken part since 1961 in the international network of reciprocal credit (swap) facilities arranged between central banks. Under these arrangements each central bank is able to exchange on request, for a limited period, its own currency for the currency of another country up to an agreed

maximum. It agrees to reverse the transaction at a specified date at the same rate of exchange. The currencies so obtained can be added to the reserves or used in exchange operations.

TABLE 36: Analysis of Total Currency Flow and Official Financing 1972-74

| | | | £ million |
|--|-----------------------|----------------------|----------------------|
| | 1972 | 1973 | 1974 |
| Current balance | +128 | -835 | -3,668 |
| Capital transfers ^a | | - 59 | -75 |
| Investment and other capital flows: Official long-term capital Overseas investment in UK public sector | -255 | -252 | -274 |
| Overseas investment in UK private sector | +113 | +345 | +764 |
| UK private investment overseas | $^{+752}_{-1,408}$ | $^{+1,590}_{-1,861}$ | $^{+2,110}_{-1,128}$ |
| Overseas currency borrowing or lending (net) by UK banks: Borrowing to finance UK investment | | | |
| overseas Borrowing to finance lending to UK | +725 | + 595 | +200 |
| public sector Other borrowing or lending (net) | <i>b</i> 254 | +827 | +594 |
| | - 254 | -63 | -499 |
| Exchange reserves in sterling ^c : British government stocks Banking and money market liabilities | $^{+65}_{+222}$ | $^{+74}_{+87}$ | -124 + 1,534 |
| Other external banking and money market liabilities in sterling Import credit Export credit Other short-term flows | -91 + 204 - 354 - 430 | -7 + 21 - 436 - 194 | +148 + 81 - 453 |
| Total investment and other capital flows Balancing item | $-711 \\ -682$ | +906 + 198 | -236 +2,716 |
| Total currency flow Allocation of Special Drawing Rights | -1,265 | +210 | $+462 \\ -565$ |
| (SDRs) ^a | +124 | | |
| Total | -1,141 | +210 | -565 |
| Official financing Net transactions with overseas monetary authorities: IMF ^e | | | |
| Other monetary authorities | -415 +864 | | |
| Foreign currency borrowing by the British government ^f Drawings on $(+)/$ addition to $(-)$ official reserves ^{e g} | - | | +644 |
| Total official financing | +692 | -210 | 79 |
| | +1,141 | -210 | +565 |

Source: United Kingdom Balance of Payments 1964-74.

^a Payments under the Sterling Agreements of 1968, as renewed in 1971.

^b Borrowing of this type was not separately distinguished but was probably small.

c Excluding holdings by the IMF.

d Reserve assets created and distributed by the IMF.
 e From July 1972 transactions with the IMF affecting the United Kingdom reserve position in the IMF are included as changes in official reserves.
 f Borrowing on the \$2,500 million euro-dollar facility.

g Valued in sterling at transactions rates of exchange.

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EXTERNAL ASSETS AND LIABILITIES

External Assets

External Liabilities The significance of any inventory of Britain's aggregate external assets and liabilities¹ is limited because a variety of claims and obligations are included that are very dissimilar in kind, in degree of liquidity and in method of valuation. The inventory for the end of 1974 shows that Britain had a net creditor position estimated at some $\pounds_{1,700}$ million.

Britain's assets arising from private investment overseas are estimated to have been £19,120 million at the end of 1974. This compares with a figure of £8,070 million at the end of 1962. Direct investment, including oil, accounted for £14,720 million of the total figure for end-1974, the balance consisting of £4,400 million of portfolio investment.

United Kingdom banking and commercial claims at the end of 1974 totalled $\pounds 5,568$ million.² Within this total banking claims were $\pounds 2,983$ million; suppliers' export credit to unrelated firms was $\pounds 2,137$ million. With the increase in recent years in British aid to developing countries, inter-governmental loans of $\pounds 1,148$ million form the largest item among official external assets, which at the end of 1974 were $\pounds 3,067$ million including refinanced export credit. The latter figure, together with official reserves of $\pounds 2,345$ million, $\pounds 5,568$ million in banking and commercial claims and private investment overseas of $\pounds 19,120$ million, resulted in aggregate identified external assets at the end of 1974 of some $\pounds 30,100$ million.

Identified external liabilities at the end of 1974 are estimated to have been some £28,405 million. All official short- and medium-term liabilities to the IMF and other monetary authorities were repaid in 1972 but foreign currency borrowing by the Government late in 1974 totalled £638 million at the end of the year. Inter-governmental loans to Britain and other official liabilities, mainly a consequence of the second world war and its aftermath, totalled £1,465 million at the end of 1974 of which £1,135 million was owed to the United States and £285 million to Canada. Other public sector liabilities of £5,176 million comprised overseas holdings of British government and public corporations' sterling securities, holdings of Treasury bills and notes, local authorities' securities and mortgages, and foreign currency borrowings by British public corporations and local authorities. British banking and commercial liabilities, including liabilities in sterling and in foreign currencies, totalled £9,920 million.² Liabilities in the form of overseas investment in Britain's private sector totalled £11,205 million.

Liabilities in sterling comprise both public sector and banking and moneymarket liabilities within the totals above. Sterling held in Britain by foreigners in the form of British government securities (where these were held by central monetary institutions and international organisations other than the IMF), bank deposits, deposits with local authorities and hire purchase companies, and Treasury bills totalled \pounds 7,579 million at the end of June 1975. Of this, \pounds 3,606 million was held by residents of oil exporting countries, \pounds 821 million by residents of the European Community, and \pounds 3,152 million by other holders. The total of these liabilities (excluding the counterpart of borrowing)

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¹ Figures for the end of 1974, and for earlier years, are published in the United Kingdom Balance of Payments 1964-74, produced by the Central Statistical Office (see Bibliography p. 482). ² This sector covers the London banks' operations in the euro-currency markets in

² This sector covers the London banks' operations in the euro-currency markets in which very large non-sterling currency liabilities are broadly matched by non-sterling assets. Only net liabilities of $\pounds_{3,687}$ million are included in the external liabilities figure; they represent the difference between assets of $\pounds_{43,479}$ million and liabilities of $\pounds_{47,166}$ million.

remained broadly constant between the end of 1945 and 1970 but rose sharply during 1971 and 1972, and again during 1974. They reflect the international trading and reserve role of sterling and in part the financial services of the City.

Inward Private Investment Overseas liabilities arising from investment in the private sector of the British economy rose from £3,165 million in 1962 to £11,205 million at the end of 1974.

Overseas investors in Britain are free to repatriate the proceeds of the sale of their investments, including any capital gains that may have accrued. Earnings and dividends are transferable irrespective of their size. In 1974 the inflow of direct, portfolio and other private investment, including oil, amounted to $\pounds_{2,110}$ million.¹

The value of overseas investment in the private sector at the end of 1974 comprised: the book value of direct investment in Britain by companies incorporated abroad— $\pounds 5,355$ million (excluding oil, banking, and insurance); portfolio holdings of British securities— $\pounds 1,530$ million; the book value of the net assets in Britain of overseas oil companies— $\pounds 3,100$ million; and the balance of $\pounds 1,220$ million which included borrowing by British companies overseas.

About two-thirds of the direct investment of $\pounds 5,355$ million originally came from North America and about one-fifth from Western Europe. Of the $\pounds 682$ million inflow of direct investment into Britain in 1973 $\pounds 390$ million originated from North America and $\pounds 106$ million from EEC countries. Foreign investment inflow brings a number of benefits to British industry, including technological development which in turn will strengthen the economy and its balance of payments position.

Approval is readily obtained for financing direct investment projects by borrowing abroad on appropriate terms. There is also scope for the investment of retained profits of subsidiary companies overseas. In recent years a considerable proportion of net direct investment outflow has been financed in this way. Sterling finance is available in certain cases when projects promise early and substantial benefits to Britain's balance of payments.

Direct investment outflow, excluding oil, was £1,540 million in 1974 compared with £1,624 million in 1973. The latest available area analysis indicates that of the 1973 figure £247 million was placed in developing countries, £519 million in EEC countries and £513 million in North America. With the inclusion of oil, portfolio and other investment, aggregate private investment outflows totalled £1,128 million in 1974 compared with £1,861 million in 1973, portfolio disinvestment of £295 million in 1973 increasing to £767 million in 1974.

Britain's aid programme to the developing countries, which is the responsibility of the Ministry of Overseas Development, consists of loans and grants for economic and social development, technical assistance, budget support and contributions to multilateral agencies providing financial aid and technical assistance to these countries. To complement the official programme private investment is encouraged by the provision of government insurance to private investors by the ECGD (see p. 388). In addition an important contribution

¹ Direct investment refers mainly to the establishment of subsidiary companies and banks, while portfolio investment refers to investment in company securities.

Outward Private Investment

BRITISH GOVERNMENT AID TO DEVELOPING COUNTRIES is made to economic development by private voluntary organisations engaged in relief, development and educational work.

Since 1945 total official aid disbursements have amounted to nearly £4,315 million. The average gross annual disbursement over the four years 1971-74 was about f_{3233} million (see Table 37). In 1974 the total was some f_{3867} million, of which bilateral aid accounted for £295.7 million including £,76.4 million technical assistance; assistance provided through multilateral agencies was £91 million. Repayments of capital and payments of interest during the year on loans made previously came to $f_{,43}$ ·8 million and $f_{,41}$ ·6 million respectively. In recognition of the special importance of the role of official development assistance, the strategy for the Second UN Development Decade, adopted in 1970, included a recommendation that each developed country should progressively increase its official development assistance to the developing countries and exert its best efforts to contribute a minimum net amount of 0.7 per cent of its gross national product (GNP) to them by the middle of the decade. Britain has now accepted in principle the 0.7 per cent GNP target and will seek in the years ahead to move towards it. The speed at which it can do so, however, must be subject to the pace of Britain's own economic recovery and to other calls on its resources. Britain has also accepted the UN target of I per cent of GNP for total net financial flows (that is, including private and official flows) to developing countries.

In 1974 gross disbursements of British official flows were £386.7 million; net of amortisation receipts, these amounted to £342.9 million (0.42 per cent of GNP): net disbursements of official development assistance within this were £308.6 million (0.38 per cent of GNP). Public expenditure plans for the aid programme are published annually in the report on public expenditure, the most recent of which covers the years up to 1978–79 (see Bibliography p. 482). Under this method of aid determination, introduced in 1971, totals at constant prices, net of amortisation, are agreed by ministers for five years ahead. The gross total, which is used for allocating funds to various aid programmes, is arrived at by adding the estimated amortisation receipts to the net figure. It is expected that the overall aid programme will continue to rise in cash terms.

Bilateral Financial Aid

Bilateral financial aid in 1974 totalled £219.3 million; over 33 per cent was in grants and the rest in loans. Budgetary aid, £6.6 million in 1974, is provided in the form of grants. Development aid is in grants or loans, depending on the economic and constitutional circumstances of the recipient countries; the greater part of it has been in loans, but this will now change following the decision taken in June 1975 to provide future aid to the poorest developing countries (which include India, Bangladesh, Sri Lanka and many African countries) in the form of grants. The terms of new development loans from Britain have been progressively softened since 1958 and a policy of making interest-free loans to lighten the repayment burdens of the poorer developing countries was introduced in June 1965. In 1974 the total value of bilateral loan commitments entered into by the British Government, excluding investments by the Commonwealth Development Corporation (see p. 397), was $f_{174.7}$ million and of this over 92 per cent was on interest-free terms and over 99 per cent at an interest rate of 2 per cent or less. The recipients included India, Pakistan, Bangladesh, Ethiopia, Bolivia, and Indonesia.

Where loans bear interest it is at fixed concessionary rates ranging from 2 per cent to 6 per cent, and both kinds of loan carry from two to seven years' grace periods during which repayments of capital are not made. Of all loans

committed in 1974 the average maturity was 25 years. Britain has more than fulfilled the 1972 recommendations of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD) on easing the terms of financial aid.

Loans and grants are tied to the purchase of goods, equipment and services from Britain, although there may be a limited element for local costs and a foreign content not exceeding 20 per cent in contracts financed from tied aid

TABLE 37: Total Official Flows to Developing Countries 1971-74

| | 1 | | | £, million |
|--|--------------------------------|--------------------------------|-------------------------------|--------------------------------|
| | 1971 | 1972 | 1973 | 1974 |
| Bilateral Commonwealth countries (including | 247.5 | 265.0 | 246.6 | 295.7 |
| dependent territories) Grants Technical assistance (grants) Loans | 218·2 43·1 43·7 131·4 | 220·3 70·0 48·5 101·8 | 201·0 52·9 57·2 90·8 | 235·6 56·0 57·5 122·1 |
| Other countries Grants Technical assistance (grants) Loans | 29·2 6·4 9·6 13·1 | 44·7 3·9 12·9 27·9 | 45·5 10·4 15·4 19·6 | 60·1 15·4 18·9 25·8 |
| Contributions to multilateral agencies | 30.4 | 50.5 | 65.7 | 91.0 |
| Total Total net of amortisation (as used for calculation of the 1 per cent target) | | 315.4 | 312.2 | 386.7 |
| Interest receipts | 235·8 31·7 | 248·9 31·5 | 271·0 35·1 | 342·9 41·6 |

Source: British Aid Statistics.

Discrepancies between totals and their constituent parts are due to rounding.

in appropriate cases. Loans committed after 1st October 1975, however, will be untied, if the recipient agrees, to the extent that goods can be purchased from the poorest developing countries as well as from Britain. Between 1958 and the end of 1974, 426 loans were negotiated involving a commitment of \pounds 1,441 million, of which \pounds 1,198 million has been disbursed. The recipients of the largest amounts have been India and Pakistan. During the same period bilateral grant commitments amounted to around \pounds 1,361 million.

Commonwealth Countries

Historically, Britain's aid programme began as part of the discharge of its responsibilities towards dependent territories, and the main emphasis remains on the Commonwealth which includes among its members some of the world's poorest countries. In 1974 £235.6 million (80 per cent) of the bilateral programme was disbursed to Commonwealth countries and dependencies.

In the past, development aid to the dependent territories was given under the Colonial Development and Welfare (CD & W) Acts, largely in the form of grants. Expenditure on economic and social development up to the termination of the Acts on 31st March 1970 amounted to some £450 million. The aid requirements of the few remaining dependencies are now provided under the authority of the Overseas Aid Act 1966. In 1974 the territories received £24.6 million in bilateral financial aid and technical assistance.

An important role in development assistance is played by the Commonwealth Development Corporation (CDC), set up by the British Government

in 1948, to assist the economic development of the then dependent territories. Subsequent legislation extended its area of operations to independent Commonwealth countries and, with the approval of the Minister of Overseas Development, to other countries. By the end of 1974 some $\pounds 203.6$ million had been invested out of a total commitment of $\pounds 256.8$ million. Of the latter, $\pounds 61.5$ million was in East Asia and the Pacific Islands, $\pounds 62$ million in the Caribbean and virtually all of the remainder in Africa. New commitments approved in 1974 totalled over $\pounds 26$ million.

Technical Assistance Expenditure on bilateral technical assistance (the provision of skilled personnel, advice and training) has increased in recent years and was $\pounds76.4$ million, 26 per cent of total bilateral aid, in 1974. The largest component of expenditure ($\pounds39$ million in 1974) was on sending or maintaining experts, including volunteers; the next largest was for students and trainees in Britain ($\pounds12$ million).

Under the Overseas Service Aid Scheme (OSAS) and associated schemes Britain meets the additional costs of employing experienced expatriate British personnel in the public services of developing countries. The schemes cost $f_{17,3}$ million in 1974.

During 1974, of the 9,776 British persons other than volunteers who were working in developing countries and financed by the British Government, some 4,623 were engaged in the field of education, 1,695 in public works and communications, 1,541 in public administration, 1,126 in agriculture and allied fields, 574 in health services, and 217 in industrial ports.

In addition, under the British Volunteer Programme in 1974 there were 1,904 volunteers, mainly graduates or otherwise qualified, working in developing countries, the majority of them teaching. Recruitment, training and placing overseas is undertaken by four voluntary bodies; 75 per cent of the British costs (f_{10} og million in 1974) are met by the British Government.

Britain receives large numbers of students and trainees from developing countries. Over 14,808 were financed in Britain in 1974 under regional programmes of technical assistance, by awards under the Commonwealth Education Co-operation Scholarships and Education Fellowship Schemes, and under the various schemes of the British Council.

Multilateral Contributions

Britain is the second largest subscriber (after the United States) to the World Bank group of institutions-the International Bank for Reconstruction and Development, the International Development Association (IDA) and the International Finance Corporation. The British commitment to IDA in the three years 1971-73 (The Third Replenishment) was nearly £141 million; the contribution to the Fourth Replenishment, which became effective in January 1975, is over £206 million. Britain has contributed, or has agreed to contribute, to the Asian Development Bank, the Inter-American Development Bank, the Caribbean Development Bank and the African Development Bank. Britain has contributed £84 million to the United Nations Development Programme since its inception in 1950 and has provided more experts and training places under multilateral schemes than any other country. Many British nationals were serving in developing countries under the United Nations and its specialised agencies in 1974. Other contributions include those to the United Nations Relief and Works Agency for Palestine Refugees (UNRWA), the United Nations High Commissioner for Refugees (UNHCR), the World Food Programme and the United Nations Children's Fund (UNICEF).

An increasing proportion of British development assistance is being channelled through the European Community's aid programme. Community financial aid takes the form principally of assistance from the European Development Fund (EDF) to those countries which have a special relationship with the Community under the Convention of Lomé (see p. 387). The EDF for 1975–80 amounts to some \pounds 1,600 million, including expenditure on a new export-earnings stabilisation scheme. Loans are also made to a number of Mediterranean countries linked to the Community by trade agreements, which are being extended.

The Community's contribution to the United Nations emergency measures to assist developing countries most seriously affected by increased prices of oil and other commodities amounted in 1974–75 to nearly \$300 million. Britain's share of this total, together with its bilateral contributions to the emergency measures, was about £83 million. It also contributes fully to the Community's food aid programme.

Britain is playing a leading part in developing a new Community aid and development policy based on the criterion of need and applicable on a worldwide basis. This, which would involve all the instruments of Community development policy, would place greater emphasis on giving help to those developing countries—many of which are among the world's poorest—not covered by the Lomé Convention or having any other special relationship with the Community.

19 Promotion of the Sciences

The Government is the main source of funds for scientific research and development as a whole though private industry contributes a larger proportion of funds for civil research and development. Funds are also provided by public corporations, independent trusts and foundations, and learned societies. The Government keeps under review facilities for training scientists and ensures that adequate research is directed to matters of national interest.

The Pattern of Expenditure Total expenditure in Britain on scientific research and development in 1972-73 is estimated at \pounds 1,375 million compared with \pounds 658 million in 1961-62. The proportion this represented of the gross national product remained fairly steady throughout the 1960s at between 2.7 and 2.8 per cent, but fell slightly around the turn of the decade to reach about 2.4 per cent in 1972-73. There were also divergent trends in some of the components. The share of defence almost halved during the period whereas that for civil purposes was rising. Civil research and development financed from non-government funds represented an increased share of the total claim on resources in 1966-67 compared with earlier years, but has remained fairly constant since. In 1972-73 private industry spent about \pounds 750 million of which \pounds 482 million was privately funded and \pounds 268 million came from Government.

The Government continues to finance just over half the research and development and to carry out about a quarter in its own establishments. Expenditure by the research councils on research and development is estimated at about $f_{2,149}$ million in 1975-76.

THE GOVERN-MENT AND SCIENTIFIC RESEARCH

Under the Science and Technology Act 1965 central responsibility for basic civil science rests with the Secretary of State for Education and Science, who is advised by the Advisory Board for the Research Councils (see p. 401). Responsibility for technology rests mainly with the Secretary of State for Industry. Other government departments are responsible for research and development related to their executive responsibilities. In 1972 the Government announced its decision (published in Cmnd 5046: see Bibliography p. 483) to extend the customer-contractor approach to all its applied research and development, as recommended in a report by Lord Rothschild, at that time head of the Central Policy Review Staff (see p. 46).

The Department of Education and Science The Department of Education and Science (see also p. 48) discharges its responsibilities for basic and applied civil science mainly through the five research councils: the Science Research Council (see p. 408), the Medical Research Council (see p. 410), the Agricultural Research Council (see p. 410), the Natural Environment Research Council (see p. 415), and the Social Science Research Council (see p. 415). The department is also responsible for some aspects of international scientific relations (see p. 418), and helps to co-ordinate government policy regarding scientific and technical information.

PROMOTION OF THE SCIENCES

The Advisory Board for the Research Councils

The Department

Environment

of the

The Advisory Board for the Research Councils advises the Secretary of State on responsibilities for civil science with special reference to the research council system, the support of postgraduate students and the proper balance between national and international scientific activities, and on the allocation of the science budget between research councils and other bodies; and promotes close liaison between the councils and users of their research. Its membership includes the chairman or secretary of each of the five research councils, the chairman of the University Grants Committee, senior scientists from departments with a major interest in the work of the research councils, and independent members drawn from the universities, industry and the Royal Society of London. One of the independent members is appointed parttime chairman.

The Department of the Environment is concerned with research and development for a whole range of functions which affect the environment (see p. 49).

The department's research programme, which is the responsibility of the Director General of Research, is formulated on the basis of the customercontractor relationship. The 'customers' are normally the department's policy directorates and the 'contractors' are the department's research establishments. The department has its research requirements committees, each based on a particular policy subject, to which the customer requirements for research are formulated.

The research programme in the three main policy areas of planning and transportation, building and construction, and environmental pollution and resources, is reviewed by the programme review committees, under the chairmanship of the Director General of Research. The department receives external advice on its research programme from the Planning and Transport Research Advisory Council, the Construction and Housing Research Advisory Council and a special sub-committee of the Royal Commission on Environmental Pollution.

About half the department's programme is carried out at the Building Research Establishment (BRE), the Transport and Road Research Laboratory (TRRL), and the Hydraulics Research Station (HRS). The other half is the subject of contracts placed with a wide range of organisations, either by the research establishments, or by the Department of the Environment, including its Research Management Division.

The Building Research Establishment, which comprises the former Building Research Station, Fire Research Station and Forest Products Research Laboratory, is concerned with research into all building materials, the techniques of building design and construction, and the organisation, productivity and economics of building work. The BRE also conducts research into all aspects of fire and the danger it represents to life and property.

The Transport and Road Research Laboratory provides technical and scientific advice and information to help in formulating, developing, and implementing government policies relating to roads and transport, including their interaction with urban and regional planning. The TRRL's main activities are highway engineering, traffic engineering and safety, and transport systems. The laboratory also has an overseas unit financed by the Ministry of Overseas Development (see pp. 53 and 418) as part of the United Kingdom Programme of Technical Assistance to Developing Countries.

The function of the Hydraulics Research Station is to predict the performance of hydraulic civil engineering works and their effects upon the environment. It is concerned with the flow of water in open channels, including the

hydraulics of rivers, estuaries, harbours and coasts. The work comprises background research and specific investigation into the flow of water over weirs and stillways, the performance of flood prevention works, diffusion and dispersion of heat and pollutants, the silting of rivers and estuaries, the performance of sea-defence works, and the design of harbours and off-shore structures.

