## FIGHTING <br> FIGURES

"Fighting with Figures", first published as "Statistical Digest of the War" (1951) is an informative and historical book which gives a unique insight into how Britain and its economy coped during the Second World War.

In addition to recording activity on the Home Front in the major areas of crime, production, health and welfare, the book also gives figures on how agriculture responded to the demands to produce more food and how the aircraft industry produced the planes that played so vital a part in the victory. The book also measures the volumes of trade brought to war-torn Britain


Proposals for reproduction of tables or contents should be addressed to the Deputy Commercial Manager, Room 64A/3, CSO, Government Buildings, Great George Street, London, SWIP 3AQ.
Telephone 0171-270 4627 or fax 0171-270 6019.

## Central Statistical Office

The Central Statistical Office is the government agency responsible for preparing the United Kingdom's national accounts, for the collection of data from businesses, and for the compilation of a wide range of official statistics - including the retail prices index and the overseas trade figures.

CSO began life in 1941 on the orders of Winston Churchill who wanted better statistics to manage the wartime economy. It remained part of the Cabinet Office until mid-1989, when it became a separate government department responsible to the Chancellor of the Exchequer. In November 1991 it became a Government Executive Agency.

Today, anyone can benefit from the following:

- A range of statistical publications. The Monthly Digest, Economic Trends and Social Trends are among the best known. Details from HMSO bookshops (0171-873 0011).
- Public inquiry services in London (0171-2706363/6364) and Newport (0|633812973). Call London for details of how to subscribe to CSO first releases or how to receive release notices by Fax. Call Newport for inquiries on business statistics and details of Business Monitors. Call either with general inquiries about government statistics.
- A wide range of data on disk. Telephone 0171-270 6081 for details.


## Government Statistical Service

A service of statistical information and advice is provided to Government by specialist staffs employed in the statistics division of individual Departments. Statistics are made generally available through their publications and further information and advice on them can be obtained from the Department concerned. Current telephone numbers of these sources as well as general information about Economic Trends can be obtained from the Central Statistical Office, Great George Street, London SWIP 3AQ. Telephone: 0171-270 6363/6364.

Enquiries about orders and subscriptions for all Central Statistical Office publications should be made to:
HMSO, PO Box 276, London SW8 5DT
(Telephone: 0171-8738499 for subscriptions; 0171-8739090 for orders)

[^0]Central
Statistical
Office

# FIGHTING ${ }_{\text {ith }}$ FIGURES 

## PREPARED BYTHE CENTRAL STATISTICAL OFFICE

Foreword by Anthony Montague Brown
Text by Peter Howlett

# 5 <br> 314.2 CEN INTRODUCTION AND GENERAL NOTES 

The Statistical Digest of the War was first printed in 1951 as part of the United Kingdom Civil Series of war histories. Prepared by the Central Statistical Office, its purpose was to bring together the facts of the British war effort, which previously had been scattered amongst many historical volumes and Command papers.

Following a call by Sir Winston Churchill for regular and comprehensive statistics, the Economic Information Service was split into two sections, the Economics Section and the Central Statistical Office.

Under the direction of Harry Campion, the function of the CSO was to collect from Government departments

1. Area covered. Except where otherwise stated all statistics relate to the United Kingdom of Great Britain and Northern Ireland.
2. Period covered. In general the figures given in the Digest cover the period from September 1939 to August 1945. In some tables, however, figures for a pre-war year or years have been given where the comparison seems particularly valuable.
3. Time series. The Digest has no standard time series. Where possible annual totals are given throughout, but in many cases these are supplemented by quarterly totals, monthly averages and weekly averages according to the type of series dealt with. Except where it is stated to the contrary all statistics are for calendar years ended 31 December.
4. Change of basis. A line drawn across a column between two consecutive figures normally indicates that the figures above and below the line have been compiled on different bases and are not strictly comparable. In each case a footnote is added indicating the nature of the difference.
5. Consumption and stocks. Statistics of consumption and stocks should be used with particular caution. Figures given under the heading of "consumption" or "total disposals" are usually derived from statistics of releases
regular series of ordered figures covering the development of the war effort in Britain.

This year marks the 50th anniversary of the end of the Second World War. In conjunction with this important occasion, the Central Statistical Office has published a revised edition of the original Statistical Digest of the Second World War. Retitled 'Fighting with Figures', the foreword has been written by Anthony Montague Brown, who was Winston Churchill's private secretary from 1952 to 1965. Text for each chapter has been written by Dr . Peter Howlett, the economics lecturer from the London School of Economics.
from stocks by controls or manufacturers. Figures of stocks may be affected to some degree by seasonal influences. Moreover, these figures often relate to only part of the total stocks in the country.
6. Definitions. In order to make this Digest as selfcontained as possible a Definition Section is included at pages 242 to 277 . The purpose of the notes and definitions given in this Section is to supplement the various footnotes given in the tables and to make it possible to interpret the figures fully without reference back to the basic sources of the statistics. It is important that each table should read in conjunction not only with footnotes appended to it but also with the appropriate paragraphs in the Definitions Section.
7. Rounding of figures. Where necessary, each figure has been rounded off to the nearest final digit. For this reason there may be in some tables an apparent slight discrepancy between the sum of the constituent items and the total as shown.
8. Symbols employed. The following symbols have been used throughout the Digest.
.. = not available

- = nil or negligible (less than half the final digit shown)
* = five week period


## FOREWORD

## Memorandum from the Prime Minister to Sir Edward Bridges <br> [Secretary to the War Cabinet] 8/I I/40.


#### Abstract

"Many of the executive departments naturally have set up and developed their own statistical branches....I have my own statistical branch under Professor Lindemann ...... It is essential to consolidate and make sure that agreed figures only are used. The utmost confusion is caused when people argue on different statistical data: I wish all statistics to be concentrated in my own branch as Prime Minister and Minister of Defence, from which alone the final authoritative working statistics will issue.


Pray look into this and advise me how my wish can be most speedily and effectively achieved.

> W.S.C."

Correct figures are the elusive raw material of effective government, and none was more aware of this than Winston Churchill in both his Administrations. To me, Churchill's memoranda, sometimes but not over-frequently adorned with a red "Action this day" label are the most interesting and significant part of his monumental six volumes "The Second World War". These fiery and imaginative missives analyse, criticise, encourage and directand rest for their effectiveness on correct data.

Churchill was well aware of the significant role that those responsible for collating, sifting and verifying the raw material were playing and he relied on them with justified confidence.

Even after his resignation from Office in April 1955, from time to time he would ask for the assistance of the Central Statistical Office, as will be seen from my letter, published here, and the meticulously careful reply: The question of
our casualties in both World Wars had, as I remember it, arisen from a discussion that Churchill had with Robert Menzies, the Prime Minister of Australia, over a dinner at which I was present, Churchill was agreeably surprised that the global total forWorld War II was not higher, but then fastened on the unknown figure for China, which would have increased the melancholy sum very substantially.

It is most fitting that the story of the Central Statistical Office should now be made public. It is an important and far from dull addition to the knowledge of our affairs.

Anthony Montague Browne

Private Secretary to Winston Churchill
1952-1965

Knichtsbridge 7972

28 Hyde Park Gate, London, S.W.7.

14 December, 1960

Dear Robertson,
Some time ago when I was at Chartwell I tolephoned your Office and through the Statistical Branch you gave me, for Sis Winston's information, the rough estimate of the total dead in the two World Wars. (These included all those who ight be said to have lost their lives through the Var, whether oivilian or military). The figures were something like 63 million for the Second World Mar, and 20 million for the First.

These flgures were given to me orally over the telephone, and Sir Winston has recentily reverted to the subject and asked me if I will find out for hin a iittle nore detailed breakiow.

If the Statistical Branch can readily supply these figures I would be grateful for them, but as this is purely a matter of interest I know that Sir Winston would not wish anybody to be diverted fron more important things to supply the flgures.

Incidentally if you are able to give we the figures, could you let me know if they are confidential or not?

I shall not expect on answer to this letter for a long time! Yours sincerely,
(Sgd.) AFIHONI MONLAGUE BROWNIS
J.H. Robertson, Esq.

## Far engunition

You geve we Montague Brome's lotter to Robortson asidng for a breakdown of the numbers idilied in the two Vorla Vare; the letter quotod estimates of sospthing like 63 millions, alvilian and military, for the Second Forld Fer and 20 allilions for the First.

I have assumed that tho kind of anolyeis sir Finston has in mind is the division botween aivilian and allitary and the distribution of casualtios by country. Fnolosures 1 and 2 provide ostinatos in this fosm. I eannot vouah for their aocureos but I heve given the scursees in aach case. Clearig the 81 curses for the U.Ko alll bo sore rolleble then for the rest of the world and those for "militery" probably more rellable then those for "oivilian".

Enalosurv 3 shows a furthor breakdom, for Eusope only, distinguighing betreen "normal" deathe and war losses. The fll gures are taken from yot another samre ("Popuistion Chenges in Burope since 1939" by Gregory Frumbin) but square up quite well with those in the other tables. This analysis and snoak's (Fnolesure 1, reforence 5) are of course the resulte of private researohes, but I understand that they wore oasried out vory oarofuliy; Frumkdn was in frot the editor of the "Statistical Year Book of the League of Nationg" throughout its exdstonce.

I an also onalosing Montague Brown's letter.

> (H. E. BISHOP)

Contral Statisticel office
26th January 1961

## EFCHOSURE 1

## Caguntion in the 924 -18 and 2939-4.5 Wrin

| Undted Kingdos | Mr14.95\% | civeltan | 20tal |
| :---: | :---: | :---: | :---: |
| 1914-18 | $743.702^{2}$ | $8,389^{2}$ | 752,092 |
| $2939-45$ | $270,687^{3}$ | $63.635^{3}$ | 369,405 |

## Rorid

$$
\begin{array}{llll}
194-18 & 8,500,000^{4} & 13,000,000^{4} & 20,500,000 \\
1939-45 & 25,916,580^{5} & 23,252,197^{5} & 29,168,777
\end{array}
$$

1. Hanaara, 耳arab 9th 2923.
2. Greommood. British loss of Life in the wars of $1794-1825$ and in 1914-18. Journel of the Royal Statiatioal Sooioty, Vol.CV, 1942. Includes 6,330 sea pessengers drouned.
3. Statigitioal Digest of the Wer. H.M.S.O. 1951. Figure fos Asmed Forces includas 6,244 still elasing at 28 Pobivary, 1946.

4o Fhoyolopaedia Britenniea, Vol. 23. 2947 ed. Fleuse for aivilians is a global ostinato of whioh no dotails an show.
5. ADG. Encok. This Mer Business. 1951.

Whitehall 2400 Ixt 15.

The Labrexy,
The Ver 088Loo,
LOTDOM. 8.7.1.
20 December, 2958.

Dear Sis,
Tour iottor of 19th Hovenbor, 2958, enquering io out easualtios in Forle Fars I and II, has beem passed to in for suphy.

I an acososing with this lottor cotalls of the numbers bdiled and nissing, as they are at precent knom, in a 8010 in whoh $I$ think you will find the enswose to your quontiongs I wa not oostain if you meent to inolude British ficures in your "allsed" numbors, and I have, therofore, sot these out eoparatoly so that you ean selcot the itoms you sequise. I have also taken "servicomen" to Inolude both Offleess and Othor lanke of all tho threo sorvices. Unfortunatoly, I oan find no sicuron for olvillang for Worla Var $I_{0}$

You ney like to know the sources fran whith wo have compiled those sigures, and whioh we find the nost usorul for answaring anquetios of this idnd. There are many variotios and dicoropanoies in rost of them, and it is usually only poseibio to sind appsordmato 81 gusios in ncet caces. Thoy aro as fallowsio


2. PAR GFFICE. General Amual Reporta the Britilah Asug ... 1923-1929. 1921. (Cma,2193). (H. H.S.O.)

3 MINSTRY OF DESENGE. Strongthe and Casuel ties of the Arwed Foroes end Audilary sospices of the Unised Kingiom, 2939 to 2945. 1946. (Gnd 6832). ( $\mathrm{H}_{0} \mu_{0} 8_{0} \mathrm{O}_{0}$ )
4. COMnITTIRB GF IMPRRTAL DKPENCR. History of the Great War. Malltary Operstions, Franoc and Bolgav, 1928. Vol. $\nabla$ (pago 597) 1947 $\mathrm{H}_{0} \mathrm{M}_{0} \mathrm{SO}_{0} \mathrm{O}_{5}$ )
5. ENOCK, Axthur Guy. This Wer Businoss. 1951. (Tho Bodley Hoed).

I hope that this information nill holp you with your resoarah.

> Yousis saithfully,
(D.E. FING)
ubrarian.

Theodoze H. MeoDonala, Esquo Dopartmont of zoology, The Doiveraity, GIASGOM, 2.

## HORLD TAR I

1. Britiph (inoluding India, Dosinions and Colonies) 779.468
2. Alyied


$$
4,174,595
$$

3. Enopy

|  |  | 2,050,466 |
| :---: | :---: | :---: |
| Austrie-Hungary | - | 1,200,000 |
| Bul garia. . | $\cdots$ | 201,000 |
| Turkey |  | 300,000 |

$$
\text { TOTAL } \quad \frac{3,751,466}{8,705,529}
$$

## FORLD WAR II

1. British
(i) U.K. Armed Forces
(i.e., excluaing ,omen's Audliary Services) Home Guard, Merohant Navy, etc. ) 264,443
(ii) Dominions, India and Colonies

108,929
373,372
2. hllied

3. Fnery

| Gorrasy | $3,000,000$ |
| :--- | ---: |
| Austria | 220,000 |
| Bulgaria | 18,500 |
| Italy | 380,000 |
| Japan | $2,565,878$ |
| Poland | 550,000 |
| Roumenia | 73,000 |
| Yugonlavia | $1,706,000$ |

7,029,830

## GIVITIASS

(a) Forza Ter I - Rot moom
(b) Harpa Fer II

## Alried



Bnemy


## ENTCLOSURB 3

"Rormol" Teath in Bellicerent Countryen end Wer Lonsen Auring 2939-1945


Thousands


## UNITS OF <br> MEASUREMENT

## I. British units of measurement and their metric equivalents

## British unit

## Length

| I inch (in.) |  |
| :---: | :---: |
| 1 foot (ft) | 12 inches |
| 1 yard (yd.) | 3 feet |
| I mile | 1,760 yards |

Surface
I square foot (sq.ft)
I square yard (sq.ft)
I acre
I square mile (sq.miles)
$=9$ square feet
$=4,480$ square yards
$=640$ acres
Capacity

| I imperial gallon (gall.) |
| :--- |
| I bulk barrel |
| $=$ |$\quad 4$ quarts

I cubic foot (cu.ft.)
I cubic yard (cu.yd.)

## Weight

| I ounce avoirdupois (oz.) |  |
| :--- | :--- |
| I pound avoirdupois ( lb.$)$ | $=16$ ounces |
| \| hundredweight (cwt.) | $=112$ pounds |
| I long ton | $=2,240$ pounds |
| I short ton | $=2,000$ pounds |

## II. Miscellaneous units

| Food and drink: | Butter <br> Cheese <br> Condensed milk <br> Dried egg <br> Eggs <br> Milk <br> Milk powder <br> Sugar | 5,600 gallons milk $=1$ ton butter (average) <br> 2,240 gallons milk $=1$ ton cheese <br> 600 gallons milk = I ton full cream condensed milk <br> 600 gallons skimmed milk $=1$ ton skimmed <br> condensed milk <br> 81,000 eggs $=1$ ton dried egg <br> 17,400 eggs $=1$ ton <br> I million gallons $=4,600$ tons <br> 1,800 gallons milk $=1$ ton full cream milk powder <br> 2,400 gallons skimmed milk $=1$ ton skimmed milk powder <br> 100 tons raw sugar $=93$ tons refined sugar |
| :---: | :---: | :---: |
| Fuel and power: | British thermal unit <br> (B.Th.U.) <br> Therm Unit of electricity | The amount of heat required to raise l lb . of water through I degree Fahrenheit at or near 39.1 degree Fahrenheit. <br> 100,000 British thermal units <br> An output of I kilowatt over I hour |
| Shipping: | Deadweight tonnage <br> Gross tonnage <br> Net tonnage <br> Standard displacement <br> War load displacement | These terms are defined in the Definitions Section (pages 263 and 267) |
| Timber: | Softwood Pitwood | I standard = 165 cubic feet <br> 1 standard $=180$ piled cubic feet |

## CONTENTS

Table
I. POPULATION AND VITAL STATISTICS
Population of the United Kingdom ..... 1.3
Age distribution of the population ..... 1.4-1.5
Births ..... 1.5
Reproduction rates ..... 1.6
Infantile mortality ..... 1.7
Deaths analysed by age and sex ..... 1.8
Marriages ..... 1.9
2. SOCIAL CONDITIONS
Public health
Deaths analysed by age and cause ..... 2.3-2.4
Infectious diseases ..... 2.5
Venereal diseases ..... 2.6
National insurance
National health insurance ..... 2.7
Unemployment insurance ..... 2.8
Pensions ..... 2.9
War pensions ..... 2.10
Justice and crime
Offences known to the police and persons found guilty ..... 2.11-2.13
Juvenile delinquency ..... 2.14-2.16
Prison population ..... 2.17
Divorce proceedings ..... 2.18
Housing and building
Houses built ..... 2.19
Construction activity ..... 2.20
3. MANPOWER
Distribution of manpower ..... 3.3
Armed forces and auxiliary services
Strength ..... 3.4
Age distribution ..... 3.5
Intake and outflow ..... 3.6
Releases ..... 3.7
Table
Casualties ..... 3.8
Home Guard and Royal Observer Corps ..... 3.9
Civil Defence services ..... 3.10
Police services ..... 3.11
Civilian employment
Agriculture ..... 3.12
Engineering, metals, explosives, chemicals and shipbuilding ..... 3.13-3.17
Iron and steel ..... 3.18
Textiles ..... 3.19
Clothing ..... 3.20
Woodworking and furniture ..... 3.21
Paper and printing ..... 3.22
Leather and rubber ..... 3.23
Glass and pottery ..... 3.24
Railway staff ..... 3.25
Civil Service ..... 3.26-3.27
Government building programme ..... 3.28
Government training centres ..... 3.29
Industrial stoppages ..... 3.30
4. AGRICULTURE AND FOOD
Agriculture
Area of crops and grassland ..... 4.3-4.4
Crops and grass harvested ..... 4.5-4.6
Yield per acre ..... 4.7-4.8
Cattle, sheep, pigs and poultry ..... 4.9-4.10
Horses grazed on agricultural land ..... 4.11
Agricultural machinery in use ..... 4.12
Food
Movement off farms of cereals, potatoes and sugar beet ..... 4.13
Animals purchased for slaughter ..... 4.14
Milk sales ..... 4.15
Processed food: Production ..... 4.16
Food and animal feeding-stuffs: Consumption ..... 4.17
Estimated food supplies per head of civilian population ..... 4.18
Arrivals of lend-lease foodstuffs ..... 4.19
Losses of food and feeding-stuffs at sea ..... 4.20
5. FUEL AND POWER
Coal:
Production, consumption and stocks ..... 5.3
Inland consumption ..... 5.4
Distributed stocks ..... 5.5
Productivity ..... 5.6
Table
Coke: Production, consumption and stocks ..... 5.7
Coal tar products: Production ..... 5.8
Gas: Production and sales ..... 5.9-5.10
Electricity: Production and sales ..... 5.11-5.12
Petroleum:
Arrivals of petroleum products and crude and process oils ..... 5.13
Production of finished products from imported crude and process oils ..... 5.14
Production from indigenous materials of petroleum products and substitutes ..... 5.15
Deliveries into consumption of petroleum products ..... 5.16-5.19
6. RAW MATERIALS
Iron ore and manganese ore ..... 6.3
Pig iron ..... 6.4
Iron and steel scrap and steel ingots and castings ..... 6.5
Semi-finished and finished iron and steel ..... 6.6
Chrome ore and ferro-alloys ..... 6.7
Non-ferrous metals ..... 6.8
Aluminium ..... 6.9
Timber ..... 6.10-6.11
Hides, skins and finished leather ..... 6.12
Rubber ..... 6.13
Chemicals ..... 6.14
Fertilizers, ammonia and molasses ..... 6.15
Plastics and materials for plastics ..... 6.16
Paper and paper-making materials ..... 6.17
Raw cotton, cotton waste and cotton linters ..... 6.18
Cotton yarn ..... 6.19
Rayon, rayon yarn and woven fabrics ..... 6.20
Wool and silk ..... 6.21
Jute, flax and hemps ..... 6.22
Losses of raw materials at sea ..... 6.23
7. PRODUCTION
Shipbuilding
Naval vessels: Major combat ..... 7.3
Naval vessels: Ocean and coastal convoy, etc. ..... 7.4
Merchant vessels built in the United Kingdom ..... 7.5-7.6
Merchant vessels awaiting repair and repaired ..... 7.7-7.8
Munitions
Index of munitions production ..... 7.9
Artillery equipment ..... 7.10
Naval guns ..... 7.11
Aircraft and light guns ..... 7.12
Other weapons ..... 7.13
Small arms ..... 7.14
Ammunition and explosives ..... 7.15-7.17
Armoured fighting vehicles ..... 7.8
Wheeled vehicles ..... 7.19
Table
Signal equipment ..... 7.20
Engineer stores ..... 7.21
Aircraft
Production by main groups ..... 7.22
Production by structure weight ..... 7.23
Index of aircraft production ..... 7.24
Aircraft awaiting repair and repaired ..... 7.25
Aircraft engines: Production, imports and repairs ..... 7.26
Arrivals of aircraft in the United Kingdom from North America ..... 7.27
Arrivals of aircraft overseas from North America ..... 7.28
Manufactured goods
Machine tools ..... 7.29
Agricultural machinery ..... 7.30
Locomotives and motor vehicles ..... 7.31
Woven cloth, household textiles, hosiery and footwear ..... 7.32
Pottery, hollow-ware and brushes ..... 7.33
8. TRANSPORT
Merchant shipping
Merchant shipping under British control ..... 8.3-8.5
Merchant shipping: Analysis by employment ..... 8.6
Gains and losses of merchant shipping ..... 8.7-8.9
Losses from enemy action ..... 8.10
Shipping movement: Entrances and clearances in the foreign trade ..... 8.11
Arrivals of shipping at UK ports ..... 8.12
Imports under Departmental programmes ..... 8.13-8.15
Inland transport
Rail:
Repair and availability of rolling stock ..... 8.16
Passenger and goods traffic ..... 8.17
Operating statistics ..... 8.18
Traffic receipts ..... 8.19
Road:
Vehicles with licences current ..... 8.20
New vehicle registrations ..... 8.21
Canal traffic originating ..... 8.22
Coasting trade ..... 8.23
9. EXTERNALTRADE
Value and volume of external trade ..... 9.3
Value of retained imports ..... 9.4
Value of exports ..... 9.5
Value of imports: Analysis by source ..... 9.6
Value of exports: Analysis by destination ..... 9.7
Quantity of imports ..... 9.8-9.10
Quantity of exports ..... 9.11

## 10. PUBLIC FINANCE

Exchequer receipts and issues ..... 10.3-10.4
Floating debt ..... 10.5
Currency circulation and bank clearings ..... 10.6
Prices and yields of British Government securities ..... 10.7
External disinvestment ..... 10.8
United States lend-lease aid to the British Empire ..... 10.9
United Kingdom reciprocal aid ..... 10.10
II. NATIONAL INCOME
National income, depreciation and expenditure ..... 11.3
Revenue account of persons ..... 11.4
Revenue account of public authorities ..... 11.5
Combined capital account ..... 11.6
Central government revenue ..... 11.7
The finance of the central government deficit on current account ..... 11.8
Personal expenditure on consumers' goods and services ..... 11.9
12. WAGES AND PRICES
Average weekly earnings and hours worked ..... 12.3-12.5
Wage rates and working-class cost of living index ..... 12.6
Agricultural price indices ..... 12.7
Stock and fertilizer price indices ..... 12.8
Wholesale prices ..... 12.9

## ABBREVIATIONS

A.A. Anti-aircraft
A.C. Alternating current
A.F.V. Armoured fighting vehicle
A.P. Armour piercing
A.S. Anti-submarine
A.S.R. Air sea rescue
C.A. Coastal artillery
D.C. Direct current

Derv (fuel) Diesel-engined road vehicle
G.O. Gas operated
H.E. High explosive
L.S.T. Landing ship tank
P.I.A.T. Projector infantry anti-tank
S.D. Standard displacement
S.H.A.E.F. Supreme Headquarters Allied Expeditionary Force
U.P. Unrotated projectile
W.L.D. War load displacement


War is most commonly associated with death and, in this respect, the Second World War was no different. The loss of human life was on an immense scale with more than 40 million people killed worldwide, including 25.6 million deaths suffered by the USSR, 6.5 million by Germany, 6 million by Poland and 2.4 million by Japan (Harrison and Gatrell 1993: 434; Milward 1977: 210I). In absolute and proportionate terms the loss of life in Britain cannot compare with these figures, with an estimated 360,000 war related deaths (Hancock and Gowing 1949:549). Indeed, the population of the UK
actually increased by about three per cent during the war (table I.3). Changes in the size of the population reflect changes in the rates of birth and death (that is the number of births per 1000 population). The birth rate of the UK for the civilian population fell in the first two years of the war but then rose to reach a peak of 17.9 in 1944, which represented an increase of almost a fifth on the 1939 rate. The death rate increased sharply in 1940 but then fell back again and was stable between 1942 and 1945 at II.4 (with the exception of 1943 when it rose slightly to II.8). The rate of natural increase (the difference between the birth rate and the death rate) fell from 3 per 1000 population in 1939 to a mere 0.8 in 1940 but thereafter increased to reach a peak of 6.5 in 1944; initially the dominant factor in changes in the rate of natural increase were changes in the death rate but after 1941 changes in the birth rate came to dominate population growth (tables I.3, I.6 and I.9).

The bulk of the excess deaths due to the war were accounted for by the Armed Forces: 264,443 members of the Armed Forces were killed during the war (over half of these were in the Army, about a quarter in the Royal Air

1. Changes in the United Kingdom civilian population


Force, and about a fifth in the Royal Navy) which, compared to the wartime peak size of the Armed Forces of 4.65 million in 1945, gives a rate of attrition of 5.7 per cent (tables 3.8 and 3.3). The Merchant Navy also experienced a heavy loss of life with more than 30,000 members killed during the war (Behrens 1955: |81-3; table 3.3). Civilian casualties due to the war were virtually all incurred due to the German bombing campaign: almost 70,000 tons of bombs were dropped on the UK during the war, the bulk of them between mid-1940 and mid-1941 (Titmuss 1950: 322-4). The total number of civilian deaths due to the operations of war were 67,635 (giving a war related rate of attrition among the civilian population of about 0.15 per cent), two-thirds of whom were killed in 1940 and 1941 (tables 2.3-2.4;Titmuss 1950: 325).

Turning to other causes of death among civilians we find that most initially experienced rising rates of incidence between 1939 and 1940 but thereafter, declined. For the most vulnerable group in society, those under 15 years of age, the reduction in the death rates per million population for many of these diseases was remarkable: scarlet fever fell from over 40 in the 1930s to 7 by 1945, diphtheria fell from almost 300 to 70 , whooping cough from almost 200 to 85, and measles from over 200 to 21 (Stevenson 1984: 204; tables I.4-1.5 and 2.3-2.4). This experience was in contrast to that of many other European countries: in the case of diphtheria, for example, whilst the number of child deaths from this disease in the UK fell from 3,000 in 1938 to 721 in 1945, countries such as Germany and Sweden were experiencing their worst epidemics for fifty years (Ferguson and Fitzgerald 1954: 163-4). An important exception to the large reductions in deaths from diseases during the war was tuberculosis (whose treatment was
hampered by increased waiting lists for hospital beds and by a shortage of nursing staff) which experienced only a small decline between 1939 and 1945 (and in Scotland actually increased by II per cent between 1938 and 1945) (Ferguson and Fitzgerald 1954: 251-88;Titmuss 1950:5245; tables 2.3-2.4).

The chief reason for the decline in the number of deaths from many diseases in Britain was successful immunisation campaigns but other factors related to health and nutrition (such as the creation of the Emergency Medical Services, the introduction of school meals, the subsidised milk scheme for young children and expectant mothers, and the distribution of vitamins, orange juice and cod liver oil) all contributed to the wartime improvement in the health of the nation (Ferguson and Fitzgerald 1954: I55-71; Titmuss 1950: 509-10,521).These changes also helped to reduce the rate of infant mortality (the number of deaths of infants under one year of age per 1000 live births), in contrast to the situation in the First World War when it had increased steadily (Ferguson and Fitzgerald 1954: I72). Infant mortality increased in 1940 and 1941 but thereafter declined and the level of infant mortality in 1945 in England and Wales was almost a fifth less than the average for 1935-8 (with a sharper reduction in Scotland of 27 per cent and a less sharp reduction in Northern Ireland of 14 per cent) (table I.8).

The pressures and changes wrought by the war (including evacuation and military and industrial mobilisation) placed great pressure on the family, with declining rates of marriage and increases in the number of divorces and illegitimate births (Ferguson and Fitzgerald 1954: 103-9; Harris 1992: 26). An increase in the marriage rate (the

## | . 2 Divorce proceedings in England and Wales



proportion filed by husbands rose from 45 per cent to 57 per cent (table 2.18). Finally, the ratio of illegitimate births to total live births rose from 4.2 per cent to 9.3 per cent in England and Wales, from 6.0 per cent to 8.7 per cent in Scotland and from 4.7 per cent to 5.4 per cent in Northern Ireland (table I.6). One reason for this increase in illegitimate births was that wartime pressures prevented the marriage before the birth of their child of those women who conceived out of wedlock (in peacetime the 'regularisation' of such situations was fairly common) (Ferguson and Fitzgerald 1954: 90-2).
number of persons married per 1000 population) in England and Wales from 17.6 in 1938 to 22.5 in 1940 was followed by a decline to a low of 14.0 in 1943; Scotland experienced a similar trend although in Northern Ireland wartime marriage rates were generally higher than the 1938 figure of 13.4 (table I.IO). At the same time the number of divorces in England and Wales rose from 7,197 in 1939 to 19,482 in 1945 (a rise of 171 per cent -in Scotland they rose by 154 per cent), amongst the reasons divorces were filed, adultery increased its share from 56 per cent to 69 per cent of the total petitions and the

## 1.3

## Population of the United Kingdom

United Kingdom
Mid-year estimates
Thousands

|  | United Kingdom |  |  | England and Wales |  |  | Scotland |  |  | Northern Ireland |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females |
| Total population ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $1939{ }^{2}$ | 47,762 | 22,962 | 24,799 | 41,460 | 19,920 | 21,540 | 5,007 | 2,412 | 2,594 | 1,295 | 630 | 665 |
| 1940 | 48,226 | 23,304 | 24,922 | 41,862 | 20,216 | 21,646 | 5,065 | 2.454 | 2,611 | 1,299 | 634 | 665 |
| 1941 | 48,216 | 23,266 | 24,950 | 41,748 | 20,141 | 21,607 | 5,160 | 2,492 | 2,668 | 1,308 | 633 | 675 |
| 1942 | 48,400 | 23,336 | 25,064 | 41,897 | 20,180 | 21,717 | 5,174 | 2,508 | 2,666 | 1,329 | 648 | 681 |
| 1943 | 48,789 | 23,574 | 25,215 | 42,259 | 20,397 | 21,862 | 5,189 | 2,521 | 2,668 | 1,341 | 656 | 685 |
| 1944 | 49,016 | 23,672 | 25,344 | 42,449 | 20,473 | 21,976 | 5,210 | 2,534 | 2,676 | 1,357 | 665 | 692 |
| 1945 | 49,182 | 23,723 | 25,459 | 42,636 | 20,549 | 22,087 | 5,187 | 2,508 | 2,679 | 1,359 | 666 | 693 |
| Civilian population ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 45,996 | 21,076 | 24,920 | 39,889 | 18,243 | 21,646 | 4,826 | 2,215 | 2,611 | 1,281 | 618 | 663 |
| 1941 | 44,849 | 20,003 | 24,846 | 38,743 | 17,228 | 21,515 | 4,818 | 2,160 | 2,658 | 1,288 | 615 | 673 |
| 1942 | 44,297 | 19,542 | 24,755 | 38,243 | 16,802 | 21,441 | 4.758 | 2,121 | 2,637 | 1,296 | 619 | 677 |
| 19434 | 43,771 | 19,006 | 24,765 | 37,818 | 16,334 | 21,484 | 4,651 | 2,050 | 2,601 | 1,302 | 622 | 680 |
| 1944 | 43,743 | 18,852 | 24,891 | 37,785 | 16,188 | 21,597 | 4,641 | 2,035 | 2,607 | 1,316 | 629 | 687 |
| 1945 | 43,873 | 18,858 | 25,015 | 37,916 | 16,200 | 21,716 | 4,640 | 2,029 | 2,611 | 1,317 | 629 | 688 |

1. The total population includes all members of the armed forces and Merchant Navy whether at home or overseas.

Source: Registrars General
2. Estimated population actually in the country (resident population). The figures exclude members of the armed forces serving overseas and merchant seamen at sea estimated at about a quarter of a million at June 1939.
3. The civilian population excludes members of the armed forces serving at home and abroad it includes all members of the Merchant Navy.
4. From 1943 , excluding certain classes of seamen previously included. The numbers so excluded at that date were: England and Wales, 122,000; Scotland, 26,000; Northern Ireland, 3,000.