The department gives grants-in-aid to a number of research organisations which include: the Centre for Environmental Studies (see p. 175); the Operational Research Unit of the Royal Institute of Public Administration; and the Retail Planning Institute (information and research in retailing). The Construction Industry Research and Information Association, the Building Services Research and Information Association, the Timber Research and Development Association and the Water Research Centre receive grants to support their co-operative research and related activities. The British Railways Board receives a grant towards railway research and the London Transport Executive one towards the cost of its programme of rapid transit research; and the Royal Society, to meet costs it incurs as British representative on the International Institute of Applied Systems Analysis.

The Nature Conservancy Council, which was set up under the Nature Conservancy Council Act 1973, is funded by the Secretary of State for the Environment who also appoints its chairman and members. The council is the Government's adviser on the development and implementation of policies for, or affecting, nature conservation. It is also responsible for managing national nature reserves, and for advising upon, and disseminating knowledge about, nature conservation. The council may give grants to anyone (including voluntary bodies) to carry out projects and commissions research relevant to its duties. This is undertaken mainly by the Institute of Terrestrial Ecology, a component body of the Natural Environment Research Council (see p. 415). The council also carries out certain research.

The Department of Industry The Department of Industry (see also p. 51) is responsible for the sponsorship of individual manufacturing industries including the aerospace industry, for technical services to industry, and for industrial research and development, including the supervision of the industrial research establishments of the former Department of Trade and Industry, except for the Safety in Mines Research Establishment (see p. 357). It also aids, with grants, certain autonomous industrial research associations.

In accordance with the Government's customer-contractor principle, the department administers a number of requirements boards to determine the objectives and balance of the relevant research and development programmes. They cover ship and marine technology; mechanical engineering and machine tools; engineering materials; computers, systems and electronics; chemicals and minerals; metrology and standards. They are responsible to the Secretary of State for Industry and include representatives from other departments, industry and bodies in the public sector. The chief scientist's boards cover other relevant branches of technology.

The Department of Prices and Consumer Protection

nt The Department of Prices and Consumer Protection (see p. 54) has responsibility for standards and weights and measures, for the British Standards Institution (see p. 223) and for the Metrication Board set up in 1969 to facilitate the transition to the metric system of weights and measures in Britain by 1975 (see p. 463). It also operates the British Calibration Service which provides authenticated certification of the accuracy of measuring instruments in terms of national standards.

The Ministry of Defence The Procurement Executive, Ministry of Defence, engages in research for defence purposes at its research and development establishments and through contracts placed with industry and universities it also undertakes certain research for civil purposes, including meteorology (see p. 404), civil aviation (see p. 329), medical research and space research. For defence aspects see p. 121.

The Department of Energy

The Department of Energy (see p. 49) is responsible for the United Kingdom Atomic Energy Authority; research in support of the exploitation of North Sea oil and gas; research into novel sources of energy; co-ordination of energy research within government departments; strategic oversight of the research programmes of the coal, gas and electricity supply industries; and co-ordination of British contributions to energy research and development programmes sponsored by international organisations.

An Energy Technology Support Unit was set up at Harwell in 1974 to assist the department in assessing the technological strategy options available to Britain in energy policy and to advise on long-term research and development programmes.

An Offshore Energy Technology Board to advise the Secretary of State for Energy on research and development took over from the Ship and Marine Technology Board in May 1975 responsibility for programmes designed to ensure the safety and efficiency of offshore operations and improve the competitive efficiency of the British offshore equipment industry.

Branches of research for which government departments are responsible include:

The Royal Botanic Gardens, Kew (founded in 1759), together with its 400acre estate at Wakehurst Place, Ardingly, Sussex, is administered by the Ministry of Agriculture, Fisheries and Food and has the largest collection of living plants in the world. Its research departments are: the herbarium -also the largest in the world with between four and five million specimensconcerned primarily with the classification and accurate determination of plants; and the Jodrell Laboratory, for the study of plant anatomy and plant physiology, cytology and genetics. There is a seed bank and seed testing unit, a biochemistry laboratory under the Agricultural Research Council and a cell physiology laboratory which has a transmission electron microscope for investigating reproductive physiology and the behaviour of certain glandular cells. A scanning electron microscope for studies of the surface structures of plants and pollen is housed in the Jodrell Laboratory. Three museums are concerned with public exhibitions and the care of reference collections of economic plant products. The library, in the same building as the herbarium, was founded in 1852; it consists of more than 100,000 botanical books, about 140,000 reprints and separately issued items and a collection of over 160,000 drawings and paintings of plants.

The Royal Botanic Garden, Edinburgh (founded in 1670), has, since 1969, been administered by the Department of Agriculture and Fisheries for Scotland. Together with the associated Logan Botanic Garden at Ardwell, near Stranraer, and the Younger Botanic Garden at Benmore, near Dunoon, it maintains large collections of living plants used for research into plant classification. Glasshouses at Edinburgh make possible the cultivation of and

Other Governmentsponsored Research Botany

research into many tropical groups. The herbarium and library—the finest outside London—are used for research in taxonomy, cytology, anatomy, mycology and other subjects. A transmission electron microscope is used for the study of fine detail of plant structures. An exhibition hall was opened on the occasion of the tercentenary of the garden in 1970. The Scottish National Gallery of Modern Art is situated within the Garden.

Communications The Post Office, for which the Department of Industry is the responsible department, undertakes research and development on many aspects of the science and engineering of communications, both in its own laboratories and in close association with industry, the universities and government departments. Its new research centre at Martlesham Heath, near Ipswich, will, on completion, fully replace existing stations at Dollis Hill, London, and Backwell, near Bristol.

Environmental Pollution The Department of the Environment, under its Secretary of State, is responsible for the total strategic approach to environmental management, protection and improvement. Other government departments have certain specific responsibilities for pollution control (for example, the Department of Trade is responsible for oil pollution at sea and the Ministry of Agriculture, Fisheries and Food for pollution from the use of pesticides in agriculture). The Department of the Environment has a small Central Unit on Environmental Pollution to co-ordinate the work of all government departments on the control of pollution and the British contribution to international discussions on the subject.

In 1970 an independent standing Royal Commission on Environmental Pollution was set up to advise the Government on national and international matters concerning the pollution of the environment; on the adequacy of research; and on the future possibilities of danger to the environment. The commission has published four reports (see Bibliography p. 483). A Clean Air Council was set up in 1956 and an Advisory Council on Noise in 1970.

Radiological Protection

A National Radiological Protection Board was established under the Radiological Protection Act 1970 to provide an authoritative point of reference for Britain on radiological protection. The board, which carries out research, makes public and occupational health assessments and provides services, has assumed the functions of the former Radioactive Substances Advisory Committee, the Radiological Protection Service—hitherto provided jointly by the Medical Research Council (MRC) and the Health Departments—and part of the activities carried on by the central Health and Safety Branch of the United Kingdom Atomic Energy Authority (AEA). The board is financed by Parliament through the Secretary of State for Social Services and by grants from the AEA and MRC and by income from services.

Meteorology

Transport Equipment The Ministry of Defence finances the Meteorological Office, which is responsible for research in meteorology and some aspects of geophysics, mainly for civil purposes.

The headquarters of the Office and most of its research sections are at Bracknell, Berkshire. The Ministry of Defence also makes grants for fundamental meteorological research carried out under the auspices of the Royal Society (see below) or in university departments.

The Procurement Executive of the Ministry of Defence undertakes research on civil aircraft, engines and equipment on behalf of the Department of

PROMOTION OF THE SCIENCES

Industry. The Civil Aviation Research and Development Board advises the Civil Aviation Authority on research and development work for which it is responsible.

The sessional Select Committee of the House of Commons on Science and Technology is one of the specialist committees established to give back-bench members the opportunity to investigate the policies and administration of the Government and to participate in the formation of policy (see p. 37). The members of the committee (not more than 15 in number) are nominated by the House. The committee has power to call witnesses, generally takes evidence in public, and reports its findings to the House from time to time.

The Parliamentary and Scientific Committee, founded in 1939, provides for a regular exchange of information between members of Parliament and scientists. Membership is open to members of Parliament of any party in both Houses, and also to nominated representatives of such non-profit-making scientific and technological organisations as may be affiliated under its constitution.

Although today most research is conducted under other auspices, the learned societies have retained their traditional function of facilitating the spread of knowledge. The most eminent of those concerned with science in its broadest aspects (as distinct from those societies with specialised interests and activities) are the Royal Society, Royal.Society of Arts, Royal Institution and British Association.

Royal Society

The Royal Society, or, more fully the Royal Society of London for Improving Natural Knowledge, founded in 1660, occupies a unique place in the country's scientific affairs and is equivalent to national academies of sciences in other countries. Election to it is regarded by scientists as a high honour. The Queen is Patron. There are today three main categories of Fellowship: Royal Fellows, including the Queen Mother and the Duke of Edinburgh; Foreign Members, of whom there are about 80; and the main body of Fellows numbering about 800. Election to the Fellowship, which is for life, was for many years restricted to 25 persons a year and the foreign membership to four a year but in 1965 the former was increased to 32 with the intention of awarding some of the new places to applied scientists in both the physical and biological sciences, and in 1975 was further increased to 40, with effect from 1976 elections. The society is governed by a council of 21 members.

Its activities include the holding of scientific meetings; publication of research work, mainly in the *Philosophical Transactions* and the *Proceedings*; the presentation of medals; the giving of endowed lectures; and the award of research appointments and grants. Among its research appointments are the Foulerton, Wolfson, Henry Dale and Napier Research Professorships and 12 other research professorships supported by parliamentary grant-in-aid. Research fellowships in human nutrition supported by the J. Sainsbury Centenary Grant were inaugurated in 1974. The highest medal awarded is the Copley Medal, for which scientists from all countries are eligible; there are also three Royal Medals, and the Rumford, Darwin, Buchanan, Sylvester, Hughes, Leverhulme and Mullard Medals. There are six lectureships: the Croonian (biology); the Bakerian (physical sciences); the Ferrier (nervous system); the Wilkins (history of science); and the Clifford Paterson (established 1975 for electrical science and technology). The society has set up committees,

Select Committee on Science and Technology

The Parliamentary and Scientific Committee

THE LEARNED SOCIETIES

some of them jointly with other bodies, to promote improvements in education in science and to emphasise the importance of applied sciences, especially engineering.

• Although an independent private corporation, the society has always had a special relationship with the Government, which makes grants for certain of its activities. The President of the Society is consulted on scientific appointments to research councils and Fellows serve on most governmental advisory councils and committees concerned with research.

The international relations of the Royal Society are extensive. It represents Britain in the international unions comprising the International Council of Scientific Unions and appoints national committees for each of them. It also plays a leading part in international scientific programmes and promotes exchange visits of scientists with many academies throughout the world. Its International Fellowship Scheme to foster relations with scientists of Western European and many other countries receives financial support from the Government and other sources.

Royal Society of Arts The Royal Society of Arts (properly, the Royal Society for the Encouragement of Arts, Manufactures and Commerce) has a character at once scientific, artistic, technical, industrial and commercial. Since its foundation in 1754, one of the society's principal objects has been to promote the progress and application to useful ends of all departments of science. Today it fulfils this purpose chiefly by disseminating new scientific knowledge. The society regularly holds lectures, and publishes a monthly *Journal*, thus providing effective media for the exposition and assessment by leading authorities of developments which have a public as well as a specialist interest.

> The Royal Institution was founded in 1799 as a public body for facilitating the introduction of useful mechanical inventions and improvements, and for teaching the application of science to everyday life. Later it undertook the 'promotion of chemical science by experiments and lectures for improving arts and manufactures', and 'the diffusion and extension of useful knowledge'. Its character, however, was largely determined by the work of Sir Humphry Davy and Michael Faraday, who established a tradition of research. Today, the Royal Institution has extensive research laboratories, and lectures are given on recent developments in science and other branches of knowledge. Its library includes many early scientific works and manuscripts.

> The British Association for the Advancement of Science was founded in 1831 to promote general interest in science and its applications. One of its chief activities is the annual meeting, attended by many young students as well as by eminent scientists. In addition the association plans special lectures, exhibitions and discussions (some designed for young audiences), the publication of pamphlets, the organisation of conferences, the appointment of study groups and liaison with the Press and with sound and television broadcasting services. The association has area committees and three lectureships for young scientists—the Kelvin, the Darwin and the Lister lectureships, dealing respectively with the physical, biological and sociological sciences—to encourage scientists to make their activities known to wider audiences. The British Association has an organised relationship with over 150 scientific bodies and learned societies. It has also made an important contribution to the development of science by taking or recommending action to remove obstacles to the discovery and application of scientific knowledge.

Royal Institution

British Association

PROMOTION OF THE SCIENCES

Science and Society

Professional Institutions There are at least two bodies concerned with the relationship between science and society; the British Society for Social Responsibility in Science, founded in 1969; and the Council for Science and Society, formed in 1973 by specialists in the natural and social sciences, the law, and medicine to support and stimulate research into the social effects of scientific and technological development.

There are numerous technical institutions and professional associations, many of which are playing a distinguished part in promoting their own disciplines or are interested in the education and professional well-being of their members.

The Council of Engineering Institutions, the federal body for the chartered engineering institutions established in 1965, promotes the co-ordination of the engineering profession. The Council of Science and Technology Institutes a federal body with five member institutes representing biologists, chemists, mathematicians, metallurgists and physicists—was formed in 1969.

Major Awards

THE UNIVER-SITIES AND INSTITUTIONS OF UNIVERSITY STATUS The MacRobert Award of $\pounds 25,000$ and a gold medal have been presented annually since 1969 by the Council of Engineering Institutions on behalf of MacRoberts Trusts, for successful technological innovations contributing to the national prestige and prosperity of Britain. A fund was endowed in 1972 by the late Lord Rank to be used to reward outstanding contributions to human nutrition and crop husbandry, and to opto-electronics and nearly related phenomena.

In giving awards for technological innovation, the Queen's Award to Industry scheme concentrates on the potential application in industry of outstanding achievements in advanced technology in the form of processes or products.

Of total estimated university expenditure on scientific research in the academic year 1973-74 (over £128.1 million), the largest government contribution (over £93.9 million) was through the University Grants Committee (see p. 160).

Scientific research in the universities (and other institutions of higher education) is also supported through the research councils. This support takes two forms. First, about half the postgraduate students in science and technology in the universities and other institutions receive maintenance awards from the research councils, through postgraduate studentships. These awards are in some cases for periods of up to three years of training in research work and in others for shorter periods for advanced studies. The cost of these awards is about $\pounds_{11.5}$ million a year. Second, grants and contracts are given to the universities and other institutions by the research councils for specified projects, particularly in new or developing areas of research. These are worth about \pounds_{33} million a year. The ARC, MRC and SSRC maintain a number of research units within universities. In addition the research councils provide central facilities in their own establishments for use by university research workers.

The other main channels of support for scientific research in the universities are various government departments, the Royal Society, industry and the independent foundations. The contributions from sources other than the University Grants Committee amount to about a third of the total university expenditure on research.

Universities in industrial centres have tended to acquire outstanding reputations in studies relating to their local industries, and on a national scale close relationships are fostered between the universities, industries and the Government in numerous joint projects.

Statistics of Qualified Manpower

SCIENCE RESEARCH COUNCIL

According to estimates in a survey published in 1971 (see Bibliography p. 483) there were in 1968 just over 400,000 persons with qualifications in engineering, technology and science in Great Britain, of whom one-half were qualified in science and one-half in engineering. Of those economically active (350,000), 53 per cent (185,000) held engineering qualifications, 1.2 per cent (4,140) were out of employment, and 35 per cent employed in manufacturing. Education employed over 20 per cent and over the years 1959 to 1968 there was a rapid increase in the service sectors (commerce and consultancy). Within manufacturing the largest increase was in electrical and electronics industries (6 per cent a year). Over the period 1959 to 1968 there was a net gain of scientists from migration and a net loss of engineers and technologists.

The Science Research Council (SRC) was established under Royal Charter in 1965 and consists of a chairman and 10-15 other members. It is supported by grants-in-aid provided by Parliament through the Secretary of State for Education and Science, and covers all branches of fundamental science other than those for which the other research councils are responsible. Provision is made for it to carry out research and development in science and engineering through its own establishments; to encourage and support similar research by any other person or body; to provide and operate equipment for common use by universities, polytechnics, technical colleges and similar institutions; to make grants for postgraduate studies; and to disseminate knowledge of science and technology. Its establishments are the Royal Greenwich Observatory, Herstmonceux, the Royal Observatory, Edinburgh, the Appleton Laboratory, the Rutherford Laboratory, the Daresbury Laboratory, and the Atlas Computer Laboratory. The SRC also provides contributions to the European Organisation for Nuclear Research (CERN), the civil science programme of the North Atlantic Treaty Organisation (NATO) and part of the United Kingdom's contribution to the scientific programme of the European Space Agency (see p. 413).

The SRC shares with its French and West German partners the control of the Institut Max von Laue-Paul Langevin (ILL) which operates a high flux reactor at Grenoble. The neutron beams produced from it are used for a wide variety of condensed matter studies in biology, chemistry, materials science and physics.

INDUSTRIAL RESEARCH

The greater part of industrial research in Britain is undertaken in the research organisations of the larger firms and in government research establishments. Other main agencies are universities and technical colleges, industrial research associations, independent institutes for sponsored research and consultant laboratories.

The Department of Industry is responsible for five government laboratories. Of these, the National Physical Laboratory has a primary responsibility for the national system of measurement and for technical aspects of standards. It also incorporates a maritime institute and carries out research into novel uses of computers. The National Engineering Laboratory, the Warren Spring Laboratory, and the Computer Aided Design Centre are concerned with industrial developments in mechanical engineering, chemicals, and computing.

The Laboratory of the Government Chemist provides analytical and advisory services to government departments. These establishments also undertake contract research for British industry and overseas firms.

The department also sponsors research by extra-mural contracts with

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Research Establishment.

industry, the universities, and by contracts with, and grants-in-aid to, research associations.

The Department of the Environment is responsible for the Transport and

Road Research Laboratory, the Hydraulics Research Station, and the Building

The Department of the Environment

Research Associations

The scheme by which the Government has given financial help to firms with similar interests to form organisations known as research associations, to carry out industrial research co-operatively, was started in 1917. There are now 29 such associations which have links with the Department of Industry. In addition there are four (building services; construction industry; timber; and water) linked with the Department of the Environment, and four (Flour Milling and Baking; Campden Food Preservation; British Food Manufacturing Industries; and British Industrial Biological Research) linked with the Ministry of Agriculture, Fisheries and Food. Suitably specialised associations are now available for about 50 per cent of British industry. They accounted in 1972-73 for £18.8 million or nearly 1.4 per cent of national research and development expenditure. The largest are those dealing with production engineering, ships, welding, electrical manufacturing, cotton and man-made fibres, non-ferrous metals and scientific instruments. (See also Chapter 12.) Government grants, related to the contributions made by the industries concerned, are now being phased out in favour of extra-mural contract support. The Textile Research Conference serves as a focal point for the collective interests of the various textile research associations.

Public Corporations

Private Industry

MEDICAL RESEARCH

Expenditure on research and development carried out within or financed by private industry in 1972–73 was about £750 million of which £268 million came from government funds. Expenditure in individual industries, including funds from government sources, was as follows (in £ million): aerospace 208; electronics (including computers) 160; other electrical engineering 34; petroleum products 14; other chemical products 122; mechanical engineering 35; motor vehicles 56; scientific instruments 20; food, drink and tobacco 25; textiles 12. Firms in science-based industries commit large private funds to research and development in the course of business.

Some of the public corporations which run the nationalised industries have

their own research organisations (see Chapter 13), in particular those concerned with energy, steel and transport. They also give support to organisa-

tions concerned with research on matters of interest to them.

A number of institutes for sponsored research have been established to extend the facilities for private research for industrial firms by studying problems which are not within the scope of the average industrial laboratory. In these institutes research for private firms is carried out confidentially, the results remaining the property of the sponsor.

The Government gives substantial support to medical research by financing the Medical Research Council, through block grants to universities distributed through the Department of Education and Science and the University Grants Committee, and through the research and development programme of the Department of Health and Social Security. Certain government-financed research for defence purposes, for example, at the Microbiological Establishment at Porton, Wiltshire, has civil applications related to medical science.

Important contributions to the support of research in particular subjects are made by industry, especially the pharmaceutical industry, and by private charities or voluntary organisations, such as the Nuffield Foundation and the Cancer Research Campaign.

The Medical Research Council (MRC) was established under Royal Charter in 1920, as successor to a Medical Research Committee first appointed in 1913. The Council, which now consists of a chairman, deputy chairman and 14–18 other members, was granted a new Charter in 1966 (since further amended) and is supported mainly by grant-in-aid provided by Parliament through the Secretary of State for Education and Science.

The MRC's principal objectives are: to advance knowledge that will improve physical and mental health; and to develop the biomedical sciences as such, to maintain a fundamental capacity for research and to support higher education. The council is assisted by four advisory boards: the Neurobiology and Mental Health Board; the Cell Biology and Disorders Board; the Physiological Systems and Disorders Board; and the Tropical Medicine Research Board. The Council is also advised by an Environmental Medicine (Research Policy) Committee on policy for the support of research on environmental, occupational and social medicine problems that often extends beyond the responsibility of its advisory boards. In addition, the MRC is advised by committees concerned with particular aspects of its work and with research grants. The MRC's arrangements for the support of research fall under four main headings: investigations by members of its scientific staff, mostly working in its own establishments; short-term ('project') grants to workers in universities and elsewhere; long-term grants in support of specific research programmes in university departments ('programme grants' and 'research groups'); and research training awards (fellowships and scholarships) tenable both at home and overseas. The research undertaken ranges from basic biological research at the molecular level and the extensive laboratory work that forms the scientific basis of the practice of medicine to the study of patients and relevant epidemiological and population surveys.

The MRC's main research establishments are the National Institute for Medical Research at Mill Hill, London, and the Clinical Research Centre at Northwick Park, London, which forms an integral part of the new district hospital. In addition the council has over 60 research units, which are mostly located in university departments, medical schools and hospitals in Britain.

The MRC also undertakes work overseas and, with additional support from the Ministry of Overseas Development (see p. 418), maintains laboratories in The Gambia and a unit in Jamaica.

Agricultural research is carried out by the Agricultural Research Council, the government agricultural departments and by private industry. Fisheries research is carried out by the government fisheries departments, the White Fish Authority, the Natural Environment Research Council, the Marine Biological Association, the Scottish Marine Biological Association and the Freshwater Biological Association. Expenditure on research and development by the Ministry of Agriculture, Fisheries and Food was estimated to be £21 million in 1974–75 and £29.2 million in 1975–76.

The Agricultural Research Council (ARC), established in 1931 under Royal Charter (since amended), consists of a chairman and 18–21 other members. It is supported by grant-in-aid provided by Parliament through the Secretary of State for Education and Science.

AGRICULTURAL FOOD AND FISHERIES RESEARCH

Agricultural Research Council

Medical Research Council

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The ARC is responsible for 14 independent state-aided agricultural research institutes and also has eight institutes under its direct control and 10 units which it has established under distinguished scientists associated with universities. Also there are eight independent institutes in Scotland financed by the Department of Agriculture and Fisheries for Scotland with advice from the ARC on their scientific programmes, staffing and equipment.

The ARC also makes special research grants to support promising new lines of work in university departments. It makes a limited number of postgraduate training awards.