### 1.5 Age distribution of the resident population of the United Kingdom'

At 30 June 1945
Thousands

|  | United Kingdom |  |  | England and Wales |  |  | Scotland |  |  | Northern Ireland |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females |
| Total all ages | 49,182 | 23,723 | 25,459 | 42,636 | 20,549 | 22,087 | 5,187 | 2,508 | 2,679 | 1,359 | 666 | 693 |
| Age groups: |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-4 | 3,678 | 1,881 | 1,797 | 3,126 | 1,600 | 1,526 | 418 | 212 | 206 | 134 | 69 | 65 |
| 5-9 | 3,364 | 1,711 | 1,654 | 2,843 | 1,446 | 1,397 | 409 | 208 | 202 | 113 | 57 | 55 |
| 10-14 | 3,301 | 1,671 | 1,630 | 2,786 | 1,410 | 1,376 | 405 | 205 | 200 | 111 | 57 | 54 |
| 15-19 | 3,518 | 1.767 | 1.751 | 2,978 | 1,496 | 1,482 | 419 | 209 | 210 | 121 | 62 | 59 |
| 20-24 | 3,875 | 1,907 | 1,968 | 3,332 | 1,633 | 1,699 | 425 | 214 | 211 | 118 | 60 | 58 |
| 25-29 | 3,567 | 1,788 | 1,779 | 3,085 | 1,536 | 1,549 | 362 | 191 | 171 | 120 | 61 | 59 |
| 30-34 | 3,950 | 1,951 | 1,998 | 3,449 | 1,703 | 1.746 | 399 | 199 | 200 | 101 | 49 | 52 |
| 35-39 | 3,947 | 1,944 | 2,003 | 3,465 | 1,714 | 1,751 | 391 | 187 | 205 | 90 | 43 | 47 |
| 40-44 | 3,729 | 1,835 | 1,894 | 3,274 | 1,619 | 1,655 | 372 | 177 | 195 | 83 | 39 | 44 |
| 45-49 | 3,248 | 1,511 | 1,737 | 2,856 | 1,333 | 1,523 | 321 | 146 | 175 | 71 | 32 | 39 |
| 50-54 | 2,957 | 1,352 | 1,605 | 2,599 | 1,190 | 1,409 | 292 | 131 | 160 | 67 | 31 | 36 |
| 55-59 | 2,696 | 1,226 | 1,469 | 2,383 | 1,085 | 1,298 | 256 | 114 | 141 | 57 | 27 | 30 |
| 60-64 | 2,384 | 1,066 | 1,318 | 2,100 | 937 | 1,163 | 229 | 103 | 126 | 55 | 126 | 29 |
| 65-69 | 1,983 | 882 | 1,101 | 1,744 | 772 | 972 | 191 | 87 | 104 | 47 | 23 | 25 |
| 70 and over | 2,986 | 1,232 | 1.753 | 2,616 | 1,075 | 1,541 | 298 | 126 | 171 | 72 | 32 | 40 |

[^1]Births in the United Kingdom

| Live births |  |  |  |  |  |  |  |  | Still-births |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | Males Females | Legitimate | Illegi- | Percentage of illegi- | Total births per 1,000 popu- | Total births per 1,000 women aged | Legiti- <br> mate <br> births per 1,000 married women | Males born per 1,000 | Thous- | Rate per 1,000 births (in -cluding still- |
|  | Thousand |  |  | timate | lation | 15-44 | aged 16-44 | females | ands | births) |

United Kingdom

| 1939 | 727 | 373 | 353 | 695 | 32 | 4.4 | 15.2 | 62.9 | $\ldots$ | 1,056 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 702 | 360 | 342 | 670 | 32 | 4.6 | 14.6 | 60.6 | . | 1,053 |
| 1941 | 696 | 357 | 338 | 657 | 38 | 5.5 | 14.4 | 60.3 | . | 1,056 |
| 1942 | 772 | 397 | 374 | 727 | 44 | 5.8 | 15.9 | 67.0 | .. | 1,061 |
| 1943 | 811 | 418 | 393 | 758 | 53 | 6.5 | 16.6 | 70.6 | . | 1,063 |
| 1944 | 878 | 453 | 425 | 814 | 65 | 7.3 | 17.9 | 76.7 | .. | 1,065 |
| 1945 | 796 | 410 | 386 | 723 | 73 | 9.1 | 16.2 | 69.9 | .. | 1,061 |

England and Wales

| 1939 | 614 | 316 | 299 | 589 | 26 | 4.2 | 14.8 | 61.3 | 107.5 | 1,056 | 24 | 38 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 590 | 303 | 288 | 564 | 26 | 4.3 | 14.1 | 58.7 | 98.5 | 1,053 | 23 | 37 |
| 1941 | 579 | 297 | 282 | 548 | 31 | 5.4 | 13.9 | 57.9 | 94.1 | 1,053 | 21 | 35 |
| 1942 | 652 | 336 | 316 | 615 | 36 | 5.6 | 15.6 | 65.2 | 103.8 | 1,063 | 22 | 33 |
| 1943 | 684 | 353 | 332 | 641 | 44 | 6.4 | 16.2 | 68.6 | 107.6 | 1,064 | 21 | 30 |
| 1944 | 751 | 388 | 364 | 696 | 55 | 7.3 | 17.7 | 75.7 | 117.4 | 1,065 | 21 | 28 |
| 1945 | 680 | 350 | 330 | 617 | 63 | 9.3 | 15.9 | 68.8 | 103.9 | 1,061 | 19 | 28 |

Scotland

| 1939 | 87 | 45 | 42 | 82 | 5 | 6.0 | 17.4 | 72.1 | 141.1 | 1,060 | 4 | 42 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 86 | 44 | 42 | 81 | 5 | 6.0 | 17.1 | 71.4 | 137.0 | 1,050 | 4 | 42 |
| 1941 | 90 | 46 | 44 | 84 | 6 | 6.6 | 17.4 | 73.5 | 138.1 | 1,059 | 4 | 40 |
| 1942 | 91 | 46 | 44 | 84 | 7 | 7.2 | 17.5 | 74.2 | 135.9 | 1,048 | 4 | 38 |
| 1943 | 95 | 49 | 46 | 88 | 7 | 7.6 | 18.2 | 78.7 | 140.6 | 1.051 | 3 | 36 |
| 1944 | 96 | 50 | 46 | 88 | 8 | 7.9 | 18.4 | 79.9 | 141.5 | 1,069 | 3 | 32 |
| 1945 | 87 | 45 | 42 | 79 | 8 | 8.7 | 16.8 | 73.1 | 126.1 | 1.063 | 3 | 33 |

Northern Ireland

| 1939 | 25 | 13 | 12 | 24 | 1 | 4.7 | 19.5 | 82.5 | 1,044 | .. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1940 | 25. | 13 | 12 | 24 | I | 4.6 | 19.5 | 83.2 | 1,082 |  |
| 1941 | 27 | 14 | 13 | 26 | ! | 4.8 | 20.6 | 85.4 | 1,096 |  |
| 1942 | 30 | 15 | 14 | 28 | । | 4.9 | 22.3 | 93.5 | 1,060 |  |
| 1943 | 32 | 16 | 15 | 30 | 2 | 5.5 | 23.5 | 99.5 | 1,076 | .. |
| 1944 | 31 | 16 | 15 | 29 | 2 | 5.6 | 22.8 | 96.7 | 1,052 |  |
| 1945 | 29 | 15 | 14 | 27 | 2 | 5.4 | 21.3 | 91.0 | 1,063 |  |

## 1.7 <br> Reproduction rates

|  | England andWales |  |  | Scotland |
| :--- | :--- | :--- | :--- | :--- |
|  | Gross | Effective | Gross | Net |
| 1935 | 0.854 | 0.764 | 1.057 | 0.909 |
| 1936 | 0.862 | 0.774 | 1.069 | 0.914 |
| 1937 | 0.872 | 0.785 | 1.051 | 0.901 |
| 1938 | 0.897 | 0.810 | 1.077 | 0.933 |
| 1939 | 0.892 | 0.808 | 1.058 | 0.932 |
| 1940 | 0.850 | 0.772 | 1.042 | 0.896 |
| 1941 | 0.836 | 0.761 | 1.058 | 0.893 |
| 1942 | 0.934 | 0.853 | 1.087 | 0.948 |
| 1943 | 0.985 | 0.900 | 1.162 | 1.012 |
| 1944 | 1.089 | 0.996 | 1.183 | 1.041 |
| 1945 | 0.992 | 0.909 | 1.088 | 0.978 |

Source: Registrars General

## 1.8

Infantile mortality
Deaths of infants under I year of age per thousand live births

|  | United Kingdom |  |  | England and Wales |  |  | Scotland |  |  | Northern Ireland |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females |
| 1935 | 60 | 68 | 53 | 57 | 64 | 50 | 77 | 87 | 66 | 86 | 96 | 76 |
| 1936 | 62 | 70 | 54 | 59 | 66 | 51 | 82 | 92 | 72 | 77 | 86 | 67 |
| 1937 | 61 | 68 | 53 | 58 | 65 | 50 | 80 | 90 | 71 | 77 | 83 | 71 |
| 1938 | 55 | 62 | 48 | 53 | 60 | 46 | 70 | 77 | 62 | 75 | 79 | 71 |
| 1939 | 53 | 60 | 47 | 51 | 56 | 44 | 69 | 77 | 59 | 70 | 81 | 60 |
| 1940 | 60 | 69 | 52 | 57 | 64 | 49 | 78 | 90 | 66 | 86 | 95 | 76 |
| 1941 | 63 | 71 | 55 | 60 | 67 | 52 | 83 | 93 | 72 | 77 | 85 | 67 |
| 1942 | 53 | 59 | 46 | 51 | 57 | 44 | 69 | 78 | 60 | 76 | 87 | 65 |
| 1943 | 52 | 58 | 46 | 49 | 55 | 43 | 65 | 73 | 57 | 78 | 87 | 69 |
| 1944 | 48 | 53 | 42 | 45 | 50 | 40 | 65 | 73 | 56 | 67 | 74 | 61 |
| 1945 | 49 | 55 | 43 | 46 | 51 | 40 | 56 | 65 | 47 | 68 | 73 | 63 |

Source: Registrars General

|  | Under I | I and under 2 | 2-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 |  | 75 and over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All ages |  |  | 2-4 |  |  |  |  |  |  |  |  |  |

United Kingdom

| 1939 | 296.5 | 22.4 | 2.4 | 2.9 | 4.9 | 8.2 | 10.6 | 14.7 | 28.2 | 54.4 | 76.7 | 70.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 340.6 | 25.0 | 3.3 | 4.1 | 6.2 | 9.4 | 13.1 | 18.8 | 33.4 | 63.3 | 85.6 | 78.3 |
| 1941 | 316.3 | 25.4 | 3.4 | 4.5 | 6.6 | 9.0 | 11.5 | 18.2 | 30.3 | 56.8 | 78.8 | 71.9 |
| 1942 | 283.2 | 23.5 | 2.2 | 3.0 | 4.9 | 6.6 | 8.6 | 14.5 | 26.4 | 51.0 | 74.7 | 67.8 |
| 1943 | 291.2 | 24.1 | 2.3 | 2.8 | 4.8 | 6.2 | 7.8 | 14.3 | 27.2 | 51.8 | 76.7 | 73.5 |
| 1944 | 287.2 | 24.0 | 2.0 | 2.6 | 4.8 | 5.8 | 7.2 | 14.0 | 26.4 | 51.5 | 76.5 | 72.9 |
| 1945 | 284.6 | 22.4 | 2.0 | 2.4 | 4.1 | 5.3 | 6.6 | 12.7 | 25.7 | 51.1 | 77.0 | 75.4 |

England and Wales

| 1939 | 254.9 | 17.9 | 1.9 | 2.4 | 4.0 | 7.0 | 9.1 | 12.6 | 24.5 | 47.6 | 66.2 | 61.7 |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 294.2 | 19.7 | 2.7 | 3.3 | 5.2 | 8.1 | 11.4 | 16.3 | 29.3 | 55.9 | 74.2 | 68.2 |
| 1941 | 270.3 | 19.9 | 2.8 | 3.7 | 5.4 | 7.5 | 9.8 | 15.6 | 26.1 | 49.6 | 67.8 | 62.2 |
| 1942 | 242.1 | 18.6 | 1.8 | 2.5 | 4.1 | 5.4 | 7.3 | 12.4 | 22.6 | 44.6 | 64.4 | 58.5 |
| 1943 | 249.6 | 19.2 | 1.8 | 2.3 | 3.9 | 5.0 | 6.5 | 12.2 | 23.5 | 45.5 | 66.3 | 63.6 |
| 1944 | 246.9 | 19.2 | 1.6 | 2.1 | 4.0 | 4.7 | 6.1 | 12.0 | 22.8 | 45.2 | 66.3 | 63.1 |
| 1945 | 245.4 | 18.4 | 1.6 | 2.0 | 3.4 | 4.3 | 5.6 | 10.9 | 22.1 | 44.8 | 66.9 | 65.5 |

Scotland

| 1939 | 32.9 | 3.5 | 0.4 | 0.4 | 0.7 | 1.0 | 1.2 | 1.7 | 3.0 | 5.5 | 8.1 | 7.3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 36.8 | 4.0 | 0.5 | 0.6 | 0.8 | 1.0 | 1.3 | 2.0 | 3.3 | 6.1 | 9.0 | 8.0 |
| 1941 | 36.2 | 4.3 | 0.5 | 0.6 | 0.9 | 1.1 | 1.3 | 2.1 | 3.4 | 5.8 | 8.6 | 7.6 |
| 1942 | 32.3 | 3.6 | 0.3 | 0.4 | 0.6 | 0.9 | 1.0 | 1.7 | 3.1 | 5.2 | 8.1 | 7.3 |
| 1943 | 32.8 | 3.5 | 0.4 | 0.4 | 0.7 | 0.9 | 1.0 | 1.7 | 3.0 | 5.2 | 8.2 | 7.9 |
| 1944 | 31.9 | 3.6 | 0.3 | 0.4 | 0.7 | 0.8 | 0.8 | 1.6 | 2.9 | 5.2 | 8.1 | 7.7 |
| 1945 | 31.1 | 2.9 | 0.3 | 0.3 | 0.6 | 0.8 | 0.8 | 1.5 | 2.9 | 5.2 | 8.1 | 7.8 |

Northern Ireland

| 1939 | 8.7 | 1.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.7 | 1.3 | 2.4 | 1.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 9.6 | 1.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.8 | 1.3 | 2.4 | 2.1 |
| 1941 | 9.8 | 1.2 | 0.1 | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.8 | 1.4 | 2.4 | 2.1 |
| 1942 | 8.8 | 1.3 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.4 | 0.7 | 1.2 | 2.2 | 2.0 |
| 1943 | 8.8 | 1.4 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.4 | 0.7 | 1.1 | 2.2 | 20 |
| 1944 | 8.4 | 1.2 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.7 | 1.1 | 2.1 | 2.1 |
| 1945 | 8.1 | 1.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.7 | 1.1 | 2.0 | 2.1 |

[^2]Source: Registrars General
continued
Thousands


United Kingdom

| 1939 | 284.2 | 16.5 | 2.1 | 2.4 | 4.1 | 7.7 | 10.3 | 13.3 | 22.9 | 41.8 | 69.4 | 93.8 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 322.9 | 17.9 | 2.9 | 3.6 | 5.3 | 10.0 | 12.2 | 15.6 | 25.9 | 47.4 | 77.9 | 104.5 |
| 1941 | 298.9 | 18.6 | 3.1 | 4.0 | 5.3 | 9.9 | 11.8 | 14.6 | 23.9 | 42.1 | 70.4 | 95.3 |
| 1942 | 268.1 | 17.3 | 1.8 | 2.6 | 3.8 | 7.8 | 9.8 | 12.6 | 21.0 | 38.5 | 64.4 | 88.5 |
| 1943 | 282.9 | 17.8 | 2.0 | 2.3 | 3.7 | 7.6 | 9.6 | 13.1 | 21.5 | 39.3 | 68.0 | 97.7 |
| 1944 | 273.8 | 17.8 | 1.7 | 2.0 | 3.6 | 7.3 | 9.2 | 12.4 | 20.9 | 38.0 | 66.2 | 94.7 |
| 1945 | 274.6 | 16.5 | 1.6 | 2.0 | 3.0 | 6.4 | 8.2 | 11.7 | 20.3 | 37.7 | 68.0 | 99.2 |

England and Wales

| 1939 | 244.0 | 13.3 | 1.7 | 2.0 | 3.3 | 6.4 | 8.7 | 11.2 | 19.6 | 36.1 | 59.8 | 81.8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- | :--- |
| 1940 | 278.4 | 14.2 | 2.2 | 2.8 | 4.4 | 8.5 | 10.4 | 13.4 | 22.6 | 41.1 | 67.5 | 91.3 |
| 1941 | 254.1 | 14.6 | 2.5 | 3.2 | 4.3 | 8.1 | 9.9 | 12.3 | 20.5 | 36.2 | 60.1 | 82.4 |
| 1942 | 228.6 | 13.7 | 1.4 | 2.1 | 3.1 | 6.3 | 8.1 | 10.6 | 18.1 | 33.1 | 55.3 | 76.7 |
| 1943 | 241.9 | 14.2 | 1.6 | 1.9 | 3.0 | 6.1 | 8.0 | 11.1 | 18.5 | 33.7 | 58.7 | 85.1 |
| 1944 | 234.2 | 14.3 | 1.4 | 1.6 | 2.9 | 5.9 | 7.7 | 10.5 | 18.0 | 32.7 | 57.0 | 82.1 |
| 1945 | 235.8 | 13.6 | 1.3 | 1.6 | 2.5 | 5.1 | 6.8 | 9.9 | 17.3 | 32.6 | 58.6 | 86.4 |

Scotland

| 1939 | 31.4 | 2.5 | 0.3 | 0.3 | 0.6 | 1.0 | 1.2 | 1.6 | 2.6 | 4.5 | 7.3 | 9.6 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 35.1 | 2.8 | 0.5 | 0.6 | 0.7 | 1.2 | 1.4 | 1.7 | 2.6 | 5.0 | 8.1 | 10.7 |
| 1941 | 34.9 | 3.1 | 0.5 | 0.6 | 0.7 | 1.4 | 1.5 | 1.8 | 2.7 | 4.6 | 7.8 | 10.3 |
| 1942 | 31.1 | 2.7 | 0.3 | 0.4 | 0.5 | 1.2 | 1.3 | 1.5 | 2.3 | 4.3 | 7.1 | 9.5 |
| 1943 | 32.4 | 2.6 | 0.3 | 0.3 | 0.6 | 1.2 | 1.3 | 1.6 | 2.4 | 4.5 | 7.3 | 10.2 |
| 1944 | 31.2 | 2.6 | 0.2 | 0.3 | 0.5 | 1.1 | 1.1 | 1.5 | 2.3 | 4.2 | 7.2 | 10.2 |
| 1945 | 30.6 | 2.0 | 0.2 | 0.3 | 0.4 | 1.0 | 1.1 | 1.4 | 2.4 | 4.1 | 7.4 | 10.3 |

## Northern Ireland

| 1939 | 8.8 | 0.7 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.2 | 2.3 | 2.4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 9.4 | 0.9 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.3 | 2.3 | 2.5 |
| 1941 | 9.9 | 0.9 | 0.1 | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.7 | 1.3 | 2.5 | 2.6 |
| 1942 | 8.4 | 0.9 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 1.1 | 2.0 | 2.3 |
| 1943 | 8.6 | 1.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.6 | 1.1 | 2.0 | 2.4 |
| 1944 | 8.4 | 0.9 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.4 | 0.6 | 1.1 | 2.0 | 2.4 |
| 1945 | 8.2 | 0.9 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.6 | 1.0 | 2.0 | 2.5 |

I. Civilians only for England and Wales and Scotland from I June 1941 and for Northern Ireland

Source: Registrars General from January 1941

## I. 10 Marriages

Thousands

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United Kingdom |  |  |  |  |  |  |  |  |
| Number of marriages | 409.1 | 495.1 | 533.9 | 448.5 | 428.8 | 344.8 | 349.2 | 456.7 |
| Persons married per 1,000 population | 17.2 | 20.6 | 22.1 | 18.6 | 17.7 | 14.1 | 14.3 | 18.6 |
| Civil condition: |  |  |  |  |  |  |  |  |
| Divorced men | 4.8 | 6.2 | 6.0 | 5.6 | 5.9 | 7.0 | 8.8 | 12.0 |
| Widowers | 28.4 | 29.1 | 29.9 | 29.8 | 29.9 | 28.0 | 27.8 | 30.7 |
| Spinsters | 387.0 | 471.2 | 508.6 | 422.4 | 402.0 | 317.7 | 320.2 | 419.3 |
| Divorced women | 4.2 | 5.5 | 5.4 | 4.8 | 4.8 | 5.5 | 6.5 | 9.0 |
| Widows | 18.0 | 18.5 | 20.0 | 21.4 | 21.9 | 21.4 | 22.6 | 28.5 |
| Age of males: |  |  |  |  |  |  |  |  |
| Under 21 years | 14.1 | 22.4 | 34.0 | 37.1 | 38.9 | 32.2 | 30.1 | 32.9 |
| 21 years and upwards | 395.0 | 472.6 | $499.9$ | $411.3$ | 389.9 | 312.4 | 319.1 | 423.7 |
| Age of females: |  |  |  |  |  |  |  |  |
| Under 21 years 21 years and upwards | $\begin{array}{r} 67.6 \\ 341.6 \end{array}$ | $\begin{array}{r} 97.3 \\ 397.8 \end{array}$ | $\begin{aligned} & 129.3 \\ & 404.7 \end{aligned}$ | $\begin{aligned} & 116.0 \\ & 332.4 \end{aligned}$ | $\begin{aligned} & 117.1 \\ & 311.8 \end{aligned}$ | $\begin{array}{r} 93.9 \\ 2509 \end{array}$ | $\begin{array}{r} 90.5 \\ 2588 \end{array}$ | $\begin{aligned} & 108.3 \\ & 3483 \end{aligned}$ |
| England and Wales |  |  |  |  |  |  |  |  |
| Number of marriages | 361.8 | 439.7 | 470.5 | 388.9 | 369.7 | 296.4 | 302.7 | 397.6 |
| Persons married per I,000 population Civil condition: | 17.6 | 21.2 | 22.5 | 18.6 | 17.7 | 14.0 | 14.3 | 18.7 |
| Bachelors | 331.8 | 407.9 | 438.2 | 357.1 | 337.5 | 265.2 | 269.9 | 359.3 |
| Divorced men | 4.4 | 5.7 | 5.5 | 5.1 | 5.4 | 6.2 | 7.9 | 10.9 |
| Widowers | 25.6 | 26.1 | 26.9 | 26.7 | 26.8 | 25.1 | 24.9 | 27.5 |
| Spinsters | 341.4 | 417.8 | 447.3 | 365.1 | 345.5 | 272.0 | 276.4 | 363.6 |
| Divorced women | 3.8 | 5.0 | 4.9 | 4.3 | 4.3 | 4.9 | 5.8 | 8.0 |
| Widows | 16.6 | 16.9 | 18.4 | 19.5 | 19.9 | 19.5 | 20.6 | 26.1 |
|  |  |  |  |  |  |  |  |  |
| Under 21 years | 12.2 | 19.5 | 30.2 | 32.7 | 34.3 | 28.2 | 26.4 | 28.8 |
| 21 years and upwards | 349.7 | 420.1 | 440.4 | 356.2 | 335.4 | 268.1 | 276.3 | 369.0 |
| Age of females: 2 |  |  |  |  |  |  |  |  |
| Under 21 years | 59.3 | 86.6 | 115.8 | 102.6 | 103.1 | 82.2 | 79.5 | 95.2 |
| 21 years and upwards | 302.5 | 353.1 | 354.8 | 286.3 | 266.7 | 214.2 | 223.3 | 302.4 |
| Scotland |  |  |  |  |  |  |  |  |
| Number of marriages | 38.7 | 46.2 | 53.5 | 47.6 | 47.4 | 38.2 | 37.0 | 48.6 |
| Persons married per 1,000 population Civil condition: | 15.5 | 18.5 | 21.1 | 18.5 | 18.3 | 14.7 | 14.2 | 18.8 |
| Bachelors | 36.1 | 43.3 | 50.5 | 44.6 | 44.4 | 35.1 | 33.9 | 45.0 |
| Divorced men | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.7 | 0.8 | 1.0 |
| Widowers | 2.2 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 | 2.7 |
| Spinsters | 37.2 | 44.5 | 51.7 | 45.6 | 45.2 | 35.9 | 34.6 | 45.6 |
| Divorced women | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 1.0 |
| Widows | 1.2 | 1.3 | 1.4 | 1.5 | 1.7 | 1.6 | 1.7 | 2.1 |
| Age of males: 2.1 |  |  |  |  |  |  |  |  |
| Under 21 years 21 years and upwards | $\begin{array}{r} 1.6 \\ 37.1 \end{array}$ | $\begin{array}{r} 2.6 \\ 43.6 \end{array}$ | $\begin{array}{r} 3.4 \\ 50.4 \end{array}$ | $\begin{array}{r} 3.8 \\ 43 \end{array}$ | $\begin{array}{r} 4.1 \\ 43.3 \end{array}$ | $\begin{array}{r} 3.5 \\ 34.6 \end{array}$ | $\begin{array}{r} 3.3 \\ 337 \end{array}$ | $\begin{array}{r} 3.6 \\ 45 \end{array}$ |
| Age of females: 3 |  |  |  |  |  |  |  |  |
| Under 21 years | 7.1 | 9.3 | 11.9 | 11.1 | 11.8 | 9.8 | 9.3 | 11.2 |
| 21 years and upwards | 31.6 | 36.9 | 41.7 | 36.5 | 35.6 | 28.4 | 27.7 | 37.5 |
| Northern Ireland |  |  |  |  |  |  |  |  |
| Number of marriages | 8.6 | 9.2 | 9.8 | 12.0 | 11.7 | 10.2 | 9.5 | 10.5 |
| Persons married per 1,000 population Civil condition | 13.4 | 14.2 | 15.1 | 18.3 | 17.6 | 15.1 | 14.0 | 15.4 |
| Bachelors | 8.0 | 8.7 | 9.3 | 11.4 | 11.1 | 9.6 | 8.9 | 9.9 |
| Divorced men |  |  |  |  |  | 0.1 | 0.1 | 0.1 |
| Widowers | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 |
| Spinsters | 8.4 | 8.9 | 9.6 | 11.7 | 11.3 | 9.8 | 9.2 | 10.1 |
| Divorced women |  |  |  | . |  |  | , | - |
| Widows | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Age of males: |  |  |  |  |  |  |  |  |
| Under 21 years | 0.3 | 0.3 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.5 |
| 21 years and upwards | 8.3 | 8.9 | 9.4 | 11.4 | 11.2 | 9.7 | 9.1 | 10.0 |
| Age of females: |  |  |  |  |  |  |  |  |
| Under 21 years | 1.2 | 1.4 | 1.7 | 2.3 | 2.2 | 1.9 | 1.7 | 1.9 |
| 21 years and upwards | 7.4 | 7.8 | 8.1 | 9.7 | 9.5 | 8.3 | 7.8 | 8.6 |



The impact of the war on social conditions cannot be underestimated: the evacuation of more than four million mothers and children from urban to rural areas over the course of the war brought about important changes in the scope and scale of welfare provision by the state at both central and local levels and in social attitudes; the medical services were placed under enormous strain as the wartime demands on them increased; crime rose; and the housing stock deteriorated in the face of German bombing and declining investment (Harris 1992). The war saw an expansion in the benefits system as pension

## IAL

 DITIONScoverage and payments improved and as many benefits moved from a means-tested basis to a non-means-tested basis (Titmuss 1950: 516 ; Johnson 1994: 286; tables 2.7, 2.9 and 2.10 ). The effect of the war itself created many new claimants for war pensions, grants and allowances: by 1945 their number had reached 717,000 and they were claiming a total of $£ 24.2$ million (table 2.10). This extension of benefits and of other welfare provisions during the war (such as the Emergency Medical Service) built on the rapid growth and innovation experienced in the 1930s (often at the level of local, rather than central, government) and they were to provide a solid foundation for the creation of the postwar Welfare State (Harris 1992: 22, 30; Titmuss 1950). The focal point for these developments was the Beveridge Report, published in 1942, which proposed overhauling the existing ad hoc social insurance schemes and replacing them with one scheme that would provide a welfare safety net 'from the cradle to the grave'.

The destruction and disruption that was caused by German bombing during the war (especially in the period from the late summer of 1940 to mid-1941) had a major impact on the social and physical fabric of the nation: in all two out of every seven houses were affected by enemy in Great Britain


### 2.2 Persons found guilty of offences in England and Wales


action ( 222,000 were destroyed and a further 3.5 million were damaged) and in some areas the proportion was much higher (in Bermondsey in London, for example, 90 per cent of the housing stock was affected in some way); furthermore, about 20 per cent of schools and hospitals were also put out of action (Titmuss 1950: 328-30, 462-3; Harris 1992: 22). House building did not have a high priority in the war and, as in Germany, it was deliberately squeezed to provide resources for war production (Overy 1988: 622). Thus, not only did overall investment fall sharply during the war (from 12 per cent of GDP in 1938 to 4 per cent in 1943) but the share of building in total gross domestic fixed capital formation also shrank (it fell from over a half of the total in 1939 to a third in 1940) (Feinstein 1972:T16, 86). In physical terms this meant that the total number of houses built in England and Wales between 1941-42 and 1944-45 was only 30,723 compared to 332,360 built in 1938-39 (table 2.19). This very low rate of house completion, plus the wartime damage to the existing housing stock, meant that by 1945 the nation faced an acute housing shortage.

The war also ushered in a new batch of laws (and rejuvenated some old ones) concerned with protecting morale, preventing black marketeering, regulating industry and the labour market, and enforcing the blackout. Not surprisingly convictions of people found guilty of breaking these laws rose dramatically at the beginning of the war: in England and Wales 61,000 people were convicted of such offences in 1939 and 340,000 in 1940, although thereafter the number of such convictions declined; in 1939 and 1940 more than 90 per cent of these convictions were for lighting offences but by 1945 this proportion had fallen to about a third of the total with convictions for offences
against the Control of industry and employment rising in importance to account for 46 per cent of the total (Smithies 1982: 7-24, 58-91; table 2.11). Other crime also increased during the war: in England and Wales between 1939 and 1945 the number of indictable offences known to the police rose by 57 per cent (and the proportion of people per 100,000 found guilty rose from 149 to 223), juvenile convictions by 39 per cent, and female convictions almost doubled (Smithies 1982; Harris 1992: 28; tables 2.11 and 2.14). The result of this increased rate of conviction was that the average daily prison population increased by 42 per cent (table 2.17).


### 2.3 Civilian deaths registered: Analysis by cause and age ${ }^{1}$ <br> Males

|  | Age group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ages $^{2}$ | Under I year | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-44 | 55-64 | $65 \text { and }$ |


| Deaths from all causes other than violence |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1-162, 199 and 200): |  |  |  |  |  |  |  |  |  |  |
| 1939 277,627 | 21,880 | 4,588 | 2,141 | 1,584 | 6,146 | 8,285 | 12,646 | 25,738 | 51,287 | 143,331 |
| 1940 309,506 | 24,301 | 6,355 | 2,506 | 1,672 | 6,265 | 8,978 | 14,384 | 28,900 | 58,320 | 157,820 |
| 1941 285,352 | 24,697 | 6,610 | 2,448 | 1,535 | 5,788 | 7.895 | 13,571 | 25,794 | 52,080 | 144,929 |
| 1942 265,626 | 22,944 | 4,408 | 1,885 | 1,450 | 5,197 | 6,912 | 12,277 | 23,911 | 48,226 | 138,415 |
| 1943 275,509 | 23,542 | 4,235 | 1,853 | 1,364 | 4,922 | 6,431 | 12,442 | 24,945 | 49,418 | 146,357 |
| 1944 269,091 | 23,265 | 3,542 | 1,647 | 1,289 | 4,391 | 5,790 | 11,662 | 23,736 | 48,656 | 145,111 |
| 1945 270,291 | 21,740 | 3,477 | 1,422 | 1,151 | 4,115 | 5,636 | 11,174 | 23,783 | 48,956 | 148,833 |


| Scarlet fever(8): | 146 | 7 | 54 | 29 | 15 | 17 | 6 | 10 | 5 | 2 | 1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1939 | 106 | 7 | 36 | 31 | 8 | 9 | 7 | 1 | 3 | 1 | 3 |
| 1940 | 85 | 4 | 42 | 23 | 3 | 3 | 2 | 3 | 3 | 1 | 1 |
| 1941 | 61 | 3 | 18 | 20 | 6 | 2 | 3 | 4 | - | 2 | 3 |
| 1942 | 80 | 2 | 29 | 23 | 7 | 3 | 2 | 6 | 3 | 4 | 1 |
| 1943 | 61 | 4 | 25 | 17 | 3 | 2 | 2 | 3 | 1 | 3 | 1 |
| 1944 | 42 | 3 | 17 | 9 | 6 | 1 | 1 | 3 | 1 | 1 | - |

Whooping cough (9):

| 1939 | 773 | 469 | 281 | 19 | - | 2 |
| :--- | ---: | :--- | :--- | :---: | :--- | :--- |
| 1940 | 485 | 282 | 189 | 14 | - | - |
| 1941 | 1,353 | 759 | 548 | 41 | 2 | 1 |
| 1942 | 423 | 277 | 142 | 3 | - | - |
| 1943 | 681 | 419 | 237 | 22 | 1 | 1 |
| 1944 | 597 | 412 | 168 | 14 | 1 | - |
| 1945 | 384 | 251 | 124 | 7 | 1 | 1 |

Diphtheria ( 10 ):

| 1939 | 1,343 | 31 | 534 | 564 | 146 | 37 | 14 | 7 | 3 | 3 | 4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 1,624 | 50 | 671 | 659 | 160 | 47 | 15 | 8 | 6 | 5 | 3 |
| 1941 | 1,625 | 57 | 775 | 561 | 127 | 54 | 23 | 8 | 11 | 5 | 4 |
| 1942 | 1,073 | 34 | 457 | 404 | 103 | 43 | 13 | 9 | 5 | 3 | 2 |
| 1943 | 822 | 50 | 313 | 294 | 82 | 46 | 15 | 10 | 7 | 3 | 2 |
| 1944 | 560 | 29 | 220 | 201 | 63 | 24 | 7 | 2 | 6 | 2 | 6 |
| 1945 | 410 | 14 | 166 | 141 | 42 | 21 | 8 | 4 | 6 | 6 | 2 |

Tuberculosis of respiratory

| system (13): |  |  |
| :--- | :--- | :--- |
| 1939 | 15,039 | 37 |
| 1940 | 15,865 | 36 |
| 1941 | 15,821 | 48 |
| 1942 | 14,227 | 49 |
| 1943 | 14,767 | 77 |
| 1944 | 13,870 | 60 |
| 1945 | 13,641 | 43 |


| 67 | 33 | 73 | 2,055 | 2,944 | 2,923 | 3,148 | 2,670 | 1,089 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 74 | 40 | 75 | 2,098 | 3,183 | 3,238 | 3,243 | 2,773 | 1,105 |
| 133 | 56 | 88 | 2,020 | 3,020 | 3,284 | 3,301 | 2,741 | 1,130 |
| 105 | 43 | 74 | 1,852 | 2,566 | 2,912 | 2,968 | 2,531 | 1,127 |
| 98 | 49 | 56 | 1,701 | 2,461 | 3,038 | 3,234 | 2,820 | 1,233 |
| 103 | 44 | 62 | 1,615 | 2,301 | 2,749 | 3,005 | 2,654 | 1,277 |
| 97 | 43 | 68 | 1,550 | 2,288 | 2,708 | 2,917 | 2,602 | 1,325 |

# 2.3 Civilian deaths registered: Analysis by cause and age' 

continued


[^3]Civilian deaths registered: Analysis by cause and age ${ }^{1}$
Males

| Age group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ages ${ }^{2}$ Under I year | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and |

Deaths by violence (163-198):

| 1939 | 18,918 | 495 | 726 | 672 | 450 | 2,116 | 2,379 | 2,157 | 2,478 | 3,119 | 4,325 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 31,084 | 638 | 1,233 | 1,090 | 951 | 3,163 | 4,081 | 4,371 | 4,487 | 5,004 | 6,039 |
| 1941 | 30,941 | 722 | 1,342 | 1,351 | 1,182 | 3,132 | 3,706 | 4,601 | 4,412 | 4,822 | 5,650 |
| 1942 | 17,565 | 568 | 899 | 918 | 632 | 1,502 | 1,635 | 2,199 | 2,494 | 2,714 | 3,997 |
| 1943 | 15,710 | 612 | 787 | 918 | 595 | 1,263 | 1,282 | 1,955 | 2,218 | 2,396 | 3,679 |
| 1944 | 18,160 | 685 | 963 | 1,068 | 742 | 1,391 | 1,287 | 2,314 | 2,615 | 2,905 | 4,188 |
| 1945 | 14,283 | 630 | 842 | 915 | 616 | 1,156 | 980 | 1,572 | 1,905 | 2,108 | 3,553 |

Suicides (163-64):

| 1939 | 3,667 | - | - | - | 2 | 198 | 417 | 520 | 715 | 1,000 | 815 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 3,167 | - | - | - | 4 | 127 | 289 | 471 | 625 | 846 | 805 |
| 1941 | 2,568 | - | - | - | 5 | 109 | 237 | 406 | 475 | 647 | 689 |
| 1942 | 2,309 | - | - | - | 5 | 123 | 204 | 347 | 450 | 556 | 624 |
| 1943 | 2,421 | - | - | - | 5 | 109 | 198 | 404 | 487 | 575 | 643 |
| 1944 | 2,405 | - | - | - | 4 | 110 | 170 | 356 | 500 | 592 | 673 |
| 1945 | 2,429 | - | - | - | 6 | 84 | 179 | 342 | 511 | 572 | 735 |

Deaths of civilians due
to operations of war (197) :

| 1939 | 73 | - | - | - | 3 | 8 | 20 | 28 | 13 | 1 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 11,851 | 102 | 412 | 388 | 463 | 1,463 | 1,992 | 2,079 | 1,894 | 1,731 | 1,320 |
| 1941 | 12,279 | 136 | 456 | 470 | 555 | 1,555 | 1,811 | 2,237 | 1,923 | 1,805 | 1,324 |
| 1942 | 2,098 | 16 | 66 | 102 | 140 | 211 | 246 | 338 | 396 | 326 | 257 |
| 1943 | 1,651 | 12 | 59 | 83 | 124 | 179 | 139 | 240 | 317 | 273 | 225 |
| 1944 | 4,541 | 53 | 184 | 198 | 256 | 376 | 382 | 698 | 844 | 802 | 747 |
| 1945 | 1,222 | 16 | 68 | 62 | 92 | 101 | 105 | 161 | 249 | 207 | 161 |

1. The figures in brackets following each cause of death are the reference numbers

Source: Registrars General to that particular cause in the Fifth Revision of the Intemational List.
2. Including a small number of unstated age.

### 2.4 Civilian deaths registered: Analysis by cause and age <br> Females

| $\begin{array}{r} \text { All } \\ \text { ages } \end{array}$ | Age group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 1 year | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over |

Deaths from all causes
other than violence

| $(1-162,199$ and 200): |  |  |  |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1939 | 274,745 | 16,165 | 4,034 | 1,960 | 1,637 | 7,182 | 9,702 | 12,580 | 21,936 | 40,615 | 158,934 |
| 1940 | 302,418 | 17,395 | 5,586 | 2,278 | 1,696 | 7,923 | 10,073 | 13,463 | 23,501 | 44,680 | 175,823 |
| 1941 | 279,261 | 18,002 | 6,014 | 2,186 | 1,605 | 7,904 | 9,763 | 12,517 | 21,624 | 39,698 | 159,948 |
| 1942 | 257,771 | 16,824 | 3,815 | 1,691 | 1,390 | 7,168 | 9,105 | 11,758 | 20,060 | 37,272 | 148,687 |
| 1943 | 273,463 | 17,484 | 3,864 | 1,640 | 1,433 | 7,015 | 8,986 | 12,253 | 20,704 | 38,184 | 161,900 |
| 1944 | 260,910 | 17,226 | 3,095 | 1,447 | 1,240 | 6,416 | 8,152 | 11,155 | 19,479 | 36,319 | 156,381 |
| 1945 | 265,299 | 15,933 | 3,042 | 1,301 | 1,124 | 5,905 | 7,660 | 10,933 | 19,363 | 36,694 | 163,344 |

Scarlet fever (8):

|  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1939 | 156 | 4 | 59 | 40 | 12 | 21 | 4 | 6 | 7 | 3 |  |
| 1940 | 108 | 3 | 30 | 32 | 11 | 9 | 9 | 7 | 3 | 2 | - |
| 1941 | 83 | 4 | 35 | 13 | 7 | 8 | 9 | 3 | 3 | - | 1 |
| 1942 | 65 | 5 | 16 | 22 | 7 | 2 | 3 | 4 | 3 | 1 | 2 |
| 1943 | 82 | 3 | 25 | 23 | 7 | 5 | 11 | 4 | 2 | 1 | 1 |
| 1944 | 67 | 1 | 21 | 24 | 7 | 4 | 4 | 3 | 1 | 1 | 1 |
| 1945 | 61 | 1 | 17 | 16 | 7 | 7 | 8 | 2 | 1 | 1 | 1 |


| Whooping cough (9): | 965 | 523 | 413 | 23 | 3 | - | 1 | - | - | 2 |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1939 | 531 | 255 | 253 | 21 | - | 1 | - | - | - | - |
| 1940 | 1,848 | 900 | 885 | 54 | 5 | - | - | 1 | - | - |
| 1941 | 532 | 309 | 209 | 12 | - | - | - | - | 1 | - |
| 1942 | 851 | 469 | 360 | 20 | 1 | 1 | - | - | - | - |
| 1943 | 731 | 447 | 259 | 21 | 1 | 1 | - | 1 | - | - |
| 1944 | 501 | 273 | 208 | 17 | 2 | 1 | - | - | - | - |
| 1945 |  |  |  |  |  | - |  |  |  |  |


| Diphtheria (10): <br> 1939 | 1,293 | 29 | 466 | 541 | 141 | 57 | 24 | 9 | 12 | 9 | 5 |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 1,641 | 34 | 637 | 650 | 187 | 57 | 26 | 24 | 10 | 11 | 5 |
| 1941 | 1,643 | 41 | 646 | 611 | 158 | 98 | 31 | 22 | 15 | 13 | 8 |
| 1942 | 1,11 | 29 | 415 | 414 | 106 | 67 | 27 | 21 | 14 | 11 | 7 |
| 1943 | 821 | 39 | 281 | 265 | 79 | 65 | 26 | 21 | 23 | 17 | 5 |
| 1944 | 592 | 21 | 227 | 197 | 52 | 33 | 21 | 15 | 7 | 10 | 9 |
| 1945 | 443 | 6 | 155 | 157 | 40 | 21 | 20 | 18 | 9 | 10 | 7 |

Tuberculosis of respiratory system (13)

| 1939 | 10,705 | 18 | 57 | 40 | 163 | 3,138 | 2,969 | 1,791 | 1,165 | 828 | 536 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1940 | 11,585 | 34 | 70 | 40 | 183 | 3,503 | 3,225 | 1,962 | 1,145 | 853 | 570 |
| 1941 | 11,583 | 49 | 107 | 46 | 198 | 3,594 | 3,223 | 1,877 | 1,125 | 844 | 520 |
| 1942 | 10,407 | 45 | 87 | 33 | 144 | 3,275 | 2,852 | 1,661 | 1,011 | 779 | 520 |
| 1943 | 10,077 | 46 | 96 | 46 | 150 | 3,041 | 2,754 | 1,645 | 1,019 | 767 | 513 |
| 1944 | 9,677 | 43 | 96 | 47 | 138 | 2,951 | 2,676 | 1,607 | 918 | 705 | 496 |
| 1945 | 9,653 | 44 | 106 | 52 | 127 | 2,813 | 2,701 | 1,643 | 970 | 656 | 541 |

2.4 continued

Civilian deaths registered: Analysis by cause and age ${ }{ }^{\prime}$
Females
United Kingdom
Number

|  | Age group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ages | Under 1 year | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over |

Other forms of tuber-

| culosis (14-22): |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1939 | 2,415 | 160 | 454 | 216 | 191 | 488 | 300 | 183 | 142 | 132 | 149 |
| 1940 | 2,174 | 172 | 551 | 233 | 212 | 616 | 316 | 200 | 168 | 127 | 119 |
| 1941 | 3,098 | 174 | 749 | 311 | 226 | 700 | 290 | 221 | 154 | 133 | 140 |
| 1942 | 2,735 | 160 | 544 | 236 | 214 | 582 | 346 | 213 | 171 | 129 | 140 |
| 1943 | 2,734 | 155 | 564 | 260 | 206 | 623 | 292 | 201 | 149 | 118 | 166 |
| 1944 | 2,594 | 149 | 493 | 268 | 218 | 557 | 290 | 201 | 141 | 134 | 143 |
| 1945 | 2,242 | 157 | 506 | 251 | 213 | 500 | 230 | 182 | 137 | 119 | 147 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Influenza (33): |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 6,489 | 112 | 85 | 22 | 44 | 133 | 241 | 333 | 483 | 812 | 3,202 |
| 1940 | 4,060 | 155 | 153 | 41 | 30 | 156 | 198 | 340 | 577 | 1,099 | 3,710 |
| 1941 | 1,830 | 85 | 75 | 34 | 20 | 87 | 116 | 178 | 343 | 574 | 2,478 |
| 1942 | 7,510 | 190 | 118 | 15 | 13 | 52 | 68 | 111 | 155 | 259 | 1,010 |
| 1943 | 2,157 | 107 | 47 | 16 | 52 | 126 | 208 | 366 | 546 | 908 | 4,958 |
| 1944 | 1,461 | 71 | 44 | 8 | 13 | 54 | 63 | 75 | 139 | 244 | 1,399 |
| 1945 |  |  | 5 | 24 | 34 | 59 | 114 | 214 | 888 |  |  |


| Measles (35): | 166 | 49 | 83 | 28 | 1 | 1 | 2 | - | - | 2 |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1939 | 663 | 200 | 365 | 62 | 5 | 9 | 7 | 4 | 1 | 5 | 5 |
| 1940 | 572 | 152 | 315 | 52 | 9 | 16 | 6 | 11 | 4 | - | 7 |
| 1941 | 332 | 94 | 186 | 37 | 5 | 5 | 3 | - | 1 | 1 | - |
| 1942 | 463 | 162 | 225 | 45 | 9 | 6 | 6 | 5 | 1 | 1 | 3 |
| 1943 | 148 | 55 | 75 | 14 | 1 | 1 | - | 1 | - | - | 1 |
| 1944 | 405 | 131 | 214 | 32 | 2 | 7 | 7 | 2 | 1 | 2 | 7 |
| 1945 |  |  |  |  |  |  |  |  |  | 1 |  |


| Bronchitis (106): |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: |
| 1939 | 8,568 | 505 | 140 | 22 | 21 | 58 | 80 | 153 | 329 | 853 | 6,407 |
| 1940 | 23,115 | 782 | 247 | 41 | 34 | 120 | 187 | 437 | 1,068 | 3,099 | 17,100 |
| 1941 | 16,984 | 869 | 218 | 27 | 20 | 108 | 123 | 259 | 731 | 1,904 | 12,725 |
| 1942 | 12,287 | 554 | 134 | 25 | 15 | 93 | 116 | 214 | 546 | 1,409 | 9,181 |
| 1943 | 15,123 | 626 | 141 | 20 | 18 | 81 | 130 | 306 | 631 | 1,625 | 11,545 |
| 1944 | 12,023 | 522 | 107 | 28 | 10 | 74 | 127 | 227 | 566 | 1,314 | 9,048 |
| 1945 | 13,281 | 496 | 109 | 24 | 11 | 71 | 107 | 249 | 577 | 1,628 | 10,009 |


| Pneumonia (107-109): <br> 1939 | 11,376 | 2,329 | 910 | 145 | 103 | 262 | 385 | 503 | 758 | 1,336 | 4,645 |
| :--- | ---: | :--- | ---: | :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 | 14,988 | 3,166 | 1,465 | 162 | 90 | 257 | 444 | 631 | 1,026 | 1,725 | 6,022 |
| 1941 | 13,828 | 3,289 | 1,266 | 159 | 83 | 264 | 385 | 554 | 829 | 1,451 | 5,548 |
| 1942 | 10,588 | 2,520 | 810 | 108 | 64 | 230 | 337 | 485 | 667 | 1,158 | 4,209 |
| 1943 | 13,089 | 3,022 | 849 | 114 | 85 | 275 | 405 | 573 | 816 | 1,402 | 5,548 |
| 1944 | 10,121 | 2,737 | 623 | 80 | 71 | 178 | 257 | 390 | 577 | 976 | 4,232 |
| 1945 | 10,218 | 2,808 | 586 | 69 | 54 | 165 | 233 | 361 | 541 | 986 | 4,415 |

[^4]continued
Civilian deaths registered: Analysis by cause and age'
Females
United Kingdom

|  | $\begin{gathered} \text { All } \\ \text { ages }^{2} \end{gathered}$ | Age group |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Under 1 year | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over |
| Deaths by violence |  |  |  |  |  |  |  |  |  |  |  |
| (163-198): |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 9,485 | 384 | 432 | 288 | 132 | 478 | 605 | 677 | 935 | 1,219 | 4,335 |
| 1940 | 20,532 | 503 | 868 | 729 | 601 | 1,976 | 2,102 | 2,145 | 2,452 | 2,700 | 6,456 |
| 1941 | 19,561 | 614 | 986 | 881 | 664 | 2,008 | 1,995 | 2,015 | 2,255 | 2,414 | 5,725 |
| 1942 | 10,343 | 470 | 588 | 464 | 248 | 621 | 733 | 854 | 993 | 1.188 | 4,184 |
| 1943 | 9,443 | 431 | 531 | 397 | 264 | 522 | 635 | 828 | 890 | 1,054 | 3,891 |
| 1944 | 12,850 | 599 | 580 | 555 | 332 | 898 | 1,068 | 1.191 | 1,412 | 1,642 | 4,573 |
| 1945 | 9,360 | 520 | 538 | 406 | 196 | 464 | 606 | 747 | 914 | 1,054 | 3,915 |
| Suicides (163-164): |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 1,911 | - | - |  | 1 | 94 | 283 | 353 | 470 | 413 | 297 |
| 1940 | 1,783 |  |  |  | 1 | 81 | 204 | 315 | 422 | 450 | 310 |
| 1941 | 1,484 |  |  |  |  | 59 | 219 | 249 | 350 | 365 | 242 |
| 1942 | 1,461 | - |  |  | 2 | 54 | 182 | 282 | 348 | 330 | 263 |
| 1943 | 1,472 | - | - |  | I | 56 | 193 | 319 | 325 | 321 | 257 |
| 1944 | 1,387 | - | - | - | , | 50 | 169 | 276 | 306 | 313 | 272 |
| 1945 | 1,556 | - |  | - | I | 63 | 191 | 288 | 367 | 354 | 292 |
| Deaths of civilians due to operations of war (197): 1939 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 10,571 | 101 | 357 | 367 | 441 | 1,526 | 1,587 | 1,495 | 1,538 | 1,455 | 1,704 |
| 1941 | 10,058 | 135 | 419 | 467 | 480 | 1,551 | 1,443 | 1,423 | 1,427 | 1,288 | 1,422 |
| 1942 | 1,779 | 22 | 78 | 72 | 81 | 211 | 225 | 234 | 246 | 245 | 365 |
| 1943 | 1,486 | 16 | 56 | 69 | 106 | 176 | 165 | 219 | 205 | 202 | 272 |
| 1944 | 4,821 | 56 | 134 | 166 | 175 | 583 | 628 | 650 | 747 | 743 | 939 |
| 1945 | 1,205 | 14 | 43 | 58 | 47 | 149 | 156 | 189 | 199 | 160 | 190 |

[^5]
## 2.5

Notifications of infectious diseases

Number

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United Kingdom |  |  |  |  |  |  |  |
| Diphtheria | 58,052 | 63,018 | 64,794 | 52,074 | 44,176 | 31,428 | 25,134 |
| Typhoid and paratyphoid fevers | 1,909 | 3,761 | 5,945 | 1,170 | 1,004 | 848 | 730 |
| Erysipelas | 17,626 | 16,062 | 14,907 | 14,305 | 14,500 | 13,548 | 12,093 |
| Scarlet fever | 94,194 | 76,531 | 69,598 | 100,549 | 134,033 | 108,253 | 87,370 |
| Smallpox | I | 1 | - | 109 | - | 16 | 4 |
| Dysentery | 3,082 | 4,756 | 9,101 | 9,820 | 10,909 | 17,420 | 21,110 |
| Ophthalmia neonatorum | 5,947 | 5,563 | 5,117 | 5,556 | 5,543 | 4,603 | 4,044 |
| Pneumonia (acute primary and acute influenzal) | 52,482 | 61,977 | 64,549 | 54,901 | 67,141 | 50,740 | 44,637 |
| Puerperal fever and pyrexia | 11,034 | 9,161 | 8,957 | 10,244 | 9,976 | 9,336 | 8,276 |
| Tuberculosis: Total | 53,893 | 54,893 | 59,834 | 62,289 | 65,129 | 65,042 | 62,513 |
| England and Wales |  |  |  |  |  |  |  |
| Diphtheria | 47,343 | 46,280 | 50,797 | 41,404 | 34,662 | 23,199 | 18,596 |
| Typhoid and paratyphoid fevers | 1,479 | 2,833 | 4,763 | 858 | 713 | 542 | 535 |
| Erysipelas | 14,14\| | 13,123 | 12,232 | 11,598 | 11,833 | 11,148 | 9,853 |
| Scarlet fever | 78,101 | 65,302 | 59,433 | 85,084 | 116,034 | 92,671 | 73,687 |
| Smallpox | 1 | 1 | - | 7 | - | 16 | 6 |
| Dysentery | 1,941 | 2,860 | 6,670 | 7,296 | 7,905 | 13,025 | 16,278 |
| Ophthalmia neonatorum | 4,594 | 4,390 | 4,195 | 4,517 | 4,502 | 3,660 | 3,314 |
| Pneumomia (acute primary and acute influenzal) | 42,312 | 47,875 | 50,942 | 42,698 | 52,407 | 38,631 | 34,371 |
| Puerperal fever and pyrexia | 9,252 | 7.627 | 7,356 | 8,542 | 8,354 | 7,944 | 7,013 |
| Tuberculosis!': Total | 46,206 | 46,572 | 50,964 | 52,619 | 54,342 | 54,313 | 52,110 |
| Respiratory | 34,930 | 36,151 | 39,499 | 40,629 | 42,410 | 43,794 | 42,166 |
| Other | 11,276 | 10,421 | 11,465 | 11,990 | 11,932 | 10,519 | 9,944 |
| Scotland |  |  |  |  |  |  |  |
| Diphtheria | 9,476 | 15,069 | 12,395 | 9,474 | 7.944 | 6,835 | 5,679 |
| Typhoid and paratyphoid fevers | 345 | 859 | 1,070 | 225 | 200 | 183 | 137 |
| Erysipelas | 3,235 | 2,715 | 2,514 | 2,570 | 2,557 | 2,261 | 2,103 |
| Scarlet fever | 12,023 | 8,353 | 8,760 | 13,792 | 14,722 | 12,057 | 11,654 |
| Smallpox | - | - | - | 101 | - | - | - |
| Dysentery | 1,132 | 1,888 | 2,429 | 2,515 | 2,984 | 4,373 | 4,811 |
| Ophthalmia neonatorum | 1,328 | 1,152 | 902 | 1,023 | 1,019 | 930 | 722 |
| Pneumonia (acute primary and acute influenzal) | 9,455 | 13,658 | 13,316 | 11,855 | 14,428 | 11,852 | 10,049 |
| Puerperal fever | 784 | 735 | 709 | 775 | 814 | 680 | 617 |
| Puerperal pyrexia | 903 | 731 | 775 | 797 | 716 | 624 | 606 |
| Tuberculosis!': Total | 7,097 | 7,722 | 8,294 | 9,048 | 10,088 | 9,933 | 9,658 |
| Respiratory | $4,657$ | 5.212 | 5,739 | 6,224 | 7,215 | 7,282 | 7,316 |
| Other | 2,440 | 2,510 | 2,555 | 2,824 | 2,873 | 2,651 | 2,342 |
| Northern Ireland |  |  |  |  |  |  |  |
| Diphtheria | 1,233 | 1,669 | 1,602 | 1,196 | 1,570 | 1,394 | 859 |
| Typhoid and paratyphoid fevers | 85 | 69 | 112 | 87 | 91 | 123 | 58 |
| Erysipelas | 250 | 224 | 161 | 137 | 110 | 139 | 137 |
| Scarlet fever | 4,070 | 2,876 | 1,405 | 1,673 | 3,277 | 3.525 | 2,029 |
| Smallpox | - | - | - | , | - | - | . |
| Dysentery | 9 | 8 | 2 | 9 | 20 | 22 | 21 |
| Ophthalmia neonatorum | 25 | 21 | 20 | 16 | 22 | 13 | 8 |
| Pneumonia (acute primary and acute influenzal) | 715 | 444 | 291 | 348 | 306 | 257 | 217 |
| Puerperal fever | 22 | 22 | 16 | 22 | 5 | 9 | 6 |
| Puerperal pyrexia | 73 | 46 | 101 | 108 | 87 | 79 | 34 |
| Tuberculosis. ${ }^{\text {. }}$. Total | 531 | 599 | 576 | 622 | 699 | 796 | 745 |

[^6]Sources: Registrars General for England, Wales and Northem Ireland and Department of Health for Scotland

## 2.6

Venereal disease
Cases dealt with at civilian treatment centres in Great Britain'
Number

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total all cases | 149,218 | 137,746 | 121,754 | 130,054 | 137,330 | 142,377 | 139,034 | 145,387 |
| Males | 100,228 | 91,449 | 81,238 | 89,692 | 92,562 | 89,795 | 81,082 | 82,907 |
| Females | 48,990 | 46,297 | 40,516 | 40,362 | 44,768 | 52,582 | 57,952 | 62,480 |
| Syphilis | 64,377 | 63,138 | 59,832 | 62,963 | 72,654 | 80,656 | 81,155 | 81,024 |
| Gonorrhoea | 83,335 | 73,247 | 60,514 | 65,348 | 62,914 | 60,313 | 56,707 | 63,320 |
| Soft chancre | 1,506 | 1,361 | 1,408 | 1,743 | 1,762 | 1,408 | 1,172 | 1,043 |
| New infection |  |  |  |  |  |  |  |  |
| Males | 57,726 | 51,086 | 46,361 | 52,492 | 53,960 | 56,252 | 51,780 | 57,444 |
| Females | 42,272 | 37,789 | 34,470 | 37,705 | 36,082 | 34,848 | 30,121 | 34,531 |
| Syphilis | 15,454 | 13,297 | 11,891 | 14,787 | 17,878 | 21,404 | 21,659 | 22,913 |
| Gonorthoea | 15,808 | 14,528 | 14,046 | 16,841 | 20,411 | 21,591 | 19,460 | 19,271 |
| Soft chancre | 40,826 | 35,579 | 31,230 | 34,337 | 32,326 | 33,695 | 31,545 | 37,458 |

. Cases from the services are included.
Source: Health Departments
2. Cases in which treatment or observation was begun during the year: Included in the total of all cases.

## 2.7

National Health Insurance
(i) Estimated numbers entitled to benefits

End of year
Thousands

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total | 22,049 | 22,848 | 23,632 | 24,626 | 25,133 | 25,249 | 25,135 |
|  |  |  |  |  |  |  |  |
| Males: | 14,595 | 15,122 | 15,371 | 15,705 | 15,806 | 15,819 | 15,797 |
| Total | 13,063 | 13,236 | 13,323 | 13,562 | 13,592 | 13,559 | 13,518 |
| Approved societies | 136 | 425 | 514 | 554 | 587 | 605 | 621 |
| Navy and Army Fund | 144 | 170 | 198 | 209 | 206 | 195 | 172 |
| Deposit contributors | 7 | 5 | 3 | 2 | 2 | 2 | 2 |
| Exempt persons | 1,245 | 1,286 | 1,333 | 1,378 | 1,419 | 1,458 | 1,484 |
| Over age 65 |  |  |  |  |  |  |  |
|  |  | 7,454 | 7,726 | 8,261 | 8,921 | 9,327 | 9,430 |
| Females: | 6,944 | 6,968 | 7,401 | 7,980 | 8,320 | 8,390 | 8,338 |
| Total | - | 14 | 43 | 64 | 72 | 73 | 74 |
| Approved societies | 157 | 179 | 208 | 244 | 273 | 277 | 258 |
| Navy and Army Fund | 6 | 5 | 3 | 2 | 2 | 2 | 1 |
| Deposit contributors | 347 | 560 | 606 | 631 | 660 | 688 | 717 |
| Exempt persons |  |  |  |  |  |  |  |
| Over age 60 |  |  |  |  |  |  |  |

Source: Ministry of National Insurance
(ii) Receipts, expenditure and accumulated funds

Ethousand

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipts: |  |  |  |  |  |  |  |
| Total | 45,157 | 43,383 | 47,029 | 59,189 | 58,134 | 58,060 | 57,221 |
| Contributions from employers and workers | 31,007 | 31,499 | 31,577 | 40,574 | 41,070 | 40,204 | 39,176 |
| Interest, etc., on funds | 6,382 | 3,530 | 6,952 | 9,155 | 6,389 | 6,765 | 6,882 |
| Parliamentary votes and grants | 7,768 | 8,354 | 8,500 | 9,460 | 10,675 | 11,091 | 11,163 |
| Expenditure: |  |  |  |  |  |  |  |
| Total | 41,350 | 41,012 | 39,026 | 47,288 | 51,916 | 54,013 | 54,247 |
| Benefits: $\quad$ ( ${ }^{\text {c }}$ |  |  |  |  |  |  |  |
| Total | 35,180 | 34,978 | 32,657 | 40,602 | 45,468 | 47,381 | 47,401 |
| Sickness | 11,251 | 12,353 | 11,053 | 15,808 | 19,285 | 19,406 | 18,725 |
| Disablement | 6,502 | 5,984 | 5,329 | 7,200 | 7,636 | 8,272 | 8,804 |
| Maternity | 1,762 | 1,701 | 1,705 | 1,877 | 2,104 | 2,256 | 2,042 |
| Medical | 12,689 | 12,475 | 12,452 | 13,453 | 14,138 | 15,074 | 15,449 |
| Other | 2,976 | 2,465 | 2,118 | 2,264 | 2,305 | 2,373 | 2,381 |
| Administration: |  |  |  |  |  |  |  |
| Total | 6,170 | 6,034 |  | 6,686 | 6,448 | 6,632 | 6,846 |
| Approved societies and insurance committees | 5,034 | 5,047 | 5,149 | 5,530 | 5,308 | 5,509 | 5,547 |
| Central departments | 1,136 | 987 | 1,220 | 1,156 | 1,140 | 1,123 | 1,299 |
| Accumulated funds (at end of year) | 147,046 | 148,510 | 155,606 | 166,073 | 171,084 | 174,289 | 176,303 |

[^7]
## SOCIAL CONDITIONS

## 2.8

## Unemployment Insurance

(i) Persons insured

Source: Ministry of Labour and National Service
(ii) Receipts, expenditure and fund

| Receipts |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 68,543 | 71,480 | 78,941 | 80,306 | 80,159 | 77,797 | 89,834 |
| General scheme | 66,992 | 70,047 | 77,485 | 78,729 | 78,546 | 76,165 | 88,140 |
| Agricultural scheme | 1,551 | 1,433 | 1,456 | 1,577 | 1,613 | 1,632 | 1,694 |
| Contributions from: |  |  |  |  |  |  |  |
| Employers and employees: |  |  |  |  |  |  |  |
| General scheme | 43,969 | 46,479 | 50,803 | 50,501 | 49,068 | 46,604 | 45,208 |
| Agricultural scheme | 996 | 930 | 907 | 960 | 956 | 959 | 972 |
| Defence departments | 138 |  |  |  |  | - | 8,060 |
| Exchequer: |  |  |  |  |  |  |  |
| General scheme | 22,032 | 23,233 | 25,396 | 25,250 | 24,534 | 23,301 | 26,633 |
| Agricultural scheme | 494 | 465 | 453 | 480 | 478 | 480 | 486 |
| Income from investments: |  |  |  |  |  |  |  |
| General scheme | 839 | 325 | 1,282 | 2,975 | 4,942 | 6,258 | 8,234 |
| Agricultural scheme | 61 | 38 | 96 | 137 | 179 | 193 | 236 |
| Other receipts: |  |  |  |  |  |  |  |
| General scheme | 14 | 10 | 4 | 3 | 2 | 2 | 5 |
| Agricultural scheme |  |  |  |  |  |  |  |
| Expenditure |  |  |  |  |  |  |  |
| Total | 84,414 | 65,621 | 9,079 | 6,301 | 5,490 | 6,753 | 17,105 |
| General scheme | 83,346 | 64,992 | 8,710 | 6,021 | 5,242 | 6,491 | 16,765 |
| Agricultural scheme | 1,068 | 629 | 369 | 280 | 248 | 262 | 340 |
| Benefit, transitional payments and unemployment allowances: |  |  |  |  |  |  |  |
| General scheme: Direct | 34,854 | 18,938 | 5,592 | 3,185 | 2,600 | 3,472 | 12,374 |
| Association | 1,791 | 864 | 213 | 79 | 38 | 49 | 271 |
| Agricultural scheme: Direct | 871 | 451 | 196 | 97 | 66 | 79 | 155 |
| Administrative expenses: |  |  |  |  |  |  |  |
| General scheme | 5,335 | 4,256 | 2,589 | 2,477 | 2,327 | 2,704 | 3,855 |
| Agricultural scheme | 185 | 174 | 170 | 180 | 179 | 180 | 182 |
| Interest on advances and reduction of debt | 40,864 | 40,578 | - | - | - | - | - |
| Other payments and refunds: |  |  |  |  |  |  |  |
| General scheme | 502 | 356 | 316 | 280 | 277 | 266 | 265 |
| Agricultural scheme | 12 | , | 3 |  | 3 | 3 | 3 |
| Fund |  |  |  |  |  |  |  |
| Balance of fund at end of period: |  |  |  |  |  |  |  |
| General scheme | 24,156 | 29,211 | 97,986 | 170,694 | 243,998 | 313,672 | 385,047 |
| Agricultural scheme | 3,254 | 4,058 | 5,145 | 6,442 | 7,807 | 9,177 | 10,531 |
| Investments (at cost) at end of period | 27,511 | 33,230 | 103,150 | 177,187 | 251,872 | 322,892 | 396,271 |
| Treasury advances outstanding | 39,354 | - | - | - | - | - | - |