The Ministry of Agriculture, Fisheries and Food does both applied and basic research. At its Central Veterinary Laboratory at Weybridge, research and laboratory investigations are carried out into the causes, pathology, epizootiology and control of diseases of farm livestock, including poultry; the diagnosis of animal and poultry diseases (other than foot-and-mouth disease); and the making and supplying of certain biological products. The laboratory is, by appointment of the World Health Organisation (WHO), the third international laboratory for biological standards. The Veterinary Laboratory at Lasswade, Midlothian, and the Cattle Breeding Centre, Reading, Berkshire, are departments of the Central Veterinary Laboratory. The Plant Pathology Laboratory at Harpenden, Herts., is concerned with crop planting material, pest and disease diagnosis, intelligence and crop loss appraisal, the clearance of pesticides for safety, including the monitoring of residues in crop products and official approval for biological efficiency. The Pest Infestation Control Laboratory at Slough, Berkshire (with stations at Tolworth and Worplesdon, Surrey), engages in research work on insects, mites and fungi affecting food storage and on harmful mammals and birds. It provides the scientific basis for advisory work on their detection and control and acts as an instruction and liaison centre for home and some overseas work, and is concerned with the clearance of pesticides for safety.

With the guidance of the Chief Scientific Adviser (Food), the Food Science Division provides advice on scientific and technical aspects of food. Particular attention is paid to the safety, quality and nutritive value of food, including consideration of food additives and contaminants. Close liaison is maintained with the Department of Health and Social Security, which has responsibilities for public health, and with other government departments. The division has facilities for experimental work in Norwich and London concerned with storage of certain foods, interaction of food additives and food components, heavy metal contamination and studies arising from food legislation and safety. There is an increasing demand for advice in connection with international work, including the European Community food legislation, and also regarding the new government policies for the support of research at the four food research associations and elsewhere.

In Scotland research work at East Craigs, Edinburgh, by the Agricultural Scientific Services of the Department of Agriculture and Fisheries is mainly concerned with the problems of cultivar taxonomy, seed testing, healthy seed potato production, plant pathology, and the ecology of birds, mammals and insects harmful to agriculture and stored products. In Northern Ireland the Ministry of Agriculture is responsible for promotion of research in food produced by agriculture and in veterinary sciences with the aim of improving efficiency of production, marketability of foods and the health of plants and animals. The ministry is also responsible for work on forest science, ecology of freshwater and marine fish as well as on the biology of freshwater resources.

Government Agricultural and Food Departments

The ARC, the Ministry of Agriculture, Fisheries and Food and the Department of Agriculture and Fisheries for Scotland have set up a Joint Consultative Organisation to advise them on the programmes and priorities for government-financed research and development in food and agriculture. The organisation consists of five boards—three commodity boards, covering respectively animals, arable crops and forage, and horticulture; and two special subject boards for food science and technology, and engineering and buildings. The Chief Scientist, Ministry of Agriculture, Fisheries and Food, is responsible for scientific advice to the ministry on the broad range of policy matters with which it deals and also for framing, commissioning and reviewing the ministry's research and development programmes and in determining the order of priorities.

The Ministry of Agriculture, Fisheries and Food maintains five laboratories for marine fisheries and shellfish research, one for salmon and freshwater fisheries research, one concerned with landing and preservation of the fish catch and with studies of fish as food and one specialising in research into fish diseases. There are four sea-going research ships and several smaller vessels for inshore and estuarine work. The Department of Agriculture and Fisheries for Scotland maintains a marine research laboratory and six research ships at Aberdeen, and a freshwater fisheries research laboratory at Pitlochry.

A Fisheries Research and Development Board representative of government departments and the industry advises fisheries ministers on research programmes, objectives and priorities. A Controller of Fisheries Research and Development, responsible jointly to the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland, co-ordinates the programmes of the research laboratories.

The Forestry Commission undertakes experimental work relating to silvicultural and allied problems (see p. 305). By means of grants, it also aids forest research work undertaken by various universities and other institutions, including the Commonwealth Forestry Institute, Oxford.

In 1974 the Commission's research establishments were reorganised. All research and development activities were amalgamated within a research and development division; and the study of hardwood trees was given more emphasis, with the concentration of work on lowland forests, amenity and landscape at Alice Holt Lodge near Farnham, Surrey, and the replacement of the Soils Research Branch by two Site Studies Branches.

NUCLEAR ENERGY

FORESTRY

The Secretary of State for Energy is responsible, under the Atomic Energy Act 1946, for promoting and controlling the development of nuclear energy and ensuring that the proper degrees of importance are attached to its various applications. The United Kingdom Atomic Energy Authority (UKAEA), set up under the Atomic Energy Authority Act 1954, is the main body carrying out relevant research and development. Under an Act of 1971, the UKAEA's fuel cycle and radiochemical manufacturing activities were given full commercial form by the establishment of two statutory companies: British Nuclear Fuels Ltd., Risley (see p. 273) and, the Radiochemical Centre Ltd., Amersham, Bucks.; under an Act of 1973 the Atomic Weapons Research Establishment was transferred to the Ministry of Defence.

As an essential part of the Government's nuclear power programme, the UKAEA carries out research and develops new types of nuclear reactors for electricity generation on a commercial scale and for this purpose it builds and

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operates experimental and prototype reactors (see p. 273). The Science and Technology Act 1965 enables the Authority to carry out contract research and development outside nuclear energy and these activities now yield an income of some $\pounds 6$ million a year. Apart from a London Office, the UKAEA's establishments are: the Research Group headquarters and Atomic Energy Research Establishment (AERE) at Harwell and the Culham Laboratory, both in Oxfordshire, the Reactor Group Headquarters and Risley Engineering and Materials Laboratory at Risley, near Warrington, and Safety and Reliability Directorate at Culcheth, the Reactor Fuel Element Laboratories at Springfields, Lancs., the Reactor Development Laboratory at Windscale, Cumbria, the Dounreay Experimental Reactor establishment in Highland and the Atomic Energy Establishment at Winfrith in Dorset.

Co-operation in nuclear energy between Britain and other countries takes place within the framework of intergovernmental agreements, membership of bodies such as the International Atomic Energy Agency and the Nuclear Energy Agency of OECD, through direct links on the research side between the UKAEA and equivalent organisations overseas.

Britain became a full member of the European Atomic Energy Community (Euratom) on 1st January 1973 (see p. 79) under the Treaty of Accession and under its terms agreed to accept the Treaty of Rome, signed in 1957, under which Euratom was set up, and rules made under it. Britain is taking part in the four-year Euratom research and training programme agreed in February 1973 and costing over \pounds 70 million. The AEA co-operates in the Community's five-year programme of research into thermonuclear fusion.

The provision of facilities for research in high energy physics is the function of the Science Research Council (SRC) (see p. 408). The SRC establishments concerned are the Rutherford Laboratory, Chilton, with a 7 GeV (thousand million electron volt) proton synchrotron (particle accelerator), and the Daresbury Laboratory, Warrington, with a 5 GeV electron synchrotron. Experiments at higher energies are carried out at the European Organisation for Nuclear Research (CERN) to which Britain contributes through the SRC.

Government responsibility for space activities is undertaken by the Secretary of State for Education and Science, the Secretary of State for Defence and the Secretary of State for Industry, according to the nature of the project, while the Secretary of State for Foreign and Commonwealth Affairs is concerned with international aspects. Total expenditure on space activities in 1973–74 was about \pounds_{37} million.

The United Kingdom with other European Governments has established a European Space Agency (ESA), agreement for which was reached in April 1975, when a British Director-General was appointed. The other member countries are Belgium, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Spain, Sweden and Switzerland; the Irish Republic, Austria and Norway have observer status. This new organisation has superseded the European Space Vehicle Launcher Development Organisation (ELDO) and European Space Research Organisation (ESRO) of which the United Kingdom was also a founder member. It has taken over the existing science programme, four applications satellites and *Spacelab*—a manned laboratory—in all of which Britain is actively participating. Among its main responsibilities will be the fostering of a single co-ordinated European space programme with a corresponding decrease in purely national activity.

Euratom

High Energy Physics

SPACE ACTIVITIES

Scientific research, notably in astronomy and geophysics, using space techniques, is supported by the SRC, which is responsible to the Secretary of State for Education and Science. Opportunities are provided for research workers, particularly in universities, to carry out experiments in British satellites and sounding rockets in the European Space Agency's scientific satellite programme and in various collaborative sounding rocket programmes through bilateral and multilateral arrangements with other countries, including the Commonwealth collaborative programme. Britain is co-operating with the United States in a programme which includes American launching of the British Ariel series of scientific satellites, the incorporation of British experiments in American satellites and the analyses of lunar surface samples. The Appleton Laboratory provides support and services for the universities' spacebased experiments and also operates the United States National Aeronautics and Space Administration (NASA) Satellite Tracking and Data Acquisition Network (STADAN) station at Winkfield. Optical tracking of satellites is undertaken by many individual observers in Britain; the prediction and coordination centre is at the Appleton Laboratory, which is also the home of one of the three World Data Centres for space research. The Space Department of the Royal Aircraft Establishment at Farnborough also undertakes long-term research and development intended to assist industry.

The Royal Society represents Britain in non-governmental international scientific groups such as the Committee on Space Research (COSPAR) of the International Council of Scientific Unions (ICSU).

Responsibility for industrial sponsorship of the space industry for Britain's space technology programme and for leading the British delegation to the European Space Agency rests with the Department of Industry. The technology programme, now known as the Domestic Space Technology Programme (DSTP) is intended to develop Britain's industrial capability in space applications systems. A series of wholly British technology proving satellites, which culminated in the launching of *Miranda* in March 1974, has been terminated following the decision to set up ESA. Work undertaken within the DSTP is managed by the Procurement Executive of the Ministry of Defence on behalf of the Department of Industry.

The Department of Industry, through the Post Office, is responsible for the use of satellites for civil communications purposes and undertakes research work in connection with communications systems using satellites. Britain and 88 other countries participate in the permanent International Telecommunications Satellite Organisation (INTELSAT) which started operating early in 1973 in place of the consortium formed in 1964. Britain is the second largest shareholder and is represented on the organisation's board of governors by the Post Office. The Post Office ground stations at Goonhilly in Cornwall are among the most successful in the world; British firms have built such stations overseas, and are currently fulfilling further export orders as members of international consortia.

OPTICAL AND RADIO ASTRONOMY Optical astronomy is carried out in university departments and in the Royal Greenwich Observatory and the Royal Observatory, Edinburgh, under the Science Research Council (SRC). The 98-in (245 cm) Isaac Newton Telescope at the Royal Greenwich Observatory was commissioned in 1967 and is operated as a national facility. A 150-in (375 cm) telescope has been inaugurated at Siding Spring Mountain in Australia as a joint Anglo-Australian project, while a British 48-in (120 cm) Schmidt Telescope is working on the same site. Optical telescopes operated by the South African Astronomical

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Observatory, to which the SRC contributes, are available for use by British astronomers.

Cambridge and Manchester Universities are the main centres for research in radio astronomy with substantial support from SRC. The fully steerable 250-ft ($76\cdot 2$ m) telescope at Jodrell Bank (University of Manchester) has been modernised. The Cambridge University group at Lord's Bridge has developed and made substantial use of the aperture synthesis technique; two telescopes with 1.61 km (1 mile) and 0.8 km (0.5 mile) arrays have been complemented by a 5 km ($3\cdot 1$ miles) array.

THE NATURAL ENVIRONMENT RESEARCH COUNCIL The Natural Environment Research Council (NERC) was established by Royal Charter in 1965 with responsibility to encourage, plan and execute research in sciences, physical and biological, relating to man's natural environment and its resources. Such investigations seek to provide a better understanding not only of the nature and processes of the environment in which we live and on whose resources we depend, but also of their influence on man's activities and, of growing importance today, of man's influence on them.

These researches are broadly grouped and defined as: the Solid Earth—its physical properties and mineral resources; Seas and Oceans—their behaviour and living and mineral resources; Inland Waters—their behaviour and living resources; Terrestrial Environments—wild-life communities and their resources; Atmosphere—its structure and interactions; and interdisciplinary studies of the physical and biological properties of the Antarctic environment.

The council carries out research and training through its own institutes, grant-aided institutes, and by grants, fellowships, and other postgraduate awards to universities and other institutes of higher education.

The council's research institutes are: the British Antarctic Survey, the Culture Centre for Algae and Protozoa, the Experimental Cartography Unit, the Institute of Geological Sciences, the Institute of Hydrology, the Institute of Marine Biochemistry, the Institute for Marine Environmental Research, the Institute of Oceanographic Sciences, the Institute of Terrestrial Ecology, and the Unit of Invertebrate Virology. The council also maintains a research vessel base to service and operate its research vessels.

Research institutes aided by council grants are: the Freshwater Biological Association, the Marine Biological Association of the United Kingdom, the Scottish Marine Biological Association, the Unit of Marine Invertebrate Biology, the Unit of Comparative Plant Ecology, and other smaller units attached to universities.

The statutory council consists of a chairman and up to 18 members. The council is financed by a grant-in-aid from Parliament, received through the Department of Education and Science, and by commissioned research under the customer-contractor principle (see p. 400).

One of the requirements boards administered by the Department of Industry (see p. 402), the Ship and Marine Technology Requirements Board, identifies customer requirements for research and development in exploiting marine resources other than oil and gas, now the responsibility of the Offshore Energy Technology Board (see p. 403).

Several government departments have funds allocated for social research related to their responsibilities, including the Home Office, which has a large research unit (see p. 112) carrying out a wide variety of sociological studies. The Social Survey conducts sample survey inquiries at the request of

Marine Technology

THE SOCIAL SCIENCES

government departments and from time to time also carries out studies in collaboration with universities and other independent research organisations.

The Social Science Research Council (SSRC) was established under Royal Charter in 1965 to encourage, support and carry out research in, and to disseminate knowledge about, the social sciences. The Council consists of a chairman and 13-19 other members, and is supported by grant-in-aid provided by Parliament through the Secretary of State for Education and Science. It provides grants for research projects at universities and other institutions, and makes training awards to postgraduate students. It has also set up five research units: the Industrial Relations Unit, the Cambridge Population Unit, the Ethnic Relations Unit, and the Survey Unit, and the Social-legal Studies Centre. The SSRC's fields of interest include economics; political science; psychology; social anthropology; social and economic statistics; sociology and social administration; social science and government; education; management and industrial relations; human geography; linguistics; planning and various aspects of a wide range of other disciplines.

Zoological research is among the activities of the world-famous Zoological Gardens, extending over 34 acres in Regent's Park, London, which were opened by the Zoological Society of London in 1828. A natural zoo of 500 acres was opened in 1931 at Whipsnade, in Bedfordshire, by the Society. Among other well-known zoos are those at Edinburgh, Bristol, Chester, Dudley, Chessington, Surrey, and Jersey (a small collection of some of the rarest animals in the world). There are also several 'safari parks' containing reservations of wild animals through which the public can pass in closed motor cars.

> The British Museum (Natural History) is the principal centre in the Commonwealth for the general study of natural history, particularly for research into classification (taxonomy); it has extensive collections of extant and fossil animals and plants and of minerals, rocks and meteorites. The Science Museum illustrates the development of pure and applied science in all countries, but chiefly in Britain, which has always held a leading place in engineering, agriculture, navigation, mining, aeronautics, and in the development of industrial machinery and processes. The geology of Britain is probably known in more exact detail than that of any other country in the world, and the Geological Survey has an outstanding collection of exhibits in its Geological Museum. These three museums are in South Kensington, London. Other important collections are those of the Museum of Science and Industry, in Birmingham, and the Museum of the History of Science, at Oxford.

The dissemination of the results of research to other research workers and to ultimate users has become a problem of some magnitude as the volume of information has grown. The traditional method of scientific publication, in which results are written up into papers and published in journals, is still the main means of communication among scientists. The leading learned societies have for long been important agencies for communicating scientific information.

> A description of general library services which also cater for scientific needs is given on p. 432. Two constituents of the British Library (see p. 432) are concerned with science and technology-the Lending Division, and the Science Reference Library.

The Lending Division collects for loan purposes all literature which is

OTHER RESEARCH Zoological Gardens

Scientific Museums

DISSEMINATION AND APPLICA-TION OF **RESULTS OF** RESEARCH

Information Services

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likely to be of interest to the practising scientist and technologist, covering all branches of science and technology (including agriculture and medicine) and the social sciences.

The Science Reference Library is divided between the Holborn Division, formerly the Patent Office Library, and the Bayswater Branch which has substantial collections, especially in the life sciences and scientific literature written in Slavonic and oriental languages.

The rehousing in a new London headquarters of the world's largest library devoted to the social sciences—the British Library of Political and Economic Science, part of the London School of Economics—is planned for completion by the end of the present decade.

Aslib, representing special libraries and information units in industry, government departments, universities, colleges and other institutions, carries out research into the collection, utilisation and dissemination of information, provides consultancy and advisory services and training courses and offers members an inquiry and reference service covering all subjects.

The Department of Industry and the AEA devote considerable sums to advisory and information services. The former has nine regional offices which make contacts with local industries to promote greater use of existing scientific and technical knowledge. Its Technology Reports Centre is a national clearing house for unpublished technical reports made available by various bodies in Britain and overseas. The industrial research associations circulate research reports and provide information services to members. Besides information services provided by its various groups, which include the Ceramics Centre and the Non-destructive Testing Centre at Harwell, the AEA has an information centre at its London headquarters, and a network of regional advisers on the use of radioisotopes.

In agriculture, the Commonwealth Agricultural Institutes and Bureaux (see p. 418) provide abstracts and an information service in various branches of agricultural science. The ARC publishes an *Index of Agricultural Research in Progress*, and gives an account of current developments in its annual reports. The advisory services of the agricultural departments bring research results directly to the farmer.

Medical research results are communicated mainly through journals and periodicals; but the MRC issues special reports and includes special articles in its annual reports.

The National Research Development Corporation (NRDC) is an independent public corporation supported as necessary by government loans through the Department of Industry. Set up under the Development of Inventions Act 1948 its borrowing power for government advances is \pounds 50 million. Outstanding advances total \pounds 20 million but the corporation is currently funding its annual investment in research and development from its income from licences and levies.

The NRDC's functions are to promote the manufacture, under NRDC licence, by industry of new products and processes invented in government laboratories, universities and elsewhere, advancing money where necessary to bring them to a commercially viable stage, and to speed up technological advance by investing money with British industrial firms, on a joint venture basis, for the development of their own inventions and projects.

Projects so far sponsored include the *Cephalosporin C* antibiotic, hovercraft, computers, advanced types of electric motor, diving and other oceanological equipment, insecticides, micro-electronics and plastics.

National Research Development Corporation

INTERNATIONAL SCIENTIFIC RELATIONS Britain is represented on the Scientific and Technical Research Committee (CREST) of the European Community set up in 1974, the object of which is to co-ordinate national policies on these matters and to implement joint projects of interest to the Community. Other intergovernmental organisations involved in scientific co-operation with which Britain is concerned include: European Co-operation in Science and Technology (COST); specialised agencies of the United Nations such as the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the World Health Organisation (WHO), the Food and Agriculture Organisation (FAO), the International Atomic Energy Agency (IAEA); the Nuclear Energy Agency (NEA) and the International Energy Agency (IEA) of the Organisation for Economic Co-operation and Development (OECD); the European Organisation for Nuclear Research (CERN); the European Space Agency (ESA); the European Molecular Biology Conference (EMBC); the European Molecular Biology Laboratory (EMBL); and the International Agency for Research on Cancer (IARC). Among non-governmental organisations, the five research councils, the Royal Society and the British Academy became founding members of the European Science Foundation (ESF) set up in November 1974. In nuclear energy Britain also co-operates within the framework of international agreements; through direct links between the AEA and its counterparts; and through joint companies in, for example, nuclear fuel and radioisotope manufacture. Britain is also represented on the Committee for Scientific and Technological policy of the OECD. In areas of non-governmental collaboration Britain's main representative is the Royal Society.

More generally, there are scientific counsellors in the British Embassies or High Commissions in Canada, France, the Federal Republic of Germany, Japan, the United States, and the Soviet Union who among other things promote scientific contacts between Britain and the countries to which they are accredited.

The Ministry of Overseas Development promotes scientific activities in the interests of developing countries. These include research covering a wide range of disciplines, specialist advice from Britain, advisory visits, conferences for exchange of information, training scientists from overseas in universities and research institutions in Britain, recruiting scientific staff from Britain, and providing support for existing research services and research projects overseas. Equipment is sometimes provided for research purposes and to encourage scientific training. There are three organisations forming part of the ministry, which are wholly engaged on scientific work to assist developing countries. They are the Tropical Products Institute, which specialises in the postharvest aspects of agricultural, fish and animal products; the Centre for Overseas Pest Research, which is concerned with the development and application of pest control techniques relevant to tropical agriculture; and the Land Resources Division, which is concerned with all aspects of land resource appraisal. The ministry also supports the International Agricultural Research Centres under the aegis of the Consultative Group for International Agricultural Research. The ministry provides over £12 million a year for scientific activities including research for the benefit of developing countries.

Commonwealth Agricultural Bureaux

th The Commonwealth Agricultural Bureaux, financed by contributions from the governments of 28 Commonwealth countries and that of the Irish Republic comprise four institutes and ten bureaux, all of which except one institute are in Britain and each of which is concerned with a particular branch

The Ministry of Overseas Development

of agricultural science. They act as clearing houses for the interchange of information of value to research workers in agricultural science throughout the Commonwealth and increasingly throughout the world. Some 18 abstract journals, one primary journal and an index are published periodically and have a combined annual circulation of about 30,000 copies. The institutes and bureaux also issue monographs on their own particular subjects and deal with inquiries received from research workers in all parts of the Commonwealth. Three of the institutes undertake taxonomic services for all countries of the Commonwealth and many countries outside it.

Commonwealth Science Council The Commonwealth Science Council (CSC) was established in 1975 as successor to the Commonwealth Scientific Committee formed in 1958. It consists, like the committee, of administrators and scientists nominated by the Governments of Commonwealth member countries and has been brought into close association with the Commonwealth Secretariat. The new council will concentrate on the organisation of collaborative projects in science and technology to be undertaken by member countries. An executive committee of members from various geographical groups which make up membership of CSC will review the progress of the programme of its activities between the organisation's plenary meetings which take place every two years.

The British Council

The principal aims of the British Council (see p. 165) in the sciences (including agriculture, medicine and technology) are to foster co-operation between British scientists and scientists of other countries, to promote among overseas specialists a better understanding and knowledge of Britain and its scientific achievements, and, in the developing countries, to assist in curriculum reform at school level and in the training of teachers of science and mathematics.

Overseas, 60 staff with science or science teaching qualifications assist in scientific and educational development and in scientific collaboration. Emphasis is placed on facilitating the interchange of scientists and teachers and on the provision of library and information services related to advances in science and science education in Britain. Overseas tours are arranged for British specialists to advise, run courses or discuss matters of common interest, and scientists are recruited or seconded to posts in overseas universities, teacher-training colleges, education authorities, schools or curriculum reform centres. The council invites senior overseas specialists to Britain, and makes awards to postgraduate students; it also administers the programmes of a large number of senior specialists and students who travel to Britain under the auspices of the UN specialised agencies, or under various bilateral technical assistance schemes, or as private individuals. The council is responsible for administering grants awarded under the Academic Interchange with Europe Scheme, the European Academic Links Scheme, the Younger Research Workers' Interchange Scheme and the Commonwealth University Interchange Scheme.