[^8]
## 2.9

## Pensions

(i) Old age pensions payable from age 70

Number

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of pensions payable' (Thousands) |  |  |  |  |  |  |  |
| Total | 1,906 | 1,944 | 1,986 | 2,043 | 2,128 | 2,186 | 2,255 |
| Under Contributory Pensions Act | 1,299 | 1,372 | 1,439 | 1,519 | 1,622 | 1,707 | 1.797 |
| Other | 607 | 572 | 547 | 524 | 506 | 479 | 458 |
| Men: |  |  |  |  |  |  |  |
| Under Contributory Pensions Act | 608 | 633 | 656 | 684 | 724 | 756 | 789 |
| Other | 182 | 174 | 169 | 163 | 161 | 152 | 145 |
| Women: |  |  |  |  |  |  |  |
| Under Contributory Pensions Act | 691 | 739 | 783 | 835 | 898 | 951 | 1,008 |
| Other | 425 | 398 | 378 | 362 | 345 | 327 | 313 |
| Full rate: |  |  |  |  |  |  |  |
| Under Contributory Pensions Act | 1,296 | 1,369 | 1,434 | 1,514 | 1,616 | 1,700 | 1,789 |
| Other | 580 | 546 | 522 | 499 | 480 | 454 | 434 |
| Reduced rate: |  |  |  |  |  |  |  |
| Under Contributory Pensions Act |  |  | 5 | 5 | 6 | 7 | 8 |
| Other | 30 | 26 | 25 | 25 | 26 | 25 | 24 |
| Total amount of pensions paid in year ended 31 March |  |  |  |  |  |  |  |
| ( $£$ thousand) | 49,348 | 49,816 | 50,694 | 51,844 | 53,709 | 56,538 | 57,398 |

Source: Ministry of National Insurance and H.M. Customs and Excise
(ii) Pensions insured and beneficiaries under the Widows', and Old Age Pensions Act, 1936

End of year
Thousands

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Estimated numbers insured: |  |  |  |  |  |  |  |
| $\quad$ Total | 21,835 | 22,640 | 23,361 | 24,242 | 24,736 | 24,863 | 24,767 |
| $\quad$ Men | 14,635 | 15,188 | 15,380 | 15,622 | 15,683 | 15,714 | 15,693 |
| Women | 7,200 | 7,452 | 7,981 | 8,620 | 9,053 | 9,149 | 9,074 |
|  |  |  |  |  |  |  |  |
| Number of beneficiaries: | 2,016 | 2,349 | 2,423 | 2,467 | 2,507 | 2,544 | 2,585 |
| Total | 664 | 699 | 743 | 765 | 789 | 811 | 829 |
| $\quad$ Widows: Contributory | 179 | 161 | 144 | 130 | 117 | 104 | 93 |
| $\quad$ Non-contributory | 282 | 274 | 261 | 249 | 241 | 234 | 225 |
| Children: Contributory | 3 | 1 | - | - | - | - | - |
| $\quad$ Non-contributory | 551 | 566 | 586 | 601 | 613 | 622 | 634 |
| Pensioners under 702: Men | 337 | 648 | 689 | 722 | 747 | 773 | 804 |
|  | Women |  |  |  |  |  |  |

[^9]Source: Ministry of National Insurance
(iii) Contributory pension: Receipts, expenditure and accumulated funds

Years ended 31 March
$£$ thousand

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipts |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |
| Contributions | 33,771 | 34,481 | 45,679 | 49,564 | 5,154 | 52,859 | 52,096 |
| Parliamentary vote | 17,415 | 19,989 | 20,989 | 21,999 | 22,999 | 22,999 | 22,999 |
| Interest, etc | 818 |  |  | 1,386 | 1,702 | 1,946 | 2,094 |
| Expenditure |  |  |  |  |  |  |  |
|  | 49,133 | 50,292 | 57,466 | 61,502 | 62,575 | 64,575 | 65,055 |
| Widows' and orphans' pensions: |  |  |  |  |  |  |  |
| Contributory | 19,698 | 20,505 | 21,580 | 22,543 | 22,759 | 23,212 | 23,748 |
| Non-contributory | 5,357 | 4,785 | 4,286 | 3,888 | 3,447 | 3,105 | 2,767 |
| Pensioners under 70 | 22,108 | 22,926 | 29,326 | 32,607 | 33,694 | 35,90 | 35,655 |
| Administration | 1,669 | 1,747 | 1,943 | 1,974 | 1,750 | 1,923 | 1,894 |
| Payments to National Health Insurance: |  |  |  |  |  |  |  |
| Central Fund Unemployment Arrears Fund | $\begin{aligned} & 329 \\ & 301 \end{aligned}$ | 331 | 316 | 174 | 925 | 945 | 991 |
| Accumulated funds | 24,869 | 30,020 | 40,315 | 51,762 | 65,042 | 78,271 | 90,405 |

1. See footnote 2 on page 23.

Source: Ministry of National Insurance
2.10

War pensions, grants and allowances
(i) Expenditure

Years ended 31 March
E thousand

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Total | 39,175 | 38,238 | 39,458 | 42,596 | 46,075 | 50,946 | 62,081 |
| Pensions, gratuities and allowances: Total | 37,450 | 36,481 | 36,922 | 39,558 | 42,507 | 46,808 | 57,087 |
| Services: 1914-18 war and earlier wars: |  |  |  |  |  |  |  |
| Officers, nurses and dependants | 4,063 | 3,941 | 3,804 | 3,688 | 3,600 | 3,511 | 3,499 |
| Other ranks and dependants 1939-45 war: | 33,387 | 32,475 | 31,602 | 30,548 | 29,803 | 29,007 | 29,387 |
| Officers, nurses and dependants Other ranks and dependants | - | $\begin{aligned} & 17 \\ & 15 \end{aligned}$ | $\begin{aligned} & 233 \\ & 524 \end{aligned}$ | $\begin{array}{r} 554 \\ 2,530 \end{array}$ | $\begin{array}{r} 9,73 \\ 5,500 \end{array}$ | $\begin{aligned} & 1,672 \\ & 9,310 \end{aligned}$ | $\begin{array}{r} 2,946 \\ 16,659 \end{array}$ |
| Mercantile marine: |  |  |  |  |  |  |  |
| Officers and dependants | - | 6 | 79 | 252 | 498 | 740 | 897 |
| Seamen and dependants | - | 12 | 116 | 336 | 610 | 777 | 947 |
| Civilians: |  |  |  |  |  |  |  |
| Men, women and dependants | - | 14 | 565 | 1.651 | 1,524 | 1,790 | 2.752 |
| Medical treatment to pensioners | 1,007 | 983 | 1,295 | 1,405 | 1,658 | 1,957 | 2,415 |
| Miscellaneous | 32 | 27 | 30 | 72 | 83 | 163 | 305 |
| Administration: Local and central | 686 | 748 | 1,212 | 1,561 | 1,827 | 2,017 | 2,274 |

(ii) Estimated number of beneficiaries


## Mercantile marine

Officers:

| Disabled offlcers | - | - | 10 | 75 | 245 | 910 | 1,550 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Widows |  | 115 | 675 | 1,860 | 2,890 | 3,365 | 3,555 |
| Adult dependants |  | 15 | 125 | 370 | 605 | 835 | 900 |
| Other ${ }^{\prime}$ | - | 135 | 665 | 1,770 | 2,580 | 3,700 | 4,570 |
| Seamen: |  |  |  |  |  |  |  |
| Disabled seamen | - | - | 145 | 485 | 810 | 1,840 | 3,195 |
| Widows |  | 230 | 1,250 | 2,895 | 4,720 | 5,165 | 5,115 |
| Adult dependants |  | 30 | 315 | 900 | 1,545 | 2,045 | 2,190 |
| Other ${ }^{\text {I }}$ | - | 385 | 1,775 | 4,580 | 7,170 | 9,155 | 9,725 |
|  |  |  |  |  |  |  |  |
| Disabled civilians | - | - | 185 | 8,675 | 11,200 | 13,695 | 18,465 |
| Widows | - | 20 | 4,610 | 8,485 | 9,015 | 9,285 | 10,845 |
| Dependants |  |  | 330 | 880 | 900 | 960 | 1,105 |
| Other' | - | 20 | 4,920 | 15,485 | 16,715 | 19,890 | 23,020 |

[^10]
## 2.\| Offences known to the police and persons proceeded against <br> and found guilty

Number
England and Wales

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Persons proceeded against | 745,148 | 863,749 | 879,692 | $759,763$ |  | $554,035$ | 517,543 |
| Persons found guilty | 695,814 | 803,721 | 802,999 |  |  |  | 467,700 |
| Indictable offences 372760 |  |  |  |  |  |  |  |
| Offences known to police | 303,771 | 305,114 | 358,655 | 364,889 | 372,760 | 415,010 | 478,394 |
| Persons proceeded against | 86,645 | 99,017 | 118,746 | 118,295 | 115,508 | 118,849 | 128,733 |
| Persons found guilty: |  |  |  |  |  |  |  |
| Total | 78,058 | 89,814 | 107,571 | 107,150 | 104,868 | 106,550 | 115,974 |
| Breaking and entering | 11,714 | 13,353 | 14,762 | 14,625 | 14,548 | 16,554 | 21,260 |
| Frauds and false pretences ${ }^{2}$ | 2,401 | 1,860 | 3,312 | 2,953 | 2,907 | 2,684 | 2,350 |
| Larceny | 55,341 | 65,117 | 77,206 | 75,189 | 72,620 | 72,829 | 75,975 |
| Receiving | 2,591 | 4,060 | 6,238 | 6,597 | 6,051 | 6,331 | 7,014 |
| Sexual offences | 2,214 | 1,987 | 2,510 | 2,971 | 3,392 | 3,078 | 3,228 |
| Violence against the person:Total | 1,708 | 1,445 | 1,589 | 1,622 | 1,846 | 1,898 | 2,459 |
| Murder | 28 | 22 | 24 | 31 | 29 | 20 | 21 |
| Manslaughter | 61 | 63 | 64 | 85 | 62 | 80 | 101 |
| Wounding | 1,413 | 1,177 | 1,259 | 1,250 | 1,370 | 1,404 | 1,869 |
| Other offences against the person | 206 | 183 | 242 | 256 | 385 | 394 | 468 |
| Other offences | 2,089 | 1,992 | 1,954 | 3,193 | 3,504 | 3,176 | 3,688 |
| Non-indictable offences ${ }^{3}$ |  |  |  |  |  |  |  |
| Persons proceeded against | 597,117 | 424,392 | 474,590 | 406,934 | 313,673 | 291,096 | 330,692 |
| Persons found guilty: |  |  |  |  |  |  |  |
| Total | 557,825 | 381,462 | 417,066 | 354,369 | 278,132 | 255,865 | 297,438 |
| Assaults | 9,959 | 9,847 | 10,079 | 9,605 | 10,571 | 10,785 | 11,390 |
| Betting and gaming ${ }^{1}$ | 13,035 | 7,550 | 8,936 | 10,359 | 9,81। | 8,950 | 10,626 |
| Bye-laws and Police Regulations | 28,688 | 23,998 | 23,070 | 21,478 | 19,832 | 16,150 | 13,755 |
| Drunkenness and other offences under |  |  |  |  |  |  |  |
| Intoxicating Liquor Laws | 54,812 | 48,863 | 43,778 | 29,778 | 29,314 | 24,910 | 22,188 |
| Education Acts | 3,375 | 5,690 | 13,357 | 17,800 | 18,778 | 16,378 | 10,102 |
| Game Laws | 1,774 | 1,449 | 1,481 | 1,354 | 1,398 | 1,161 | 1,508 |
| Labour Laws | 5,883 | 2,754 | 1,792 | 1,878 | 2,220 | 1,943 | 1,774 |
| Malicious damage | 8,384 | 9,778 | 12,059 | 12,343 | 12,082 | 11,361 | 12,632 |
| Offences by prostitutes | 1,977 | 1,761 | 1,621 | 2,122 | 2,371 | 1,630 | 2,096 |
| Railway offences | 7,373 | 6,145 | 9,192 | 11,001 | 11,929 | 12,275 | 14,382 |
| Revenue Laws | 28,375 | 24,899 | 27,286 | 28,813 | 24,134 | 21,304 | 18,248 |
| Stealing | 1,898 | 2,333 | 4,651 | 4,568 | 5,187 | 3,780 | 3,394 |
| Traffic offences | 359,669 | 208,152 | 232,938 | 170,680 | 101,337 | 91,798 | 148,419 |
| Vagrancy Acts ( ${ }^{5}$ ) | 4,986 | 3,294 | 2,587 | 2,977 | 3,028 | 3,060 | 3,482 |
| Wireless Telegraphy Acts | 3,683 | 648 | 579 | 1,433 | 815 | 440 | 356 |
| Other offences | 23,954 | 24,301 | 23,660 | 28,180 | 25,325 | 29,940 | 23,086 |
| Offences against Defence Regulations |  |  |  |  |  |  |  |
| Persons proceeded against | 61,386 | 340,340 | 286,356 | 234,534 | 194,791 | 144,090 | 58,118 |
| Persons found guilty: |  |  |  |  | 194,7 | 14,09 | 58,18 |
| Total | 59,931 | 332,445 | 278,362 | 227,719 | 186,825 | 138,073 | 54,288 |
| Lighting offences | 59,758 | 299,260 | 210,934 | 154,080 | 109,757 | 73,831 | 17,594 |
| Looting |  | 426 | 2,508 | 415 | 255 | 561 | 17.93 |
| Control of industry | 20 | 5,624 | 13,543 | 22,832 | 30,071 | 24,237 | 17.472 |
| Control of employment Strikes and lockouts |  |  | 275 | 4,114 | 12,583 | 10,124 | 7,597 |
| Strikes and lockouts Traffic offences |  |  | 50 | 582 | 1,284 | - | 125 |
| Other offences | 34 119 | 18,498 8,637 | 37,716 | 30,371 | 11,297 | 5,978 | 4,495 |
|  | 119 | 8,637 | 13,336 | 15,325 | 21,578 | 23,342 | 6,912 |

[^11]
## 2. 2 Crimes and offences made known to the police and persons proceeded against, convicted or found guilty

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All crimes and offences ${ }^{1}$ |  |  |  |  |  |  |  |
| Crimes and offences made known to police | 197,089 | 221,752 | 211,701 | 191,526 | 174,739 | 166,163 | 161,671 |
| Persons proceeded against | 133,459 | 149,061 | 149,095 | 129,369 | 115,726 | 106,436 | 92,440 |
| Charge proved without finding of guilt | 5,815 | 6,061 | 5,237 | 5,006 | 4,621 | 4.799 | 4,872 |
| Persons convicted or found guilty | 110,719 | 118,277 | 114,559 | 99,492 | 90,291 | 85,144 | 74,487 |
| Crimes |  |  |  |  |  |  |  |
| Crimes made known to police | 60,104 | 62,266 | 67,494 | 69,127 | 70,944 | 71,583 | 86,075 |
| Persons proceeded against | 22,086 | 25,140 | 27,119 | 27,440 | 26,917 | 25,741 | 28,109 |
| Charge proved without finding of guilt | 4,657 | 5,209 | 4,585 | 4,404 | 4,027 | 3,878 | 4,024 |
| Persons convicted or found gullty. |  |  |  |  |  |  |  |
| Frauds and false pretences ${ }^{2}$ | 1,403 | 787 | 1,039 | 1,070 | 1,003 | 915 | 21,816 |
| Housebreaking | 2,228 | 2,613 | 2,890 | 3,306 | 3,737 | 3,567 | 4,933 |
| Malicious mischief | 2,372 | 3,089 | 3,244 | 3,328 | 3,188 | 3,181 | 3,735 |
| Reset (Receiving) | 220 | 447 | 574 | 609 | 576 | 692 | 735 |
| Sexual offences | 361 | 336 | 378 | 453 | 433 | 391 | 479 |
| Theft ${ }^{3}$ | 6,685 | 8,636 | 9,872 | 9,676 | 9.477 | 8,785 | 9,024 |
| Violence against the person: Total | 1,541 | 1,256 | 1,385 | 1,273 | 1,426 | 1,483 | 994 |
| Murder |  | - | - | - | - | 3 | 4 |
| Culpable homicide | 21 | 13 | 6 | 13 | 13 | 9 | 15 |
| Assaults | 1,220 | 1,008 | 1,123 | 999 | 1,105 | 1,180 | 707 |
| Other crimes against the person | 300 | 235 | 256 | 261 | 308 | 291 | 268 |
| Other crimes | 417 | 541 | 768 | 777 | 1,301 | 814 | 941 |
| Miscellaneous offences ${ }^{4}$ |  |  |  |  |  |  |  |
| Offences made known to police | 136,985 | 100,866 | 99,423 | 86,602 | 72,970 | 64,716 | 65,801 |
| Persons proceeded against | 111,373 | 88,297 | 87,934 | 74,958 | 64,262 | 58,136 | 56,597 |
| Charge proved without finding of guilt | 1,158 | 770 | 602 | 555 | 504 | 835 | 776 |
| Persons convicted or found guilty. |  |  |  |  |  |  |  |
| Total | 95,492 | 65,930 | 61,549 | 53,003 | 46,061 | 43,864 | 45,701 |
| Betting and gaming | 3,348 | 1,749 | 1,972 | 2,183 | 1,861 | 1,838 | 1,644 |
| Breach of the peace | 16,019 | 13,275 | 12,662 | 12,265 | 12,393 | 11,617 | 11,802 |
| Drunkenness and other offences against the Intoxicating Liquor Laws | 13,929 | 12,345 | 9,646 | 6,150 | 5,179 | 3,569 | 2,777 |
| Education Acts | 132 | 146 | 825 | 1,495 | 2,065 | 2,082 | 1,779 |
| Game Laws | 250 | 147 | 160 | 180 | 167 | 166 | 182 |
| Labour Laws | 596 | 353 | 251 | 304 | 263 | 216 | 177 |
| Police Regulations | 8,342 | 8,420 | 7,198 | 6,569 | 6,017 | 5,217 | 5,168 |
| Prostitution | 125 | 33 | 40 | 125 | 246 | 298 | 235 |
| Railway offences | 373 | 306 | 310 | 292 | 375 | 720 | 551 |
| Revenue Laws | 555 | 326 | 319 | 208 | 246 | 231 | 264 |
| Road Acts ${ }^{5}$ | 39,766 | 23,124 | 22,576 | 17,548 | 12,155 | 12,299 | 16,577 |
| Streets and buildings | 616 | 497 | 594 | 488 | 414 | 341 | 454 |
| Vagrancy Acts | 1,090 | 743 | 561 | 673 | 733 | 828 | 861 |
| Other offences | 10,351 | 4,466 | 4,435 | 4,523 | 3,947 | 4,442 | 3,230 |
| Offences against war legislation |  |  |  |  |  |  |  |
| Offences made known to police | - | 58,620 | 44,784 | 35,797 | 30,825 | 29,864 | 9,795 |
| Persons proceeded against | - | 35,624 | 34,042 | 26,971 | 24,547 | 22,559 | 7,734 |
| Charge proved without finding of guilt | - | 82 | 50 | 47 | 90 | 86 | 72 |
| Persons convicted or found guilty: |  |  |  |  |  |  |  |
| Total | - | 34,642 | 32,860 | 25,997 | 23,089 | 21,452 | 6,970 |
| National Registration Act, 1939. | - | 96 | 271 | 473 | 322 | 1,214 | 274 |
| Defence Regulations: |  |  |  |  |  |  |  |
| Lights in buildings | - | 25,142 | 20,403 | 13,683 | 8,228 | 3,408 |  |
| Lights on vehicles | - | 6,148 | 5,234 | 3,602 | 3,288 | 2,982 |  |
| Other offences |  | 3,256 | 6,952 | 8,239 | 11,251 | 13,848 |  |

[^12]Source: Scottish Home Department

## 2. 3 Offences known to the police and persons proceeded against and found guilty

Northern Ireland
Number

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All offences ${ }^{\text {' }}$ |  |  |  |  |  |  |  |
| Persons proceeded against | 44,109 | 49,076 | 55,746 | 52,955 | 54,047 | 54,522 | 44,815 |
| Persons found guilty | 40,498 | 46,017 | 52,634 | 49,307 | 50,178 | 50,813 | 41,908 |
| Indictable offences |  |  |  |  |  |  |  |
| Offences known to police | 2,579 | 2,990 | 3,586 | 4,307 | 4,566 | 5,123 | 5,709 |
| Persons proceeded against | 2,249 | 2,810 | 2,861 | 3,412 | 3,518 | 3,266 | 3,157 |
| Persons found guilty: |  |  |  |  |  |  |  |
| Total | 2,009 | 2,469 | 2,546 | 2,933 | 2,980 | 2,752 | 2,697 |
| Breaking and entering | 382 | 449 | 443 | 433 | 499 | 448 | 505 |
| Frauds and false pretences ${ }^{2}$ | 58 | 43 | 73 | 82 | 70 | 65 | 65 |
| Larceny | 1,286 | 1,627 | 1,644 | 1,879 | 1,873 | 1,764 | 1,643 |
| Receiving | 95 | 179 | 202 | 260 | 256 | 244 | 199 |
| Sexual offences | 26 | 20 | 24 | 31 | 28 | 31 | 43 |
| Violence against the person: |  |  |  |  |  |  |  |
| Total | 63 | 34 | 52 | 76 | 81 | 77 | 62 |
| Murder | 1 | - | - | 7 | I | 4 | 1 |
| Manslaughter | 4 | 4 | 5 | 4 | 1 | 4 | 1 |
| Wounding | 12 | 7 | 7 | 3 | 6 | 15 | 5 |
| Other offences against the person | 46 | 23 | 40 | 62 | 73 | 54 | 55 |
| Other offences | 99 | 117 | 108 | 172 | 173 | 123 | 180 |
| Non-indictable offences ${ }^{3}$ |  |  |  |  |  |  |  |
| Persons proceeded against | 36,593 | 28,892 | 30,476 | 32,059 | 30,365 | 35,383 | 35,244 |
| Persons found guilty. |  |  |  |  |  |  |  |
| Total | 33,398 | 26,525 | 28,172 | 29,676 | 28,248 | 32,790 | 33,020 |
| Assaults | 491 | 469 | 441 | 481 | 661 | 505 | 621 |
| Betting and gaming ${ }^{4}$ | 3,382 | 2,180 | 1,938 | 2,043 | 2,193 | 2,434 | 2,754 |
| Byelaws and Police Regulations | 1,755 | 1,415 | 1,398 | 1,641 | 1,796 | 2,306 | 2,522 |
| Drunkenness and other offences under Intoxicating Liquor Laws | 4,023 | 3,149 | 2,689 | 1,874 | 1.696 | 1,476 | 1,456 |
| Education Acts | 1,265 | 1,527 | 1,705 | 1,856 | 2,585 | 2,654 | 2,040 |
| Game Laws | 68 | 66 | 56 | 64 | 24 | 51 | 77 |
| Labour Laws | 496 | 257 | 178 | 121 | 87 | 63 | 77 |
| Malicious damage | 289 | 267 | 333 | 391 | 485 | 476 | 496 |
| Offences by prostitutes | 27 | 2 | 15 | 171 | 185 | 129 | 156 |
| Railway offences | 49 | 55 | 26 | 146 | 208 | 182 | 94 |
| Revenue Laws | 1,287 | 1,084 | 874 | 1,121 | 1,589 | 1,811 | 1,135 |
| Stealing | 60 | 127 | 217 | 1,121 | 241 | 184 | 159 |
| Traffic offences | 17,637 | 13,917 | 15,020 | 15,733 | 13,957 | 16,634 | 18,816 |
| Vagrancy Acts ${ }^{\text {s }}$ | 429 | 323 | 235 | 378 | 386 | 467 | 353 |
| Wireless Telegraphy Acts | 6 | 17 | 3 | 2 | , | 2 | 8 |
| Other offences | 2,134 | 1,674 | 3,134 | 3,437 | 2,154 | 3,416 | 2,256 |
| Offences against Defence Regulations |  |  |  |  |  |  |  |
| Offences known to police | 5,267 | 17,374 | 22,411 | 17,485 | 20,164 | 15,873 | 6,414 |
| Persons proceeded against | 5,267 | 17,374 | 22,409 | 17,484 | 20,164 | 15,873 | 6,414 |
| Persons found guilty: |  |  |  |  |  |  |  |
| Total | 5,091 | 17,023 | 21,916 | 16,698 | 18,950 | 15,271 | 6,191 |
| Lighting offences | 5,060 | 15,589 | 18,420 | 12,584 | 11,254 | 9,405 | 3,606 |
| Looting |  | - | 153 | - | - | - |  |
| Other offences | 31 | 1,434 | 3,343 | 4,114 | 7,696 | 5,866 | 2,585 |

[^13]
## 2. 4 Juvenile delinquency'

England and Wales
Number

| 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Juveniles found guilty

| All offences | 53,106 | 66,080 | 72,483 | 66,522 | 68,049 | 68,069 | 73,620 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Indictable offences:

| Total | 30,835 | 42,187 | 43,594 | 38,549 | 38,763 | 40,554 | 43,503 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Larceny | 21,476 | 29,545 | 29,698 | 25,291 | 25,378 | 25,931 | 26,443 |
| Breaking and entering | 7,715 | 10,275 | 10,982 | 10,512 | 10,281 | 11,544 | 13,664 |
| Receiving | 558 | 971 | 1,202 | 937 | 969 | 939 | 979 |
| Sexual offences | 495 | 465 | 540 | 503 | 621 | 594 | 636 |
| Frauds, etc. | 100 | 138 | 163 | 167 | 135 | 130 | 94 |
| Violence against the person | 136 | 141 | 176 | 124 | 180 | 176 | 244 |
| Other offences | 355 | 652 | 833 | 1,015 | 1,199 | 1,240 | 1,443 |

Non-indictable offences:

| Total | 21,291 | 20,341 | 24,160 | 24,347 | 24,816 | 23,391 | 27,575 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Highway Acts | 8,376 | 5,766 | 5,826 | 5,184 | 4,421 | 4,532 | 8,109 |
| Police Regulations | 2,048 | 1,508 | 1,250 | 1,564 | 1,700 | 1,651 | 1,903 |
| Malicious damage | 5,091 | 6,776 | 8,530 | 9,068 | 8,497 | 8,113 | 8,717 |
| Railway offences | 2,110 | 1,793 | 1,949 | 2,274 | 3,252 | 3,249 | 3,361 |
| Stealing | 1,040 | 1,530 | 3,319 | 3,198 | 3,697 | 2,719 | 2,241 |
| Betting and gaming | 602 | 866 | 1,131 | 878 | 777 | 499 | 439 |
| Other offences | 2,024 | 2,102 | 2,155 | 2,181 | 2,472 | 2,628 | 2,805 |
| ffences against Defence Regulations: |  |  |  |  |  |  |  |
| Total | 980 | 3,552 | 4,729 | 3,626 | 4,470 | 4,124 | 2,542 |
| Lighting offences | 974 | 3,183 | 3,315 | 2,772 | 2,594 | 2,307 | 1,481 |
| Looting | - | 220 | 946 | 137 | 118 | 150 | 25 |
| Control of industry | - | 9 | 36 | 105 | 136 | 148 | 115 |
| Preservation of agricultural land | - | 29 | 163 | 165 | 724 | 530 | 176 |
| Other offences | 6 | 111 | 269 | 447 | 898 | 989 | 745 |

[^14]
## 2. I 5 Juvenile delinquency'

| Scotland |  |  |  |  |  | Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Alll crimes and offences ${ }^{2}$ | .. | . | .. | .. | .. |  | 4,292 |
| Charges proved without finding of guilt Juveniles found guilty | 10,957 | 13,885 | 14,290 | 1 5,138 | 15,170 | 15,264 | 15,952 |
| Crimes |  |  |  |  |  |  |  |
| Charges proved without finding of guilt Juveniles found guilty | 5,404 | 8,250 | 8,757 | 8,663 | 8,526 | 7.702 | $\begin{aligned} & 3,679 \\ & 8,539 \end{aligned}$ |
| Miscellaneous offences ${ }^{3}$ |  |  |  |  |  |  | 550 |
| Charges proved without finding of guilt Juveniles found guilty | 5,553 | 5,238 | 4,967 | 5,921 | 6,647 | 6,977 | 7,141 |
| Offences against war legislation |  |  |  |  |  |  |  |
| Charges proved without finding of guilt Juveniles found guitty | $\because$ | 397 | 566 | 554 | 597 | 585 | 63 272 |

2. Including offences against war legislation.
3. Excluding offences against war legislation.

## 2. | 6 Juvenile delinquency'

| Number |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Juveniles found guilty |  |  |  |  |  |  |  |
| All offences | 1,706 | 1,971 | 1,826 | 1,888 | 2,032 | 2,234 | 2,069 |
| Indictable offences |  |  |  |  |  |  |  |
| Total | 717 | 1,126 | 906 | 929 | 898 | 811 | 701 |
| Larceny | 455 | 781 | 598 | 608 | 554 | 516 | 417 |
| Breaking and entering | 206 | 281 | 252 | 243 | 222 | 209 | 186 |
| Receiving | 15 | 35 | 22 | 20 | 35 | 33 | 16 |
| Sexual offences | 6 | I | I | 4 | 3 | I | 2 |
| Frauds, etc. | - | 7 | 4 | 3 | - | 3 | 2 |
| Violence against the person... | 5 | - | - | - | - | 3 | 2 |
| Other offences | 30 | 21 | 29 | 51 | 84 | 46 | 76 |
| Non-indictable offences |  |  |  |  |  |  |  |
| Total | 960 | 814 | 817 | 882 | 1,001 | 1,275 | 1,329 |
| Highways Acts | 389 | 292 | 194 | 190 | 240 | 353 | 348 |
| Police Regulations | 351 | 282 | 241 | 230 | 237 | 432 | 497 |
| Malicious damage | 145 | 128 | 213 | 197 | 248 | 227 | 270 |
| Railway offences | 12 | 13 | 8 | 49 | 58 | 76 | 45 |
| Stealing | 20 | 52 | 89 | 144 | 136 | 110 | 86 |
| Betting and gaming | - | 1 | 4 | 3 | 9 | 11 | 18 |
| Other offences | 43 | 46 | 68 | 69 | 73 | 66 | 65 |
| Offences against Defence Regulations |  |  |  |  |  |  |  |
| Total | 29 | 31 | 103 | 77 | 133 | 148 | 39 |
| Lighting offences | 29 | 26 | 33 | 58 | 53 | 54 | 18 |
| Looting | . | - | 43 | 5 | 5 | - | - |
| Other offences | - | 5 | 27 | 19 | 80 | 94 | 21 |

[^15]
## 2. 7 Prison population: Receptions and daily average population

Number

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| England and Wales |  |  |  |  |  |  |  |
| Receptions: |  |  |  |  |  |  |  |
| Total |  | 40,455 | 48,089 | 51,217 |  | 47,135 |  |
| Males | 39,766 | 34,202 | $42,101$ | 43,938 | $37,343$ | 38,530 | $40,713$ |
|  |  |  |  |  |  |  | 7,381 |
| Committals on remand or for trial | 7,628 | 6,347 | 4,023 | 11,259 | 9,084 | 9,896 | 10,699 |
| Committals by civil process (non-payment |  |  |  |  |  |  |  |
| of monies, etc.) ${ }^{1}{ }^{1}$ peralt | 7,116 | 6,347 | $4,023$ | 3,900 | 3,136 | 2,956 | $3,276$ |
| Committals in default of payment of fines | $7,139$ | $4,474$ | 3,510 | $3,702$ | 4,031 | 3,737 | 3,302 |
| Sentences of imprisonment without the option of a fine ${ }^{2}$ | 20,690 | 502 | 27,641 | 29,870 | 26,438 | 27,788 | 26,815 |
| Sentences of penal servitude ${ }^{2}$ | 522 | 502 | 523 | 813 | 831 | 1,098 | 1,560 |
| Sentences of Borstal detention | 1,418 | 1,289 | 1,739 | 1,673 | 1,564 | 1,660 | 2,442 |
| Daily average population: |  |  |  |  |  |  |  |
| Total | 10,326 | 9,377 | 10,634 | 12,400 | 12,790 | 12,915 | 14,708 |
| Unconvicted ${ }^{3}$ | 1,034 | 1,781 | 1,450 | 1,440 | 1,281 | 1,333 | 1,433 |
| Convicted | 9,292 | 7,596 | 1,450 | 1,440 | 1,281 | 11,582 | 13,275 |
| Scotland |  |  |  |  |  |  |  |
| Receptions: | 13,953 | 13,251 | 12,143 | 11,397 | 11,085 | 10,884 | 12,360 |
| Total | 11,882 | 11,432 | 10,629 | 9,967 | 9,363 | 9,266 | 10,849 |
| Males | 2,071 | 1,819 | 1,514 | 1,430 | 1,722 | 1,618 | 1,511 |
| Females |  |  |  |  |  |  |  |
| Ordinary prisoners ${ }^{4}$ | 13,739 | 13,112 |  |  |  | 34 | 11,993 |
| Convicts ${ }^{5}$ | 33 | 17 |  | 29 | 28 | 34 | 58 |
| Offenders sentenced to Borstal detention | 152 | 107 | 163 | 243 | 270 | 218 | 291 |
| Others | 29 | 14 | 17 | 25 | 15 | 15 | 18 |
| Daily average population | 1,350 | 1,320 | 1,337 | 1,559 | 1,560 | 1,606 | 1,958 |
| Northern Ireland |  |  |  |  |  |  |  |
| Receptions: |  |  |  |  |  |  |  |
| Total | 2,183 | 2.115 | 1,991 | 2,243 | 1,836 | 1,977 | 1,866 |
| Males | 1,743 | 1,699 | 1,676 | 1,828 | 1,378 | 1,517 | 1,502 |
| Females | 440 | 1,699 | 1,676 | 415 | 1,378 | 460 | 1,502 |
| Committals on remand or for trial | 272 | 263 | 508 | 683 | 507 | 513 | 605 |
| Committals by civil process (non-payment of monies, etc.)' | 34 | 263 | 508 | 22 | 507 | 27 | 29 |
| Committals in default of payment of fines | 985 | 920 | 354 | 282 | 273 | 257 | 259 |
| Sentences of imprisonment without the option of a fine ${ }^{2}$ | 850 | 51 | 1,040 | 39 | 955 | 1,114 | 886 |
| Sentences of penal servitude ${ }^{2}$ | 10 | 51 | 27 | 39 | 34 | 13 | 7 |
| Sentences of Borstal detention | 32 | 47 | 44 | 39 | 48 | 53 | 80 |
| Daily average population: |  |  |  |  |  |  |  |
| Total | 373 | 363 | 445 | 550 | 499 | 516 | 490 |
| Unconvicted ${ }^{3}$ | 21 | 31 | 28 | 29 | 36 | 21 | 26 |
| Convicted | 352 | 332 | 417 | 521 | 463 | 495 | 464 |

1. Including committals in default of sureties.
2. Including sentences imposed by Courts Marital.
3. Prisoners on remand or awaiting trial and prisoners committed by civil process.
4. Convicted and untried and forfeited and revoked licenceholders under the Penal Servitude Acts.
5. New sentences of penal servitude and death.

Source: Prison Commission for England and Wales, Scottish Home Department and Ministry of Home Affairs, Northern Ireland

## 2.| 8 Divorce proceedings'

|  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

1. Excluding proceedings for judicial separation and for the restitution of conjugal rights.
2. The increase in the number of proceedings during the years 1939 to 1945 is to some extent due to the introduction of new
legislation which gave additional grounds for divorce.

Source: Lord Chancellor's Department (England and
Woles), Scottish Home Department and High Court of Justice (Northem Ireland)

## 2. 19 Number of houses built

Number

|  | Total | Permanent houses built by local authorities ${ }^{2}$ |  | Permanent houses built by private builders ${ }^{2}$ |  | War destroyed houses re-built |  | Houses built by Government departments ${ }^{2}$ |  | Temporary houses erected by local authorities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Assisted | Unassisted | Assisted | Unassisted | By local authorities | By private builders under licence | Permanent | Temporary |  |
| England and Wales ${ }^{5}$ |  |  |  |  |  |  |  | $\checkmark$ | $\square$ |  |
| 1935-38 (average) | 334,405 | 48,579 | 12,336 | 1,177 | 272,313 | - | - |  |  | - |
| 1938-39 | 332,360 | 88,776 | 12,968 | 4,207 | 226,409 | - | - | - |  | - |
| 1939-40 | 195,962 | 40,231 | 10,221 | 2,849 | 142,661 | - | - | - |  | - |
| 1940-41 | 42,498 | 11,802 | 3,606 | 648 | 26,442 | - | - | - |  | - |
| 1941-42 | 9,841 | 1,676 | 1,237 | 118 | 5,483 | - | - | 1,32 |  | - |
| 1942-43 | 9,577 | 586 | 792 | 40 | 2,454 | - | - | 5,70 |  | - |
| 1943-44 | 5,768 | 1,437 | 1,102 | 12 | 1,067 | - | - | 2.15 |  | - |
| 1944-45 | 5,537 | 1,691 | 741 | 108 | 1,744 | - | - | 1,25 |  | - |
| 1945 (April to | 10,384 | 366 | - |  |  | 142 | 36 | $\bigcirc$ |  | 8,939 |
| December) |  |  |  |  |  |  |  |  |  |  |
| Scotland |  |  |  |  |  |  |  |  |  |  |
| 1935-38 average | 24,426 | 15,850 | 990 | 5 | 7,581 | - | - | - |  | - |
| 1939 | 25,529 | 18,902 | 216 | 58 | 6,353 | - | - | . |  | - |
| 1940 | 14,206 | 10,357 | 117 | 228 | 3,504 | - | - | . | .. | - |
| 1941 | 5,406 | 4,676 | 38 | 68 | 624 | - | - | .. | . | - |
| 1942 | 3,296 | 3,034 | 38 | 21 | 203 | - | - |  |  | - |
| 1943 | 2,809 | 2,717 | - | 28 | 64 | - | - | .. |  | - |
| 1944 | 2,553 | 2,383 | - | 36 | 134 | - | - | .. |  | - |
| 1945 | 2,006 | 1,428 | - | 27 | 111 | - | 3 |  | . | 437 |

Northern Ireland ${ }^{5}$
$\left.\begin{array}{lrllllllllll}1935-38 \text { (average) } & 2,951 & 158 & - & 2,395 & 385 & - & - & 13 & - & - \\ 1938-39\end{array}\right)$
I. Including flats, each flat being counted as one unit.

Source: Health Departments
2. The Scottish National Housing Companies, Scottish Housing association and the Northem Ireland Housing Trust are included in the figures for local authorities, but other housing associations are included in the figures for private builders.
3. Accommodation for the families of police, prison staffs, defence services and other Govemment employees and, in Northem Ireland, houses built on behalf of the Irish Sailors' and Soldiers' Land Trust.
4. Excluding houses in England and Wales having a rateable value exceeding $E 78$ (or 105 in the Metropolitan Police District).
5. Years ended 31 March, from 1934-35 to 1944-45 for England and Wales, and from 1934-35 to 1938-39 for Northem Ireland. Thereafter calendar years.

### 2.20 Construction activity': Estimated value of work done

| Great Britain |  |  |  |  |  | Emillion |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of work | Description | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Total |  | 425 | 470 | 425 | 350 | 290 | 290 |
| Military construction | Airfields, camps and training establishments, defence works, storage depots, etc. | 140 | 120 | 125 | 122 | 49 | 12 |
| Industrial facilities | Factories, warehouses and storage premises | 80 | 76 | 65 | 46 | 29 | 25 |
| Civil defence | Air raid precautions, public shelters, static water supplies etc. | . | 42 | 23 | 12 | 9 |  |
| Residential building | Construction of hostels and houses |  | 22 | 16 | 6 | 13 | 30 |
| Roads and streets | Strengthening, widening and major maintenance | .. | 2 | 3 | 3 | 3 | 2 |
| Public and institutional buildings | Hospitals, schools, etc. | . | 6 | 6 | 9 | 6 | 5 |
| Public utilities | Electricity, gas, water, sewerage, railways, ports, canals, tramways, etc. |  | 19 | 16 | 12 | 8 | 12 |
| Mining | Mines and opencast coal production |  | - | 2 | 7 | 13 | 14 |
| Air raid damage | Repairs, demolition and debris clearance | 6 | 63 | 61 | 50 | 58 | 113 |
| All other work | Including conversion, adaptation, maintenance and repair (other than war damage repair) of houses |  | 120 | 108 | 83 | 102 | 77 |

[^16]

In September 1939, in marked contrast with the situation in August 1914, the British state began the war with Germany in the belief that the conflict would be a long one and that it could only be won by adopting a policy of 'armament in depth' (Handcock and Gowing 1949: 68,7I). This meant mobilising the resources available to the economy as fully and effectively as possible in order to supply troops for the Armed Forces and to arm those troop. Furthermore, when Churchill became Prime Minister in May 1940 his government abandoned financial controls and planning and adopted physical planning as its
main means of managing the economy; the former relied on the monetary resources available to the economy and to the state, on determining government programmes on the basis of pounds and pence, whereas the latter relied on the physical resources available to the state, on determining government programmes on the basis of, for example, the amount and type of labour or steel available.

The supply and distribution of labour was one of the chief constraints facing the economy and by late 1942 the Manpower Budget (which allocated the available labour supply to government departments, and particularly to those representing the armed forces and the munitions industries) had emerged as probably the key economic tool used by the War Cabinet to plan the economy (Hancock and Gowing 1949:438-52). Thus, manpower planning and manpower statistics were at the very heart of the wartime economy. The Manpower Budget was the focal point of many of the disputes between various Ministers as it dictated the manpower balance between the Armed Forces and civil employment and, within civil employment, the balance between the munitions industries and the nonmunitions industries, and so reflected the strategic and economic priorities of the state.

The control and allocation of manpower by the state could not be achieved without a range of compulsory powers to

## 3. Expansion of the Armed Forces in the United Kingdom United Kingdom



### 3.2 The relative importance of industries in the United Kingdom


allow it to intervene directly in the labour market. These powers were mainly exercised by the Ministry of Labour and National Service. They included: the wartime National Service Acts of 1939-42 which made males aged 18-50 liable for military service and made women liable to be called up for service in the Women's Auxiliary Services (the female branches of the army, navy and air force and the nursing services) or the Civil Defence services; the Schedule of Reserved Occupations, which ensured that industries vital to the war effort did not lose workers unnecessarily to the Armed Forces; and the Essential Works Orders, which were used to control the supply and movement of labour (Ince 1946: 18-27). Compulsion on its own might have alienated the labour movement and thus to balance this the state also used wage incentives and supported improvements in working conditions and welfare; furthermore, the responsibility of wielding the tools of compulsion were placed in the hands of one of the leading trade unionists of the interwar period, Ernest Bevin, who was appointed by Churchill as the Minister of Labour in 1940. Although these measures did not prevent worker discontent, the labour movement was more co-operative with the state than it had been in the First World War: for example, the average numbers of days lost per year due to strike action between 1939 and 1945 was roughly a third of the average for 1914-1918 (table 3.30; Department of Employment and Productivity 1971:396).

The main strategic priority was to raise a large military force to combat the menace from the Axis powers (Germany, Italy and Japan). The expansion of the military services was rapid: they increased by almost three million
between 1939 and 1941 and had reached five million by 1945, accounting for almost a quarter of the working population (table 3.3). Of these, more than 90 per cent were men serving in the Armed Forces; and of the Armed Forces the Army was the largest, followed by the Royal Air Force and then the Royal Navy (in June 1945 they accounted for, respectively, 63 per cent, 20 per cent and 17 per cent of the total Armed Forces) (table 3.4). The remainder were women serving in the Women's Auxiliary Services (which was created in 1940) who provided many essential support services during the war. As with most wars the fighting was done primarily by young men: in June 1943, for example, a quarter of the Armed Forces were aged 22 or younger and another quarter were aged between 23 and 27; by the end of the war 63 per cent of all UK men aged between 20 and 29 were serving in the Armed Forces (tables 3.5 and I.5).

The expansion of the Armed Forces was fed by two main sources: reduced unemployment (in the 1930s Britain had experienced very high levels of unemployment and at the beginning of 1940 there were still more than one million people unemployed) and the recruitment of workers from civil employment. This recruitment was fuelled mainly by conscription - less than a third of the wartime intake of the Armed Forces were volunteers (table 3.6). Despite the large outflow of labour from industry civil employment remained fairly stable during the war because the overall size of the working population actually increased (from 19.5 million in 1938 to a wartime peak of 22.3 million in 1943). This mainly reflected an increase in the female participation rate (new female workers accounted for four
out of every five of the new labour market entrants) which meant that the sharp fall in male civil employment was countered by a sharp rise in female civil employment (table 3.3).

Within civil employment there was also a marked transformation in the importance of different industries: the strategic priorities of the war called for the expansion of the munitions and related industries (metals, engineering, vehicles, shipbuilding, chemicals, explosives, paints, oils, etc.) at the expense of the non-munitions industries. Thus, the munitions and related industries saw their share of civil employment increase from 16 per cent in 1939 to a wartime peak of 23 per cent in 1943 whilst those industries considered 'less essential' to the war effort (such as textiles, commercial services, leather, wood and paper) saw their share decline from 49 per cent in 1939 to 28 per
cent in 1944 (Howlett, 1944: 22-24; tables 3.12-3.25) Furthermore, many workers in these 'less essential' industries were engaged in the manufacture of supplies for the Armed Forces: in December 1943, for example, such work occupied 43 per cent of workers in the textile industries, 41 per cent in the hats and caps industries, 53 per cent in the furniture and upholstery industry and 42 per cent in the paper industry (tables 3.19-3.22). Finally, the establishment of the war economy also went hand-inhand with an expansion in the size of the state. New Ministries were established (such as the Ministries of Aircraft Production, Economic Warfare, Food, Shipping, Supply and Works and Buildings) and the number of civil servants more than doubled from 0.6 million in April 1939 to the wartime peak of 1.4 million four years later (tables 3.26 and 3.27).


### 3.3 Distribution of total manpower ${ }^{\prime}$

| Great Britain | At June in each year |  |  |  |  |  | Thousands |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Total working population | 19,473 | 19,750 | 20,676 | 21,332 | 22,056 | 22,285 | 22,008 | 21,649 |
| Males | 14,476 | 14,656 | 15,104 | 15,222 | 15,141 | 15,032 | 14,901 | 14,881 |
| Females | 4,997 | 5,094 | 5,572 | 6,110 | 6,915 | 7,253 | 7,107 | 6,768 |
| Total in Armed Forces and Auxiliary Services | 385 | 480 | 2,273 | 3,383 | 4,091 | 4,761 | 4,967 | 5,090 |
| Males | 385 | 480 | 2,218 | 3,278 | 3,784 | 4,300 | 4,500 | 4,653 |
| Females | - | - | 55 | 105 | 307 | 461 | 467 | 437 |
| Registered insured unemployed | 1,710 | 1,270 | 645 | 198 | 87 | 60 | 54 | 103 |
| Males | 1,325 | 1,013 | 434 | 100 | 61 | 44 | 40 | 68 |
| Females | 385 | 257 | 211 | 98 | 26 | 16 | 14 | 35 |
| Ex.members of H.M. Forces not yet in employment | - | - | - | - | - | 20 | 20 | 40 |
| Males | - | - | - | - | - | 13 | 14 | 27 |
| Females |  | - | - | - | - | 7 | 6 | 13 |
| Total in civil employment | 17,378 | 18,000 | 17,758 | 17,751 | 17,878 | 17,444 | 16,967 | 16,416 |
| Males | 12,766 | 13,163 | 12,452 | 11,844 | 11,296 | 10,675 | 10,347 | 10,133 |
| Females | 4,612 | 4,837 | 5,306 | 5,907 | 6,582 | 6,769 | 6,620 | 6,283 |
| Agriculture and fishing | 949 | 950 | 925 | 981 | 1,002 | 1,047 | 1,048 | 1,041 |
| Mining and quarrying | 849 | 873 | 886 | 820 | 823 | 818 | 813 | 799 |
| Metals, engineering, vehicles and shipbuilding | 2,590 | 2,812 | 3,198 | 3.753 | 4,372 | 4,659 | 4,496 | 3,899 |
| Chemicals, explosives, paints, oils, etc. | 276 | 294 | 361 | 487 | 618 | 574 | 515 | 447 |
| Textiles | 861 | 1,002 | 1,074 | 871 | 723 | 669 | 635 | 634 |
| Clothing, boots and shoes | 717 | 752 | 748 | 674 | 550 | 493 | 455 | 481 |
| Food, drink and tobacco | 640 | 654 | 621 | 597 | 567 | 519 | 508 | 518 |
| Cement, bricks, pottery, glass, etc. | 271 | 265 | 220 | 211 | 188 | 170 | 159 | 159 |
| Leather, wood, paper, etc. | 844 | 859 | 725 | 614 | 573 | 539 | 536 | 555 |
| Other manufactures | 164 | 177 | 181 | 190 | 163 | 123 | 129 | 127 |
| Building and civil engineering | 1,264 | 1,310 | 1,064 | 1,043 | 893 | 726 | 623 | 722 |
| Gas, water and electricity supply | 240 | 242 | 213 | 214 | 214 | 200 | 193 | 196 |
| Transport and shipping | 1,225 | 1,233 | 1,146 | 1,194 | 1,217 | 1,176 | 1,237 | 1,252 |
| Distributive trades | 2,882 | 2,887 | 2,639 | 2,332 | 2,173 | 2,009 | 1,927 | 1,958 |
| Commerce, banking, insurance and finance | 414 | 413 | 370 | 358 | 317 | 282 | 268 | 264 |
| National and Local Government | 1,386 | $1,385$ | 1,448 | 1,636 | 1,728 | 1,786 | 1,809 | 1,903 |
| Civil Defence, Fire Service and Police | ]1,386 | $80$ | 345 | 383 | 384 | 323 | 282 | 127 |
| Miscellaneous services | 1,806 | 1,812 | 1,594 | 1,393 | 1,373 | 1,331 | 1,334 | 1,334 |

I. Men aged 14-64, women aged 14-59. Including employers and self-employed as well as

Source: Ministry of Labour employees, but excluding indoor private domestic service. Women in part-time paid employment and National Service

Strength of the Armed Forces and Women's Auxiliary Services

United Kingdom
End of month
Thousands

I. Excluding men locally enlisted abroad.
2. Including women locally enlisted abroad.
3. Including men serving with the Royal Navy on T. 124 agreements, Royal Marine Police and, up to June 1941, prisoners-of-war and missing.
4. Including men serving with the India Unattached List, but excluding the British Indian Service.

Men locally enlisted abroad are included up to September 1941.
5. Excluding those locally enlisted abroad on modified forms of Auxiliary Territorial Service engagements whose documents were maintained outside the United Kingdom. From June 1944 all women locally enlisted abroad whose documents were maintained outside the United Kingdom are excluded.
6. Including Queen's Army Schoolmistresses.

### 3.5 Age distribution of the Armed Forces and Women's Auxiliary Services

Thousands

|  | Armed Forces ${ }^{\prime}$ |  |  |  |  | Women's Auxiliary Services' |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1941$ <br> December | $\begin{aligned} & 1942 \\ & \text { June } \end{aligned}$ | $1943$ June | 1944 June | $1945$ June | $1941$ <br> December | 1942 <br> June | $\begin{aligned} & 1943 \\ & \text { June } \end{aligned}$ | 1944 June | $1945$ June |
| Age: |  |  |  |  |  |  |  |  |  |  |
| 18 and under | 63.3 | 66.0 | 149.1 | 78.5 | 76.2 | 29.4 | 18.1 | 17.3 | 9.5 | 7.4 |
| 19 | 155.0 | 143.5 | 184.7 | 195.3 | 186.3 | 23.4 | 34.4 | 40.2 | 25.6 | 22.7 |
| 20 | 253.5 | 213.2 | 222.1 | 226.3 | 215.4 | 25.7 | 36.4 | 60.3 | 39.6 | 30.3 |
| 21 | 311.1 | 272.6 | 241.0 | 239.5 | 228.5 | 31.6 | 46.4 | 62.5 | 64.2 | 36.8 |
| 22 | 252.8 | 300.8 | 281.1 | 254.6 | 236.6 | 18.2 | 41.2 | 66.5 | 61.8 | 57.5 |
| 23 | 210.9 | 236.3 | 297.9 | 277.9 | 248.2 | 11.5 | 21.8 | 56.3 | 61.0 | 54.1 |
| 24 | 190.7 | 208.0 | 231.3 | 306.3 | 272.8 | 8.7 | 14.5 | 29.3 | 51.6 | 52.4 |
| 25 | 211.9 | 183.9 | 203.2 | 235.2 | 304.5 | 8.5 | 11.6 | 20.6 | 27.9 | 43.7 |
| 26 | 201.3 | 203.9 | 183.1 | 197.6 | 237.5 | 6.8 | 10.9 | 13.8 | 19.7 | 23.6 |
| 27 | 191.3 | 196.1 | 212.9 | 184.2 | 201.3 | 6.1 | 8.6 | 12.6 | 12.7 | 15.9 |
| 28 | 179.5 | 189.4 | 205.2 | 212.4 | 180.3 | 4.6 | 7.7 | 10.4 | 11.9 | 10.3 |
| 29 | 176.0 | 177.8 | 196.6 | 205.5 | 209.7 | 3.9 | 6.2 | 8.8 | 9.3 | 10.0 |
| 30 | 161.7 | 176.6 | 185.5 | 197.7 | 202.5 | 3.3 | 5.6 | 7.0 | 8.2 | 7.9 |
| 31 | 145.8 | 158.8 | 184.5 | 187.5 | 194.5 | 2.9 | 4.4 | 6.0 | 6.9 | 7.0 |
| 32 | 119.8 | 146.6 | 168.3 | 184.1 | 184.5 | 2.5 | 3.9 | 4.9 | 5.9 | 5.8 |
| 33 | 113.9 | 121.6 | 159.9 | 171.4 | 182.1 | 2.2 | 3.2 | 4.2 | 4.7 | 5.3 |
| 34 | 104.6 | 114.9 | 136.9 | 161.6 | 170.1 | 1.9 | 2.6 | 3.5 | 3.9 | 4.0 |
| 35 | 99.3 | 108.9 | 1278 | 138.6 | 160.8 | 1.9 | 2.4 | 3.1 | 3.1 | 3.2 |
| 36 | 74.7 | 102.7 | 120.0 | 130.0 | 136.4 | 1.6 | 2.2 | 2.6 | 2.8 | 2.6 |
| 37 | 62.1 | 78.7 | 112.2 | 122.7 | 127.1 | 1.5 | 1.9 | 2.3 | 2.4 | 2.3 |
| 38 | 49.4 | 65.3 | 88.7 | 114.5 | 119.4 | 1.3 | 1.8 | 2.1 | 2.1 | 20 |
| 39 | 44.0 | 54.3 | 74.4 | 90.6 | 112.5 | 1.1 | 1.5 | 1.9 | 1.7 | 1.7 |
| 40 | 40.6 | 50.2 | 62.2 | 76.1 | 87.9 | 1.0 | 1.3 | 1.6 | 1.6 | 1.4 |
| 41 | 29.5 | 44.2 | 57.5 | 61.6 | 72.8 | 1.1 | 1.2 | 1.3 | 1.4 | 1.3 |
| 42 | 20.1 |  | 50.2 | 57.8 | 58.5 | 1.1 |  | 1.1 | 1.2 | 1.1 |
| 43 | 16.4 |  |  | 50.3 | 74.8 | 0.8 |  |  | 1.0 | 1.0 |
| 44 | 14.1 | 159.2 |  | 33.5 | 48.0 | 0.6 | 4.7 |  | 1.1 | 0.8 |
| 45 | 13.6 |  |  |  | 33.5 | 0.4 |  |  |  | 0.8 |
| 46 and over | 82.0 |  |  | 123.7 |  |  |  |  | 3.4 | 2.3 |
| All ages | 3,589.0 | 3,773.7 | 4,293.3 | 4,515.1 | 4,654.4 | 204.7 | 294.4 | 445.2 | 446.2 | 415.2 |

[^17]Source: Service Departments

I. Excluding men and women locally enlisted abroad. Figures for the Army and A.T.S., however,

Source: Service Departments include those whose documents are maintained in the United Kingdom.
2. Excluding men serving with the Royal Navy on T. 124 agreements (and variants), but including Royal Marine Police.
3. From January 1945 including intake into the Royal Navy from Deferred List.
4. From June 1945 including Class A and B releases.
5. Including about 485,400 mobilized and embodied at the outbreak of war.
6. The number of prisoners repatriated exceeded casualties.

Releases from the Armed Forces, Women's Auxiliary Services and Nursing Services ${ }^{\prime}$

Number

|  | Armed Forces |  |  |  |  | Women's Auxiliary Services |  |  |  |  | Nursing Services |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Class A releases | $\begin{aligned} & \text { Class B } \\ & \text { releases } \end{aligned}$ | Class C releases | Other releases and discharges | Total | Class A <br> releases | Class B <br> releases | Class C <br> releases | Other releases and discharges | Total | Class A <br> releases | Other releases and discharges |
| 1945 June 18-30 | 32,120 | 22,108 | - | 21 | 9,991 | 11,694 | 9,110 | - | 36 | 2,548 | 457 | 403 | 54 |
| July | 76,884 | 59,919 | 2,051 | 174 | 14,740 | 32,330 | 28,771 | 5 | 239 | 3,315 | 1,079 | 931 | 148 |
| August | 111,437 | 88,629 | 6,492 | 489 | 15,827 | 30,232 | 25,292 | 9 | 424 | 4,507 | 824 | . 737 | 87 |
| September | 131,543 | 102,856 | 9,815 | 3,307 | 15,565 | 22,293 | 19,000 | 39 | 918 | 2,336 | 992 | 881 | 111 |
| October | 266,595 | 200,700 | 20,598 | 4,706 | 40,591 | 24,006 | 19,023 | 182 | 1,032 | 3.769 | 952 | 796 | 156 |
| November | 377,371 | 317,764 | 29,046 | 6,762 | 23,799 | 24,535 | 20,824 | 716 | 1,150 | 1,845 | 1,020 | 911 | 109 |
| December | 346,157 | 294,883 | 24,653 | 5,805 | 20,816 | 21,144 | 17,916 | 920 | 733 | 1,575 | 925 | 794 | 131 |
| 1946 January | 422,135 | 381,100 | 25,843 | 3,677 | 11,515 | 30,869 | 28,635 | 583 | 761 | 890 | 931 | 844 | 87 |
| February | 329,665 | 288,202 | 26,921 | 2,520 | 12,022 | 31,886 | 30,328 | 192 | 523 | 843 | 985 | 875 | 110 |
| March | 335,547 | 289,408 | 34,933 | 2,219 | 8,987 | 32,618 | 30,759 | 270 | 492 | 1,097 | 1,173 | 1,078 | 95 |
| April | 255,509 | 210,271 | 32,243 | 1,396 | 11.599 | 21,734 | 20,441 | 445 | 389 | 459 | 938 | 876 | 62 |
| May | 254,712 | 224,589 | 20,586 | 1,271 | 8,266 | 23,378 | 22,155 | 180 | 358 | 685 | 931 | 852 | 79 |
| June | 218,559 | 201,780 | 10,207 | 732 | 5,840 | 21,128 | 20,325 | 90 | 276 | 437 | 1,036 | 967 | 69 |
| July | 174,259 | 156,711 | 11,029 | 600 | 5,919 | 14,960 | 14,281 | 87 | 265 | 327 | 747 | 664 | 83 |
| August | 132,827 | 120,942 | 6,516 | 351 | 5,018 | 10,568 | 9,802 | 82 | 193 | 491 | 650 | 573 | 77 |
| September | 145,235 | 135,779 | 5,009 | 239 | 4,208 | 10,678 | 9,837 | 96 | 238 | 507 | 549 | 466 | 83 |
| October | 108,573 | 98,827 | 3,579 | 281 | 5,886 | 9,333 | 8,007 | 67 | 194 | 1,065 | 856 | 776 | 80 |
| November | 88,454 | 82,344 | 1,597 | 283 | 4,230 | 7,603 | 6,924 | 32 | 179 | 468 | 818 | 757 | 61 |
| December | 79,740 | 75,195 | 883 | 309 | 3,353 | 6,011 | 5,599 | 31 | 142 | 239 | 670 | 633 | 37 |
| 1947 January | 41,951 | 36,250 | 764 | 545 | 4,392 | 4,039 | 3,336 | 14 | 142 | 547 | 423 | 345 | 78 |
| February | 33,545 | 29,372 | 386 | 662 | 3,125 | 3,246 | 2,731 | 12 | 159 | 344 | 257 | 211 | 46 |
| March | 47,483 | 43,495 | 361 | 626 | 3,001 | 3,649 | 3,226 | 10 | 166 | 247 | 389 | 311 | 78 |
| April | 51,938 | 46,473 | 1,400 | 300 | 3,765 | 3,786 | 3,192 | 12 | 152 | 430 | 374 | 339 | 35 |
| May | 63,657 | 56,721 | 2,146 | 251 | 4.539 | 3,793 | 3,228 | 10 | 123 | 432 | 299 | 267 | 32 |
| June | 57,779 | 51,787 | 1,730 | 302 | 3,960 | 3,472 | 3,009 | 16 | 73 | 374 | 231 | 197 | 34 |
| July | 55,316 | 48,808 | 1,545 | 358 | 4,605 | 4,259 | 3,637 | 10 | 105 | 507 | 272 | 219 | 53 |
| August | 37,870 | 32,828 | 1,144 | 211 | 3,687 | 4,465 | 4,005 | 7 | 122 | 331 | 183 | 153 | 30 |
| September | 39,415 | 33,404 | 1,593 | 225 | 4,193 | 3,884 | 3,347 | 14 | 114 | 409 | 142 | 112 | 30 |
| October | 52,295 | 46,930 | 848 | 265 | 4,252 | 3,750 | 3,258 | 11 | 99 | 382 | 224 | 207 | 17 |
| November | 53,163 | 48,622 | 647 | 163 | 3,731 | 2,824 | 2,485 | 7 | 74 | 258 | 161 | 140 | 21 |
| December | 57,236 | 53,261 | 425 | 120 | 3,430 | 2,476 | 2,272 | 2 | 25 | 177 | 163 | 140 | 28 |

[^18]Source: Service Departments

## Casualties suffered during the war by the Armed Forces, Auxiliary Services and Merchant Navy'

Number

|  | Total |  |  |  |  | War against Germany |  |  |  | War against Japan |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Killed | Missing $^{2}$ | Wounded | Prison-ers-ofwar | Killed | Missing | Wounded | Prison-ers-ofwar | Killed | Missing | Wounded | Prison-ers-ofwar |
| Armed Forces ${ }^{3}$ Total | 755,439 | 264,443 | 41,327 | 277,077 | 172,592 | 234,475 | 35,075 | 260,548 | 135,009 | 29,968 | 6,252 | 16,529 | 37,583 |
| Royal Navy | 73,642 | 50,758 | 820 | 14,663 | 7.401 | 46,911 | 416 | 14,360 | 5,518 | 3,847 | 404 | 303 | 1,883 |
| Army | 569,501 | 144,079 | 33,771 | 239,575 | 152,076 | 121,484 | 29,255 | 224,427 | 119,764 | 22,595 | 4,516 | 15,148 | 32,312 |
| Royal Air Force | 112,296 | 69,606 | 6,736 | 22,839 | 13,115 | 66,080 | 5,404 | 21,761 | 9,727 | 3,526 | 1,332 | 1,078 | 3,388 |


| Women's Auxiliary <br> Services | 1,486 | 624 | 98 | 744 | 20 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total <br> Women's Royal | 124 | 102 | - | 22 | - |
| Naval Service | 122 |  |  |  |  |
| Auxiliary Terri- <br> tonial Service | 751 | 335 | 94 | 302 | 20 |
| Women's Auxiliary <br> Air Force | 611 | 187 | 4 | 420 | - |


| Merchant Navy | 45,329 | 30,248 | 4,654 | 4,707 | 5,720 | 28,748 | 30 | 4,467 | 4,675 | 1,500 | 4,624 | 240 | 1,045 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

1. From 3 September 1939 to 14 August 1945 as reported to 28 February 1946.

Source: Service Departments
2. Including 6,244 still missing at 28 February 1946 and 39,835 who rejoined their units.
3. Including men from overseas serving in the United Kingdom forces, in particular from

Newfoundland and Southern Rhodesia.
4. Including Army Nursing Services.