In Britain, advisory and information facilities are provided by specialist departments (and libraries) for education, medicine and science including science education. The council publishes *Higher Education in the United Kingdom, A Survey of Academic Links* and *Educational Broadcasting International*. Other publications include *British Medical Bulletin, British Medicine,* a monthly guide to current literature; selected and annotated lists, such as *British Medical Periodicals* and *British Medical Books for Postgraduates; Science Education Newsletter,* which lists facilities for education and training in Britain; *British Scientific Documentation Services,* which gives details of 99 selected services; and *Scholarships Abroad,* which lists awards available to British postgraduate students wishing to study overseas.

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The Government is concerned with the preservation of the country's cultural heritage, the promotion of education in the arts, the dissemination of the arts to a wider public and the encouragement of high standards in the performing and creative arts. In Great Britain ministerial responsibility for the arts is borne by a Parliamentary Under Secretary at the Department of Education and Science; the Secretaries of State for Wales and Scotland are also concerned with cultural matters in Wales and Scotland.

Estimated government expenditure on the arts in Great Britain is $\pounds 5^{1\cdot 5}$ million in 1975–76. Direct allocations include $\pounds 26 \cdot 1$ million for the Arts Council of Great Britain and about $\pounds 16 \cdot 9$ million for museums and galleries. The Government also finances the British Library (see p. 432), the National Library of Scotland and the National Library of Wales; in addition it is responsible through the Department of the Environment, Scottish and Welsh Offices for the upkeep of ancient monuments and historic buildings and makes grants towards the maintenance of historic buildings in private hands.

The main educational functions concerning the arts are carried out through the education departments. They are concerned, in partnership with local education authorities and voluntary bodies, with art education in schools, colleges of further education, evening institutes and community centres, and with the public library service.

Arts Councils

Most government support for the creative arts takes the form of grants to independent agencies. The most important of these is the Arts Council of Great Britain, established by Royal Charter in 1946, whose main objects are to develop and improve the knowledge, understanding and practice of the arts, to increase their accessibility to the public, and to advise and co-operate with government departments, local authorities and other organisations. The council promotes music and drama through grants to professional orchestras and opera, dance and theatre companies, and arranges art exhibitions in London and the regions. Tours by opera, dance and theatre companies are organised by the council. A limited amount of assistance is given to individual artists, including painters, sculptors, photographers, writers and composers, for particular projects; and the construction of new buildings or improvements to existing theatres, concert halls and other arts buildings is encouraged by grants provided under the council's 'Housing the Arts' scheme. The council also sponsors films on art.

Members of the council are appointed by the minister responsible for the arts. Advised by panels responsible for different aspects of the arts, the council itself allocates grants to the main artistic bodies in England, but a growing proportion of its funds is channelled to regional arts associations (see p. 421) which allocate funds independently. Organisations in Scotland and Wales receive their grants from the Scottish and Welsh Arts Councils; these are committees of the Arts Council of Great Britain which allocates to them a part of its funds.

In Northern Ireland there is an independent Arts Council with similar aims and functions to that of Great Britain. It receives an annual grant from the Northern Ireland Department of Education.

British Council

The Government promotes knowledge of English literature and culture overseas mainly through the British Council (see footnote, p. 165), which supports some 177 libraries of books, periodicals, and records in over 75 countries. The British Council also sponsors overseas tours by leading British actors, producers, theatre companies, musicians, orchestras and opera and ballet companies; it promotes exhibitions and lectures overseas on the fine arts in Britain and organises British participation in international exhibitions; and it distributes overseas a wide range of specialised films, many of them on the arts.

Broadcasting Organisations A major contribution to the arts (particularly music and drama) is made by the British Broadcasting Corporation (BBC) and, to a lesser extent, by the independent television programme companies and the Independent Broadcasting Authority (IBA). The BBC spends some \pounds_3 million each year in copyright payments to authors and composers, and has orchestras employing about a third of the country's full-time professional musicians. Each week it broadcasts nearly 100 hours of serious music—both live and recorded—on its Radio 3 channel. It regularly commissions new music, particularly by British composers, and sponsors concerts, competitions and festivals. Both the BBC and IBA broadcast a wide range of new drama together with adaptations of novels and stage plays; they also screen a variety of feature films including selections of the best British and overseas productions.

Independent television companies make grants for the promotion of the arts in their regions, particularly to regional arts associations, and the IBA transmits general magazine programmes on the arts.

Local Support Local authorities support the arts in many ways. In addition to their responsibilities for education (including specialised art education) and the public library service, many provide and maintain local museums and art galleries. In Great Britain the authorities have power to incur expenditure on entertainment in all its forms (including cultural activities). Many authorities make contributions towards the expenses of professional symphony orchestras and local theatre companies. Grants are often made towards the capital cost of new arts buildings, especially theatres; the Greater London Council, for example, is making a substantial contribution towards the cost of the new National Theatre.

Private Contributions

Regional Arts Associations and Arts Festivals Valuable support for the arts comes from many voluntary sources including charitable trusts and foundations, and supporters' organisations of the major national institutions. Industrial and commercial concerns provide a certain amount of patronage, sometimes taking the form of grants to regional arts associations, local arts festivals and orchestras; some companies sponsor series of concerts and other cultural events.

The Government encourages regional co-operation in arts patronage through regional arts associations whose aim it is to ensure that the whole range of the arts is more widely available to people throughout their areas. There are 15 of these covering most of England and Wales and they channel financial assistance to local arts organisations and offer an advisory and promotional service for all sorts of local arts activities. They are financed by a combination of local authority, Arts Council and private funds; local authorities and a wide range of other interests are represented on the associations' committees.

Similar examples of co-operative patronage are the societies formed to present some of the many arts festivals in Britain. The outstanding example is

the Edinburgh Festival Society, but other festivals organised on a similar basis include those held in the City of London, Brighton, King's Lynn, Norwich and York.

Arts Centres

Arts centres also provide opportunities for enjoyment and participation in the arts. There are several hundred arts centres and the number is increasing. The centres are supported mainly by regional arts associations and local authorities with some help from the Arts Council and other organisations. They may be small centres for amateur activities or they may offer a professional programme. A number of theatres and art galleries also provide a focal point for the community by offering facilities for other arts.

DRAMA

Britain is one of the world's major centres of theatrical activity. In London during the summer season, theatres are packed with foreign visitors, while in the provinces there is enthusiastic support for the work of local repertory companies. Less formal are the 'fringe' theatre groups particularly in London, which present short plays often in locations other than theatres. Some of the groups are itinerant while others use regular locations.

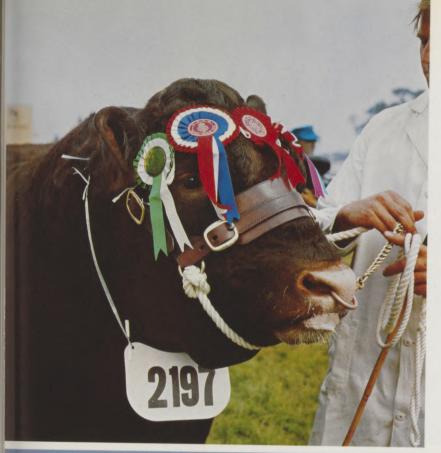
Support for much of the development of British drama comes from growing government assistance provided through the Arts Councils of Great Britain and Northern Ireland which grant subsidies to drama companies registered as charities (that is, are non-profit-distributing), provided that such companies have given evidence of serious aims and of consistently high standards of practical competence. The Arts Council assists new drama by offering guarantees to managements giving the first professional production of selected new plays; and promising authors may be awarded bursaries. Schemes are also in operation to train stage designers, directors, technicians and those wishing to take up theatre administration.

Professional Theatre

There are over 220 theatres in professional use in Britain that can accommodate more than 200 persons. Some are owned or rented by non-profit-distributing companies, the majority of which are receiving Arts Council subsidies while the remainder are operated commercially or are owned by local authorities.

The centre of theatrical activity is in London where there are some 48 principal theatres in or near the West End and another 8 in the suburbs. Most of the theatres are let to producing managements on a commercial basis but four are occupied by important subsidised companies, including the National Theatre and Royal Shakespeare companies. The former, which is due to move into its new building on the South Bank during 1976, stages classical and modern plays from all countries; the latter presents Shakespearean plays in Stratford-upon-Avon and a mixed repertoire in London.

Outside London there are a number of theatres which accommodate preand post-West End tours of the major London productions and performances by companies specially formed for touring. The number of these theatres has been declining and several have now been purchased by local authorities. Many non-repertory theatres outside London present all kinds of drama and many also put on variety shows and other entertainments. There has, however, been a growth in the activities of some 60 repertory companies, which receive financial support from the Arts Council and the local authorities. The repertory companies employ many leading producers, designers and actors, and standards are high. Some companies have the use of their own theatres, while others rent from local authorities. Some 24 new repertory theatres have been built since 1958.



Royal Agricultural Show

1975 Supreme Beef Interbreed Champion Bull 'Lufton Fieldsman 1st'.

Part of the showground at Stoneleigh, Warwickshire.



The Arts

Open-air art display.



New National Theatre building on the South Bank of the River Thames, due to be opened during 1976.







centre.

The Abbot Hall art gallery showing art-work from Cumbrian schools.

Sport

'Sport for all' is a Sports Council campaign mainly directed at increasing facilities for sport.



Hang gliding at the Sussex Delta Sailwings Training School. The sport, rapidly gaining popularity in Britain, relies on wind power to enable free flight.



THE ARTS

All plays produced in Great Britain are subject to the provisions of the Theatres Act 1968. There is no censorship, but the Act makes it a criminal offence to present or direct an obscene performance of a play in public or in private (including theatre clubs), an obscene performance being defined as one which tends to 'deprave and corrupt persons who are likely . . . to attend it'. Provision is made in the Act for a defence against a charge of obscenity on the grounds that the performance is for the public good in the interests of, for example, drama, opera or literature.

Amateur Theatre

Dramatic

Training

There are several thousands of amateur dramatic societies in Britain; they are encouraged by local education authorities, by other public bodies, and by four special organisations—the British Theatre Association, the National Drama Conference, the Scottish Community Drama Association and the Association of Ulster Drama Festivals. Most universities have active amateur drama clubs and societies; an International Festival of University Theatre is held annually.

Training for the theatre is provided mainly in drama schools. Among the most important are the Royal Academy of Dramatic Art, the Central School of Speech and Drama, the London Academy of Music and Dramatic Art, and the Guildhall School of Music and Drama, all of which are in London; and the Old Vic School in Bristol. In Scotland there is the Royal Scottish Academy of Music and Drama in Glasgow. Seven universities offer major courses in drama.

Theatre for Young People

Theatre for young people has increased in importance in the past 15 years and annual audience attendances are estimated at about £3 million. In 1970 the Young Vic was opened as a theatre for young people and the National Youth Theatre has a permanent home in London. There are some ten specialist companies, including the Unicorn Theatre for Young People, Theatre Centre and the Polka Company, some of which are supported by the Arts Council. In the provinces about 20 repertory companies provide programmes and engage in other types of theatre activity for young people. In Northern Ireland a company called Interplay Theatre, which is sponsored and administered by the Arts Council of Northern Ireland, works mainly in schools.

In addition it is estimated that there are some 200 amateur youth theatres in Britain, most of which are supported by local authorities. Many schools and youth clubs put on plays and provide some education in drama. The London education service provides special drama centres for young people.

MUSIC, OPERA AND BALLET Music in all its forms plays an important role in British cultural life. 'Pop' music, folk music, jazz, light music and brass bands all maintain substantial followings while the widespread interest in classical music is reflected in the large audiences at orchestral concerts and at performances of opera, ballet and chamber music.

Through the Arts Council of Great Britain, the Government encourages interest in the various forms of classical music and also jazz. The council makes grants to a number of orchestras, soloists, opera and ballet companies, music societies and festivals. It also provides bursaries and commissions for British composers, musicians, designers and choreographers.

In Britain many libraries have collections of records and musical scores which are available on loan to the public. The City of Westminster houses the Central Music Library which lends to other libraries and to individuals.

Another well-known music collection is the Henry Watson Music Library at the Manchester Central Library.

Music Seasons of orchestral concerts are promoted every year in many of the large towns and cities of Britain. In London the principal concert halls are the Royal Festival Hall on the south bank of the Thames, adjacent to which are the Queen Elizabeth Hall and the Purcell Room which accommodate smallerscale performances; the Royal Albert Hall, Kensington, where the annual summer season of Promenade Concerts is given; and the Wigmore Hall, an important recital centre.

Orchestras

The leading British symphony orchestras are the London Philharmonic, the London Symphony, the Royal Philharmonic, the BBC Symphony, the New Philharmonia, the Royal Liverpool Philharmonic, the Hallé (Manchester), the City of Birmingham Symphony, the Bournemouth Symphony and the Scottish National orchestras. The BBC runs a number of orchestras providing broadcast concerts which are often open to the public. There are also specialised string and chamber orchestras such as the English Chamber Orchestra, the Academy of St. Martin-in-the-Fields, the London Mozart Players, the Philomusica of London, the Northern Sinfonia (Newcastle upon Tyne) and the Scottish Philharmonic Society. Most orchestras (other than those of the BBC) receive financial aid through the Arts Council of Great Britain and local authorities and some also receive assistance from commercial television and business organisations. In Northern Ireland the Ulster Orchestra receives financial aid from the Arts Council of Northern Ireland.

Choral Societies Among the principal choral societies in Britain are the Royal Choral Society, the Bach Choir, the Royal Liverpool Philharmonic Choir, the New Philharmonia Chorus, the Edinburgh Royal Choral Union and the Belfast Philharmonic Society. Certain of these are closely associated with famous orchestras while others combine with them in major choral works; most choral societies are affiliated to the National Federation of Music Societies.

Music Festivals Music festivals in Britain, originating with the Three Choirs Festival held annually in Gloucester, Worcester or Hereford in rotation, have been in existence for over 250 years. The famous Edinburgh International Festival lasts three weeks; other festivals, such as that at King's Lynn, last a week or less. Among the better known are the Royal National Eisteddfod of Wales; the National Gaelic Mod, held at a different place in Scotland each year; the Cheltenham Festival, largely devoted to contemporary British music; and the Aldeburgh and Bath festivals. An annual international festival of folk song and dancing is held by the English Folk Dance and Song Society.

Amateur Interest Interest in amateur music-making is encouraged by the work of County Music Committees (some of which are voluntary and some sub-committees of local education authorities), which are aided by the Carnegie United Kingdom Trust and united in the Standing Conference for Amateur Music. The National Federation of Music Societies, which receives an annual grant from the Arts Council, assists amateur groups with the cost of engaging professional soloists; over 1,000 music societies are members of the federation.

Opera and Dance Regular seasons of opera and ballet are given at the Royal Opera House, Covent Garden, London, which receives financial assistance from the Arts

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Council. The Royal Opera House has a permanent orchestra which plays for the Royal Opera and the Royal Ballet. Both companies have a high international reputation and make overseas tours; they have regular London seasons and perform in the provinces.

Seasons of opera and operetta in English are given by the English National Opera which plays in the London Coliseum, and makes provincial tours. Its former home, Sadler's Wells Theatre, provides a London stage for visiting opera and dance companies from the provinces and from abroad.

Opera Groups

At Glyndebourne, in Sussex, an opera season, for which an international cast is specially assembled, is held every summer. Other opera companies include the English Opera Group, which specialises in the performance of works by British composers, the New Opera Company which has been associated with the English National Opera and performs at Sadler's Wells Theatre, Scottish Opera and the Welsh National Opera Company. Opera in Northern Ireland is promoted by the Northern Ireland Opera Trust and the Studio Opera Group with financial support from the Arts Council of Northern Ireland.

Dance Companies Britain's dance companies include London's Festival Ballet and the Ballet Rambert (Britain's oldest ballet company), Scottish Ballet, and the Welsh Dance Theatre. The London Contemporary Dance Theatre provides regular seasons of modern dance in London besides touring extensively. The Northern Dance Theatre concentrates its activities in the north of England although it makes periodic tours elsewhere. The work of the Patricia Mulholland Irish Ballet Company in Northern Ireland, which is assisted by the Arts Council of Northern Ireland, combines traditional music, dancing and mime.

> Professional training in music is given at colleges of music, of which the Royal Academy of Music, the Royal College of Music and Trinity College of Music in London, and the Royal Scottish Academy of Music and Drama in Glasgow are grant-aided. Other leading colleges include the Guildhall School of Music and Drama in London, the Royal Northern College of Music in Manchester and the Birmingham School of Music. The London Opera Centre provides advanced training courses for student singers and stage managers. The leading dance schools are the Royal Ballet School, the Rambert School of Ballet and the London School of Contemporary Dance which, with many private schools, have helped in raising British dance to its present high standard.

> Young people are encouraged to take an interest in music, opera and ballet. There are frequent concerts for children and the National Youth Orchestra of Great Britain, the National Youth Orchestra of Wales, the London Schools' Symphony Orchestra and several county youth orchestras are noted for their high standard of performance. A Youth and Music organisation, affiliated to the international *Jeunesses Musicales*, encourages opera, ballet and other performances for young people. The Royal Ballet sponsors a small group, Ballet for All, to give lecture-demonstrations to the public and to schools. Educational Dance Drama Theatre and Dance for Everyone receive financial support for their work with young people.

> In schools, more children are learning to play musical instruments; and some 230,000 candidates a year (children and other students) take the examinations of the Associated Board of the Royal Schools of Music.

> There are some 1,600 cinemas in Great Britain and estimated attendance in 1974 amounted to 143.3 million. British films, actors and creative and

Education in Music, Opera and Ballet

technical talent have received much recognition both at home and abroad, and regularly achieve success at international film festivals and other events.

Feature Films The feature film industry is based in the London area where all the main film studios are centred. Cinema and television films are exported to most countries in the world. The trade association to which the majority of feature film producers belong is the Film Production Association of Great Britain.

National Film Finance Corporation There is no state-owned film production unit in Britain, but the National Film Finance Corporation lends money for feature film production through a consortium formed by the corporation and private interests in 1972 and which operates with funds drawn from the Government and private interests.

The Levy There is a levy on cinema admissions which provides a fund to benefit the makers of eligible British films. Subject to the approval of the Department of Trade, grants from the levy can be made to the Children's Film Foundation, to the British Film Institute for the production of films and to the National Film School. The remainder of the fund is distributed by a public body—the British Film Fund Agency—in proportion to a film's takings, so that the more successful a film is at the box-office, the more it receives from the fund.

Quota System Under legislation dating from 1927 a specified proportion of British films must be shown in British cinemas each year. For main feature films the quota has remained at 30 per cent since 1950 and for supporting programmes at 25 per cent since 1948.

> The state takes no part in the censorship of films in Britain, but before it can be shown a film must be licensed by a local authority or, in some areas, a magistrate. In considering the suitability of films the authorities normally rely on the judgment of an independent body, the British Board of Film Censors, to which most films for public showing are submitted (other than newsreels).

The British Board of Film Censors was set up in 1912 on the initiative of the cinema industry, to ensure that a proper standard was maintained in the films offered to the public. The board, which does not use any written code of censorship, may require cuts to be made before granting a certificate to a film; very rarely, it refuses a certificate. Films passed by the board are placed into one of four categories: 'U' (for general exhibition); 'A' (for general exhibition but parents are advised that the film contains material which they may not wish children under the age of 14 years to see); 'AA' (for persons of not less than 14 years of age); and 'X' (for persons of not less than 18 years of age).

Documentary Films

Cinema Licensing

and Film

Censorship

The documentary tradition in short film production in Britain goes back to 1929, when a group of directors began making factual films of a distinctive and imaginative kind on behalf of the Government, and later for commercial organisations. The war years saw a big expansion in this field and, since then, British documentary technicians have continued to produce high quality factual films which have won numerous international awards. The British Industrial and Scientific Film Association promotes the use of films in industry, science and commerce. The Federation of Specialised Film Associations is the trade association of documentary, short, industrial, advertising and cartoon film makers.

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The National Panel for Film Festivals assists in the selection of short films for British entries to international short film festivals.

The Government sponsors a wide range of films to inform audiences overseas about British life and achievements, including documentary films, television programmes and newsreels; they are produced through the Central Office of Information (COI), which commissions their production by private companies.

A large number of films are sponsored by industrial concerns and other organisations, such as the British Tourist Authority and the British Productivity Council. The best of these and industrial films from other countries are available through the COI's Central Film Library and other agencies. The Films of Scotland Committee promotes the production of Scotlish films covering the industries and cultural traditions of Scotland.

The development of the film as an art is promoted by the British Film Institute, founded in 1933, which is financed mainly by an Exchequer grant, and by the Scottish Council for Educational Technology which also receives a government grant. The institute offers financial and technical assistance both to new and experienced film makers who can not find support elsewhere.

The institute encourages the making and showing of good films. It also administers the National Film Theatre in London and the National Film Archive, runs an annual summer school, and maintains a film library from which films may be hired, a library of books on the film and an information service. It makes grants to the Federation of Film Societies, the British Universities Film Council and the Society for Education in Film and Television.

The National Film Archive contains about 25,000 films, including newsreels and other miscellaneous items, besides scripts, art designs, posters and about I million photographic stills, selected to illustrate the history and the art of the film and as significant social and historical records.

The National Film Theatre, on the south bank of the Thames in London, has two cinemas showing films of outstanding historical, artistic or technical interest; it holds a unique position as a cinema offering regular programmes unrestricted by commercial considerations or by the age or nationality of the films shown. Each year it organises a London Film Festival. The British Film Institute has promoted the development of some 50 regional film theatres on the lines of the National Film Theatre and may make grants towards their recurrent and capital costs. In Scotland the Scottish Film Council as a committee of the Scottish Council for Educational Technology is responsible for regional film theatres and administers the Scottish Central Film Library. Grants in Northern Ireland are made by the Arts Council of Northern Ireland.

Training in Film
ProductionAn independent National Film School offers three-year courses for writers,
directors, producers and cameramen. The school, which is financed by grants
from the Government and the British Film Fund Agency, has about 70 students.
Training in film production is also given at the London International Film
School which has over 100 students and at some colleges of further education.

Children and the Cinema The Cinematograph Act 1952 provided for the making of regulations by the Home Secretary to protect the health and welfare of children attending film shows. Cinemas which give children's shows require a special licence from the licensing authority, which may impose conditions. There are about 660 children's cinema clubs which provide special programmes on Saturday

British Film Institute

mornings. An important contribution to these programmes is made by the Children's Film Foundation, which, with the aid of grants from the British Film Fund Agency, produces and distributes entertainment films specially designed for children.

VISUAL ARTS

A number of modern British painters and sculptors have a high international reputation, and have received many international prizes and commissions for major works in foreign cities. The growth of interest in the visual arts at home has been stimulated by improved methods of display by museums and galleries, and by the activities of many institutions, societies, and private galleries and the growing number of local art centres.

State support for painting and sculpture mainly takes the form of maintenance and purchase grants for the national museums and galleries, purchase grants for municipal museums and galleries, and grants towards the cost of local education authority art education.

The Government also encourages high standards of industrial design and craftsmanship through grants to the Design Council and craft organisations, particularly the Crafts Advisory Committee.