### 3.9 Strength of the Home Guard and Royal Observer Corps

Thousands

|  | Home Guard |  | Royal Observer Corps |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Total | Full-time ${ }^{1}$ |  | Part-time ${ }^{1}$ |  |
|  |  |  |  | Men | Women | Men | Women |
| 1940 June | 1,456 | - | 27.9 | 2.3 | - | 25.6 |  |
| 1941 June | 1,603 | - | 33.2 | 4.0 | - | 29.3 |  |
| December | 1,530 | - | 34.8 | 4.4 | - | 30.0 | 0.4 |
| 1942 June | 1,565 | - | 34.0 | 5.1 | 0.2 | 28.0 | 0.8 |
| December | 1,741 | - | 32.4 | 5.5 | 0.4 | 25.6 | 0.9 |
| 1943 March | 1,793 | - | 32.8 | 5.7 | 0.7 | 25.2 | 1.1 |
| June | 1,784 | 4 | 32.9 | 5.9 | 1.0 | 24.8 | 1.2 |
| September | 1,769 | 16 | 32.9 | 6.2 | 1.4 | 24.1 | 1.3 |
| December | 1,754 | 22 | 33.0 | 6.4 | 2.1 | 23.2 | 1.3 |
| 1944 March | 1,739 | -28 | 32.8 | 6.5 | 2.5 | 22.4 | 1.4 |
| June | 1,727 | 31 | 32.7 | 6.4 | 2.6 | 22.1 | 1.5 |
| September | 1,698 | 32 | 32.5 | 6.4 | 2.8 | 21.9 | 1.5 |
| December | 1,685 | - | 32.2 | 6.4 | 2.9 | 21.4 | 1.4 |
| 1945 March | - | - | 32.1 | 6.5 | 3.0 | 21.2 | 1.4 |
| June | - | - | 8.7 | 5.7 | 2.1 | 0.9 | - |

[^19]Source: War Office and Air Ministry

Thousands

|  |  | Whole-time |  |  |  |  |  | Part-time |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  National <br> A.R.P. Fire <br> Services $^{~}$ Services $^{2}$ |  |  |  | Casualty Services ${ }^{3}$ |  | A.RP. <br> Services' |  | National Fire Service ${ }^{2}$ |  | Casualty Services ${ }^{3}$ |  |
|  |  | Males | Females | Males | Females | Males | Females | Males | Females | Male | Females | Males | Females |
| 1940 | March | 117.5 | 15.9 | 72.9 | 5.4 | 17.0 | 31.6 | .. | . | 153.9 | 7.6 | 41.9 | 125.0 |
|  | June | 108.7 | 14.9 | 72.2 | 4.7 | 14.9 | 33.0 | 719.4 | 136.9 | 161.6 | 8.9 | 46.7 | 134.2 |
|  | September | 112.0 | 14.9 | 82.1 | 4.2 | 15.2 | 35.0 | 774.0 | 153.0 | 168.0 | 9.0 | 51.2 | 137.0 |
|  | December | 112.3 | 15.2 | 88.0 | 5.4 | 15.1 | 35.4 | 774.7 | 149.9 | 163.4 | 8.9 | 49.8 | 129.1 |
| 1941 | March | 112.0 | 15.8 | 92.5 | 4.5 | 14.9 | 35.3 | 778.4 | 152.2 | 168.1 | 9.8 | 48.0 | 122.8 |
|  | June | 110.1 | 16.8 | 96.8 | 5.4 | 14.5 | 36.0 | 759.2 | 148.3 | 159.4 | 10.0 | 47.2 | 122.2 |
|  | September | 109.0 | 17.5 |  |  | 13.6 | 37.2 | 734.7 | 140.6 |  |  | 45.6 | 117.7 |
|  | December | 107.1 | 19.1 | 106.8 | 19.7 | 13.4 | 37.9 | $668.0{ }^{4}$ | $127.2^{4}$ | 136.5 | 8.2 | 42.9 | 107.6 |
| 1942 | March | 99.7 | 19.4 | 108.6 | 26.0 | 11.8 | 36.1 | 710.8 | 127.2 | 122.1 | 9.6 | 39.8 | 97.1 |
|  | June | 88.7 | 17.6 | 107.7 | 28.5 | 9.3 | 30.7 | 739.6 | 137.3 | 129.9 | 11.1 | 39.7 | 95.2 |
|  | September | 78.9 | 14.9 | 101.8 | 30.4 | 8.2 | 26.2 | 746.2 | 148.1 | 141.1 | 18.6 | 41.2 | 101.9 |
|  | December | 74.4 | 13.5 | 98.0 | 31.9 | 7.5 | 24.8 | 777.4 | 165.5 | 176.6 | 33.1 | 44.5 | 114.2 |
| 1943 | March | 69.6 | 12.4 | 95.5 | 32.2 | 7.2 | 23.2 | 782.5 | 165.3 | 200.3 | 42.6 | 48.2 | 120.3 |
|  | June | 66.5 | 11.7 | 93.8 | 30.7 | 7.1 | 21.8 | 773.4 | 167.1 | 214.8 | 47.0 | 47.5 | 116.6 |
|  | September | 62.2 | 11.0 | 92.6 | 29.4 | 6.9 | 20.3 | 797.9 | 175.7 | 224.5 | 51.1 | 49.0 | 117.7 |
|  | December | 59.6 | 10.4 | 90.6 | 27.3 | 6.7 | 19.3 | 799.3 | 177.4 | 233.2 | 53.8 | 49.0 | 116.2 |
| 1944 | March | 57.7 | 10.2 | 88.6 | 25.7 | 6.6 | 18.7 | 802.5 | 178.4 | 234.9 | 53.6 | 49.4 | 115.0 |
|  | June | 56.9 | 10.0 | 86.6 | 24.1 | 7.1 | 17.8 | 799.4 | 179.8 | 231.9 | 54.6 | 49.8 | 114.2 |
|  | September | 54.3 | 9.5 | 84.4 | 22.2 | 6.5 | 17.8 | 791.7 | 177.4 | 228.5 | 53.0 | 48.9 | 112.6 |
|  | December | 28.5 | 5.0 | 71.7 | 20.0 | 4.1 | 9.6 | 651.8 | 1508 | 160.4 | 46.3 | 37.8 | 81.9 |
| 1945 | March | 24.8 | 4.4 | 57.9 | 15.1 | 3.4 | 7.7 | 622.7 | 142.3 | 136.6 | 35.7 | 29.3 | 63.0 |
|  | June |  |  | 46.2 | 10.6 | . | . . | . |  | 102.9 | 5.2 | .. | . . |
|  | September | . |  | 36.5 | 5.5 |  | . |  |  | 47.6 | 9.8 | .. | . |

1. Civil Defence (General) Services: wardens, rescue and first-aid parties, report and control centres,

Source: Home Office messengers
2. Until September 1941 regular Fire Brigades and Auxiliary Fire Service. Including Works Brigades.
3. Emergency ambulance service and first-aid post service.
4. Excluding non-effectives previously included. They numbered 37.3 thousand males and 11.9 thousand females in December 1941.

## 3. Numbers employed in the Police services

|  |  | Whole-time |  |  |  | Part-time <br> Auxiliary ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Regular |  | Auxiliary ${ }^{\prime}$ |  |  |  |
|  |  | Males | Females | Males | Females | Males | Females |
| 1939 | September | 68.4 | 0.3 | $36.1{ }^{13}$ | 0.1 | 180.2 |  |
|  | December | 65.4 | 0.3 | 34.4 | 0.1 | . . | . |
| 1940 | March | 64.6 | 0.3 | 33.8 | 0.1 |  | 0.5 |
|  | June | 64.4 | 0.3 | 31.9 | 0.2 | 159.3 | 0.6 |
|  | September | 64.0 | 0.3 | 35.6 | 0.2 | 160.5 | 0.7 |
|  | December | 64.1 | 0.3 | 36.3 | 0.3 | 159.0 | 0.8 |
| 1941 | March | 64.5 | 0.3 | 37.5 | 0.3 | 158.1 | 0.7 |
|  | June | 64.4 | 0.4 | 38.2 | 0.3 | 156.2 | 0.7 |
|  | September | 62.8 | 0.4 | 39.5 | 0.8 | 160.4 | 0.9 |
|  | December | 62.0 | 0.4 | 39.1 | 2.2 | 145.5 | 1.2 |
| 1942 | March | 61.3 | 0.4 | 38.5 | 2.7 | 145.1 | 1.2 |
|  | June | 60.4 | 0.4 | 36.8 | 3.6 | 145.3 | 1.6 |
|  | September | 56.1 | 0.4 | 36.4 | 4.5 | 147.0 | 1.8 |
|  | December | 54.6 | 0.4 | 36.0 | 4.8 | 147.7 | 1.9 |
| 1943 | March | 53.8 | 0.4 | 35.1 | 5.0 | 146.0 | 1.9 |
|  | June | 51.6 | 0.4 | 34.1 | 5.0 | 145.0 | 1.9 |
|  | September | 50.0 | 0.4 | 33.1 | 4.9 | 143.3 | 1.9 |
|  | December | 48.8 | 0.4 | 28.1 | 4.8 | 142.3 | 1.9 |
| 1944 | March | 49.6 | 0.4 | 26.8 | 4.7 | 141.1 | 2.0 |
|  | June | 48.9 | 0.4 | 25.3 | 4.6 | 138.9 | 1.9 |
|  | September | 48.3 | 0.4 | 23.5 | 4.5 | 137.2 | 1.8 |
|  | December | 47.9 | 0.4 | 21.1 | 4.3 | 132.1 | 1.8 |
| 1945 | March | 47.4 | 0.4 | 19.8 | 4.2 | 122.3 | 1.7 |
|  | June | 46.8 | 0.4 | 18.6 | 4.0 | 103.6 | 1.3 |
|  | September | 49.6 | 0.5 | 16.8 | 3.7 | 52.7 | 0.6 |

I. Police War Reserve, First Police Reserve, special constables, and Women's Auxiliary Police

Source: Home Office and Scottish
Corps, but excluding civilian employees. From September 1941 the Police Auxiliary Messenger
Home Department Service is included.
2. Special constables and Women's Auxiliary Police Corps, but excluding civilian employees.

From September 1941 the Police Auxiliary Messenger Service is included. From September
1939 to September 1941 the figures relate to persons enrolled for employment.
3. This figure does not include whole-time special constables.

## MANPOWER

### 3.12 Numbers employed in agriculture

Great Britain

|  | All workers' |  |  | Regular workers ${ }^{2}$ |  | Casual workers |  | Women's Land Army ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Males | Females | Males | Females |  |
| 1939 June | 711 | 618 | 93 | 546 | 55 | 72 | 39 |  |
| 1940 June | 712 | 602 | 110 | 530 | 58 | 72 | 52 | 8.8 |
| December | 669 | 591 | 79 | 514 | 46 | 76 | 32 | 8.8 |
| 1941 June | 759 | 619 | 141 | 531 | 71 | 88 | 69 | 15.9 |
| December | 729 | 598 | 131 | 504 | 72 | 94 | 59 | 23.5 |
| 1942 June | 824 | 627 | 197 | 530 | 110 | 97 | 87 | 44.4 |
| December | 789 | 614 | 175 | 516 | 104 | 98 | 71 | 59.0 |
| 1943 June | 843 | 621 | 223 | 517 | 128 | 104 | 95 | 77.7 |
| December | 805 | 619 | 186 | 514 | 121 | 105 | 66 | 80.3 |
| 1944 June | 863 | 647 | 216 | 522 | 95 | 100 | 73 | 78.0 |
| December | 835 | 652 | 182 | 514 | 83 | 91 | 54 | 71.6 |
| 1945 June | 887 | 683 | 204 | 521 | 90 | 104 | 71 | 65.3 |

1. Workers on holdings of more than one acre. Excluding the occupier, his wife and domestic
2. Including before June 1944, in the case of England and Wales, and December 1945 in the case of Scotland, prisoners of war and members of the Women's Land Army employed as regular workers but not then returned separately. For subsequent dates they are included only in the figures for all workers.
3. The figures include all those in full-time employment in agricultural, horticultural and timber work

## 3. 1 Numbers employed in engineering and metals', explosives and chemicals and shipbuilding industries ${ }^{2}$

Great Britain

|  | Total numbers employed |  |  | Numbers employed on |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Manufacture of equipment and supplies for the Forces |  |  |  |  |  |  |  |  |
|  | Total | Males | Females | Total | Orders for Admiralty | Orders for Ministry of Supply | Orders for Ministry of Aircraft Production | Orders for export | Orders for home market |
| 1939 June | 2,742.0 | 2,254.0 | 488.0 |  |  |  |  |  |  |
| 1940 June | 3,170.1 | 2,523.6 | 646.5 | 2,099.8 |  |  |  | 259.2 | 811.1 |
| September | 3,339.8 | 2,616.2 | 723.6 | 2,371.5 |  |  |  | 225.9 | 742.4 |
| December | 3,461.4 | 2,699.1 | 762.3 | 2,554.8 | 619.7 | 937.3 | 997.8 | 199.0 | 707.6 |
| 1941 March | 3,651.6 | 2,744.7 | 906.9 | 2,734.2 | 619.9 | 1,021.7 | 1,092.6 | 191.8 | 725.6 |
| June | 3,852.7 | 2,789.4 | 1,063.3 | 2,979.2 | 642.4 | 1,168.9 | 1,167.9 | 166.9 | 706.6 |
| September | 4,003.3 | 2,832.7 | 1,170.6 | 3,154.1 | 656.8 | 1,284.5 | 1,212.8 | 156.6 | 692.6 |
| December | 4,260.7 | 2,900.8 | 1,359.9 | 3,397.0 | 676.4 | 1,433.9 | 1,286.7 | 136.7 | 727.0 |
| 1942 March | 4,438.5 | 2,930.4 | 1,508.1 | 3,590.0 | 685.8 | 1,540.0 | 1,364.2 | 125.2 | 723.3 |
| June | 4,589.5 | 2,949.2 | 1,640.3 | 3,772.1 | 704.7 | 1,629.2 | 1,438.2 | 110.3 | 707.1 |
| September | 4,712.5 | 2,991.9 | 1,720.6 | 3,893.1 | 728.9 | 1,658.7 | 1,505.5 | 98.6 | 720.8 |
| December | 4,809.9 | 3,006.4 | 1,803.5 | 3,982.9 | 741.9 | 1,686.0 | 1,555.0 | 92.1 | 734.9 |
| 1943 March | 4,839.8 | 3,004.6 | 1,835.2 | 4,020.0 | 766.0 | 1,670.3 | 1,583.7 | 84.6 | 735.2 |
| June | 4,847.8 | 2,992.2 | 1,855.6 | 4,019.6 | 786.8 | 1,627.7 | 1,605.1 | 85.5 | 742.7 |
| September | 4,820.4 | 2,975.9 | 1,844.5 | 3,997.5 | 805.3 | 1,536.9 | 1,655.3 | 86.5 | 736.4 |
| December | 4,799.1 | 2,959.9 | 1,839.2 | 3,977.6 | 806.5 | 1,459.5 | 1,711.6 | 86.8 | 734.7 |
| 1944 March | 4,736.0 | 2,928.5 | 1,807.5 | 3,915.4 | 806.1 | 1,422.2 | 1,687.1 | 88.4 | 732.2 |
| June | 4,642.6 | 2,877.7 | 1,764.9 | 3,810.4 | 793.2 | 1,377.6 | 1,639.6 | 87.6 | 744.6 |
| September | 4,536.1 | 2,832.3 | 1,703.8 | 3,709.6 | 780.3 | 1,338.7 | 1,590.6 | 91.6 | 734.9 |
| December | 4,362.4 | 2,761.2 | 1,601.2 | 3,503.6 | 756.1 | 1,277.0 | 1,470.5 | 104.8 | 754.0 |
| 1945 March | 4,208.0 | 2,694.2 | 1,513.8 | 3,301.4 | 720.1 | 1,250.5 | 1,330.8 | 122.0 | 784.6 |
| June | 3,998.6 | 2,601.4 | 1,397.2 | 2,953.8 | 667.7 | 1,156.1 | 1,130.0 | 154.9 | 889.9 |

[^20]Source: Ministry of Labour and National Service as one unit.
3. 4 Numbers employed in the explosives, chemicals, paints, oils, etc., industries'
Great Britain

|  |  | Total numbers employed |  |  | Numbers employed on |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Males | Females | Manufacture of equipment and supplies for the Forces |  |  |  | Orders for export | Orders for home market |
|  |  | Total |  |  | Orders for Admiralty | Orders for Ministry of Supply | Orders for Ministry of Aircraft Production |  |  |
| 1939 |  |  | 284.4 | 210.5 | 73.9 | . |  |  | .. | . | .. |
| 1940 |  | 339.9 | 236.9 | 103.0 | 156.6 | . |  | .. | 43.5 | 139.8 |
|  | September | 362.4 | 240.7 | 121.7 | 175.7 |  |  | .. | 37.8 | 148.9 |
|  | December | 394.9 | 257.2 | 137.7 | 224.8 | 26.8 | 173.2 | 24.8 | 34.7 | 135.4 |
| 1941 | March | 432.4 | 268.4 | 164.0 | 254.2 | 31.6 | 196.9 | 25.7 | 40.2 | 138.0 |
|  | June | 477.7 | 269.8 | 207.9 | 312.9 | 25.0 | 256.2 | 31.7 | 30.6 | 134.2 |
|  | September | 516.9 | 275.7 | 241.2 | 365.0 | 28.2 | 315.6 | 21.2 | 29.7 | 122.2 |
|  | December | 559.5 | 282.6 | 276.9 | 401.0 | 31.3 | 3424 | 27.3 | 27.3 | 131.2 |
| 1942 | March | 598.3 | 287.5 | 310.8 | 436.5 | 35.1 | 372.9 | 28.5 | 25.7 | 136.1 |
|  | June | 610.2 | 288.8 | 321.4 | 453.7 | 33.2 | 394.9 | 25.6 | 23.5 | 133.0 |
|  | September | 605.4 | 286.1 | 319.3 | 449.2 | 37.1 | 381.6 | 30.5 | 21.5 | 134.7 |
|  | December | 600.5 | 283.8 | 316.7 | 436.5 | 37.0 | 371.1 | 28.4 | 20.4 | 143.6 |
| 1943 | March | 586.1 | 281.6 | 304.5 | 420.9 | 38.2 | 351.6 | 31.1 | 17.5 | 147.7 |
|  | June | 565.3 | 272.9 | 292.4 | 398.8 | 38.8 | 328.7 | 31.3 | 19.2 | 147.3 |
|  | September | 548.1 | 267.5 | 280.6 | 383.1 | 39.6 | 312.6 | 30.9 | 19.2 | 145.8 |
|  | December | 529.7 | 260.6 | 269.1 | 366.4 | 40.2 | 292.8 | 33.4 | 19.3 | 144.0 |
| 1944 | March | 515.2 | 256.6 | 258.6 | 351.8 | 39.0 | 278.4 | 34.4 | 19.0 | 144.4 |
|  | June | 506.3 | 256.3 | 250.0 | 344.4 | 39.5 | 269.0 | 35.9 | 19.7 | 142.2 |
|  | September | 493.0 | 253.7 | 239.3 | 333.5 | 39.3 | 260.2 | 34.0 | 19.0 | 140.5 |
|  | December | 465.6 | 246.0 | 219.6 | 307.1 | 38.2 | 238.7 | 30.2 | 20.1 | 138.4 |
| 1945 | March | 457.2 | 248.1 | 209.1 | 298.0 | 36.7 | 233.5 | 27.8 | 21.9 | 137.3 |
|  | June | 438.1 | 240.4 | 197.7 | 264.0 | 34.1 | 207.1 | 22.8 | 26.0 | 148.1 |

[^21]Source: Ministry of Labour and National Service

## 3. 5 Numbers employed in shipbuilding and ship repairing'

|  |  | Total | Naval vessels |  |  |  | Merchant vessels |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Private yards |  | New work | Repairs and conversions |
|  |  | Total | H.M. <br> dockyards |  |  | New work | Repairs and conversions | Total |
| 1939 | June |  | 144.7 |  | . | . | . | . | . |  |
| 1940 | June |  | 203.1 | 130.3 | 26.4 | 62.4 | 41.5 | 72.8 | 28.8 | 44.0 |
|  | September | 208.6 | 131.3 | 28.6 | 65.8 | 36.9 | 77.3 | 28.1 | 49.2 |
|  | December | 215.5 | 135.2 | 29.5 | 68.5 | 37.2 | 80.3 | 30.6 | 49.7 |
| 1941 | March | 221.7 | 139.8 | 30.0 | 67.1 | 42.7 | 81.9 | 31.6 | 50.3 |
|  | June | 232.4 | 141.9 | 30.1 | 73.0 | 38.8 | 90.5 | 36.0 | 54.5 |
|  | September | 234.9 | 141.9 | 30.1 | 74.3 | 37.5 | 93.0 | 36.6 | 56.4 |
|  | December | 239.5 | 146.3 | 33.5 | 75.1 | 37.7 | 93.2 | 35.9 | 57.3 |
| 1942 | March | 244.3 | 148.6 | 34.9 | 75.3 | 38.4 | 95.7 | 37.2 | 58.5 |
|  | June | 249.3 | 153.6 | 35.4 | 78.2 | 40.0 | 95.7 | 38.2 | 57.5 |
|  | September | 257.7 | 158.7 | 36.2 | 89.3 | 41.1 | 99.0 | 42.9 | 58.5 |
|  | December | 272.3 | 168.5 | 36.1 | 88.0 | 40.6 | 102.2 | 42.2 | 59.1 |
| 1943 | March | 244.3 | 148.6 | 36.3 | 83.0 | 44.0 | 101.8 | 37.2 | 59.0 |
|  | June | 249.3 | 153.6 | 36.7 | 87.5 | 43.3 | 104.8 | 38.2 | 62.8 |
|  | September | 272.5 | 170.1 | 36.7 | 89.3 | 44.1 | 102.4 | 42.9 | 59.5 |
|  | December | 272.3 | 168.5 | 37.8 | 88.0 | 42.7 | 103.8 | 42.2 | 61.6 |
| 1944 | March | 244.3 | 148.6 | 37.5 | 87.7 | 44.5 | 102.0 | 40.7 | 61.3 |
|  | June | 249.3 | 153.6 | 37.4 | 88.3 | 38.9 | 106.5 | 41.3 | 65.2 |
|  | September | 272.5 | 170.1 | 37.4 | 86.2 | 45.2 | 96.7 | 41.0 | 55.7 |
|  | December | 272.3 | 168.5 | 37.1 | 82.7 | 47.7 | 93.1 | 40.0 | 53.1 |
| 1945 | March | 258.7 | 161.4 | 36.7 | 77.0 | 47.7 | 97.3 | 41.6 | 55.7 |
|  | June | 252.3 | 148.4 | 35.7 | 73.9 | 38.8 | 103.9 | 42.5 | 61.4 |

[^22]
## 3. 6 Numbers employed in engineering and allied industries'



[^23]
## 3. 17 Numbers employed in engineering and metals industries ${ }^{\text {' }}$

|  | Engineering, boilermaking, etc. (including marine engineering) |  |  | Motor vehicles cycles and aircraft manufacture and repair |  |  | Construction and repair of railway and other carriages, etc. |  |  | Bolts, nuts, screws, hand tools, cutlery, brass and allied metal ware and miscellaneous metal goods |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females |
| 1939 June | 939.8 | 841.5 | 98.3 | 473.3 | 428.1 | 45.2 | 65.6 | 62.3 | 3.3 | 378.1 | 241.3 | 136.8 |
| 1940 June | 1,114.5 | 967.4 | 147.1 | 561.9 | 489.0 | 72.9 | 61.8 | 58.2 | 3.6 | 406.5 | 246.7 | 159.8 |
| September | 1,193.1 | 1,016.0 | 177.1 | 626.4 | 531.5 | 94.9 | 57.6 | 53.9 | 3.7 | 408.7 | 250.0 | 158.7 |
| December | 1,237.9 | 1,045.8 | 192.1 | 676.9 | 563.7 | 113.2 | 56.1 | 52.5 | 3.6 | 396.7 | 249.1 | 147.6 |
| 1941 March | 1,277.8 | 1,035.6 | 242.2 | 7564 | 603.0 | 153.4 | 56.7 | 52.2 | 4.5 | 412.6 | 251.0 | 161.6 |
| June | 1,381.3 | 1,083.0 | 298.3 | 780.1 | 600.8 | 179.3 | 59.6 | 53.8 | 5.8 | 419.2 | 243.9 | 175.3 |
| September | 1,441.3 | 1,099.9 | 341.4 | 814.3 | 603.9 | 204.4 | 60.1 | 53.6 | 6.5 | 425.0 | 248.2 | 176.8 |
| December | 1,540.6 | 1,122.1 | 418.5 | 899.8 | 647.1 | 252.7 | 58.5 | 50.9 | 7.6 | 435.5 | 248.1 | 187.4 |
| 1942 March | 1,615.7 | 1,134.5 | 481.2 | 946.4 | 657.9 | 288.5 | 59.4 | 50.9 | 8.5 | 440.0 | 250.5 | 189.5 |
| June | 1,685.0 | 1,147.3 | 537.7 | 995.2 | 677.9 | 317.3 | 59.5 | 50.7 | 8.8 | 448.0 | 242.2 | 205.8 |
| September | 1,735.3 | 1,165.4 | 569.9 | 1,044.3 | 696.5 | 347.8 | 59.9 | 50.4 | 9.5 | 448.6 | 240.0 | 208.6 |
| December | 1,787.0 | 1,178.4 | 608.6 | 1,080.2 | 703.3 | 376.9 | 59.8 | 50.3 | 9.5 | 449.9 | 237.7 | 212.2 |
| 1943 March | 1,799.9 | 1,174.5 | 625.4 | 1,101.7 | 708.2 | 393.5 | 59.1 | 49.5 | 9.6 | 448.4 | 235.5 | 212.9 |
| June | 1,790.9 | 1,159.7 | 631.2 | 1,121.8 | 711.7 | 410.1 | 59.1 | 49.5 | 9.6 | 447.8 | 233.7 | 214.1 |
| September | 1,776.7 | 1,150.7 | 626.0 | 1,128.2 | 713.9 | 414.3 | 60.7 | 50.7 | 10.0 | 446.4 | 233.4 | 213.0 |
| December | 1,760.3 | 1,136.3 | 624.0 | 1,140.2 | 722.5 | 417.7 | 61.0 | 50.7 | 10.3 | 445.9 | 232.9 | 213.0 |
| 1944 March | 1,730.3 | 1,124.3 | 606.0 | 1,129.1 | 714.6 | 414.5 | 61.2 | 51.0 | 10.2 | 445.0 | 232.1 | 212.9 |
| June | 1,673.3 | 1,091.6 | 581.7 | 1,116.9 | 709.2 | 407.7 | 61.2 | 51.2 | 10.0 | 440.4 | 229.5 | 210.9 |
| September | 1,630.4 | 1,070.1 | 560.3 | 1,093.8 | 700.4 | 393.4 | 61.1 | 51.3 | 9.8 | 430.8 | 226.0 | 204.8 |
| December | 1,568.0 | 1,045.6 | 522.4 | 1,031.6 | 673.1 | 358.5 | 60.7 | 51.4 | 9.3 | 422.9 | 223.2 | 199.7 |
| 1945 March | 1,508.4 | 1,017.2 | 491.2 | 964.3 | 640.7 | 323.6 | 60.8 | 51.6 | 9.2 | 415.3 | 219.5 | 195.8 |
| June | 1,438.0 | 989.8 | 448.2 | 876.2 | 597.2 | 279.0 | 61.2 | 52.0 | 9.2 | 405.7 | 215.9 | 189.8 |

## 3.\| 7 Numbers employed in engineering and metals industries'



[^24]Source: Ministry of Labour and National Service

## 3. 18 Numbers employed in the iron and steel industry ${ }^{\prime}$

Great Britain Thousands

|  | Total numbers employed |  |  | Numbers employed in |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Pig iron production | Steel melting, iron and steel rolling, etc. | Tin plate production | Iron and steel tube manufacture | Wire, wire netting and ropes manufacture |
| 1939 June | 259.1 | 246.1 | 13.0 | 15.5 | 160.0 | 25.1 | 31.7 | 26.8 |
| 1940 June | 273.3 | 255.0 | 18.3 | 16.7 | 167.3 | 24.3 | 33.8 | 31.2 |
| 1941 June | 299.9 | 267.1 | 32.8 | 17.6 | 193.9 | 16.7 | 37.2 | 34.5 |
| 1942 June | 318.8 | 258.4 | 60.4 | 17.3 | 207.4 | 16.3 | 39.9 | 37.9 |
| 1943 June | 303.9 | 239.7 | 64.2 | 17.4 | 195.4 | 13.8 | 41.3 | 36.0 |
| 1944 June | 292.3 | 230.6 | 61.7 | 17.9 | 189.1 | 12.3 | 39.1 | 33.9 |
| 1945 June | 267.7 | 216.8 | 50.9 | 15.9 | 174.8 | 12.4 | 34.7 | 29.9 |

I. See footnote 2 to Table 3.13

Source: Ministry of Labour and National Service

## 3.\| 9 Numbers employed in the textile industries

Great Britain
Thousands

|  | All textile industries |  |  |  |  |  | Cotton spinning and weaving |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males F | Females | Numbers employed on |  |  | Total | Males | Females | Numbers employed on |  |  |
|  |  |  |  | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market |  |  |  | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 987.9 | 388.3 | 599.6 |  |  |  | 339.9 | 119.2 | 220.7 |  |  |  |
| 1940 June December | $\begin{array}{r} 1,040.9 \\ -\quad 970.0 \end{array}$ | $\begin{aligned} & 378.3 \\ & 346.8 \end{aligned}$ | $\begin{aligned} & 662.6 \\ & 6232 \end{aligned}$ |  | . |  | $\begin{aligned} & 363.8 \\ & 339.2 \end{aligned}$ | $\begin{aligned} & 115.7 \\ & 107.4 \end{aligned}$ | $\begin{aligned} & 248.1 \\ & 231.8 \end{aligned}$ |  |  |  |
| 1941 June December | $\begin{aligned} & 855.0 \\ & 752.4 \end{aligned}$ | $\begin{aligned} & 298.3 \\ & 258.8 \end{aligned}$ | $\begin{aligned} & 556.7 \\ & 493.6 \end{aligned}$ | 254.6 | 166.2 | 331.6 | $\begin{aligned} & 276.1 \\ & 237.3 \end{aligned}$ | $\begin{aligned} & 84.4 \\ & 71.6 \end{aligned}$ | $\begin{aligned} & 191.7 \\ & 165.7 \end{aligned}$ | 83.2 | 57.6 | 96.5 |
| 1942 June December | $\begin{aligned} & 708.2 \\ & 677.4 \end{aligned}$ | $\begin{aligned} & 243.0 \\ & 230.2 \end{aligned}$ | $\begin{aligned} & 465.2 \\ & 447.2 \end{aligned}$ | $\begin{aligned} & 276.2 \\ & 276.3 \end{aligned}$ | $\begin{array}{r} 112.0 \\ 90.0 \end{array}$ | $\begin{aligned} & 320.0 \\ & 311.1 \end{aligned}$ | $\begin{aligned} & 233.8 \\ & 231.0 \end{aligned}$ | $\begin{aligned} & 70.5 \\ & 68.8 \end{aligned}$ | $\begin{aligned} & 163.3 \\ & 162.2 \end{aligned}$ | $\begin{aligned} & 89.2 \\ & 90.3 \end{aligned}$ | $\begin{aligned} & 44.0 \\ & 37.7 \end{aligned}$ | $\begin{aligned} & 100.6 \\ & 103.0 \end{aligned}$ |
| 1943 June December | $\begin{aligned} & 654.1 \\ & 636.1 \end{aligned}$ | $\begin{aligned} & 219.8 \\ & 216.0 \end{aligned}$ | $\begin{aligned} & 434.3 \\ & 420.1 \end{aligned}$ | $\begin{aligned} & 270.7 \\ & 270.9 \end{aligned}$ | $\begin{aligned} & 87.1 \\ & 86.5 \end{aligned}$ | $\begin{aligned} & 296.3 \\ & 278.7 \end{aligned}$ | $\begin{aligned} & 227.3 \\ & 223.5 \end{aligned}$ | $\begin{aligned} & 65.8 \\ & 65.4 \end{aligned}$ | $\begin{aligned} & 161.5 \\ & 158.1 \end{aligned}$ | $\begin{aligned} & 83.9 \\ & 76.2 \end{aligned}$ | $\begin{aligned} & 40.9 \\ & 46.4 \end{aligned}$ | $\begin{aligned} & 102.5 \\ & 100.9 \end{aligned}$ |
| 1944 June December | $\begin{aligned} & 622.4 \\ & 615.4 \end{aligned}$ | 210.3 209.9 | $\begin{aligned} & 412.1 \\ & 405.5 \end{aligned}$ | $\begin{aligned} & 273.5 \\ & 273.9 \end{aligned}$ | 92.1 93.4 | 256.8 | 220.1 214.9 | 63.6 63.4 | $\begin{aligned} & 156.5 \\ & 151.5 \end{aligned}$ | 81.7 78.9 | 45.5 45.5 | 92.9 90.5 |
| 1945 June | 619.2 | 210.3 | 408.9 | 224.6 | 111.0 | 283.6 | 212.9 | 62.7 | 150.2 | 56.4 | 52.6 | 103.9 |

Thousands

|  | Woollen and Worsted |  |  |  |  |  | Silk and Rayon |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Numbers employed on |  |  |  |  | Total | Males | Females | Numbers employed on |  |  |
|  |  | Manufacture of Males Females equipment and supplies for the Forces |  |  | Orders for export | Orders for home market |  |  |  | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 207.6 | 90.3 | 117.3 | . . |  |  | 72.2 | 34.6 | 37.6 |  | .. |  |
| 1940 June | 222.3 | 89.6 | 132.7 |  |  |  | 75.7 | 35.7 | 40.0 |  |  |  |
| December | 212.1 | 84.5 | 127.6 | 10.0 | 140.7 | 64.4 | 65.7 | 29.8 | 35.9 | 13.0 | 21.2 | 31.5 |
| 1941 June | 195.3 | 76.5 | 118.8 | 80.2 | 45.3 | 69.8 | 58.6 | 24.8 | 33.8 | 10.2 | 23.5 | 24.9 |
| December | 176.1 | 67.6 | 108.5 | 66.7 | 40.2 | 69.2 | 52.7 | 22.2 | 30.5 | 8.1 | 20.5 | 24.1 |
| 1942 June | 162.1 | 63.4 | 98.7 | 70.4 | 23.0 | 68.7 | 50.0 | 21.0 | 29.0 | 14.2 | 13.2 | 22.6 |
| December | 152.3 | 60.0 | 92.3 | 62.6 | 20.9 | 68.8 | 47.5 | 20.0 | 27.5 | 19.6 | 8.7 | 19.2 |
| 1943 June | 143.5 | 56.4 | 87.1 | 62.1 | 17.7 | 63.7 | 45.9 | 19.2 | 26.7 | 19.4 | 7.7 | 18.8 |
| December | 136.0 | 54.1 | 81.9 | 61.6 | 14.3 | 60.1 | 45.4 | 19.3 | 26.1 | 20.1 | 7.9 | 17.4 |
| 1944 June | 129.1 | 51.1 | 78.0 | 55.0 | 16.5 | 57.6 | 44.1 | 19.0 | 25.1 | 22.2 | 8.7 | 13.2 |
| December | 127.5 | 50.6 | 76.9 | 56.8 | 16.2 | 54.5 | 44.7 | 19.4 | 25.3 | 23.0 | 8.9 | 12.8 |
| 1945 June. | 129.8 | 50.1 | 79.7 | 50.3 | 20.3 | 59.2 | 45.9 | 19.9 | 26.0 | 21.2 | 10.1 | 14.6 |

3. 9 Numbers employed in the textile industries ${ }^{1}$
continued
Great Britain
Thousands

|  | Hosiery and lace |  |  |  |  |  | Linen, jute, hemp, etc. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Number | s employ | ed on |  |  |  | Numbers | employe | d on |
|  | Total | Males F | Fmales | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market | Total | Males | Females | Manufacfacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 139.3 | 34.2 | 105.1 | . |  |  | 55.4 | 20.7 | 34.7 |  |  | - |
| 1940 June | 136.9 | 31.8 | 105.1 |  |  |  | 61.1 | 20.4 | 40.7 |  |  |  |
| December | 123.4 | 27.5 | 95.9 | 23.5 | 14.5 | 85.4 | 55.6 | 18.2 | 37.4 | 19.9 | 7.7 | 28.0 |
| 1941 June | 110.9 | 24.9 | 86.0 | 18.0 | 11.3 | 81.6 | 49.9 | 15.7 | 34.2 | 18.7 | 6.6 | 24.6 |
| December | 92.6 | 21.2 | 71.4 | 14.9 | 11.6 | 66.1 | 47.9 | 14.1 | 33.8 | 19.8 | 5.1 | 23.0 |
| 1942 June | 81.4 | 18.1 | 63.3 | 17.7 | 7.6 | 56.1 | 48.3 | 13.8 | 34.5 | 22.9 | 3.9 | 21.5 |
| December | 77.6 | 16.1 | 61.5 | 19.6 | 3.9 | 54.1 | 46.3 | 13.4 | 32.9 | 23.9 | 3.1 | 19.3 |
| 1943 June | $74.3$ | $15.4$ | $58.9$ | 17.0 | 3.2 | 54.1 | 42.9 | 12.6 | 30.3 | 25.3 | 2.8 | 14.8 |
| December | 69.1 | 14.5 | 54.6 | 15.2 | 3.1 | 50.8 | 42.0 | 12.5 | 29.5 | 27.3 | 2.7 | 12.0 |
| 1944 June | 67.9 | 14.3 | 53.6 | 17.8 | 5.1 | 45.0 | 41.5 | 12.3 | 29.2 | 26.4 | 2.8 | 12.3 |
| December | 68.2 | 14.4 | 53.8 | 18.7 | 5.4 | 44.1 | 39.9 | 11.8 | 28.1 | 25.2 | 2.5 | 12.2 |
| 1945 June | 69.6 | 14.7 | 54.9 | 14.9 | 5.5 | 49.2 | 39.7 | 11.8 | 27.9 | 20.1 | 4.3 | 15.3 |


|  | Textile bleaching, printing, dyeing and finishing |  |  |  |  |  | Other textile industries |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Numbers | employed | d on |  |  |  | Number | employe | on |
|  | Total | Males Fe | males | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market | Total | Males | Females | Manufacfacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 79.6 | 56.7 | 22.9 |  |  |  | 93.9 | 32.6 | 61.3 |  |  |  |
| 1940 June | 80.0 | 55.0 | 25.0 |  |  |  | 101.1 | 30.1 | 71.0 |  |  |  |
| December | 75.2 | 50.4 | 24.8 | 23.6 | 25.3 | 26.3 | 98.8 | 29.0 | 69.8 | 44.6 | 12.5 | 41.7 |
| 1941 June | 71.1 | 46.8 | 24.3 | 22.5 | 25.8 | 22.8 | 93.1 | 25.2 | 67.9 | 44.5 | 11.2 | 37.4 |
| December | 63.2 | 40.5 | 22.7 | 21.8 | 21.7 | 19.7 | 82.6 | 21.6 | 61.0 | 40.1 | 9.5 | 33.0 |
| 1942 June | 57.2 | 36.8 | 20.4 | 22.0 | 13.9 | 21.3 | 75.4 | 19.4 | 56.0 | 39.8 | 6.4 | 29.2 |
| December | 53.5 | 33.9 | 19.6 | 19.6 | 11.6 | 22.3 | 69.2 | 18.0 | 51.2 | 40.7 | 4.1 | 24.4 |
| 1943 June | 51.7 | 32.6 | 19.1 | 21.1 | 10.7 | 19.9 | 68.5 | 17.8 | 50.7 | 41.9 | 4.1 | 22.5 |
| December | 51.8 | 32.5 | 19.3 | 23.9 | 9.5 | 18.4 | 68.3 | 17.7 | 50.6 | 46.6 | 2.6 | 19.1 |
| 1944 June | 51.8 | 32.4 | 19.4 | 24.2 | 10.6 | 17.0 | 67.9 | 17.6 | 50.3 | 46.2 | 2.9 | 18.8 |
| December | 52.0 | 32.3 | 19.7 | 24.6 | 11.7 | 15.7 | 68.2 | 18.0 | 50.2 | 46.7 | 3.2 | 18.3 |
| 1945 June | 52.2 | 32.0 | 20.2 | 21.1 | 12.6 | 18.5 | 69.1 | 19.1 | 50.0 | 40.6 | 5.6 | 22.9 |

[^25]Source: Ministry of Labour and National Service
3.20 Numbers employed in certain clothing industries ${ }^{\text {1 }}$

Great Britain
Thousands


### 3.21 <br> Numbers employed in woodworking and furniture industries'

Great Britain
Thousands

Sawmilling and machined woodwork, wooden box and packing-case making and other woodworking

| Total | Males Females | Numbers employed on |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home marke |

Furniture, upholstery, etc.

| Total | Males | Females | Numbers employed on |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Manufacfacture of equipment and supplies for the Forces | Orders for export | Orders for home market |


| 1939 June | 101.6 | 90.0 | 11.6 | $\ldots$ | $\ldots$ | $\ldots$ | 138.4 | 111.5 | 26.9 | $\ldots$ | $\ldots$ | $\ldots$ |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1940 June | 88.3 | 75.4 | 12.9 | $\ldots$ | $\ldots$ | $\ldots$ | 107.7 | 81.1 | 26.6 | $\ldots$ | $\ldots$ | $\ldots$ |
| December | 86.6 | 74.7 | 11.9 | 37.3 | 10.1 | 39.2 | 93.7 | 67.8 | 25.9 | 30.4 | 3.0 | 60.3 |
| 1941 June | 91.4 | 74.0 | 17.4 | 47.9 | 9.7 | 33.8 | 78.2 | 52.8 | 25.4 | 30.8 | 1.5 | 45.9 |
| December | 97.1 | 73.5 | 23.6 | 52.4 | 8.2 | 36.5 | 72.9 | 46.8 | 26.1 | 30.6 | 0.7 | 41.6 |
| 1942 June | 107.8 | 79.6 | 28.2 | 65.1 | 7.1 | 35.6 | 70.4 | 44.4 | 26.0 | 30.3 | 0.6 | 39.5 |
| December | 119.5 | 83.7 | 35.8 | 78.6 | 5.2 | 35.7 | 68.5 | 42.6 | 25.9 | 31.8 | 0.5 | 36.2 |
| 1943 June | 118.9 | 82.5 | 36.4 | 79.9 | 3.2 | 35.8 | 61.5 | 37.5 | 24.0 | 32.4 | 0.3 | 28.8 |
| December | 121.1 | 82.5 | 38.6 | 82.9 | 3.3 | 34.9 | 59.6 | 36.4 | 23.2 | 31.6 | 0.2 | 27.8 |
| 1944 June | 127.8 | 84.6 | 43.2 | 90.1 | 3.1 | 34.6 | 57.8 | 35.4 | 22.4 | 29.8 | 0.2 | 27.8 |
| December | 127.8 | 84.5 | 43.3 | 89.3 | 3.7 | 34.8 | 58.3 | 35.9 | 22.4 | 28.9 | 0.3 | 29.1 |
| 1945 June | 124.9 | 83.6 | 41.3 | 75.1 | 5.2 | 44.6 | 62.4 | 39.8 | 22.6 | 21.1 | 0.6 | 40.7 |

1. See footnote 2 to Table 3.13.

Source: Ministry of Labour and National Service

### 3.22 Numbers employed in certain paper and printing industries ${ }^{\prime}$

Great Britain
Thousands

|  | Paper, paper board, cardboard box, etc. making |  |  |  |  |  | Printing, publishing and bookbinding, etc. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers employed on |  |  |  |  |  |  | Numbers employed on |  |  |  |
|  | Total | Males Fer | nales | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market | Total | Males | Females | Manufacfacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 152.1 | 79.7 | 72.4 | . |  |  | 304.3 | 198.9 | 105.4 |  |  |  |
| 1940 June December | $\begin{aligned} & 134.2 \\ & 123.9 \end{aligned}$ | $\begin{aligned} & 66.6 \\ & 61.9 \end{aligned}$ | $\begin{aligned} & 67.6 \\ & 62.0 \end{aligned}$ | 16.4 | 23.8 | 83.7 | $\begin{aligned} & 233.5 \\ & 205.1 \end{aligned}$ | $\begin{aligned} & 143.0 \\ & 123.3 \end{aligned}$ | $\begin{aligned} & 90.5 \\ & 81.8 \end{aligned}$ | 5.0 | 26.2 | 173.9 |
| 1941 June December | $\begin{aligned} & 120.4 \\ & 113.0 \end{aligned}$ | $\begin{aligned} & 57.7 \\ & 50.8 \end{aligned}$ | $\begin{aligned} & 62.7 \\ & 627 \end{aligned}$ | $\begin{aligned} & 23.6 \\ & 27.6 \end{aligned}$ | $\begin{aligned} & 14.3 \\ & 11.6 \end{aligned}$ | $\begin{aligned} & 82.5 \\ & 73.8 \end{aligned}$ | $\begin{aligned} & 190.2 \\ & 185.9 \end{aligned}$ | $\begin{aligned} & 111.3 \\ & 108.3 \end{aligned}$ | $\begin{aligned} & 78.9 \\ & 77.6 \end{aligned}$ | $\begin{array}{r} 7.7 \\ 10.1 \end{array}$ | $\begin{aligned} & 21.0 \\ & 17.3 \end{aligned}$ | $\begin{aligned} & 161.5 \\ & 158.5 \end{aligned}$ |
| 1942 June December | $\begin{aligned} & 108.7 \\ & 104.3 \end{aligned}$ | $\begin{aligned} & 49.9 \\ & 48.6 \end{aligned}$ | $\begin{aligned} & 58.8 \\ & 55.7 \end{aligned}$ | $\begin{aligned} & 31.1 \\ & 30.0 \end{aligned}$ | 8.3 6.1 | $\begin{aligned} & 69.3 \\ & 68.7 \end{aligned}$ | $\begin{aligned} & 175.8 \\ & 169.3 \end{aligned}$ | $\begin{aligned} & 99.4 \\ & 95.4 \end{aligned}$ | $\begin{array}{r} 76.4 \\ 73.9 \end{array}$ | $\begin{aligned} & 23.9 \\ & 18.2 \end{aligned}$ | $\begin{array}{r} 13.2 \\ 12.5 \end{array}$ | $\begin{aligned} & 138.7 \\ & 138.6 \end{aligned}$ |
| 1943 June December | $\begin{aligned} & 97.8 \\ & 99.6 \end{aligned}$ | $\begin{aligned} & 45.1 \\ & 45.8 \end{aligned}$ | $\begin{aligned} & 52.7 \\ & 53.8 \end{aligned}$ | $\begin{array}{r} 33.8 \\ 42.3 \end{array}$ | $\begin{aligned} & 5.3 \\ & 5.3 \end{aligned}$ | $\begin{aligned} & 58.7 \\ & 52.0 \end{aligned}$ | $\begin{aligned} & 165.0 \\ & 163.8 \end{aligned}$ | $\begin{aligned} & 92.9 \\ & 92.0 \end{aligned}$ | $\begin{aligned} & 72.1 \\ & 71.8 \end{aligned}$ | $\begin{array}{r} 17.0 \\ 21.9 \end{array}$ | $\begin{aligned} & 14.8 \\ & 13.1 \end{aligned}$ | 133.2 128.8 |
| 1944 June December | $\begin{aligned} & 97.8 \\ & 95.9 \end{aligned}$ | $\begin{aligned} & 44.1 \\ & 43.8 \end{aligned}$ | $\begin{aligned} & 53.7 \\ & 52.1 \end{aligned}$ | $\begin{aligned} & 42.6 \\ & 39.2 \end{aligned}$ | $\begin{aligned} & 5.4 \\ & 5.8 \end{aligned}$ | $\begin{aligned} & 49.8 \\ & 50.9 \end{aligned}$ | $\begin{aligned} & 162.5 \\ & 164.8 \end{aligned}$ | $\begin{array}{r} 90.6 \\ 91.5 \end{array}$ | $\begin{aligned} & 71.9 \\ & 73.3 \end{aligned}$ | $\begin{aligned} & 23.1 \\ & 23.3 \end{aligned}$ | $\begin{aligned} & 13.5 \\ & 14.2 \end{aligned}$ | $\begin{aligned} & 125.9 \\ & 127.3 \end{aligned}$ |
| 1945 June | 98.2 | 45.4 | 52.8 | 35.4 | 7.8 | 55.0 | 173.4 | 97.0 | 76.4 | 18.8 | 14.9 | 139.7 |

[^26]
### 3.23 Numbers employed in leather and rubber manufacture

Great Britain

|  | Leather, leather goods and fur |  |  |  |  |  | Rubber manufacture (excluding rubber garments) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers employed on |  |  |  |  | Total | Males | Numbers employed on |  |  |  |
|  | Total | Males | emales | Manufac- <br> ture of equipment and supplies for the Forces | $\begin{aligned} & \text { Orders } \\ & \text { for } \\ & \text { export } \end{aligned}$ | $\begin{aligned} & \text { Orders } \begin{array}{c} \text { for } \\ \text { home } \\ \text { market } \end{array} \end{aligned}$ |  |  | Females | Manufacture of equipment supplies for the Forces | $\begin{aligned} & \text { Orders } \\ & \text { for } \\ & \text { export } \end{aligned}$ | $\begin{gathered} \text { Orders } \\ \text { for } \\ \text { home } \\ \text { market } \end{gathered}$ |
| 1939 June | 73.0 | 45.1 | 27.9 |  |  |  | 70.2 | 41.1 | 29.1 |  |  |  |
| 1940 June December | $\begin{aligned} & 73.7 \\ & 69.0 \end{aligned}$ | $\begin{aligned} & 42.7 \\ & 38.8 \end{aligned}$ | $\begin{aligned} & 31.0 \\ & 30.2 \end{aligned}$ | 28.9 | 7.8 | 32.3 | $\begin{aligned} & 8.8 .8 \\ & 82.7 \end{aligned}$ | $\begin{aligned} & 45.2 \\ & 43.7 \end{aligned}$ | $\begin{aligned} & 35.6 \\ & 39.0 \end{aligned}$ | 50.5 | 8.9 | 23.3 |
| 1941 June December | $\begin{aligned} & 67.8 \\ & 62.6 \end{aligned}$ | $\begin{aligned} & 36.5 \\ & 32.6 \end{aligned}$ | $\begin{aligned} & 31.3 \\ & 30.0 \end{aligned}$ | $\begin{aligned} & 26.3 \\ & 26.0 \end{aligned}$ | $\begin{aligned} & 6.6 \\ & 6.8 \end{aligned}$ | $\begin{aligned} & 34.9 \\ & 29.8 \end{aligned}$ | $\begin{aligned} & 85.8 \\ & 78.9 \end{aligned}$ | $\begin{aligned} & 42.8 \\ & 38.9 \end{aligned}$ | $\begin{aligned} & 43.0 \\ & 40.0 \end{aligned}$ | $\begin{aligned} & 43.9 \\ & 43.7 \end{aligned}$ | $\begin{aligned} & 9.5 \\ & 5.3 \end{aligned}$ | $\begin{aligned} & 32.4 \\ & 29.9 \end{aligned}$ |
| 1942 June December | $\begin{aligned} & 60.3 \\ & 55.6 \end{aligned}$ | $\begin{aligned} & 31.5 \\ & 29.2 \end{aligned}$ | $\begin{aligned} & 28.8 \\ & 26.4 \end{aligned}$ | $\begin{aligned} & 27.8 \\ & 27.8 \end{aligned}$ | $\begin{aligned} & 5.5 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 27.0 \\ & 24.4 \end{aligned}$ | $\begin{aligned} & 67.5 \\ & 61.0 \end{aligned}$ | $\begin{aligned} & 34.6 \\ & 31.2 \end{aligned}$ | $\begin{aligned} & 32.9 .9 \\ & 29.8 \end{aligned}$ | $\begin{aligned} & 40.4 \\ & 37.7 \end{aligned}$ | $\begin{aligned} & 1.5 \\ & 2.5 \end{aligned}$ | 25.6 20.8 |
| 1943 June December | $\begin{aligned} & 53.3 \\ & 52.1 \end{aligned}$ | $\begin{aligned} & 28.2 \\ & 27.5 \end{aligned}$ | $\begin{aligned} & 25.1 \\ & 24.6 \end{aligned}$ | 29.6 | 3.5 | 20.2 | $\begin{aligned} & 60.6 \\ & 61.4 \end{aligned}$ | $\begin{aligned} & 31.2 \\ & 32.3 \end{aligned}$ | $\begin{aligned} & 29.4 \\ & 29.1 \end{aligned}$ | $\begin{aligned} & 43.1 \\ & 45.1 \end{aligned}$ | $\begin{aligned} & 1.8 \\ & 1.4 \end{aligned}$ | 15.7 14.9 |
| 1944 June December | $\begin{aligned} & 49.5 \\ & 50.2 \end{aligned}$ | $\begin{aligned} & 27.0 \\ & 27.3 \end{aligned}$ | $\begin{aligned} & 22.5 .5 \\ & 22.9 \end{aligned}$ | $\begin{aligned} & 30.4 \\ & 30.0 \end{aligned}$ | $\begin{aligned} & 4.0 \\ & 4.1 \end{aligned}$ | $\begin{aligned} & 15.1 \\ & 16.1 \end{aligned}$ | $\begin{aligned} & 62.1 \\ & 62.8 \end{aligned}$ | $\begin{aligned} & 33.2 \\ & 34.0 \end{aligned}$ | $\begin{aligned} & 28.9 \\ & 28.8 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 46.3 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 1.7 \end{aligned}$ | $\begin{aligned} & 14.0 \\ & 14.8 \end{aligned}$ |
| 1945 June | 51.6 | 27.6 | 24.0 | 26.8 | 6.4 | 18.4 | 62.3 | 34.3 | 28.0 | 43.7 | 2.4 | 16.2 |

1. See footnote 2 to Table 3.13.

Source: Ministry of Lobour and National Service

### 3.24 Numbers employed in glass and pottery manufacture ${ }^{1}$

Great Britain
Thousands

|  | Glass manufacture (excluding bottles and scientific glass) |  |  |  |  |  | Pottery, earthenware, etc. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers employed on |  |  |  |  |  |  | Males | Numbers employed on |  |  |  |
|  | Total | Males F |  | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home marke | Total |  | Females | Manufacture of equipment and supplies for the Forces | Orders for export | Orders for home market |
| 1939 June | 30.6 | 22.5 | 8.1 |  |  |  | 67.0 | 30.0 | 37.0 |  |  |  |
| 1940 June December | $\begin{aligned} & 28.3 \\ & 27.8 \end{aligned}$ | $\begin{aligned} & 19.2 \\ & 18.5 \end{aligned}$ | $\begin{aligned} & 9.1 \\ & 9.3 \end{aligned}$ | 5.2 | 6.8 | 15.8 | $\begin{aligned} & 59.3 \\ & 55.2 \end{aligned}$ | $\begin{aligned} & 23.9 \\ & 21.0 \end{aligned}$ | $\begin{aligned} & 35.4 \\ & 34.2 \end{aligned}$ | 10.7 | 22.6 | 21.9 |
| 1941 June December | $\begin{aligned} & 25.9 \\ & 25.2 \end{aligned}$ | $\begin{aligned} & 16.3 \\ & 15.2 \end{aligned}$ | $\begin{array}{r} 9.6 \\ 10.0 \end{array}$ | $\begin{aligned} & 6.6 \\ & 5.3 \end{aligned}$ | $\begin{aligned} & 6.9 \\ & 4.0 \end{aligned}$ | $\begin{aligned} & 12.4 \\ & 15.9 \end{aligned}$ | $\begin{aligned} & 52.1 \\ & 44.5 \end{aligned}$ | $\begin{aligned} & 19.1 \\ & 16.3 \end{aligned}$ | $\begin{aligned} & 33.0 \\ & 28.2 \end{aligned}$ | $\begin{aligned} & 5.3 \\ & 4.7 \end{aligned}$ | $\begin{aligned} & 21.6 \\ & 18.6 \end{aligned}$ | $\begin{aligned} & 25.2 \\ & 21.2 \end{aligned}$ |
| 1942 June December | $\begin{aligned} & 26.1 \\ & 24.9 \end{aligned}$ | $\begin{aligned} & 15.6 \\ & 14.6 \end{aligned}$ | $\begin{aligned} & 10.5 \\ & 10.3 \end{aligned}$ | $\begin{aligned} & 7.6 \\ & 8.6 \end{aligned}$ | $\begin{aligned} & 2.9 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 15.6 \\ & 14.7 \end{aligned}$ | $\begin{aligned} & 39.7 \\ & 37.5 \end{aligned}$ | $\begin{aligned} & 15.4 \\ & 14.9 \end{aligned}$ | 24.3 22.6 | $\begin{aligned} & 4.2 \\ & 5.5 \end{aligned}$ | $\begin{aligned} & 16.6 \\ & 10.0 \end{aligned}$ | 18.9 22.0 |
| 1943 June December | $\begin{aligned} & 24.4 \\ & 24.4 \end{aligned}$ | $\begin{aligned} & 14.0 \\ & 14.0 \end{aligned}$ | $\begin{aligned} & 10.4 \\ & 10.4 \end{aligned}$ | 8.8 9.5 | 1.1 2.4 | $\begin{aligned} & 14.5 \\ & 12.5 \end{aligned}$ | $\begin{aligned} & 36.7 \\ & 36.6 \end{aligned}$ | $\begin{aligned} & 146 \\ & 14.6 \end{aligned}$ | $\begin{aligned} & 22.1 \\ & 22.0 \end{aligned}$ | 4.9 4.6 | $\begin{array}{r} 9.8 \\ 10.3 \end{array}$ | 22.0 21.7 |
| 1944 June December | $\begin{aligned} & 24.3 \\ & 25.3 \end{aligned}$ | $\begin{aligned} & 14.0 \\ & 14.8 \end{aligned}$ | $\begin{aligned} & 10.3 \\ & 103 \end{aligned}$ | $\begin{aligned} & 9.6 \\ & 7.9 \end{aligned}$ | $\begin{aligned} & 2.6 \\ & 2.7 \end{aligned}$ | $\begin{aligned} & 12.1 \\ & 14.5 \end{aligned}$ | $\begin{aligned} & 36.2 \\ & 37.1 \end{aligned}$ | $\begin{aligned} & 14.3 \\ & 14.5 \end{aligned}$ | $\begin{aligned} & 21.9 \\ & 22.6 \end{aligned}$ | $\begin{aligned} & 4.5 \\ & 5.1 \end{aligned}$ | $\begin{aligned} & 10.0 \\ & 11.1 \end{aligned}$ | $\begin{aligned} & 21.7 \\ & 20.9 \end{aligned}$ |
| 1945 June | 25.7 | 15.5 | 10.2 | 7.0 | 3.8 | 14.9 | 39.0 | 14.7 | 24.3 | 7.5 | 12.9 | 18.6 |

[^27]
### 3.25 Railway staff: Numbers employed

Great Britain
At March in each year
Number

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total staff | 588,517 | 583,627 | 587,864 | 599,608 | 612,596 | 616,756 | 622,369 |
| Men and boys: |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |
| Officers, supervisory, clerical, etc. | 563,264 | 557,711 | 547,030 | 525,648 | 524,132 | 523,439 | 531,062 |
| Conciliation | 86,049 | 82,930 | 81,127 | 77,487 | 72,240 | 70,076 | 69,440 |
| Shop and artisan | 330,571 | 332,629 | 332,775 | 317,785 | 319,382 | 319,607 | 326,301 |
| Police, electrical generating station and miscellaneous | 6,605 | 6,981 | 7,611 | 7,816 | 7,814 | 7,742 | 8,126 |
| Ancillary | 112,113 | 107,246 | 102,958 | 100,569 | 101,668 | 101,469 | 102,438 |
| Women and girls: | 27,926 | 27,925 | 22,559 | 21,991 | 23,028 | 24,545 | 24,757 |
| Total |  |  |  |  |  |  |  |
| Officers, supervisory, clerical, etc. | 25,253 | 25,916 | 40,834 | 73,960 | 88,464 | 93,317 | 91,307 |
| Conciliation | 12,229 | 13,372 | 17,595 | 26,665 | 29,291 | 29,641 | 30,294 |
| Shop and artisan |  |  | 9,260 | 24,255 | 32,280 | 36,093 | 35,612 |
| Police, electrical generating station and miscellaneous | 6,160 | 5,997 | 5,463 | 5,732 | 5,939 | 6,412 | 6,790 |
| Ancillary | 5,874 | 5,663 | 6,168 | 6,834 | 7,021 | 7,195 | 7,256 |


|  | Total Admiralty |  | $\begin{aligned} & \text { War } \\ & \text { Office } \end{aligned}$ | Ministry | Ministry of <br> Supply ${ }^{2}$ | Ministry of Aircraft Production | Post Forestry |  | Ministry | Ministry of <br> Works | Other depart ments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Office |  |  |  | Commission Tr | Transport |  |  |
| 1939 April I | 240.2 | 71.6 |  | 68.3 | 25.8 | - | - | 51.1 | 5.2 | 2.0 | 6.6 | 9.6 |
| 1940 January I | 294.4 | 80.4 | 38.3 | 38.3 | 65.7 | - | 43.5 | 7.2 | 3.5 | 7.4 | 10.1 |
| April I | 322.7 | 87.0 | 42.2 | 41.5 | 74.8 | - | 42.2 | 10.7 | 5.5 | 6.6 | 12.2 |
| July 1 | 366.1 | 94.0 | 46.5 | 45.5 | 97.8 | 2.5 | 43.8 | 13.8 | 4.7 | 6.6 | 10.9 |
| October 1 | 398.8 | 99.6 | 43.5 | 48.7 | 116.3 | 7.4 | 43.9 | 16.2 | 4.2 | 7.1 | 11.9 |
| 1941 January I | 427.1 | 103.2 | 44.9 | 53.2 | 131.1 | 6.0 | 44.5 | 16.9 | 4.3 | 10.6 | 12.4 |
| April I | 475.5 | 106.7 | 47.3 | 54.7 | 181.8 | 5.0 | 45.7 | $5.3^{3}$ | 3.9 | 12.6 | 12.5 |
| July 1 | 538.6 | 112.3 | 49.5 | 52.6 | 238.4 | 5.4 | 47.1 | 5.2 | 4.7 | 13.4 | 10.0 |
| October I | 596.6 | 119.0 | 49.5 | 50.6 | 287.5 | 9.1 | 47.7 | 5.0 | 4.8 | 13.4 | 10.0 |
| 1942 January I | 654.0 | 122.6 | 53.3 | 52.2 | 332.6 | 10.1 | 49.1 | 4.8 | 5.1 | 14.0 | 10.2 |
| April I | 690.0 | 125.9 | 54.7 | 54.1 | 357.4 | 12.1 | 50.5 | 5.1 | 5.0 | 14.6 | 10.6 |
| July I | 697.4 | 125.2 | 55.2 | 57.3 | 358.6 | 15.2 | 50.5 | 5.4 | 5.6 | 13.6 | 10.8 |
| October I | 700.3 | 128.8 | 55.7 | 61.9 | 351.4 | 16.6 | 49.9 | 5.4 | 6.2 | 13.4 | 11.0 |
| 1943 January I | 729.8 | 146.5 | 60.4 | 65.2 | 351.9 | 17.9 | 50.2 | 5.2 | 6.5 | 15.0 | 11.0 |
| April I | 737.8 | 151.2 | 66.5 | 66.9 | 346.0 | 18.2 | 50.3 | 5.3 | 6.6 | 15.8 | 11.0 |
| July I | 724.7 | 152.6 | 64.9 | 55.4 | 331.6 | 31.9 | 49.9 | 5.1 | 6.1 | 16.4 | 10.8 |
| October I | 727.0 | 156.5 | 72.0 | 56.7 | 319.1 | 33.1 | 49.9 | 5.1 | 5.6 | 17.4 | 11.6 |
| 1944 January I | 716.5 | 159.5 | 71.7 | 57.6 | 305.5 | 33.2 | 48.9 | 4.8 | 5.4 | 18.2 | 11.7 |
| April I | 710.3 | 160.3 | 75.3 | 59.0 | 294.1 | 32.7 | 48.1 | 4.7 | 5.4 | 18.8 | 11.9 |
| July I | 698.6 | 158.8 | 78.0 | 58.9 | 282.1 | 32.1 | 47.3 | 4.9 | 5.5 | 19.5 | 11.5 |
| October 1 | 692.8 | 160.8 | 78.9 | 58.0 | 274.8 | 32.6 | 46.8 | 4.8 | 4.6 | 20.3 | 11.2 |
| 1945 January I | 675.3 | 156.6 | 77.5 | 56.4 | 265.4 | 31.3 | 46.8 | 4.7 | 42 | 21.4 | 11.0 |
| April I | 665.3 | 154.8 | 76.5 | 56.2 | 260.3 | 30.5 | 46.5 | 4.7 | 3.7 | 20.4 | 11.7 |
| July I | 620.8 | 151.3 | 72.3 | 54.5 | 227.2 | 26.9 | 46.3 | 4.9 | 3.7 | 20.3 | 13.4 |
| October I | 514.8 | 148.1 | 64.0 | 52.8 | 138.6 | 22.1 | 47.2 | 5.1 | 3.3 | 20.1 | 13.5 |

[^28]Source: Treasury

### 3.27 Non-industrial staff in the Civil Service: Departmental analysis

Great Britain
Thousands

|  |  | Total ${ }^{1}$ | Post Office | Ad- miralty | War Office | Ministry | Ministry of Supply | Ministry Aircraft Production | Ministry of Labour and National Service | Ministry Food | Ministry of Transport | Ministry Works | Other departments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1939 | April I | 387.7 | 196.6 | 12.9 | 19.8 | 19.7 | - | - | 28.3 | - | 3.0 | 6.3 | 101.1 |
| 1940 | January I | 433.9 | 186.9 | 17.6 | 28.2 | 26.9 | 160 |  | 27.9 | 13.7 | 3.2 | 7.1 | 106.4 |
|  | April I | 454.8 | 188.4 | 20.1 | 32.6 | 28.7 | 18.7 | - | 26.0 | 19.3 | 6.5 | 7.4 | 107.1 |
|  | July I | 482.1 | 188.0 | 21.6 | 33.3 | 19.8 | 23.0 | 12.4 | 28.9 | 23.7 | 3.1 | 7.8 | 120.5 |
|  | October I | 492.2 | 188.0 | 235 | 34.1 | 21.2 | 27.0 | 7.9 | 29.7 | 24.9 | 3.1 | 8.2 | 124.5 |
| 1941 | January 1 | 520.3 | 188.7 | 23.9 | 39.0 | 23.5 | 30.6 | 8.9 | 30.4 | 29.0 | 3.0 | 8.3 | 135.0 |
|  | April I | 554.5 | 195.3 | 25.9 | 44.2 | 26.2 | 37.0 | 10.0 | 32.4 | 29.8 | 11.3 | 9.2 | 133.2 |
|  | July I | 605.3 | 198.9 | 28.2 | 49.5 | 33.2 | 41.8 | 10.9 | 39.0 | 40.4 | 12.4 | 10.1 | 140.9 |
|  | October I | 620.5 | 202.6 | 29.7 | 54.9 | 34.6 | 48.3 | 12.0 | 38.2 | 33.6 | 12.8 | 11.1 | 142.7 |
| 1942 | January 1 | 640.7 | 204.1 | 32.0 | 55.1 | 35.4 | 54.2 | 12.9 | 39.3 | 35.4 | 13.2 | 12.0 | 147.1 |
|  | April I | 657.4 | 204.8 | 33.7 | 58.6 | 36.2 | 58.7 | 13.8 | 40.3 | 36.8 | 13.7 | 12.8 | 148.0 |
|  | July I | 674.4 | 206.1 | 34.7 | 62.6 | 36.6 | 61.4 | 14.9 | 42.0 | 38.9 | 14.4 | 13.5 | 149.3 |
|  | October 1 | 688.4 | 207.2 | 36.4 | 64.0 | 37.9 | 64.5 | 15.6 | 42.5 | 38.3 | 15.0 | 14.2 | 152.8 |
| 1943 | January 1 | 704.1 | 207.4 | 42.1 | 66.3 | 39.6 |  | 16.4 | 43.0 | 38.1 | 15.2 | 14.5 | 153.8 |
|  | April I | 710.6 | 207.6 | 43.4 | 69.2 | 39.6 | 67.9 | 16.2 | 43.8 | 39.4 | 15.6 | 14.4 | 153.5 |
|  | July 1 | 719.2 | 206.3 | 45.8 | 68.6 | 36.5 | 68.0 | 18.8 | 43.3 | 49.2 | 15.7 | 14.2 | 152.8 |
|  | October I | 715.5 | 204.9 | 47.7 | 69.5 | 36.5 | 67.9 | 19.7 | 41.2 | 45.0 | 15.9 | 14.6 | 152.6 |
| 1944 | 4 January 1 | 708.1 | 203.4 | 49.0 | 69.2 | 36.7 | 66.4 | 20.3 | 39.8 | 42.3 | 16.0 | 14.3 | 150.7 |
|  | April I | 704.4 | 202.7 | 50.2 | 68.7 | 37.3 | 64.0 | 20.6 | 39.4 | 40.0 | 16.1 | 14.5 | 150.9 |
|  | July I | 712.7 | 203.5 | 51.9 | 68.3 | 37.1 | 63.1 | 21.1 | 40.3 | 44.7 | 16.6 | 14.8 | 151.3 |
|  | October I | 705.9 | 205.2 | 52.7 | 67.9 | 36.6 | 62.1 | 21.6 | 38.4 | 39.3 | 16.3 | 14.8 | 151.0 |
| 1945 | 5 January I | 704.6 | 207.4 | 53.4 | 68.1 | 36.2 | 61.6 | 21.5 | 37.1 | 38.2 | 15.0 | 15.3 | 150.8 |
|  | April I | 704.7 | 208.6 | 54.4 | 67.5 | 35.7 | 60.8 | 21.5 | 35.6 | 37.9 | 14.9 | 14.3 | 153.5 |
|  | July 1 | 703.8 | 210.5 | 54.4 | 63.8 | 34.7 | 58.6 | 21.0 | 36.6 | 43.0 | 14.5 | 15.1 | 151.6 |
|  | October I | 690.0 | 220.4 | 52.7 | 61.3 | 33.7 | 50.4 | 20.0 | 36.0 | 38.3 | 13.4 | 15.8 | 148.0 |