In addition to direct state assistance, the Arts Council runs the Hayward Gallery in London, where major loan exhibitions are shown, and the Serpentine Gallery, which presents the work of young artists. The council also maintains its own collection of contemporary British art and organises or offers grants or guarantees towards a variety of touring and other exhibitions. The Scottish and Welsh Arts Councils maintain galleries in Edinburgh, Glasgow, and Cardiff respectively. The Arts Council of Great Britain also supports art societies and independent galleries, and provides commissions and awards for artists. The Northern Ireland Arts Council owns a gallery in Belfast.

The Art Market

London is a major centre for the international art market and regular sales of works of art take place in the main auction houses. Certain items are covered by export control: these are works of art and other antiques over 100 years old and worth more than $\pounds_{4,000}$; documentary and photographic material over 70 years old; and British archaeological material over 100 years old. A licence is required before such items can be exported but this is granted automatically in the case of objects imported into Britain within the last 50 years. In other cases the application for a licence is considered by the Department of Trade, and if the department's expert advisers recommend the withholding of a licence, the matter is referred to the Reviewing Committee on the Export of Works of Art; if the committee regards a work to be of national importance it can advise the Government to withhold the export licence for a specified time to enable a public museum or art gallery to purchase the object at a fair price.

Museums and Art Galleries

Over 950 museums and art galleries are open to the public in Britain. These include the major national collections together with a wide variety of municipally and independently owned institutions. The Government is advised on grants and policy towards museums by the Standing Commission on Museums and Galleries.

National Collections Of the national museums and art galleries, those in London contain between them one of the most comprehensive collections of objects of artistic, archaeological, scientific, historical and general interest ever to exist within one city.

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They are the British Museum, the Victoria and Albert Museum, the National Gallery, the Tate Gallery, the National Portrait Gallery, the Imperial War Museum, the National Army Museum, the Royal Air Force Museum, the National Maritime Museum, the London Museum (to be amalgamated with the Guildhall Museum into the Museum of London), the Wallace Collection, the British Museum (Natural History), the Geological Museum and the Science Museum (see p. 416).

There are three national museums and art galleries in Edinburgh: the National Museum of Antiquities of Scotland, the Royal Scottish Museum (including the Scottish United Services Museum), and the National Galleries of Scotland (comprising the National Gallery of Scotland, the Scottish National Portrait Gallery, and the Scottish National Gallery of Modern Art). The National Museum of Wales, in Cardiff, has a branch at St. Fagan's Castle where the Welsh Folk Museum is housed; and in Northern Ireland there is the national Ulster Museum in Belfast.

Most of the national museums and galleries are administered by trustee bodies, but the Victoria and Albert and Science Museums are the direct responsibility of the Department of Education and Science, and the Royal Scottish Museum has a similar relationship with the Scottish Education Department.

Other Collections

Other important collections in London include the Armouries (Tower of London), the Public Record Office and the Sir John Soane's Museum. In Buckingham Palace there is a small gallery, known as the Queen's Gallery, for the exhibition of pictures from the extensive royal collections. Most cities and large towns and many other towns have a museum devoted to art, archaeology and natural history, usually owned by the local government authority but sometimes by a local learned society or privately by individuals or trustees. Both Oxford and Cambridge are rich in museums, many of them, as in other towns, associated with the universities-for example, the Ashmolean Museum in Oxford, founded in 1683, the oldest in the country, and the Fitzwilliam Museum in Cambridge. There are important museums and art galleries in Aberdeen, Birmingham, Bristol, Glasgow, Leeds, Leicester, Liverpool, Manchester, Norwich, Reading, Southampton and York. In Northern Ireland there are notable museums and galleries in or near Belfast (the Ulster Folk Museum and the Arts Council of Northern Ireland Gallery), in Armagh City and in Londonderry. Many private art collections housed in historic family mansions, including those in the ownership of the National Trust, are open to the public. There is an increasing number of open air museums which depict the regional life of an area or preserve early industrial remains, for example, the Weald and Downland Museum in Sussex.

Co-operation

A function of the Standing Commission on Museums and Galleries is to advise the Government on the relationship between national and provincial institutions. Close relations are fostered by the eight area museum councils which cover the whole of Great Britain. They are grant-aided by the Government and offer help and advice to museums and galleries in their area.

The Museums Association, to which museums and art galleries and their staffs throughout the country belong and which also has many overseas members, is an independent organisation. The association serves as a central body for the collection of information and the discussion of matters relating to museum administration, and as a training and examining body for professional qualifications.

430 Exhibitions

Finance

Temporary exhibitions organised and sent on tour by the Arts Councils, the Circulation Department of the Victoria and Albert Museum, the Science Museum, the Art Exhibitions Bureau and the area museum councils are a regular feature of many museums. In London the Hayward Gallery, the Tate Gallery, the British Museum, the Victoria and Albert Museum and the Royal Academy are the main centres for loan exhibitions; these are also held at the Whitechapel Art Gallery, the Camden Arts Centre and the Institute of Contemporary Arts. The Greater London Council exhibits modern sculpture in its parks periodically. Commercial exhibitions of works by old masters and living artists are held throughout the year in the galleries of the art dealers of London.

There are a number of national art exhibiting societies, some of which, notably the Royal Academy at Burlington House, have their own galleries in London. The Royal Scottish Academy holds annual exhibitions in Edinburgh. An increasing number of amateur art societies throughout Britain hold local exhibitions and encourage local interest in the fine arts. There are also exhibitions of children's art, including the National Exhibition of Children's Art sponsored annually by the *Sunday Mirror* newspaper.

All national collections are financed chiefly from government funds. Besides meeting the administrative and maintenance costs, the Government makes provision for annual purchase grants which totalled $\pounds_{3,2}$ million in 1975–76. It also provides special *ad hoc* purchase grants, and pre-eminent works of art accepted by the Government in lieu of capital transfer tax are allocated to public collections.

Local museums and art galleries, which are maintained from rates or endowments, can be helped in building up their collections through the annual government grant administered by the Victoria and Albert, Science and Royal Scottish Museums. Financial help and practical assistance is also given to museums and galleries by certain trusts and voluntary bodies, particularly the National Art-Collections Fund and the Contemporary Art Society.

Art Education

Art and design education is provided in maintained colleges of art, colleges of further education and polytechnics, which are administered by local education authorities. Other institutions offering art and design courses include universities, the Royal Academy Schools and some private art schools. At postgraduate level there is the Royal College of Art which awards its own degrees. Art is also taught at an advanced level at the four Scottish Central (Art) Institutions administered by the Scottish Education Department. University art schools include the Slade School of Fine Art and Goldsmiths' College (London), the Ruskin Drawing School (Oxford), the Reading School of Art, the Department of Fine Art of the University of Newcastle upon Tyne, and the School of Art of University College, Aberystwyth.

The leading academic institutions for the teaching and study of the history of art are the Courtauld Institute of the University of London, the Department of Classical Art and Archaeology in University College, London, and the Warburg Institute, also a part of London University.

In England, Wales and Northern Ireland three-year full-time courses leading to a degree in art and design are administered by the Council for National Academic Awards (CNAA). The CNAA also awards postgraduate degrees in art and design. In Scotland each of the four schools of art awards a diploma which is roughly equivalent to the pass degree of a university and three award associateships, which are comparable with an honours degree. The Ulster College (see p. 163) is the regional college for Northern Ireland.

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Art has a place in the curriculum of every type of school, and the Society for Education through Art, among other activities, encourages the purchase by schools of original works of art by organising an annual Pictures for Schools exhibition. Pictures may also be borrowed from an increasing number of public libraries.

Architecture

Official responsibility towards the nation's architecture is concerned with encouraging the best in new building and preserving the best that has been inherited from the past (for preservation, see p. 175).

Several government departments are concerned with architecture and help to promote good design. The Department of the Environment is responsible for the design, building and maintenance work of government departments and undertakes research and development work in these subjects. It also provides advice to local authorities in England and Wales on the best standards of housing design through a series of *Design Bulletins* and other publications and offers annual awards for the best housing designs in both public and private sectors. Other government departments, such as the Department of Education and Science and the Department of Health and Social Security, provide design advice and exercise design control over buildings—such as schools and hospitals—falling within their area of responsibility. In Scotland statutory responsibility and control of standards are exercised by the Secretary of State for Scotland.

Government departments are assisted in an advisory capacity by the Royal Fine Arts Commissions for England and Wales and for Scotland, which also advise planning authorities and other public bodies on questions of public amenity or artistic importance, including new building developments.

A number of professional, advisory and other societies and institutions exist to further the interests of architecture, and the Civic Trust (see p. 171) seeks to promote high standards in architecture and civic planning and to encourage interest in the appearance and protection of town and countryside. The National Trust (see p. 171) acquires land and buildings and protects them from harmful development for the benefit of the public.

In Britain it is illegal for a person to practise under the title of 'architect' unless registered with the Architects' Registration Council of the United Kingdom. Most students train at a full-time school of architecture; there are 33 schools recognised for exemption from the examination in architecture of the Royal Institute of British Architects (RIBA). Some of these schools have part-time courses and there are five other schools which have courses leading to the RIBA external examination.

The Royal Institute of British Architects is the leading professional architectural institution with a membership of over 21,500 in Britain and 5,600 overseas and over 3,700 students in Britain and overseas countries. The RIBA has 78 branches in Britain, and allied to it are 31 architectural societies in overseas countries. It is concerned with a wide range of activities covering professional practice, science, technology, statistics, architectural competitions, and professional and public relations; arranges lectures and discussions on a variety of subjects; presents exhibitions; and, through its Board of Education, exercises control over standards of architectural education. The RIBA has one of the largest and most important architectural libraries in the world. The Royal Incorporation of Architects in Scotland with over 2,000 professional members is allied to and acts for the RIBA in Scotland. Among other associations are the Incorporated Association of Architects and Surveyors, the

Education and Professional Associations

Institute of Registered Architects and the Faculty of Architects and Surveyors. Societies include the Architectural Association, the Architecture Club, and several which cover particular aspects of architecture, such as the Modular Society.

LITERATURE AND LIBRARIES The study of literature is included in the curricula of all schools, colleges and universities. There are free public libraries throughout the country, private libraries and a large number of private literary societies. Book reviews are featured in the press and on radio and there are numerous periodicals concerned with literature. Recognition of outstanding literary merit is given in the form of literary prizes, a number of which are awarded annually, for instance, the Queen's Gold Medal for Poetry, the Hawthornden prize for imaginative writing, and the Somerset Maugham award for young writers.

Government help is given through the Arts Council of Great Britain which supports literature in a number of ways, including grants for writers, translators, publishers, little presses and magazines. Similar provision is made through the Arts Council of Northern Ireland for bursaries, poetry readings, and aid for publications.

Libraries

The British Library was created in July 1973 under the British Library Act 1972 from a merger of the British Museum Library with other libraries and institutions. The Library is organised in three divisions. The Reference Division includes the Department of Printed Books holding over 8 million volumes; the Department of Manuscripts; and the Department of Oriental Manuscripts and Printed Books and the Science Reference Library. The Lending Division at Boston Spa, West Yorkshire, has over 2 million volumes and 44,000 current periodicals available on loan to other libraries in Britain; it also has access to many millions of books in other libraries and is the national centre for inter-library lending within Britain and between Britain and foreign countries. The Bibliographic Services Division processes the acquisitions of the British Library for inclusion in its catalogues and other bibliographic services. It publishes the British National Bibliography which lists in a classified order (with indexes) all new books and new editions, excluding reprints, published in Britain. The British Library automatically receives a copy of each new book published in Britain. In addition the National Library of Scotland, the National Library of Wales, the Bodleian Library of Oxford University and the Cambridge University Library are entitled to claim copies.

The Victoria and Albert Museum and the British Museum (Natural History) in South Kensington also have large libraries and many government departments have old-established libraries of considerable size and importance. The Public Record Office contains the records of the superior courts of law and of most government departments, as well as such famous historical documents as Domesday Book. In Scotland, the Scottish Record Office serves the same purposes. The National Register of Archives (maintained by the Historical Manuscripts Commission) contains particulars of local and private records.

Besides the few great private collections, such as those of the Signet Library, Edinburgh, and the London Library, there are the rich resources of the learned societies and institutions (for scientific societies and institutions, see p. 405). Examples are the libraries of the Royal Institute of International Affairs, the Royal Commonwealth Society, the Royal Geographical Society, the Royal Society of Edinburgh, the British Theatre-Association, the Royal Academy of Music, the National Library for the Blind and the National Book League.

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Libraries in Education

Public Libraries

The ancient university libraries of Oxford and Cambridge are not matched by any of the more recent foundations, although the combined library resources of the colleges and institutions of the university of London total some 5.5 million volumes, the John Rylands University Library in Manchester contains more than 2 million volumes, and the university libraries of Edinburgh, Leeds and Glasgow have over a million volumes each, while Birmingham and Liverpool each has some three-quarters of a million volumes. Many universities have succeeded in building up large and important research collections in special subjects; for example, the Barnes Medical Library at Birmingham. Other universities are also building collections as are the new polytechnics.

The importance of good libraries is recognised at all levels of the education system. School libraries, most of which are maintained by local education authorities, often receive important support services from the public library service, including loans of books. Schoolchildren are regularly introduced to the public library system, which they can use in addition to the school library.

Britain is served by a complete network of public libraries, administered by local public library authorities. These libraries have a total stock of some 113.7 million books.¹

Qualified and specialist staff are available for consultation in all but the smallest service points. About one-third of the total population are members of public libraries. The Secretary of State for Education and Science is responsible for the supervision of the public library service in England and in Wales, and is advised by two library advisory councils. Public library authorities in England and Wales have a duty to provide an efficient and (with some limitations) free lending and reference library service for books and periodicals. Outlying areas may be served by mobile libraries, of which over 600 are in service, and domiciliary services exist for people who are unable to visit a library.

In Scotland local authorities have a duty to provide adequate library facilities and similar duties are imposed on education and library boards in Northern Ireland.

In addition to lending books, about a half of the library authorities now lend gramophone records of various kinds and a growing number are adding loan collections of works of art, either originals or reproductions. Nearly all library authorities provide children's departments, while reference sections and art, music, commercial and technical departments meet the growing and more specific demands in these fields. Most library authorities possess a significant collection of books and documents on the history of their localities.

The public library is often a centre for local cultural activities. Film shows, lectures, adult education classes, book-week exhibitions, drama groups, gramophone recitals and children's story hours are among the many activities provided by or based upon the local library.

A voluntary system of library co-operation in England and Wales has grown up since the first quarter of this century. The eight regional library bureaux in England and Wales (consisting mainly of public libraries in each area) aim to be largely self-sufficient in the interlending of current British books, achieved in some regions by a system of co-operative subject specialisation. They organise co-operation among themselves and through the British Library, which is responsible for interlending at national and international level.

Library Co-operation

¹ Not including the libraries in publicly maintained schools.

There is a growing number of local schemes for the exchange of specialist books and periodicals and information. These involve industrial, commercial and sometimes university libraries and are normally centred on a major public or technical college library.

The National Library of Scotland carries out functions similar to those of the regional bureaux and the lending division of the British Library. In Northern Ireland access to the stocks of all co-operating libraries is available on application to the libraries under the control of the five education and library boards and to the Queen's University and New University of Ulster libraries.

Library Associations

Books

The principal professional organisation is the Library Association, which has a personal membership of nearly 22,000, of whom more than 2,000 are from overseas countries. It maintains a Register of Chartered Librarians, publishes books, pamphlets and official journals, and holds regular conferences. There are also associations of libraries, for example the Association of Special Libraries and Information Bureaux (see p. 417) and the Standing Conference of National and University Libraries.

In 1974 British publishers issued 32,194 separate titles including 7,852 reprints and new editions. The total of new titles issued was 24,342. An increasing proportion of books—including a wide range of specialised non-fiction—is now sold in paper-back form; Penguin Books are the best-known publishers of paper-backs. Book clubs make available hard-backed books at a lower price.

Leading organisations representing the interests of those concerned with book production and distribution are the Publishers' Association and the Booksellers' Association. The British Council also publicises British books and periodicals through its libraries in over 75 countries, its programme of book exhibitions (259 exhibitions were mounted in 1973-74) and its bibliographical publications including the monthly *British Booknews*. The Book Development Council promotes British books overseas. (For sales and exports of books in 1974 see p. 244.) The National Book League has a membership covering all who are interested in books; authors, publishers, booksellers, librarians and readers. It encourages an interest in books and arranges exhibitions in Britain and overseas.

Literary and Philological Societies Societies for the promotion of literature include the English Association and the Royal Society of Literature. The British Academy for the Promotion of Historical, Philosophical and Philological Studies, generally known as the British Academy, is the leading society of humanistic studies and receives a grant from the Treasury.

A number of societies sponsor poetry readings and recitals; the Poetry Society and the Apollo Society are among the best known. Poetry also plays an important part in various annual festivals, including the Royal National Eisteddfod—the bardic festival held in Wales—the Stratford-upon-Avon Festival of Poetry, the Cheltenham Festival of Literature, and the annual poetry festival organised by the Poetry Book Society in London.

Among the specialist societies are the Early English Text Society, the Bibliographical Society, the Harleian Society, the Saltire Society, and several societies devoted to particular authors of which the largest is the Dickens Fellowship. There are a number of clubs and societies, such as the Book Society and the Poetry Book Society, which exist to distribute selected new books to their members.

21 The Press

The British press caters for a variety of political views, different levels of education and a wide range of interests. It is not subject to state control or censorship.

A large number of newspapers are sold in Britain every day, and although there are relatively few national newspapers, some of them have circulations comparable with the greatest in any other part of the world; individual audited circulation figures range from nearly 200,000 to some 4.2 million.

The national newspapers (daily and Sunday) fall into two categories: popular and quality. The tabloid format is more commonly used by the former and the broadsheet format by the latter. Prices range from $\pounds 0.05$ to $\pounds 0.10$ for dailies and from $\pounds 0.07$ to $\pounds 0.15$ for Sundays. Separate sections or pages on finance, business, industry, education, the arts, social services and sport are common, and some papers carry special supplements on particular subjects, with related advertising. The quality Sunday newspapers have separate sections for literature and the arts, business and industry, as well as colour magazine supplements. Free colour magazine supplements are published by one morning and two Sunday newspapers: the Daily Telegraph, the Sunday Times and The Observer.

According to *The Newspaper Press Directory*¹ 130 daily and Sunday newspapers and 1,134 weekly newspapers are published in Britain. These figures include certain specialised papers, the circulation of which is limited not by region, but by interest; for instance, business newspapers, sporting newspapers, newspapers in foreign languages for groups of nationals of other countries resident in Britain and religious newspapers.

Britain imports three-quarters of its newsprint requirements, over 1.3 million tonnes annually, while the rest is made mainly from imported raw materials.

Ownership

Newspaper ownership in Britain, as it affects the national daily and Sunday, London evening and regional daily newspapers, is concentrated mainly in the hands of a comparatively small number of large press publishing groups.²

Although most enterprises are organised as limited liability companies, individual and partner proprietorship survives. The seven major newspaper and periodical publishers are: Reed Publishing Holdings Limited (part of Reed International); Associated Newspapers Limited; Beaverbrook Newspapers Limited; the Thomson Organisation Limited; News International Limited; United Newspapers Limited; and Pearson Longman Limited.

The large national newspaper and periodical publishers are major corporations with diversified interests over the whole field of publishing and communications; some have shares in independent television and radio contracting companies. The Independent Broadcasting Authority Act 1973 established

¹ Changes in the number of newspapers occur from time to time; figures are based on the 1975 edition of *The Newspaper Press Directory*.

² A Royal Commission on the Press was set up by the Government in 1974 to inquire into factors affecting the maintenance of the independence, diversity and editorial standards of newspapers and periodicals, and the choice of newspapers and periodicals available to the public nationally, regionally and locally.

the right of local newspapers to hold shares in companies providing local independent radio services (see p. 448).

Although pronounced views may be expressed in some newspapers and their political leanings may be obvious, they are financially independent of any political party and are not obliged to follow any specific party line.¹ In order to preserve their character and traditions, a few newspapers and periodicals are governed by arrangements which vest ownership of the undertaking in trustees, or operate it in accordance with a deed of trust, or provide that the transfer of shares be controlled by trustees. Others have management arrangements intended to ensure the authority and independence of editors.

Safeguards against the risks inherent in undue concentration of the means of communication are provided in certain Acts of Parliament, for instance, in the Independent Broadcasting Authority Act 1973, which stipulates that, if it appears to the Independent Broadcasting Authority at any time that newspaper shareholdings in television programme companies have led or are leading to results which are contrary to the public interest, the Authority may, with the consent of the Home Secretary, notify the companies that their programmes may cease to be transmitted. The Act makes a similar stipulation for local independent radio and provides that if a local newspaper has a monopoly in the area, it should not be allowed to have a controlling interest in the local radio station. In addition the Fair Trading Act 1973 makes unlawful any transfer of a newspaper or newspaper assets to a newspaper proprietor whose newspapers have an average daily circulation amounting, with that of the newspaper to be taken over, to 500,000 or more copies unless the Secretary of State for Prices and Consumer Protection gives written consent. Except in certain limited cases, which include transfers of very small newspapers, consent may be given only after the Secretary of State has referred the matter to the Monopolies and Mergers Commission and received their report.

The 'National' Press Nine morning papers are 'national' in the sense of circulating throughout the British Isles, and there are seven national Sunday papers (see Table 38). All the national dailies are produced in London, but those with big circulations also print northern editions in Manchester. The Scottish Daily Express and the Scottish Sunday Express are printed in Manchester. The leading Scottish papers (The Scotsman and The Glasgow Herald) have a considerable circulation outside Scotland. Each of the (two) London evening papers has ownership affiliations with a national daily, but both have their distinctive style and draw their readership very largely from people living in and around London.

English Regional Newspapers The regional newspapers of England (outside London, 85 morning or evening dailies and Sundays and 717 newspapers appearing once or twice a week) provide mainly regional and local news. Some of the daily newspapers also give extensive coverage to national affairs, and a number co-operate to provide their own foreign news service. The leading regional newspapers have wide regional circulations; a few have nation-wide reputations.

Generally speaking, regional evening newspapers are non-political, while the morning newspapers are independent or conservative in outlook.

The total circulation of the regional morning and evening papers is estimated at about 6.3 million. Of the morning papers the *Journal* (Newcastle

¹ The one exception is the *Morning Star* which is owned by a co-operative society and expresses the views of the Communist Party of Great Britain.

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upon Tyne), the Yorkshire Post (Leeds) and the Northern Echo (Darlington) have circulations of over 100,000 and two provincial Sunday papers—the Sunday Sun (Newcastle upon Tyne) and the Sunday Mercury (Birmingham) —have circulations of over 200,000. Individual circulation figures of regional evening papers start at about 17,000; most are in the 30,000–100,000 range; a few have circulations of over 300,000. Weekly papers are mainly of local appeal; they are also a valuable medium for local advertising. Most have circulations in the 5,000–40,000 range.

There are also a number of free distribution newspapers (mostly weekly), some of which are published by orthodox newspaper publishers.

The London local weeklies (156) include papers for every district in Greater London. They are assembled mainly in groups of six to eight, affiliated in some cases to larger groups.

A number of evening newspapers, using the latest production technology, are published in the outer metropolitan area on the fringe of the circulation areas of the two London evening newspapers.

Wales has one daily morning newspaper, the Western Mail, published in Cardiff; it circulates mainly in south Wales. In north Wales the Liverpool Daily Post gives wide coverage to events in the area. Evening papers published in Wales are the South Wales Echo, Cardiff, the South Wales Argus, Newport, and the South Wales Evening Post, Swansea. North Wales is served by the Evening Leader, Wrexham, and the Liverpool Echo. The Shropshire Star covers parts of mid and north Wales and there is coverage to a smaller extent by the Manchester Evening News.

The weekly press (over 70 papers) includes English papers, some of which carry articles in Welsh, and Welsh language papers.

Scotland has seven morning, six evening and three Sunday newspapers. The morning papers are *The Scotsman*, published in Edinburgh; *The Glasgow Herald*, the *Daily Record* and *The Scottish Daily News* (began printing in May 1975), all published in Glasgow; the *Courier and Advertiser*, published in Dundee; the *Press and Journal* of Aberdeen; and the *Scottish Daily Express*. The evening papers are the *Evening News* of Edinburgh, Glasgow's *Evening Times*, Dundee's *Evening Telegraph and Post*, Aberdeen's *Evening Express*, the *Paisley Daily Express* and the *Greenock Telegraph*. The Sunday papers are the *Sunday Mail*, the *Sunday Post* and the *Scottish Sunday Express*.

Weekly and local newspapers published in Scotland number about 140. The most widely known is the *People's Journal*, which has several local editions.

Northern Ireland has two morning newspapers, one evening paper and one Sunday paper, all published in Belfast: they are *The News-Letter* (Unionist) and the *Irish News* (Nationalist), the evening *Belfast Telegraph* and the *Sunday News*. There are 42 weekly newspapers in Northern Ireland, with circulations ranging from about 3,300 to about 24,000. The majority are published by individual companies.

The Channel Islands have two daily (evening) papers (one in Guernsey and one in Jersey) and two weeklies, which also circulate in Alderney and Sark.

In the Isle of Man there are five weekly newspapers of which the Isle of Man Examiner has the largest circulation.

London Suburban Papers

Scotland

Wales

Northern Ireland

Channel Islands and Isle of Man

| Title | Controlled by | Circulation ¹ average Jan.–June 1975 |
|---|--|--|
| Dailies: | | |
| Daily Express (1900) | Beaverbrook Newspapers Ltd. | 2,894,156 |
| Daily Mail (1896) | Associated Newspapers Ltd. | 1,729,749 |
| Daily Mirror (1903) | Reed Publishing Holdings Ltd. | 4,017,658 |
| The Daily Telegraph (1855) | Daily Telegraph Ltd. | 1,352,772 |
| Financial Times (1888) | Pearson Longman Ltd. | 185,673 |
| The Guardian (1821) | Guardian and Manchester Evening News Ltd. | 335,569 |
| Morning Star (1966)* | People's Press Printing Society Ltd. | 43,419 |
| The Sun (1969) | News International Ltd. | 3,434,615 |
| The Times (1785) | The Thomson Organisation Ltd. | 326,582 |
| London Evenings: | | |
| <i>Evening News</i> (1881) Monday–Friday Saturday | Associated Newspapers Ltd. | 650,335 636,446 |
| Evening Standard (1827) Monday–Friday | Beaverbrook Newspapers Ltd. | 485,481 |
| Sundays: | | E 645 671 |
| News of the World (1843) | News International Ltd. | 5,645,671 760,750 |
| The Observer (1791) | The Observer Trust | 700,750 |
| The Sunday People (1881) | Reed Publishing Holdings Ltd. | 4,218,607 |
| Sunday Express (1918) | Beaverbrook Newspapers Ltd. | 3,785,354 |
| Sunday Mirror (1963) | Reed Publishing Holdings Ltd. | 4,284,124 |
| The Sunday Telegraph (1961) | Daily Telegraph Ltd. | 756,687 |
| The Sunday Times (1822) | The Thomson Organisation Ltd. | 1,395,723 |

TABLE 38: 'National' Newspapers and London Evenings

¹ Unless asterisked, circulation figures are those of the Audit Bureau of Circulations (founded in 1931 and consisting of publishers, advertisers and advertising bureaux) and are certified average daily or weekly net sales for the period.

The Periodical Press There are about 4,500 periodical publications in Britain, classified as 'general', 'specialised', 'trade', 'technical' and 'professional'. There are also some 660 'house magazines' produced by industrial undertakings, business houses or public services for the benefit of their employees and/or clients.

General and specialised periodicals include magazines of general interest; women's magazines; publications for children; religious periodicals for all denominations; fiction magazines; magazines dealing with sport, gardening,

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hobbies and humour; journals specialising in various subjects such as politics, finance and economics, science, agriculture, medicine and the arts; and the publications of learned societies, trade unions, regiments, universities and other associations.

The weekly periodicals with the highest sales in Britain are: Woman; Woman's Weekly; Woman's Own; Weekend; Woman's Realm; Radio Times; and TV Times. The leading journals of opinion are The Economist, a politically independent publication covering topics from a wider angle than its title implies; the New Statesman, which is a review of politics, literature and the arts with an independent socialist political tendency; the Spectator, which covers much the same subjects from an independent conservative standpoint; Tribune, which represents the views of the left-wing of the Labour Party; New Society, which covers the sociological aspects of current affairs; and New Scientist, which reports on the progress of science and technology in terms which the non-specialist can understand. Punch, traditionally the leading humorous periodical, also devotes attention to public affairs.

Literary and political journals and those specialising in international and Commonwealth affairs, published monthly or quarterly, appeal generally speaking to the more serious type of reader.

The publication of trade, technical, business, scientific and professional journals (covering hundreds of subjects, many of them in considerable depth) has become one of the more important aspects of the British publishing industry. In addition to circulating in Britain, these journals have a considerable circulation outside Britain and are an important medium for selling British goods overseas. Their publication ranges in frequency from weekly to quarterly.

Periodicals published in England circulate throughout the United Kingdom. Weekly papers are also published in Wales, Scotland and Northern Ireland: in Wales several monthly and quarterly journals in both Welsh and English; in Scotland three monthly illustrated periodicals (*Scottish Field, Scotland's Magazine*, and *Scots Magazine*), a weekly paper devoted to farming interests (*Scottish Farmer*), a number of literary journals, of which the most famous is probably *Blackwood's*, and numerous popular magazines; and in Northern Ireland weekly, monthly and quarterly publications covering farming, the linen industry, building, motoring, politics and social work.

News Agencies

There are three principal British news agencies: Reuters Ltd.; the Press Association Ltd.; and the Exchange Telegraph Company Ltd.

Reuters Ltd. is an international news organisation owned by the newspapers of Britain, Australia and New Zealand through the Newspaper Publishers Association, the Press Association, the Australian Associated Press and the New Zealand Press Association, which are parties to a trust agreement to safeguard the independence and integrity of the news service. Founded in Aachen in 1850 and transferred to London in 1851, Reuters now has about 1,100 correspondents in 183 countries and territories, and links with 120 national or private news agencies, which give it access to coverage by many thousands of local reporters. Some 600,000 to 700,000 words of general news, sports, and economic services reports are received in London every day over a global network of leased cable and radio circuits. From these messages regionalised news services, specially tailored to the needs of recipients in Britain and main overseas regions, are transmitted to more than 120 countries for distribution to information media, either direct or through national news agencies. Reuters Economic Services supply up-to-the-minute information to

business houses throughout the world. Its computerised systems offer virtually instant coverage of the important stock and commodity markets by computer interrogation or video display. A computerised message-handling system, known as the Automatic Data Exchange, is used to speed up the handling and distribution of news.

The Press Association Ltd., the British national news agency founded in 1868, is co-operatively owned by the principal newspapers of the United Kingdom outside London, and of the Irish Republic. It provides newspapers, the broadcasting organisations, Reuters (of which it is a major joint owner) and other international agencies with a complete service of home news, including general and parliamentary news, legal reports, and all branches of financial, commercial and sports news; and includes in its services to regional papers the world news of Reuters and the Associated Press. News is teleprinted 24 hours a day from head office in Fleet Street over a network of lines leased from the Post Office—certain items being available in teletypesetting form.

Through its Photographic Department the Press Association serves London and regional newspapers with a daily picture service from home and overseas; these are wired to the regional press. Its Special Reporting Service supplies reports of local or special interest to daily and weekly papers and periodicals. All profits are used to develop the service.

The Exchange Telegraph Company Ltd. (Extel), an independent news agency founded in 1872, is a wholly owned subsidiary of the Exchange Telegraph Company (Holdings) Limited, a public company. It supplies financial and sporting news to newspapers and broadcasting organisations. Racing services are also supplied by teleprinter and telephone to subscribers in London and the provinces from offices in all important cities and towns.

The British press and broadcasting organisations are also served by Associated Press Ltd., and by United Press International, which are British subsidiaries of United States news agencies.

A number of other British, Commonwealth and foreign agencies and news services have offices in London, and there are minor agencies in other cities, mostly specialising in various aspects of newspaper and periodical requirements. Syndication of features is not as common in Britain as in some countries, but a few agencies specialise in this type of work.

The Printing and Publishing Industry Training Board (PPITB) is responsible for training in the printing, publishing and professional photography industries. The responsibilities of the board (which has a chairman, a deputy chairman and 23 other members, representing employer, employee and educational interests) include the formulation of training schemes, the establishment of standards, ensuring that adequate facilities exist, and the provision of a regional advisory service.

The National Council for the Training of Journalists (NCTJ), composed of the major representative organisations in journalism and the press, works in partnership with the Board. Its functions include superintending activities concerning entry into journalism, setting and conducting examinations; and organising short training courses and seminars for journalists.

There are two normal methods of entry to newspaper journalism: (1) by selection for a place on a full-time course lasting for one academic year and (2) by direct recruitment to a regional or local newspaper. Students selected for a pre-entry course must have gained two passes at the Advanced level of the General Certificate of Education (GCE) and be under the age of 20 at the beginning of a course. Some pre-entry students are sponsored by newspapers;

Training for Journalism

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the others are assisted by the NCTJ to find employment on completion of the course. The minimum educational requirement for direct entry is five GCE passes at Ordinary level.

Under collective agreements between the employers' associations in publishing, the National Union of Journalists and the Institute of Journalists, systematic training under NCTJ arrangements is obligatory for all entrants to the regional and local newspaper publishing sector under the age of 31. The scheme consists of on-the-job training, and block-release courses for those who have not attended a pre-entry course. A similar syllabus covering practical journalism, shorthand, use of language, law, public administration and current affairs is used at both kinds of course. Eight centres (five in England, and one each in Wales, Scotland and Northern Ireland) provide courses for reporters and there is one centre for newspaper photographers.

All entrants to regional and local newspapers who are under the age of 24 serve an apprenticeship of up to three years (two years in the case of graduates) depending on educational qualifications on entry. For direct entrants apprenticeship follows six months' probation. Entrants from pre-entry courses serve three months' probation, after which apprenticeship is back-dated to the start of the probation period. After minimum qualifying service under NCTJ regulations trainees take a proficiency test which carries a salary bonus and promotion to senior qualified status after completion of apprenticeship.

Both the PPITB and the NCTJ have given attention to the development of comparable arrangements for entrants to periodical publishing. NCTJ accredited courses (including pre-entry) are available in central London (where the greater part of the periodical publishing sector is situated) and the PPITB has drawn up a recommendation on systematic training for the editorial staff of periodicals to facilitate the preparation of in-company schemes which now exist in most major groups. The NCTJ courses are arranged in association with the London College of Printing and include a one-year pre-entry course in periodical journalism, and day release, and occasional block release courses.

While most training in journalism in Britain takes place at below university level and there are no courses offering degrees in journalism, the Centre for Journalism Studies at the University College, Cardiff, has a one-year postgraduate diploma course in journalism which is available to any holder of a degree from a British university or a recognised equivalent. In addition a wide range of training courses, covering circulation, advertising, industrial relations and supervisory management are provided for the regional newspaper industry by the Newspaper Society Training Service and for the national newspapers by the Newspaper Publishers Association. Short general management courses are also run in conjunction with the University of Aston in Birmingham.

Under the Commonwealth Press Union Travelling Fellowship Scheme for the training and education of young journalists throughout the Commonwealth, about ten journalists from overseas spend four months in the United Kingdom each year, partly in the offices of newspapers or periodicals and partly acquiring a general idea of life in Britain. A limited number of travelling scholarships are also awarded to British journalists to enable them to visit Commonwealth countries overseas.

The Thomson Foundation offers scholarships and organises training courses for journalists from all parts of the world at its Editorial Studies Centre in Cardiff, and provides consultants and tutors for courses for journalists overseas.

The most important organisations to which employers in the industry belong are the Newspaper Publishers Association, whose members publish national

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newspapers in London and Manchester; the Newspaper Society, which represents the regional, local and London suburban press; the Scottish Daily Newspaper Society, which represents the interests of daily and Sunday newspapers in Scotland; the Scottish Newspaper Proprietors Association, which represents the owners of weekly newspapers in Scotland; Associated Northern Ireland Newspapers, whose members are the proprietors of weekly newspapers in Northern Ireland; and the Periodical Publishers Association, whose membership embraces the independent publishers of trade and technical publications and general magazines. On the journalists' side there are the Institute of Journalists (IoJ), founded in 1884 as the National Association of Journalists, and the National Union of Journalists (NUJ), founded in 1907. All practising journalists (including those engaged in radio, television, public relations and freelance journalism) are eligible for membership of either of these organisations. The NUJ has 29,500 members and the IoJ about 2,300.

The main aims of the Guild of British Newspaper Editors are to sustain the dignity of editorship, to raise and safeguard the professional status of editors, to protect the rights and freedom of the press, and to improve the education and training of journalists: the Guild has about 430 members. The British Association of Industrial Editors is the professional organisation to which most editors of house journals belong.

The Press Council, established in 1953 and reconstituted in 1963, has a lay chairman and 30 members. Its aims are: to preserve the established freedom of the British press; to maintain the character of the British press in accordance with the highest professional and commercial standards; to keep under review any developments likely to restrict the supply of information of public interest and importance; to deal with complaints about the conduct of the press or the conduct of persons and organisations towards the press; to report on developments in the British press which may tend towards greater concentration or monopoly; to make representation on appropriate occasions to the Government, to organs of the United Nations and to press organisations abroad; to publish its adjudications and periodic reports recording its work, and to review from time to time developments in the British press and the factors affecting them. The council publishes annual reports, which include statistics of the newspaper and periodical press and a series of articles examining the structure of the leading press groups.

The press in Britain has the same freedom as the individual to do and say what it likes provided it does not transgress the law; in general, it is at liberty to comment on matters of public interest. Apart from enactments relating directly to such matters as the registration of newspapers for postal purposes, there are no specific press laws but certain statutes include clauses which apply, in particular or incidentally, to the press. These relate to such matters as the extent of newspaper ownership in television and radio companies; the transfer of newspaper assets; restrictions on reporting of preliminary hearings of indictable offences (in England, Wales and Northern Ireland); the right of press representatives to be admitted to meetings of local authorities; restrictions on the publication of (a) divorce and domestic proceedings in courts of law, (b) advertisement and investment circulars, which are governed by Acts dealing with the publication of false or misleading descriptions of goods and services and with fraud and (c) advertisements of remedies for certain diseases, which are covered by public health legislation; agreements between the Post Office and newspaper proprietors on telegraphic communications, which must

The Press Council

The Press and the Law

THE PRESS

comply with telegraphs legislation; restrictions on certain types of prize competition; and copyrights, which come under copyright laws. The press is also affected by the Trade Descriptions Act which imposes penalties for false or misleading descriptions of goods or services.

Of particular relevance to the work of the press are the laws on libel, defamation and contempt of court. A newspaper may not publish comments on the conduct of judicial proceedings which are likely to prejudice their reputation for fairness before or during the actual proceedings nor may it publish before or during a trial anything which might tend to influence the result. The obtaining and publication of information from state and official sources of a confidential or security nature is affected by the Official Secrets Acts. Newspapers are also liable to proceedings for seditious libel and incitement to disaffection.

Legal proceedings against the press are comparatively infrequent; the majority of actions that do take place are libel actions brought by private individuals. In such cases, the editor, proprietor, publisher, printer and distributor of the newspaper, as well as the author of the article, may all be held responsible.

22 Broadcasting

Broadcasting by television and radio in Britain is regulated by the Home Secretary under the Wireless Telegraphy Acts 1949 and 1967, which prohibit the sending or receiving of wireless communications, except under licence.

Two public bodies—the British Broadcasting Corporation (BBC) and the Independent Broadcasting Authority (IBA)—are licensed to provide television and radio broadcasting services.¹ The BBC, which was established by Royal Charter in 1927, operates two national television services, four national radio services and 20 local radio stations; it also broadcasts to countries abroad through its external services division. The IBA, originally established in 1954 as the Independent Television Authority, controls the operation of the single independent television service and has similar responsibility for the independent local radio stations (see p. 448).

Users of television sets must obtain a receiving licence each year, which can be bought from most post offices. Licences for sets receiving black and white pictures cost $\pounds 8$ a year, and for those receiving colour pictures $\pounds 18$ a year. There were over 17.6 million receiving licences current in Britain in June 1975 of which some 9.8 million were for black and white, and over 7.8 million for colour television.

Both the BBC and the IBA are constitutionally required to provide a 'public service' with the purpose of disseminating information, education and entertainment. The constitution and finances of the BBC are governed by the new Royal Charter granted in 1964 and by the Licence and Agreement of 1969, and those of the IBA by the Independent Broadcasting Authority Acts 1973 and 1974 and its 1973 Licence.

The BBC and the IBA are independent authorities in the day-to-day operations of broadcasting, including programmes and administration. The Government, however, retains ultimate control, and the Home Secretary is answerable to Parliament on broad questions of policy and may issue directions to the BBC and the IBA on a number of technical and other subjects. Both organisations are expected to show balance and due impartiality in their general presentation of programmes, particularly where matters of public policy or controversial subjects are concerned, and in this connection the Home Secretary has powers to prohibit the broadcasting of any particular item or class of item, or to revoke the licences of the BBC or IBA at any time. These are treated as major reserve powers and no formal veto has ever been placed on the broadcasting of a particular item. Both the BBC and the IBA are required to publish annual reports and accounts.

The Corporation consists of 12 governors (including a chairman, a vice-chairman and separate national governors for Scotland, Wales and Northern Ireland), each appointed for a period of not more than five years by the Queen on the advice of the Government. The governors are constitutionally responsible

¹ In 1974 a committee of inquiry was appointed by the Government to look into the future of broadcasting.

Broadcasting Authorities

The British Broadcasting Corporation

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for the conduct of the whole broadcasting operation, including the production and presentation of the programmes on television and radio, and the provision and working of the necessary installations and equipment. A number of committees advise them on such matters as the social effects of television, religious broadcasting, music, agriculture, school broadcasting, further education, programmes for immigrants, science and engineering and charitable appeals. There is also a programme complaints commission. The governors appoint the chief executive officer of the BBC—the Director General—with whom they discuss all major matters of policy and finance. He is chairman of the BBC's board of management, which also includes the managing directors for television, radio and external broadcasting, and the directors of personnel, finance, public affairs and engineering.

The National Broadcasting Councils for Scotland and Wales control the policy and content of television and radio programmes intended primarily for reception in their respective countries. Local radio councils, representative of the local community, are appointed by the BBC to advise on the development and operation of local radio stations.

The domestic services of the BBC are financed principally by an annual grant voted by Parliament (\pounds 146 million in 1974–75) which is the income from the sale of television receiving licences less certain deductions for collection and other expenses. This is supplemented by profits from trading activities, including domestic sales of magazines and other publications dealing with BBC radio and television programmes, and overseas sales of programmes. Nearly three-quarters of the BBC's expenditure on domestic services relates to television. The BBC meets the cost of local radio stations but some local education authorities have assisted in the making of educational programmes.

The BBC's external services are financed by a grant determined each year by the Government; in 1974-75 this amounted to over $f_{20.5}$ million.

The IndependentTheBroadcastingchiAuthorityScTheThe

The Independent Broadcasting Authority consists of a chairman, a deputy chairman and eight other members (three of whom have responsibility for Scotland, Wales and Northern Ireland) appointed by the Home Secretary. The IBA does not itself produce programmes; these are provided by commercial programme companies. The authority's four main functions are to appoint the programme companies, to supervise the programme arrangements, to control the advertising and to build, own and operate the transmitting stations for independent television and independent local radio.

The IBA is advised by a General Advisory Council, by Scottish, Northern Ireland and Welsh committees, and by committees on educational broadcasting, religious broadcasting, charitable appeals and advertising. A specialist panel advises on medical and allied advertisements. A Complaints Review Board reviews reports of complaints received and investigated by the IBA's staff. Local advisory committees provide advice on local radio services.

The chief executive officer of the IBA is the Director General. There are also two deputy directors general, and a headquarters and regional office staff covering all technical and administrative services.

The IBA receives no payments from licence revenue; the finance for its operations is drawn from annual rental payments made to it by the television and radio programme companies which amounted to about $\pounds_{13,5}$ million in the year ended March 1974. The television programme companies also pay to the IBA for transfer to the Exchequer a further sum known as the levy. Previously related to advertising revenue, the levy has, since June 1974, been related to the profits of the programme companies.

446 The Programme Companies

Fifteen television programme companies hold contracts to provide television programmes in the 14 independent television regions of Britain (two companies share the contract for London, one providing programmes during the week and the other at the weekend). The companies operate on a commercial basis, deriving their revenue from the sale of advertising time. The financial resources, advertising revenue, and programme production of the companies vary considerably, depending largely on the size of population in their areas. (Independent television serves a population of some 14 million people in the London area compared with some 107,000 people in the Channel Islands.)

In consultation with the IBA, each company plans the content of the programmes to be broadcast in its area. These consist partly of material produced by the company itself, partly of that produced by the other programme companies, and partly of that purchased from elsewhere. The five largest companies (Thames, ATV, Granada, Yorkshire, and London Weekend) produce a larger proportion of their own programmes and provide more programmes for broadcast elsewhere on the national network than do the smaller ones. A common news service is provided by Independent Television News Limited, a non-profit-making company in which all the programme companies are shareholders. The negotiations concerning the supply, exchange and purchase of programmes and their co-ordinated transmission through the independent television network take place largely on the Network Planning Committee which consists of representatives of all the programme companies and of the IBA.

Local broadcasting by independent radio stations has been introduced by the IBA. The companies providing programmes are under contract to the IBA, operate under its control and are financed by advertising revenue.

When a company, on the basis of negotiations with the other companies, has decided on a programme schedule for its area, it is required to submit this to the IBA for approval. The authority has wide-ranging powers to control and regulate the content and quality of programmes; for example, it ensures that a 'proper balance' of views is expressed and has drawn up a code on violence which includes special precautions to be taken when children are likely to be viewing. Although newspapers can acquire an interest in programme companies there are safeguards to prevent their shareholdings leading to results contrary to the public interest. In certain circumstances local newspapers have a right to a share in the control of local radio companies.

Television viewing has become by far the most popular recreational activity in Britain and some 95 per cent of the population now have television in their own homes. Average viewing time per head of population in 1973-74 was over 17 hours a week. There are three television channels: BBC 1 and ITV which broadcast on both 405 lines very high frequency (vhf) and 625 lines ultra high frequency (uhf), and BBC 2 which broadcasts on 625 lines uhf only. Some 99 per cent of the population live within range of vhf, and more than 95 per cent within range of uhf transmissions. A majority of people possess uhf receivers, and when most of the old vhf-only receivers have been replaced the vhf broadcasts of BBC 1 and ITV will cease. Colour programmes were first introduced on BBC 2 in 1967 and were extended to BBC 1 and ITV in 1969 when they began uhf broadcasts. A high proportion of programmes on the three uhf services are transmitted in colour, though they can also be received in black and white.

The Government has accepted in principle the recommendation of a report

Control by the IBA

Domestic Television and Radio

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on broadcasting coverage (see Bibliography p. 486) that the fourth television channel in Wales should be allotted to a separate service in which Welshlanguage programmes should be given priority.

Radio attracts its largest audiences during the mornings. In 1973-74 radio listening averaged some 9 hours a week per head of population.

BBC Television

Apart from a break during the war years the BBC has been providing regular television broadcasts since 1936. Since 1964 it has operated two services— BBC 1 and BBC 2. All BBC 2 programmes and the majority of those on BBC 1 are broadcast on the national network. Although many nationally networked programmes are produced in London some originate from regional studios in Scotland, Wales, Northern Ireland and eight regional centres in England. In 1973-74 some 4,959 hours were broadcast on the BBC 1 national network including 908 hours of programmes produced by regional organisations for network transmission; similar figures for BBC 2 were 3,190 hours including 412 hours of regional productions. Regional studios also originate programmes of news and local interest intended for regional transmission only; these varied from 681 hours in Wales (of which 360 were in the Welsh language) to an average of over 154 hours in each of the eight English regions.

Through co-ordinated planning of programmes on its two services the BBC is able to cater simultaneously for people of differing interests. While both services cover the whole range of television output, BBC 1 presents a higher proportion of programmes of general interest, such as light entertainment, sport, children's programmes and outside broadcasts, while BBC 2 places greater emphasis on minority interests, providing a larger element of news, documentaries, serious drama and music. Programmes successful on BBC 2 are frequently repeated on BBC 1. Both channels provide a wide range of education programmes; in 1973-74 over 10 per cent of BBC 1 transmissions were devoted to schools and further education broadcasts and over 19 per cent of BBC 2 transmissions to Open University lectures (see p. 160).

During 1973-74 BBC television programmes won 14 international awards and more than 7,000 screen hours of programmes were sold to nearly 70 countries overseas.

The first regular independent television broadcasts began in London in 1955. ITV transmissions are provided on a regional basis by 15 programme companies. In 1973-74 over 9,300 hours of different programmes were shown over the independent television network: 7,500 hours were produced in the companies' own studios of which two-thirds were programmes designed for regional audiences (including news and magazine programmes) and the remainder were networked throughout the country. During the year, 13.9 per cent of the programmes screened were of overseas origin.

ITV programmes cover the whole range of television output, and more than one-third of viewing time is devoted to serious programmes such as news and news magazines, current affairs and documentaries, religion and education. The remainder includes a high proportion of drama (often in serial form), light entertainment, music, sport and feature films. There are about three short advertising intervals an hour, in and between programmes.

BBC Radio provides listeners with four separate national channels, each of which has a distinct character. Radio 1 provides a programme of 'pop' music, while Radio 2 provides light music as well as being the principal channel for the coverage of sport. Radio 3 provides continuous, mainly classical, music (much of which is in stereo) and in the evening offers, in addition, adult

Independent Television

BBC Radio

education programmes and works of artistic and intellectual interest. Radio 4 is the main speech programme, providing the principal news and information service of the BBC; in addition it presents a wide range of drama, talks and entertainment programmes as well as broadcasts to schools.

Local radio was started by the BBC as an experiment in eight towns in 1967 and there are now 20 stations. Broadcasting on vhf and the medium waveband, local radio stations provide between 8 and 17 hours of locally produced programmes each day, normally during the early morning, lunch-time and early evening periods. During the rest of the day they transmit programmes from the BBC's national networks. Local broadcasts provide a comprehensive service of local news and information, besides covering local arts and sports activities and offering residents opportunities to air their views on subjects of local interest.

Much of the output of the independent local radio stations comprises entertainment programmes but they are also expected to provide a national and local news service, information, and programmes on local affairs and community activities. The first two began broadcasting in London in October 1973; Capital Radio provides a general entertainment service while a specialist news and information service is broadcast by the London Broadcasting Company whose associated company, Independent Radio News, supplies national and international news to the other independent stations. Altogether 19 stations are expected to be broadcasting by the end of 1975, some of which will broadcast for 24 hours a day.

Independent Radio

BBC External Services The BBC broadcasts to most countries overseas. The main objectives of BBC external broadcasts are to give unbiased news, to reflect British opinion and to project British life and culture. The BBC broadcasts in 40 languages (including English) for a total of some 740 hours a week. News bulletins, current affairs programmes, political commentaries and topical magazine programmes form the main part of the output. A full service of sports commentaries and results, all kinds of music, drama, and a wide range of general entertainment programmes are also included.

The languages in which the external services broadcast and the length of time each language is on the air are prescribed by the Government. Apart from this the BBC has full responsibility and it is completely independent in determining the content of news and other programmes.

The BBC World Service broadcasts for 24 hours a day in English and is supplemented at peak listening times by additional series of programmes designed to be of special interest to Africa and Europe.

The foreign language services are divided into areas, namely, the African, Arabic, Eastern, Far Eastern, Latin American, French (to Europe and Africa), Central European, South European, German and East European Services. Broadcasts range from 70 hours a week in Arabic to half an hour in Nepali. The BBC's English by Radio and Television Service is the most extensive language teaching undertaking in the world. Some 280 radio programmes of English lessons are broadcast weekly with explanations in 27 other languages, and recorded lessons are supplied to some 300 stations in over 90 countries. English by Television programmes are shown in more than 60 countries.

BBC news bulletins and other programmes are rebroadcast by the domestic radio services of many countries. Rebroadcasting involves direct relays from BBC transmissions and the use of recorded programmes supplied through the BBC tape and disc transcription service. There are some 3,000 rebroadcasts

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weekly of World Service programmes in about 50 countries. The Transcription Service offers programmes to nearly 90 countries.

Another part of the external services is the Monitoring Service which listens to and reports on foreign broadcasts, supplying a daily flow of significant news and comment from overseas to the BBC, the Press, and the Government.

Programme links are generally rented by the BBC from the Post Office, although some are provided by the BBC with Post Office agreement. The operation and maintenance of the transmitting stations from which its various programmes are sent out are, however, solely a BBC responsibility.

For its domestic radio programmes, the BBC uses 112 studios in London and the regions, and for its external services 40 in London. In addition, there are semi-automatic studios which can be operated by programme officials without engineering staff. Each BBC local radio station has at least two studios. BBC television productions come from main studios at the Television Centre in west London and other studios in various parts of London, and from fully equipped regional studio centres at Belfast, Birmingham, Bristol, Cardiff, Glasgow and Manchester. There are also television studios at Aberdeen, Bangor, Edinburgh, Leeds, Newcastle, Norwich, Plymouth and Southampton. Outside broadcasting is covered by a number of mobile units.

The IBA transmits programmes from 47 vhf and about 190 uhf stations throughout Britain, programme links being provided by the Post Office. Independent television programmes are produced at studio centres in Aberdeen, Belfast, Birmingham, Bristol, Cardiff, Carlisle, Dover, Dundee, Edinburgh, Glasgow, Leeds, London, Manchester, Newcastle, Norwich, Plymouth, St. Helier, and Southampton. The establishment of these studios is the direct result of the IBA's policy of encouraging the development of regional television, and the programmes are designed for either local broadcasting or for transmission on the national network. All companies have facilities for colour transmission.

Advertising

The BBC does not give publicity to any individual firm or organised interest except when it is necessary in order to provide effective and informative programmes. Under the terms of its licence and agreement it must not broadcast sponsored programmes or, without the consent of the Home Secretary, broadcast any matter for payment.

Advertisements are broadcast on independent television and independent local radio subject to the relevant provisions in the Independent Broadcasting Authority Act 1973, in particular that there should be no sponsoring of programmes by advertisers, that all advertisements should be clearly distinguishable as such and recognisably separate from the programme, and that the amount of time given to advertising should not be so great as to detract from the value of the programmes as a medium of information, education and entertainment. In any one hour of broadcasting the amount of advertising time on Independent Television is normally limited to seven minutes. Averaged over the day's programmes it must not exceed six minutes per hour. The independent local radio stations are normally limited to up to nine minutes of advertising each hour. The IBA has drawn up a code governing standards and practice in advertising on television and radio and giving guidance about the types and methods of advertisement that may not be used. Some types of advertising are prohibited, notably that of cigarettes (under

Transmitting Stations and Studios

BBC

IBA

a government ruling of 1965) and for betting. Advertisements may not be inserted in certain types of programme, for example, in broadcasts to schools.

Political Broadcasting Broadcasts on political issues include a daily factual and impartial account of proceedings in Parliament, transmitted on BBC's Radio 4 when Parliament is in session, and there is frequent coverage of political subjects in news bulletins and current affairs programmes on both radio and television. Ministerial and party political broadcasts are also transmitted periodically under rules agreed between the major political parties, the BBC and the IBA. In 1975 the House of Commons decided to allow an experimental four-week period of sound broadcasting of its proceedings with a view to determining whether the arrangement should become permanent.

Technical Developments Research into technical problems is carried out by the scientific and engineering staffs of the BBC, the IBA, the Home Office, the Post Office, the Government, and the radio industry. Advances by the BBC have included the electronic conversion of monochrome and colour television pictures between the European and the American systems, and the development of a soundand-vision system known as 'sound-in-synes' which enables the television sound and picture to be carried over a single 625-line vision circuit, and thus eliminates the operational complexity and expense of a separate circuit for the sound. IBA engineers have introduced the world's first fully digital field rate standards converter (DICE) which improves the interchange of programmes between areas using the 525-lines system (for example, North America) and those using the 625-lines system (for example, Europe). The first unit was taken into operational service by Independent Television News in 1973 and in 1974 a 'two-way DICE' was developed which allows conversation in both directions. Both the BBC and IBA have produced systems which allow the broadcasting of written and simple graphical information to ordinary television receivers fitted with special adaptors. In 1974 the Home Secretary approved a two-year experimental period of broadcasting using the systems, known as CEEFAX (BBC) and ORACLE (IBA).

International Relations The BBC and the IBA (together with the Independent Television Companies Association) are active members of the European Broadcasting Union (EBU), which was established to advance international broadcasting projects. The union manages Eurovision, is responsible for the technical and administrative arrangements for co-ordinating the exchange of programmes over that network and for intercontinental satellite links, and maintains a technical monitoring station, where frequency measurements and other observations on broadcasting stations are carried out.

The BBC belongs to the Commonwealth Broadcasting Association whose members extend to each other such facilities as the use of studios, recording channels, and programme contributions. The BBC also provides a large amount of technical aid, particularly in training the staff of other broadcasting organisations throughout the world; members of the BBC's staff are seconded for service overseas.

The BBC is a partner in Visnews, which supplies a service of world newsfilm to some 187 television organisations in 98 countries and is the most widely used newsfilm agency in the world, and a member of the International Television Federation (Intertel), which produces high-quality information programmes which are exchanged overseas. United Press International, Paramount Pictures and Independent Television News jointly provide an international

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newsfilm service to more than 100 overseas television organisations via the Eurovision network and by satellite.

The Government spends a considerable amount each year on radio and television training for overseas students in Britain and largely finances the British Council (see p. 165), which includes in its activities training in educational television and radio for members of broadcasting organisations overseas. Training in television work is also provided for overseas trainees at the Thomson Television College in Glasgow, run by the Thomson Foundation, a charitable trust.

The BBC and the IBA participate in the work of the International Telecommunications Union (ITU)—the United Nations specialised agency responsible for the regulation and control of all international telecommunication services (including radio and television), for the allocation and registration of all radio frequencies and, through its international consultative committees, for the promotion and co-ordination of the international study of technical problems in broadcasting. The BBC is also represented on the United Kingdom Committee of the International Special Committee on Radio Interference.

23 Leisure and Sport

There is a large variety of leisure and sporting opportunities available in Britain, both inside and outside the home. An increased standard of living has enabled many more people to pursue new interests in their leisure time and an improved range of facilities is being provided.

LEISURE

Home Interests As a considerable proportion of people's time is spent in their homes many leisure activities are of a domestic nature, for example, watching television, reading newspapers or books, listening to the radio or the record player, playing musical instruments (guitars are particularly popular among young people), or entertaining friends. Many people have hobbies of which among the most popular are gardening, home decorating and repairing, and car maintenance. The increased percentage of households owning motor cars (53 per cent in 1973 in Great Britain compared with 47 per cent in 1967) has resulted in more people taking holidays away from home and visiting the countryside, historic buildings and museums. All these interests are catered for by numerous magazines and periodicals.

About one-third of the total population are registered members of public libraries. Book sales have increased—a wide range of titles, including works of scholarship, being produced in the cheaper paperback form.

Sales of long playing records by manufacturers have increased sharply during the past decade, the 1974 figure being 130.5 million. The production of 'single records'—on the weekly sales of which the 'pop' music popularity ratings, known as the 'Top Ten' and 'Top Twenty', are calculated—are also high; the 1974 manufacturers' sales figure was 92.4 million.

Most families do home decorating and painting. Gardening is another major interest; at least half the families in Britain have some garden in spite of the high proportion of the population living in urban areas. In many places there are large garden centres where people purchase shrubs and other plants for outdoor and indoor cultivation. In addition some families have allotments plots of land rented for cultivation. Thousands of local horticultural societies are affiliated to the National Allotment Garden Society and there are many unaffiliated societies. The numerous flower and vegetable shows held in town and country are very popular, and there is a large attendance at the most important of them, including the annual Chelsea Flower Show.

Entertainments Outside the Home The diversity of entertainments outside the home includes, for young people, discotheques and pop concerts. Cinemas are popular, although audiences in general have been declining for several years, while British theatre has an international reputation based on the performance standards of many of its companies. Although the theatre-going public is not large, the subsidised repertory theatres (see p. 422) are well supported. Ballet, opera and concerts of classical music also have an enthusiastic and growing public while special art exhibitions often attract large audiences.

Dancing is popular among most age groups. There are many hundreds of

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regular dance halls throughout the country, and over 2,000 schools of dancing. These include schools of ballroom dancing as well as those teaching ballet, many of which are attended by young children. Public dances are often held in other halls, while clubs and societies hold dances occasionally in their own or hired premises. For younger people dancing to pop music is more common than formal ballroom dancing which, together with Scottish, English and Irish traditional dances, retains a following particularly among the overthirties. There is a folk dancing festival held each year at the Royal Albert Hall in London.

The public house—known as the pub or the local—is a traditional social centre for many people in Britain. Pubs, besides offering a wide variety of alcoholic and non-alcoholic drinks and often providing hot and cold food, serve as places for meeting friends and for entertainment; many have, for instance, television sets, amusement machines and juke-boxes and provide facilities for playing darts, billiards, dominoes and similar games. Some also employ musicians for evening entertainment, such as piano playing, folk singing and modern jazz.

One of the most popular forms of entertainment is 'Bingo', a game of chance played by groups of people for prizes, which is organised throughout the country in converted cinemas, club rooms and village halls; legalised by the gambling Acts of the 1960s, it provides a form of social entertainment of particular value to the elderly and lonely, and does not involve large sums of money. There are some 126 commercial gaming clubs which operate under strict legislative control. Betting shops number some 12,185. The turnover of money staked by the public on horse and greyhound racing is of the order of \pounds 1,800 million a year, most of it on horse races. Betting on football matches for smaller stakes, both at fixed odds and through football pools, is widespread.

A number of people in all age groups and occupations are actively involved in organisations such as church groups, political parties, groups of local business and professional men (for example the Rotary Clubs), trade unions, social and cultural groups, charities or voluntary social welfare agencies. The latter include citizens' rights groups which advise people on their legal rights and their entitlement to welfare benefits. Involvement by young people in voluntary work has increased and novel methods of fund raising, such as sponsoring long-distance walks, have been introduced.

Educational and cultural pursuits are an important part of some people's leisure activities; every year about 2 million people attend non-vocational adult education classes on a wide range of subjects. The Open University (see p. 160) provides an opportunity for study and qualification at university level to people without educational qualifications, who can follow the courses in their spare time. Thousands of people are involved in the activities of the many amateur dramatic and music-making societies.

Some of the longer-established clubs and societies are organised on a national basis and have branches throughout the country; these include the Working Men's Clubs and Institutes, the Townswomen's Guilds and the Women's Institutes. Working Men's Clubs, affiliated to the Working Men's Club and Institute Union, number about 4,000 and have some 4 million members; primarily social and recreational in nature, the clubs aim at providing amenities and entertainments of a very high standard. Some 2,700 Townswomen's Guilds, with a total membership of over 200,000 are affiliated to the National Union of Townswomen's Guilds. The guilds are educational as well as social in purpose, and they co-operate in many public welfare

Clubs and Groups

activities. The aim of the National Federation of Women's Institutes is to improve rural life and amenities; in villages throughout England and Wales there are over 9,310 institutes with a total of nearly 500,000 members. In Scotland and Northern Ireland there are Women's Rural Institutes with similar aims and interests.

In addition there are clubs and associations catering for all kinds of interest and hobby, for example, chess, bridge, stamp collecting, photography, wine making, archaeology, and rambling.

Holidays

In 1974 some 40.5 million holidays (that is, four or more nights away from home) were taken in Great Britain by British residents while the number of holiday visits taken abroad was 6.75 million compared with just over 5 million in 1966. The popularity of foreign travel is attributable to several factors besides rising incomes: the attraction of climate which makes Spain, France and Italy the most popular destinations for the British tourist; the many charter and other airline services provided; and the ability of the travel trade to provide reasonably priced (particularly 'package') holidays. A by-product has been an increase in the number of adults who, with the help of radio and television programmes and by attending adult classes, are improving their knowledge of foreign languages. Of those who stay in Britain many enjoy active holidays, such as canoeing, sailing and pony-trekking; camping under canvas, in caravans and in specially equipped vehicles, is popular.

SPORT

The traditionally widespread interest in sport among participants and spectators has been stimulated by regular broadcast coverage (particularly television) of the major sporting events. Large crowds attend such occasions as the association football 'Cup Final' at Wembley Stadium, the international rugby matches at Twickenham and Cardiff Arms Park, the Wimbledon lawn tennis championships, the classic horse races, and some of the cricket Test Matches, and millions more watch them on television.

Sportsmen may be professional (paid players) or amateurs. Some sports, for example, rugby union football, hockey and rowing, are entirely amateur but in other sports the distinction between amateur and professional status is less strictly defined. Nevertheless an important feature of British sport is its amateur element—people who devote time and energy to organising sport and to teaching and training, as well as the many thousands of all ages who engage in sport for pleasure alone.

General Administration and Promotion

The Government does not undertake the organisation of individual sports in Britain or the direct provision of facilities. There is, however, a Minister of State for Sport and Recreation in the Department of the Environment who exercises on behalf of the Secretary of State a leading responsibility for the co-ordination of policies and the promotion of research in the field of active recreation. The Secretaries of State for Wales, Scotland and Northern Ireland exercise similar responsibilities in their countries. The policy of the Government is to foster the development of all aspects of sport and recreation, to stimulate the provision of facilities and to encourage their use to the fullest capacity.

Sports Councils

The main responsibility for the general development of sport in Great Britain

LEISURE AND SPORT

rests with three independent bodies-the Sports Council (for England and for general matters affecting Great Britain), the Sports Council for Wales and the Scottish Sports Council. Members of the councils are appointed by the Government. The councils have the task, subject only to general ministerial directives, of allocating funds made available by the Government. They award grants and loans for sports development, coaching and administration to the governing bodies of sport and to other national organisations; they pay grants to voluntary organisations to assist in the provision of sports facilities; they assist British representatives at international sports meetings; they encourage links with international and overseas organisations; and they administer national sports centres. The Sports Council consults with the Central Council of Physical Recreation, comprising members of the national governing and representative bodies of sport and physical recreation in England. The Sports Council is linked with nine regional sports councils in England on which are represented local authorities and sports interests in each region. The Scottish Sports Council consults with the Scottish Standing Conference of Sport which comprises representatives of the national governing bodies of sport in Scotland.

The Sports Council for Northern Ireland acts in an advisory capacity and can assist voluntary bodies by financial contributions or by providing equipment, coaching and instruction and in organising international or other events. It may also provide and run national sports and recreation centres.

Voluntary bodies make substantial provision for sport in Britain, but the largest provision is by local authorities which made available some £80 million in 1973–74. Industrial and commercial concerns regularly support and sponsor sporting events.

A bibliographic service about sport is provided by the National Documentation Centre which has been set up by the Sports Council and is based at the University of Birmingham; the council itself has an information centre providing data on a wide range of sports topics at its headquarters. A similar service is provided by the Sports Council for Wales and the Scottish Sports Council.

Facilities for Sport

The law requires all publicly maintained schools in Britain to provide for the physical education (for example, gymnastics, games, athletics, dancing and swimming) of their pupils. Schools in the national systems (except those solely for infants) must have a playing field, or the use of one, and most secondary schools have a gymnasium. Some have other amenities such as swimming pools, sports halls and halls designed for dance and movement; in a number of areas, physical education facilities in schools are available to the whole community outside school hours. Facilities for, and instruction in, many kinds of sport are likewise provided at the independent preparatory and public schools and at the universities (some of which have departments of physical education). Local authorities are the main providers of land and large-scale facilities used by the community for recreation, for example, playing fields, gymnasia, tennis courts, golf courses, boating lakes, swimming baths and sports centres and many arrange further education classes in various physical education subjects. Large industrial firms often provide sports facilities for their employees and, in many cases, make them available for the public.

Composite National Bodies Among the national voluntary bodies most closely connected with the general development of sport are the British Olympic Association, the National Playing Fields Association and the British Sports Association for the Disabled.

The British Olympic Association

The National Playing Fields Association

The British Sports Association for the Disabled

Sports Centres

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The British Olympic Association, founded in 1905, organises the participation of British teams in the Olympic Games. The association's council is composed of the British members of the International Olympic Committee, representatives of the controlling bodies of some 25 sports, representatives of the armed services' sports organisations and of certain other affiliated bodies concerned with sporting activities, and a few co-opted members. It determines the overall size of the British team; raises funds; makes all the arrangements for the team's travel and comfort at the games; organises the provision and transport of clothing and equipment; and provides a headquarters staff for the overall management of the team.

The National Playing Fields Association (NPFA) aims to stimulate the provision of playing fields, playgrounds and local recreation centres by publicity and technical and financial assistance. With a council composed of representatives of the governing bodies of sport, a number of educational bodies, voluntary youth organisations, physical education associations, local authorities and individuals, the NPFA gives advice on the provision and layout of sports facilities, including small recreation centres, on matters relating to the recreational needs of children from their earliest years, on the play and recreational needs of the handicapped, and on the establishment of playgrounds and play leadership schemes. It also distributes each year grants to some 500 playing field, playground and local recreational centre schemes. The NPFA is a national charity established by royal charter. It derives its funds mainly from voluntary contributions, but it also receives a small Sports Council grant towards administrative costs. It has branches in Scotland and Northern Ireland and in nearly every English and Welsh county.

The British Sports Association for the Disabled, founded in 1961, encourages sporting activities for the physically handicapped. The association, which receives an annual Sports Council grant, provides advice on physical recreation through sport for the disabled, arranges sports meetings at the Stoke Mandeville Sports Stadium for the Paralysed and Other Disabled, and encourages the provision of facilities (including sports clubs) for physically disabled people. Region and branch committees of the association organise local and regional games throughout the country.

The policy of establishing sports centres, bringing together people of all ages and different recreational interests, is an important part of the provision for physical recreation in Britain.

National centres, some of which were initially financed by funds from voluntary sources, are maintained by the Sports Councils and provide recreational facilities and a wide range of courses for instructors and performers in many recreational activities. As well as making residential courses available for enthusiasts from all over Britain, the national sports centres are used extensively by local clubs and the local community generally.

There are six national centres in England and Wales. Combined facilities for ranges of sports are provided at three centres; the Crystal Palace National Sports Centre in London and the Bisham Abbey and Lilleshall National Sport centres in Buckinghamshire and Salop respectively. The centre at Crystal Palace has a main stadium seating 12,000 spectators, a sports hall seating 2,000 spectators, a swimming hall with pools meeting Olympic requirements, a teaching pool and a gallery for 2,000 spectators, an indoor cricket school, practice rooms for all indoor activities, a hostel for 140 residents and

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staff housing: these facilities are available for international competitions as well as for training purposes, and are supported by a grant from the Greater London Council, in addition to the Sports Council grant. The other three are specialist centres; the Plas-y-Brenin National Mountaineering Centre in north Wales; the National Sailing Centre in the Isle of Wight; and the Holme Pierrepont National Water Sports Centre in Nottinghamshire. In addition there is a National Sports Centre for Wales in Cardiff which is supported by local authorities, as well as by grants from the Welsh Sports Council.

The Scottish Sports Council operates three national recreation centres: Glenmore Lodge near Aviemore for outdoor activities; Inverclyde at Largs for general sports activities; and a national water sports centre in Great Cumbrae Isle on the Firth of Clyde.

As well as the national sports centres, other centres—such as the Meadowbank Sports Centre administered by Edinburgh Corporation—cater for a wide range of recreational activities and often attract more than purely local interest. Some 200 indoor sports centres serve local rather than national needs; many more are planned, some as 'dual' projects on school sites. There are also several national centres catering for specialised interests and generally administered by the sponsoring organisations; these include the National Equestrian Centre, run by the British Equestrian Federation, and the Stoke Mandeville Sports Stadium for the Paralysed and Other Disabled, run by the British Paraplegic Sports Society—the first sports centre of its kind in the world.

In Northern Ireland there are two indoor sports centres provided by district councils and a Northern Ireland Mountain Centre provided by the Sports Council for Northern Ireland.

POPULAR SPORTS Some of the major sports in Britain are described below.

Association Football Perhaps the most popular spectator sport is association football, dating as an organised game from the nineteenth century, and controlled by separate football associations in England, Wales, Scotland and Northern Ireland. In England over 350 clubs are registered with the English Football Association (FA) and some 37,000 clubs are affiliated to regional or district associations. The English FA organises an annual cup competition, the final of which is played in Wembley Stadium watched by some 100,000 spectators; a similar competition is run by the Scottish and Welsh Football associations.

The principal professional games in England and Wales are controlled by the Football League which comprises 92 professional clubs and in Scotland by the Scottish Football League (38 clubs); the clubs play in four divisions in England and Wales and three in Scotland. During the season attendances at Football League matches total about 28 million and at Scottish league matches around 4 million. Altogether there are about 7,000–8,000 professional footballers; these are greatly outnumbered by the nearly 1 million non-professional footballers (including schoolboys and members of the armed forces).

National teams representing England, Wales, Scotland and Northern Ireland compete against each other annually and take part in European competitions and the World Cup competition.

Athletics

In England amateur athletics (including track, road and cross-country running, relay racing, jumping, vaulting, hurdling, steeplechasing, throwing and race walking) are governed, for men, by the Amateur Athletic Association and, for women, by the Women's Amateur Athletic Association. Scotland, Wales, and Northern Ireland have their own associations and, as in England, there are

separate women's associations. The various organisations encourage the development of the sport, establish uniform rules and regulations and promote regional and national championships. Hundreds of clubs are affiliated to the various national associations.

International athletics and the selection of British teams are the concern of the British Amateur Athletic Board (BAAB) composed of representatives of the national associations. British teams compete in the Olympic Games and separate teams representing England, Wales, Scotland and Northern Ireland compete in the Commonwealth Games. The BAAB also administers coaching schemes.

The Highland Games, traditional gatherings of local people in the Highlands The Highland of Scotland, at which sports (including tossing the caber, putting the weight Games and throwing the hammer) and dancing and piping competitions take place, are unique spectacles which attract large numbers of spectators from all over the world. Among better-known Highland Games are the annual Braemar Gathering, the Argyllshire and Cowal Gatherings and the meeting at Aboyne.

> Boxing as a British sport is one of the oldest, probably originating in Saxon times. Its modern form, also adopted in many overseas countries, dates from 1865 when the Marquess of Queensberry drew up a set of rules eliminating much of the brutality that had characterised prize fighting and making skill the basis of the sport. Boxing is both amateur and professional.

> The Amateur Boxing Association controls all amateur boxing in England including schoolboy boxing, club and association boxing, and boxing in the armed services. There are separate associations in Scotland, Wales and Northern Ireland. The associations organise various amateur boxing competitions, and teams from England, Wales, Scotland and Northern Ireland take part in international competitions.

> Professional boxing is controlled by the British Boxing Board of Control, founded in 1929. The board has strict medical regulations which provide for an examination of boxers before and after each contest, and for an extensive annual medical examination. In addition the board appoints inspectors, medical officers and representatives to ensure that the regulations are observed and to guard against over-matching and exploitation.

> Amateur and professional boxing championships are decided at various weights-11 in amateur and 10 in professional boxing.

> Cricket is among the most popular of summer sports and is sometimes called the English national game. It is known to have been played as early as the 1550s. Among the many clubs founded in the eighteenth century was the Marylebone Cricket Club (MCC) which was founded in London and which reframed the laws of the game. Cricket in Britain is now governed by the Cricket Council which consists of representatives of the MCC, the Test and County Cricket Board (representing first class cricket) and the National Cricket Association (representing club and junior cricket).

> The game is played in schools, colleges and universities, and in most towns and villages there are amateur teams who play weekly games from late April to the end of September. In the Midlands and the north of England there is a network of League cricket contested by teams of Saturday afternoon players reinforced by professionals, some of whom come from overseas.

> Some of the best supported games are the annual series of Test Matches played between England and a touring team from Australia, New Zealand,

Cricket

Boxing

LEISURE AND SPORT

India, Pakistan or the West Indies. The matches last five days and crowds of up to 25,000 watch them in addition to the millions who follow the progress of the games on television and radio. A team representing England makes tours to these countries in December–March. In addition to the Test Matches there is a First Class County Championship of three-day games played by 17 county teams who also take part in three one-day sponsored competitions two of these are knock-out competitions and the other is a Sunday League.

Cricket is also played by women and girls, the governing body being the Women's Cricket Association, founded in 1926.

Field Sports

The British Field Sports Society looks after the interests of the most popular field sports (hunting, game shooting and fishing) which have a long history and play a considerable part in the life of the countryside.

Fox hunting on horseback with a pack of hounds is the most important British hunting sport but there is also stag hunting (in Devon and Somerset), hunting the hare, and otter hunting along river banks. The fox hunting season lasts from early November to April and is preceded by the hunting of young foxes when young hounds are trained. There are 200 packs of hounds in Britain and hunts are financed mainly by subscriptions of their members and by steeplechase point-to-points which take place at the end of the season and which attract large crowds.

Game shooting as an organised country sport probably originated in the early part of the nineteenth century. Game consists of grouse, partridge, pheasant, snipe and woodcock and these species are protected by law during a close season when they are allowed to breed in security on numerous estates supervised by privately employed game-keepers. It is necessary to have a licence to kill game and a certificate must be obtained from the local police by anyone who possesses, purchases or acquires a shot gun. The Game Conservancy, formed by landowners, farmers and others interested in game conservation, collects information and studies factors controlling game population.

Other shooting sports are wild-fowling which takes place on marshes and fenlands, and deer stalking which is mainly a sport of the Scottish Highlands. The deer are preserved in 'deer forests' and are protected during close seasons.

The most popular country sport is fishing, there being some 2.7 million anglers in Britain. Many fish for salmon and trout particularly in the rivers and lochs of Scotland, but in England and Wales the most widely practised form of fishing is for coarse fish such as pike, perch, carp, roach, dace, tench, chub and bream. Angling clubs affiliate to the National Federation of Anglers (NFA) and many clubs organise match angling—a competitive form of coarse fishing by weight. A national championship is organised by the NFA which also enters a team in the International Angling Competition. Freshwater fishing usually has to be paid for; most coarse fishing is let to angling clubs by private owners while trout and salmon fishermen either rent a stretch of river, join a club, or pay for the right to fish by the day, week or month. Coastal and deep sea fishing are free to all (apart from salmon and sea trout fishing which is by licence only). In Northern Ireland the Ulster Provincial Council of the Irish Federation of Sea Anglers and the Ulster Angling Federation look after the interests of the sport.

Golf originated in Scotland where it has for centuries borne the title of the Royal and Ancient Game, the headquarters of the Royal and Ancient Golf Club being situated at St. Andrews on the east coast. The sport is now played throughout Britain and there are golf courses in the vicinity of many towns

and villages, some of which are owned by local authorities. The main event of the golfing year is the Open Golf Championship and other important events include the Walker Cup match for amateurs and the Ryder Cup match for professionals, both being played between Britain and the United States.

Lawn Tennis The modern game of lawn tennis was first played in England in 1872 and the first championships at Wimbledon in 1877. The controlling body, the Lawn Tennis Association, was founded in 1888. The main event of the season is the annual Wimbledon fortnight for players from all over the world; these draw large crowds, the grounds at the All-England Club accommodating over 30,000 spectators. Another important tournament is the British Hard Court Championships. There are also county championships and national competitions for boys' and girls' schools. International events include the Davis Cup for men and the Federation Cup for women. Women from Britain and the United States compete for the Wightman Cup.

Motor Sports Among the most popies is the Royal Automo organise annual sport

Among the most popular spectator sports is motor racing; the governing body is the Royal Automobile Club (RAC) and the motor clubs registered with it organise annual sporting events. The RAC issues competition licences covering all events from hill climbs to full international race meetings. In addition the RAC organises the British Grand Prix which counts towards the Formula One World Motor Racing Championship.

Another motor sport is motor cycle racing. The governing body is the Auto Cycle Union and the most important contest of the year is the Isle of Man Tourist Trophy. Motor cycle speedway racing is governed by the Speedway Control Board.

Horse racing takes two forms—flat racing (from late March to early November) and steeplechasing and hurdle racing (from August to June). The Derby (for colts and fillies) run at Epsom in early June is the outstanding event in the flat racing calendar. Other classic races are: the Two Thousand Guineas (for colts and fillies) and the One Thousand Guineas (for fillies only), both run at Newmarket; the Oaks (for fillies) run at Epsom; and the St. Leger (for colts and fillies) run at Doncaster. The most important steeplechase and hurdle race meeting is the National Hunt Festival Meeting at Cheltenham in March. The Grand National, run at Aintree near Liverpool, is the best known single steeplechase.

The Jockey Club controls all horse racing in Britain and its rules are the basis of universal turf procedure; it also licenses 61 race courses in Great Britain. Over 900 days' racing are held each year and 11,000 horses are in training in Great Britain.

The racing of greyhounds after a mechanical hare takes place at some 105 tracks licensed by local authorities; meetings are usually held two or three times a week at each track. Rules for the sport are drawn up by the National Greyhound Racing Club which also licenses track officials and trainers and promotes veterinary research. Racing can only be conducted at a licensed track and for 130 racing days in a licensing year (1st July-30th June). Some 10,000 registered greyhounds are in training under the National Greyhound Racing Club Rules.

Betting takes place on horse and greyhound racing, 'bookmakers' providing facilities on and off race courses and greyhound tracks. Bets laid off course, mainly through licensed betting offices, comprise 90 per cent of the betting turnover. A form of pool betting (totalisator betting) is organised on and off

Racing

LEISURE AND SPORT

course by the Horserace Totalisator Board (HTB). Most greyhound tracks operate their own totalisators under strict local authority control. Bookmakers and the HTB have to contribute a 'betting levy' to the Horserace Betting Levy Board which promotes the advancement of veterinary science and the improvement of breeds of horses (including the work of the National Stud at Newmarket) and horse racing in general.

The authority responsible for equestrian activities (other than racing) in Great Britain is the British Equestrian Federation which co-ordinates the work of the British Horse Society and the British Show Jumping Association, and runs the National Equestrian Centre at Stoneleigh.

The British Horse Society promotes the interests of horse and pony breeding and furthers the art of riding. It provides tests, lectures, publications, a film library, courses and examinations and, together with riding schools approved by it, helps to promote horsemastership. With some 23,000 members, the society is also the parent body of the Pony Club and the Riding Club movement. Pony Clubs and Riding Clubs run their own national championships, the latter organising the annual Riding Club Horseshoe Long Distance Ride which is a test of stamina for horses and riders.

Horse trials are held during the spring and summer under the auspices of the society. The three-day events held each year—in April at Badminton, Avon, in May at Tidworth, Hampshire, and in September at Burghley House, Lincolnshire—include dressage, cross-country riding and show jumping.

Show jumping is promoted by the British Show Jumping Association which draws up rules for judging competitions and prescribing the general standards and height of obstacles for show jumping. The association keeps a register of horses and ponies taking part in affiliated shows and seeks to improve the standard of jumping and to provide for the representation of Great Britain in international competitions. It has 15,000 members and 950 shows are affiliated to it. The two major show jumping events are the Royal International Horse Show and the Horse of the Year Show.

Rugby football is played according to two different sets of rules: Rugby Union football, in which there are 15 players in a team, is played by amateurs while Rugby League football (a 13-a-side game) is played by professionals as well as amateurs.

Rugby Union is played throughout Britain under the auspices of English, Welsh, Scottish and Irish rugby football unions. International matches between England, Scotland, Wales, Ireland and France are played each year and there are tours by international teams. County championships are organised by the English and Welsh Rugby Unions.

Rugby League football is played mostly in the north of England. The governing body is the Rugby Football League which sends touring teams to Australia and New Zealand. Annual matches are also played against France. The Rugby League Challenge Cup Final is the major match of the season and is played at Wembley Stadium in London.

Sailing has always been popular on Britain's inland and coastal waters. The Royal Yachting Association has over 1,500 clubs and 41,000 members. It also has many recognised schools giving courses for novices, manages, with the Sports Council, the Sailing Centre at Cowes in the Isle of Wight where instructors are coached and tested, and selects the British Olympic team. One

Rugby Football

Riding

Sailing

of the world's principal regattas takes place each year at Cowes and major events are held at other British sailing centres.

Other Sports

The governing bodies of some other sports played in Britain are given below. Most of these are organised on the basis of clubs and regional organisations linked to a national body. The governing bodies' functions are broadly similar and usually include drawing up the rules of the sport, organising regional and national competitions and maintaining relations with sporting bodies overseas. Many of the sports listed below have separate national bodies for Scotland

and Wales.

Sport

Governing Body

British Light Aviation Centre British Gliding Association British Hang Gliding Association British Parachute Association Grand National Archery Society Badminton Association of England English Basket Ball Association Billiards and Snooker Billiards and Snooker Control Council English Bowling Association British Canoe Union Croquet Association Cycling: British Cycling Federation Cyclists' Touring Club Amateur Fencing Association British Amateur Gymnastics Association Hockey Association (men) Hockey All England Women's Hockey Association British Judo Association Iudo All England Women's Lacrosse Association Lacrosse British Mountaineering Council Mountaineering All England Netball Association Netball British Orienteering Federation Orienteering Hurlingham Polo Association Polo Amateur Rowing Association Rowing National Rifle Association Shooting (Target) National Small-Bore Rifle Association Clay Pigeon Shooting Association National Skating Association of Great Britain Skating National Ski Federation of Great Britain Skiing Squash Rackets Association Squash Rackets Amateur Swimming Association Swimming: British Sub Aqua Club

> English Table Tennis Association English Volleyball Association British Water Ski Federation British Amateur Weightlifters' Association British Amateur Wrestling Association

Aerosports: **Private Flying** Gliding Hang Gliding Parachuting Archery Badminton Basket Ball Bowls Canoeing Croquet

Cycle Racing Touring Fencing Gymnastics

Underwater Swimming Table Tennis Volley Ball Water Skiing Weightlifting Wrestling

Appendix

Currency

The unit of currency is the pound sterling divided into 100 new pence (p). There are six denominations: 50p; 10p; 5p; 2p; 1p; and $\frac{1}{2}p$.

Metric Equivalents for British Weights and Measures

Adoption of Metric System The Metrication Board was set up in 1969 to promote the planning and publicising of the changeover to the international system of units for weights and measures throughout the economy and educational system.

| Length | 1 inch 12 inches = 1 foot 3 feet = 1 yard 1,760 yards = 1 mile | = 30.48 centimetres = 0.914 metre | |
|-------------------------|---|--|--|
| Area | 144 square inches 9 square feet 4,840 square yards 640 acres | = 1 square foot = 929 $= 1 square yard = 0$ $= 1 acre = 0$ | 451 square centimetres 03 square centimetres 836 square metre 405 hectare 59 square kilometres |
| Capacity | 1 pint 2 pints = 1 quart 4 quarts = 1 gallon 8 gallons = 1 bushel 8 bushels = 1 quarter | = 36.37 litres | |
| Weight (Avoirdupois) | 16 oz. 14 lb. 112 lb. 20 cwt. (2,240 lb.) 2,000 lb. | 1 ounce (oz.) = 1 pound (lb.) = 1 stone (st.) = 1 hundredweight (cwt.) = 1 long ton = 1 short ton | = 28:35 grammes = 0:454 kilogramme = 6:35 kilogrammes = 50:8 kilogrammes = 1:016 tonnes = 0:907 tonne |

Double Conversion Tables for Measures and Weights (Note: the central figures represent either of the two columns beside them, as the case may be, for example, 1 centimetre = 0.394 inch, and 1 inch = 2.540 centimetres.)

| Centi- metres | | Inches | Metres | | Yards | Kilo- metres | | Miles | Hec- tares | | Acres |
|------------------|----|--------|--------|----|--------|-----------------|----|-------|---------------|----|--------|
| 2.540 | 1 | 0.394 | 0.914 | 1 | 1.094 | 1.609 | 1 | 0.621 | 0.405 | 1 | 2.471 |
| 5.080 | 2 | 0.787 | 1.829 | 2 | 2.187 | 3.219 | 2 | 1.243 | 0.809 | 2 | 4.942 |
| 7.620 | 3 | 1.181 | 2.743 | 3 | 3.281 | 4.828 | 3 | 1.864 | 1.214 | 3 | 7.413 |
| 10.160 | 4 | 1.575 | 3.658 | 4 | 4.374 | 6.437 | 4 | 2.485 | 1.619 | 4 | 9.884 |
| 12.700 | 5 | 1.969 | 4.572 | 5 | 5.468 | 8.047 | 5 | 3.107 | 2.023 | 5 | 12.355 |
| 15.240 | 6 | 2.362 | 5.486 | 6 | 6.562 | 9.656 | 6 | 3.728 | 2.428 | 6 | 14.826 |
| 17.780 | 7 | 2.756 | 6.401 | 7 | 7.655 | 11.266 | 7 | 4.350 | 2.833 | 7 | 17.298 |
| 20.320 | 8 | 3.150 | 7.315 | 8 | 8.749 | 12.875 | 8 | 4.971 | 3.237 | 8 | 19.769 |
| 22.860 | 9 | 3.543 | 8.230 | 9 | 9.843 | 14.484 | 9 | 5.592 | 3.642 | 9 | 22.240 |
| 25.400 | 10 | 3.937 | 9.144 | 10 | 10.936 | 16.094 | 10 | 6.214 | 4.047 | 10 | 24.711 |

| Kilo- grammes | | Av. Pounds | Litres | Pints | | Litres | | Gallons | Metric Quintals per Hectare | p | Hun- dred- weight per Acre |
|------------------|----|---------------|--------|-------|--------|--------|----|---------|--------------------------------------|----|-------------------------------------|
| 0.454 | 1 | 2.205 | 0.568 | 1 | 1.760 | 4.546 | 1 | 0.220 | 1.255 | 1 | 0.797 |
| 0.907 | 2 | 4.409 | 1.136 | 2 | 3.520 | 9.092 | 2 | 0.440 | 2.511 | 2 | 1.593 |
| 1.361 | 3 | 6.614 | 1.705 | 3 | 5.279 | 13.638 | 3 | 0.660 | 3.766 | 3 | 2.390 |
| 1.814 | 4 | 8.818 | 2.273 | 4 | 7.039 | 18.184 | 4 | 0.880 | 5.021 | 4 | 3.186 |
| 2.268 | 5 | 11.023 | 2.841 | 5 | 8.799 | 22.730 | 5 | 1.100 | 6·277 | 5 | 3.983 |
| 2.722 | 6 | 13.228 | 3.409 | 6 | 10.559 | 27.276 | 6 | 1.320 | 7.532 | 6 | 4.780 |
| 3.175 | 7 | 15.432 | 3.978 | 7 | 12.319 | 31.822 | 7 | 1.540 | 8.787 | 7 | 5.576 |
| 3.629 | 8 | 17.637 | 4.546 | 8 | 14.078 | 35.368 | 8 | 1.760 | 10.043 | 8 | 6.373 |
| 4.082 | 9 | 19.842 | 5.114 | 9 | 15.838 | 40.914 | 9 | 1.980 | 11.298 | 9 | 7.169 |
| 4.536 | 10 | 22.046 | 5.682 | 10 | 17.598 | 45.460 | 10 | 2.200 | 12.553 | 10 | 7.966 |

Thermometrical Table

0° Centigrade = 32° Fahrenheit.

100° Centigrade = 212° Fahrenheit.

To convert °Fahrenheit into °Centigrade : subtract 32, then multiply by 흫; °Centigrade into °Fahrenheit : multiply by 흫, then add 32.

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This bibliography is in no sense comprehensive: it is only intended to be a guide to further reading on the subjects covered in this handbook.

Readers are asked to note that in Britain the Central Office of Information reference documents marked with an asterisk may be obtained, on payment of a charge, from the Central Office of Information, Reference Division Distribution Unit, Hercules Road, London SEI 7DU; and overseas they may be obtained from British Information Offices.

Certain reference pamphlets produced by the Central Office of Information can be purchased from Her Majesty's Stationery Office and its agents overseas. These pamphlets are listed here with their respective prices (postage extra).

Acts of Parliament referred to in the text can be obtained at various prices from H.M. Stationery Office and its agents overseas.

International Standard Book Numbers (ISBN) should be quoted when ordering publications. So that readers will be supplied with the latest edition no ISBNs are given for annual and periodical publications.

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| An Account of the British Aid Programme : Text of United | | | | |
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| Maxwell, Robert. New British Architecture Thames and Hudson | 0 500 34054 4 | 1973 7.50 |
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