[^29]Source: Treasury programme in Great Britain'

|  | For Services and Supply Departments |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Total | Admiralty | War Office ${ }^{2}$ | Ministry ${ }^{2}$ | Ministry of Supply | Ministry of Aircraft Production ${ }^{2}$ | Ministry of <br> ransport ${ }^{2}$ | Civil Departments ${ }^{2,3}$ | construction (including site preparation) |
| 1941 July | 541.8 | 342.6 | 34.2 | 55.1 | 109.3 | 100.5 | 32.8 | 10.7 |  | 199.2 |
| August | 543.8 | 341.0 | 33.2 | 55.7 | 109.3 | 100.0 | 32.1 | 10.7 |  | 202.8 |
| September | 557.8 | 347.2 | 32.2 | 55.5 | 109.9 | 108.1 | 30.6 | 10.9 |  | 210.6 |
| October | 560.9 | 348.5 | 32.6 | 56.5 | 108.7 | 105.9 | 32.3 | 12.5 |  | 212.4 |
| November | 537.7 | 346.0 | 31.0 | 56.5 | 106.7 | 106.4 | 34.3 | 11.1 |  | 191.7 |
| December | 517.6 | 333.7 | 29.5 | 55.9 | 99.3 | 103.0 | 34.9 | 11.1 |  | 183.9 |
| 1942 January | 503.7 | 330.8 | 28.6 | 54.7 | 102.5 | 92.3 | 40.6 | 12.1 | 171.9 | 1.0 |
| February | 496.7 | 329.8 | 28.7 | 50.2 | 105.3 | 92.8 | 40.5 | 12.3 | 165.9 | 1.0 |
| March | 510.2 | 332.7 | 27.0 | 52.1 | 106.5 | 92.6 | 41.7 | 12.8 | 176.0 | . 5 |
| April | 514.0 | 337.7 | 26.2 | 50.7 | 112.6 | 91.5 | 43.5 | 13.2 | 174.7 | 1.6 |
| May | 495.5 | 328.3 | 26.4 | 48.0 | 109.8 | 82.1 | 49.1 | 12.9 | 165.6 | 1.6 |
| June | 480.9 | 319.4 | 26.6 | 44.2 | 112.8 | 75.3 | 48.0 | 12.5 | 159.8 | 1.7 |
| July | 466.7 | 319.3 | 25.0 | 45.0 | 117.1 | 65.2 | 54.9 | 12.1 | 145.6 | 1.8 |
| August | 464.7 | 327.3 | 28.3 | 52.8 | 120.7 | 60.5 | 53.3 | 11.7 | 134.7 | 2.7 |
| September | 460.5 | 331.0 | 26.5 | 62.0 | 126.1 | 52.1 | 53.1 | 11.2 | 126.8 | 27 |
| October | 460.7 | 336.3 | 27.0 | 71.2 | 129.6 | 48.9 | 49.4 | 10.2 | 121.7 | 27 |
| November | 445.2 | 328.5 | 27.9 | 72.8 | 130.1 | 45.1 | 43.4 | 9.2 | 114.2 | 2.5 |
| December | 426.6 | 320.5 | 27.2 | 75.6 | 129.8 | 41.9 | 37.9 | 8.1 | 103.6 | 2.5 |
| 1943 January | 425.3 | 323.5 | 27.7 | 78.3 | 130.2 | 38.9 | 39.7 | 8.7 | 99.7 | 1 |
| February | 419.9 | 319.9 | 30.0 | 76.9 | 127.8 | 37.7 | 39.0 | 8.5 | 97.9 | 2.1 |
| March | 405.7 | 312.4 | 32.2 | 72.5 | 124.5 | 37.5 | 37.7 | 8.0 | 91.2 | 2.1 |
| April | 388.7 | 296.4 | 31.6 | 61.3 | 123.8 | 36.2 | 35.3 | 8.2 | 89.9 | 2.4 |
| May | 372.3 | 280.3 | 31.4 | 51.4 | 119.1 | 35.6 | 33.7 | 9.1 | 89.7 | 2.3 |
| June | 356.1 | 263.1 | 32.2 | 44.9 | 109.8 | 34.7 | 32.6 | 8.9 | 90.7 | 2.3 |
| July | 347.1 | 247.1 | 31.9 | 38.2 | 103.9 | 34.1 | 29.6 | 9.4 | 96.1 | 3.9 |
| August | 351.4 | 244.4 | 31.8 | 37.8 | 102.2 | 33.0 | 29.6 | 10.0 | 101.0 | 6.0 |
| September | 344.8 | 235.8 | 31.4 | 36.9 | 99.0 | 31.5 | 26.6 | 10.4 | 101.7 | 7.3 |
| October | 335.4 | 224.9 | 31.8 | 34.4 | 94.5 | 29.4 | 25.2 | 9.6 | 101.6 | 8.9 |
| November | 330.5 | 221.4 | 31.9 | 33.2 | 87.6 | 35.0 | 24.7 | 9.0 | 100.3 | 8.8 |
| December | 316.7 | 215.6 | 30.8 | 34.1 | 78.3 | 40.1 | 23.9 | 8.4 | 91.5 | 9.6 |
| 1944 January | 317.3 | 213.3 | 30.7 | 35.1 | 71.9 | 45.2 | 22.4 | 8.0 | 94.6 | 9.4 |
| February | 316.8 | 207.7 | 29.4 | 34.4 | 63.8 | 47.9 | 23.1 | 9.1 | 100.5 | 8.6 |
| March | 306.3 | 190.7 | 27.7 | 32.2 | 53.8 | 46.0 | 21.9 | 9.1 | 107.7 | 7.9 |
| April | 295.6 | 175.6 | 25.1 | 31.2 | 47.9 | 42.7 | 20.3 | 8.4 | 113.0 | 7.0 |
| May | 273.4 | 153.1 | 22.2 | 29.9 | 39.9 | 33.7 | 18.8 | 8.6 | 114.0 | 6.3 |
| June | 267.5 | 146.2 | 20.5 | 28.9 | 38.9 | 31.6 | 17.6 | 8.7 | 115.5 | 5.8 |
| July | 249.4 | 134.4 | 19.3 | 26.3 | 32.9 | 31.3 | 16.4 | 8.2 | 110.3 | 4.7 |
| August | 231.5 | 133.2 | 18.5 | 24.4 | 31.6 | 36.6 | 14.4 | 7.7 | 93.7 | 4.6 |
| September | 222.1 | 124.2 | 18.5 | 23.0 | 30.0 | 31.5 | 13.3 | 7.9 | 93.1 | 4.8 |
| October | 216.5 | 114.0 | 19.2 | 22.0 | 30.4 | 23.1 | 11.5 | 7.8 | 97.6 | 4.9 |
| November | 201.9 | 105.0 | 18.4 | 21.0 | 28.6 | 21.0 | 9.4 | 6.5 | 92.0 | 4.9 |
| December | 195.0 | 98.6 | 17.6 | 18.9 | 27.0 | 20.3 | 8.7 | 6.1 | 91.4 | 5.0 |
| 1945 January | 189.7 | 93.8 | 16.3 | 17.6 | 26.9 | 20.3 | 7.2 | 5.5 | 90.5 | 5.4 |
| February | 198.2 | 94.5 | 16.4 | 17.6 | 26.5 | 21.2 | 7.1 | 5.7 | 95.3 | 8.4 |
| March | 200.1 | 92.3 | 15.1 | 17.0 | 25.9 | 22.1 | 6.4 | 5.8 | 94.7 | 13.1 |
| April | 207.1 | 91.0 | 15.3 | 16.7 | 25.6 | 21.5 | 5.7 | 6.2 | 99.6 | 16.5 |
| May | 218.1 | 91.9 | 15.0 | 15.9 | 25.4 | 23.0 | 5.6 | 7.0 | 105.7 | 20.5 |
| June | 219.9 | 87.0 | 14.4 | 15.0 | 23.3 | 23.6 | 4.3 | 6.4 | 106.3 | 26.6 |
| July | 242.5 | 87.4 | 14.6 | 14.0 | 22.8 | 24.2 | 4.5 | 7.3 | 122.8 | 32.3 |

[^30]
### 3.29 Training of civilians in Government training centres and emergency training establishments ${ }^{\prime}$

|  |  | Number in training |  | Number admitted to training |  | Number completed training |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females ${ }^{2}$ | Males | Females ${ }^{2}$ | Males | Females ${ }^{2}$ |
|  |  | End of period |  | Weekly averages |  |  |  |
| 1940 | 3rd Quarter | 24,039 | - | 1,829 | - | 515 | - |
|  | 4th Quarter | 24,286 | - | 1,616 | - | 1,160 | - |
| 1941 | Ist Quarter | 20,741 | 6,576 | 1,729 | 861 | 1,482 | 245 |
|  | 2nd Quarter | 28,256 | 10,231 | 2,200 | 1,147 | 1,099 | 644 |
|  | 3rd Quarter | 19,670 | 10,280 | 1,052 | 1,104 | 1,371 | 789 |
|  | 4th Quarter | 12,254 | 14,399 | 824 | 1,524 | 1,235 | 971 |
| 1942 | 1st Quarter | 9,283 | 12,041 | 695 | 1,362 | 800 | 1,345 |
|  | 2nd Quarter | 8,436 | 12,132 | 706 | 1,336 | 644 | 1,164 |
|  | 3rd Quarter | 6,140 | 12,073 | 513 | 1,318 | 575 | 1,156 |
|  | 4th Quarter | 5,780 | 11,940 | 447 | 1,146 | 396 | 1,022 |
| 1943 | Ist Quarter | 5,184 | 11,166 | 418 | 1,046 | 397 | 989 |
|  | 2nd Quarter | 4,521 | 9,512 | 395 | 937 | 394 | 943 |
|  | 3rd Quarter | 3,216 | 6,460 | 281 | 636 | 319 | 729 |
|  | 4th Quarter | 3,345 | 5,786 | 274 | 538 | 218 | 523 |
| 1944 | 1st Quarter | 3,172 | 3,796 | 253 | 308 | 203 | 417 |
|  | 2nd Quarter | 3,236 | 3,191 | 225 | 276 | 191 | 287 |
|  | 3rd Quarter | 2,654 | 1,985 | 187 | 170 | 187 | 215 |
|  | 4th Quarter | 2,634 | 953 | 189 | 78 | 153 | 142 |
| 1945 | Ist Quarter | 2,596 | 443 | 167 | 37 | 129 | 71 |
|  | 2nd Quarter | 2,851 | 291 | 162 | 23 | 116 | 28 |
|  | 3rd Quarter | 3,498 | 270 | 190 | 19 | 101 | 18 |

[^31]Source: Ministry of Labour and National Service

### 3.30 <br> Industrial stoppages' <br> Working days lost as a result of disputes

Thousands of days

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working days lost through the stoppages which began in the year ${ }^{2}$ | 1,354 | 941 | 1,077 | 1,530 | 1,832 | 3,696 | 2,847 |
| Analysis by number of workers involved: |  |  |  |  |  |  |  |
| Under 100 | 90 | 66 | 82 | 66 | 82 | 105 | 151 |
| 100 and under 250 | 192 | 111 | 84 | 92 | 146 | 136 | 197 |
| 1,000 and under 2,500 | 280 | 309 | 229 | 459 | 338 | 392 | 391 |
| 2,500 and under 5,000 | 132 | 69 | 82 | 151 | 185 | 158 | 203 |
| 5,000 and upwards | 95 | 156 | 218 | 449 | 606 | 2,398 | 1.413 |
| Working days lost each year through all stoppages in progress ${ }^{3}$ |  |  |  |  |  |  |  |
| Analysis by industry: |  |  |  |  |  |  |  |
| All industries and services | 1,356 | 940 | 1,079 | 1,527 | 1,808 | 3.714 | 2,835 |
| Building and contracting | 131 | 73 | 36 | 29 | 25 | 7 | 5 |
| Mining and quarrying | 612 | 508 | 338 | 862 | 889 | 2,495 | 644 |
| Metals, engineering and shipbuilding | 332 | 163 | 556 | 526 | 635 | 1,048 | 528 |
| Textiles | 100 | 77 | 36 | 26 | 17 | 47 | 10 |
| Clothing | 13 | 40 | 16 | 19 | 7 | 5 | 68 |
| Transport and communications | 56 | 13 | 54 | 35 | 181 | 85 | 1,491 |
| Other industries and services | 112 | 66 | 43 | 30 | 54 | 27 | 89 |

1. Stoppages involving fewer than ten workers or lasting less than one day have been

Source: Ministry of Labour omitted except when the aggregate number of working days lost exceeded 100 . and National Service
2. The figures relate to stoppages beginning in the years shown and the figures for working days lost include days lost in subsequent years where the stoppage extended into the following calendar year
3. This analysis shows the total working days lost within each year as a result of stoppages in progress in that year whether beginning in that or an earlier year:


Before the war more than 22 million tons of food and animal feeding-stuffs were imported into the UK but by 1942 less than 11 million tons were being imported (Hammond 1951: 392); thus, between 1939 and 1942 imports of butter and sugar fell by roughly two-thirds and wheat imports fell by a third (table 8.8). The loss of food imports was partly due to the loss of access to markets controlled by the Axis powers, and to enemy action, but the main factors were financial constraints (at least until the advent of Lend-lease in March 1941) and the need to
economise on scarce shipping capacity (tables 4.19-4.20). State policy towards the agricultural sector was driven by two related concerns: the need to increase domestic production to replace the loss of imported foodstuffs and the desire to maintain a high nutritional level for the population. This in turn meant that the state was less concerned with the volume of agricultural output and more concerned about its calorific output (Murray 1955: 241).

The consequence of this for domestic production was that arable farming was encouraged at the expense of livestock farming. Thus, in Britain between 1939 and 1943 arable production increased (wheat production by 81 per cent, potatoes by 92 per cent, fodder crops by 27 per cent and vegetables by 30 per cent) whilst livestock numbers, with the exception of cattle (because of the importance of milk output), fell (the pig population by 58 per cent, sheep and lambs by 24 per cent and poultry by 45 per cent)' (tables 4.I-4.9). There were also significant gains in yields per acre in arable farming, particularly in grain production (table 4.7). Even more impressive than the increases in yield per acre was the performance of the agricultural sector in terms of food value: net calorie output increased by 91 per cent during the war and calorific reliance on imports was cut from 70 per cent to 60 per cent (Murray 1955: 242).

## 4. Estimated food supplies per head of civilian population



### 4.2 Estimated food supplies per head of civilian population



The increases in wartime agricultural output were probably a reflection of increased inputs of land and capital rather than an improved labour input. Although employment in agriculture did increase during the war many of these new workers were inexperienced in agriculture (such as the female recruits of the Women's Land Army and prisoners-of-war) or were working in new sectors within agriculture (i.e., the experienced livestock workers who were transferred to the arable sector) and thus it is likely that the quality of the labour input declined (Williams 1954: 333-5; table 3.12). Increases in the amount of arable land from 11.9 million acres in 1939 to 17.9 million acres in 1944 (the result of the 'ploughing-up' campaign promoted by the state) undoubtedly helped raise output, although this was mirrored by a decline in the area devoted to permanent grasslands (reflecting the declining importance of livestock) (table 4.3). The key to increased output and yields was, however, the greater use made by farmers of fertilisers and machinery, and their growing acceptance of scientific methods of production and modern methods of farm management (Pollard 1983: 206; tables 4.12, 6.15 and 7.30; Murray 1955: 243-4).

The state played a key role in agriculture during the war both in terms of the support and encouragement it offered to farmers and in terms of the food policy it pursued towards consumers. State support to farmers came in two main forms: first, through central direction and financial
incentives (in the forms of subsidies and grants) the state encouraged farmers to make improvements to their land and to make greater and more effective use of fertilisers and machinery; second, price incentives were used to encourage production (Pollard 1983: 206). The increased prices paid to farmers were not passed on to consumers and this led to a massive rise in the food subsidy borne by the state: over the course of the war the net annual cost of food subsidies bome by the Ministry of Food rose from $£ 13$ million to $£ 162$ million (Hammond 1951: 398).

Another important prop of wartime food policy was rationing (Howlett 1994a: 291-2). This was primarily used as an anti-inflationary tool and, by being seen to promote equality, it also served as a method of social control. However, another important function of rationing was to make the best possible use of the limited food supplies, which included a successful attempt to ensure that the nutritional status of the population did not deteriorate (Milward 1977: 281). Rationing was first introduced in 1940 and by the end of the war had been extended so that it encompassed most basic foodstuffs, petrol, clothing, and other consumer goods. The inflationary pressures present in the economy following the end of the war meant that the state continued rationing into the postwar period and even extended it (bread, for example, was first rationed in 1946) and for many foodstuffs rationing did not end until the mid-1950s.

|  | 1936-38 average | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crops and grass ${ }^{\prime}$ |  |  |  |  |  |  |  |  |
| Total | 29,359 | 29,201 | 29,098 | 29,057 | 28,926 | 28,807 | 28,745 | 28,758 |
| Arable land | 11,991 | 11,870 | 13,203 | 14,991 | 16,175 | 17,387 | 17,936 | 17,866 |
| Permanent grassland | 17,368 | 17,331 | 15,089 | 14,066 | 12,752 | 11,420 | 10,809 | 10,892 |
| Tillage |  |  |  |  |  |  |  |  |
| Total | 8,471 | 8,342 | 9,826 | 11,916 | 12,839 | 13,659 | 13,708 | 13,063 |
| Wheat | 1,851 | 1,763 | 1,797 | 2,247 | 2,504 | 3,451 | 3,215 | 2,272 |
| Barley | 926 | 1,010 | 1,321 | 1,457 | 1,513 | 1,771 | 1,957 | 2,201 |
| Oats | 2,130 | 2,135 | 3,002 | 3,501 | 3,658 | 3,210 | 3,215 | 3,305 |
| Mixed corn | 96 | 85 | 258 | 529 | 529 | 485 | 415 | 435 |
| Rye (threshed) | 15 | 14 | 17 | 40 | 58 | 128 | 119 | 79 |
| Potatoes | 597 | 589 | 695 | 966 | 1,116 | 1,193 | 1,219 | 1,207 |
| Sugar beet | 335 | 345 | 329 | 351 | 425 | 417 | 431 | 417 |
| Fodder crops: |  |  |  |  |  |  |  |  |
| Beans | 119 | 135 | 90 | 193 | 222 | 248 | 286 | 206 |
| Peas | 40 | 37 | 38 | 64 | 69 | 64 | 57 | 46 |
| Turnips and swedes | 753 | 688 | 720 | 808 | 832 | 806 | 798 | 793 |
| Mangolds | 226 | 215 | 229 | 265 | 268 | 285 | 307 | 307 |
| Other | 297 | 284 | 332 | 482 | 514 | 502 | 523 | 506 |
| Hops | 18 | 19 | 19 | 18 | 18 | 19 | 20 | 20 |
| Mustard (seed) | 27 | 24 | 24 | 17 | 22 | 16 | 13 | 18 |
| Flax for fibre (as straw) | 1 | 2 | 18 | 38 | 45 | 52 | 60 | 44 |
| Fruit | 299 | 293 | 291 | 300 | 292 | 291 | 288 | 285 |
| Vegetables | 277 | 290 | 301 | 371 | 418 | 419 | 499 | 508 |
| Flowers and nursery stock | 24 | 25 | 18 | 14 | 12 | 9 | 9 | 11 |
| Other crops | 17 | 18 | 20 | 35 | 44 | 52 | 47 | 56 |
| Bare fallow | 423 | 374 | 306 | 219 | 280 | 240 | 231 | 347 |
| Temporary grassland |  |  |  |  |  |  |  |  |
| Total | 3,520 | 3,528 | 3,376 | 3,075 | 3,336 | $3,728$ | $4,228$ | $4,803$ |
| For hay | 1,730 | 1,689 | 1,698 | 1,547 | 1,858 | 2,095 | 2,266 | 2,589 |
| For grazing | 1,790 | 1,838 | 1,678 | 1,528 | 1,478 | 1,633 | 1,962 | 2,213 |
| Permanent grassland |  |  |  |  |  |  |  |  |
| Total | 17,368 | 17,331 | 15,896 | 14,066 | 12,752 | 11,420 | 10,809 | 10,892 |
| For hay | 4,699 | 4,786 | 4,398 | 3,883 | 3,343 | 2,811 | 2,433 | 2,524 |
| For grazing | 12,669 | 12,545 | 11,497 | 10,184 | 9,409 | 8,609 | 8,379 | 8,369 |
| Rough grazings | 15,944 | 16,006 | 15,995 | 16,344 | 16,289 | 16,420 | 16,278 | 16,554 |

[^32]Source: Agricultural Departrnent

### 4.4 Area of crops and grassland



[^33]
## 4.5 <br> Estimated quantity of crops and grass harvested

Great Britain
Thousand tons

|  | $1936-38$ <br> average | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Wheat | 1,646 | 1,642 | 1,628 | 2,000 | 2,556 | 3,435 | 3,134 | 2,174 |
| Barley | 762 | 889 | 1,089 | 1,127 | 1,432 | 1,632 | 1,737 | 2,096 |
| Oats | 1,676 | 1,733 | 2,514 | 2,815 | 3,125 | 2,670 | 2,574 | 2,862 |
| Mixed corn | 76 | 73 | 222 | 423 | 447 | 380 | 341 | 366 |
| Rye (grain) | 10 | 10 | 11 | 26 | 45 | 94 | 87 | 58 |
| Potatoes | 4,085 | 4,354 | 5,375 | 6,783 | 8,162 | 8,537 | 8,026 | 8,702 |
| Sugar beet | 2,741 | 3,529 | 3,176 | 3,226 | 3,923 | 3,760 | 3,267 | 3,886 |
| Fodder crops: | 96 | 111 | 54 | 153 | 162 | 194 | 190 | 161 |
| $\quad$ Beans | 29 | 23 | 30 | 42 | 51 | 43 | 33 | 31 |
| $\quad$ Peas | 10,557 | 9,699 | 10,366 | 11,570 | 12,844 | 11,677 | 11,811 | 11,946 |
| $\quad$ Turnips and swedes | 4,065 | 4,050 | 4,229 | 5,090 | 5,404 | 5,785 | 5,543 | 6,508 |
| $\quad$ Mangolds |  |  |  |  |  |  |  |  |
| Straw: | 2,062 | 1,986 | 1,854 | 2,347 | 2,810 | 3,759 | 3,327 | 2,304 |
| $\quad$ Wheat | 720 | 838 | 961 | 1,083 | 1,282 | 1,425 | 1,492 | 1,776 |
| $\quad$ Barley | 2,212 | 2,227 | 2,858 | 3,515 | 3,805 | 3,197 | 3,072 | 3,263 |
| $\quad$ Oat | 13 | 14 | 14 | 13 | 13 | 14 | 13 | 14 |
| Hops | 11 | 11 | 9 | 6 | 9 | 5 | 4 | 6 |
| Mustard (seed) | 2 | 3 | 30 | 61 | 79 | 107 | 105 | 90 |
| Flax for fibre (as straw) | 428 | 797 | 558 | 293 | 714 | 644 | 612 | 450 |
| Fruit | 2,355 | 2,389 | 2,596 | 2,851 | 3,659 | 3,113 | 3,387 | 1,213 |
| Vegetables |  |  |  |  |  |  |  |  |
|  | 2,337 | 2,273 | 2,315 | 2,139 | 2,669 | 3,038 | 2,894 | 3,843 |
| Hay from temporary grassland | 4,539 | 4,783 | 3,898 | 3,786 | 3,233 | 2,844 | 2,093 | 2,659 |
| Hay from permanent grassland |  |  |  |  |  |  | 5 |  |

Source:Agricultural Departments

### 4.6 Estimated quantity of crops and grass harvested

| Northern Ireland |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $1936-38$ <br> average | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
|  |  |  |  |  |  |  |  |  |

[^34]Estimated yield per acre

|  | Unit | 1936-38 <br> average | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wheat | Cwts. | 17.7 | 18.6 | 18.1 | 17.8 | 20.4 | 19.9 | 19.5 | 19.1 |
| Barley | " | 16.4 | 17.6 | 16.5 | 15.5 | 18.9 | 18.4 | 17.7 | 19.0 |
| Oats |  | 15.7 | 16.2 | 16.8 | 16.1 | 17.1 | 16.6 | 16.0 | 17.3 |
| Mixed corn | " | 15.8 | 17.2 | 17.2 | 16.1 | 17.0 | 15.7 | 16.5 | 16.8 |
| Rye (grain) |  | 12.5 | 13.7 | 12.6 | 13.2 | 15.4 | 14.7 | 14.7 | 14.6 |
| Potatoes | Tons | 6.9 | 7.4 | 7.7 | 7.0 | 7.3 | 7.2 | 6.6 | 7.2 |
| Sugar beet | " | 8.2 | 10.3 | 9.7 | 9.3 | 9.3 | 9.1 | 7.7 | 9.4 |
| Fodder crops: |  |  |  |  |  |  |  |  |  |
| Beans | Cwts. | 16.3 | 16.4 | 12.0 | 16.0 | 14.7 | 15.8 | 13.4 | 15.7 |
| Peas | " | 14.6 | 12.7 | 16.0 | 13.3 | 15.2 | 13.7 | 12.3 | 13.6 |
| Turnips and swedes | Tons | 14.1 | 14.1 | 14.4 | 14.3 | 15.4 | 14.5 | 14.9 | 15.1 |
| Mangolds | " | 18.0 | 18.9 | 18.5 | 19.3 | 20.3 | 20.4 | 18.1 | 21.3 |
| Straw: |  |  |  |  |  |  |  |  |  |
| Wheat | Cwhs. | 22.3 15.5 | 22.5 16.6 | 20.6 14.5 | 20.9 14.9 | 22.4 17.0 | 21.8 16.1 | 20.7 15.2 | 20.3 16.1 |
| Barley | " | 15.5 20.8 | 16.6 20.9 | 14.5 19.0 | 14.9 20.1 | 17.0 20.8 | 16.1 19.9 | 15.2 19.1 | 16.1 19.8 |
| Hops |  | 13.5 | 15.3 | 14.5 | 14.5 | 14.2 | 14.9 | 13.0 | 14.1 |
| Mustard (seed) | " | 8.5 | 9.3 | 7.6 | 6.9 | 8.7 | 7.0 | 7.1 | 7.6 |
| Flax for fibre (as straw) | Tons | 1.8 | 1.8 | 1.6 | 1.6 | 1.7 | 2.0 | 1.9 | 2.0 |
| Hay from temporary grassland | Cwts. | 26.9 | 26.9 | 27.3 | 27.7 | 28.8 | 29.0 | 25.5 | 29.7 |
| Hay from permanent grassland | " | 19.2 | 20.0 | 17.7 | 19.5 | 19.4 | 20.2 | 17.2 | 21.1 |

Source: Agricultural Departments

### 4.8 Estimated yield per acre

| Northern Ireland |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Unit | 1936-38 <br> average | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
|  |  |  |  |  |  |  |  |  |  |


|  | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Cattle |  |  |  |  |  |  |  |  |  |  |
| Total | 7,853 | 7,909 | 8,030 | 8,119 | 8,361 | 8,153 | 8,248 | 8,428 | 8,616 | 8,697 |
| Cows and heifers in milk | 2,596 | 2,583 | 2,606 | 2,628 | 2,647 | 2,667 | 2,587 | 2,674 | 2,686 | 2,673 |
| Cows in calf but not in milk | 461 | 450 | 429 | 447 | 455 | 489 | 545 | 596 | 605 | 576 |
| Heifers in calf with first calf | 514 | 530 | 541 | 539 | 596 | 552 | 751 | 729 | 744 | 747 |
| Bulls being used for service | 101 | 104 | 106 | 109 | 110 | 111 | 120 | 126 | 127 | 129 |
| Other cattle: |  |  |  |  |  |  |  |  |  |  |
| $\quad$ Two years old and over | 1,109 | 1,117 | 1,099 | 1,144 | 1,214 | 1,056 | 1,086 | 1,092 | 1,188 | 1,311 |
| One year and under two | 1,583 | 1,590 | 1,601 | 1,677 | 1,671 | 1,702 | 1,513 | 1,556 | 1,591 | 1,634 |
| Under one year | 1,490 | 1,535 | 1,649 | 1,575 | 1,667 | 1,577 | 1,646 | 1,654 | 1,674 | 1,628 |

Sheep and lambs

| Total | 24,205 | 24,712 | 25,882 | 25,993 | 25,465 | 21,445 | 20,764 | 19,700 | 19,435 | 19,496 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Ewes for breeding | 10,548 | 10,606 | 10,406 | 10,572 | 10,309 | 8,865 | 8,520 | 7,899 | 7,820 | 7,916 |
| Rams for service | 327 | 338 | 296 | 305 | 298 | 249 | 246 | 237 | 235 | 234 |
| Other sheep: |  |  |  |  |  |  |  |  |  |  |
| $\quad$ One year old and over | 2,315 | 2,120 | 3,825 | 3,451 | 3,734 | 3,407 | 2,982 | 3,109 | 3,167 | 3,218 |
| $\quad$ Under one year | 11,015 | 11,649 | 11,355 | 11,664 | 11,125 | 8,924 | 9,016 | 8,454 | 8,213 | 8,127 |


| Pigs |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 4,040 | 3,883 | 3,822 | 3,767 | 3,631 | 2,207 | 1,872 | 1,571 | 1,631 | 1,903 |
| Sows for breeding | 512 | 487 | 463 | 479 | 426 | 216 | 221 | 162 | 226 | 218 |
| Boars for service | 37 | 35 | 33 | 33 | 30 | 18 | 18 | 15 | 19 | 19 |
| Other pigs: |  |  |  |  |  |  |  |  |  |  |
| Five months old and over |  |  |  | [ 677 | 827 | 633 | 547 | 573 | 487 | 628 |
| Two months and under five | 3,491 | 3,361 | 3,326 | 1,616 | 1,567 | 933 | 679 | 515 | 522 | 651 |
| Under two months |  |  |  | 963 | 781 | 408 | 406 | 307 | 377 | 386 |
| Poultry |  |  |  |  |  |  |  |  |  |  |
| Total | 70,005 | 63,704 | 64,053 | 64,137 | 62,121 | 49,126 | 43,212 | 35,299 | 38,481 | 44,665 |
| Total fowls | 65,698 | 59,830 | 59,920 | 60,234 | 58,545 | 46,233 | 40,160 | 32,241 | 34,986 | 40,615 |
| Six months and over | 29,142 | 27,997 | 26,475 | 26,610 | 29,554 | 28,418 | 20,446 | 16,247 | 15,976 | 17,533 |
| Under six months | 36,556 | 31,833 | 33,445 | 33,624 | 28,991 | 17,815 | 19,714 | 15,994 | 19,010 | 23,083 |
| Ducks | 2,843 | 2,499 | 2,564 | 2,467 | 2,263 | 1,796 | 1,981 | 1,939 | 2,234 | 2,542 |
| Geese | 661 | 577 | 634 | 611 | 608 | 620 | 648 | 707 | 779 | 866 |
| Turkeys | 804 | 797 | 934 | 825 | 705 | 477 | 423 | 411 | 483 | 542 |


| Northern Ireland | At June in each year |  |  |  |  |  |  |  | Thousands |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Cattle |  |  |  |  |  |  |  |  |  |  |
| Total | 770 | 730 | 732 | 753 | 732 | 787 | 827 | 832 | 886 | 919 |
| Cows and heifers in milk | 250 | 237 | 229 | 213 | 202 | 211 | 222 | 236 | 242 | 245 |
| Cows in calf but not in milk | , | . ${ }^{\text {a }}$ | ! | 32 | 33 | 35 | 43 | 44 | 47 | 49 |
| Heifers in calf with first calf | 25 | 23 | 30 | 25 | 24 | 34 | 51 | 44 | 50 | 53 |
| Bulls being used for service | 5 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| Other cattle: |  |  |  |  |  |  |  |  |  |  |
| Two years old and over | 81 199 | 75 194 | 85 191 | 85 190 | 186 | 191 | 180 | 134 170 | 155 179 | 186 180 |
| Under one year | .210 | 198 | 192 | 204 | 196 | 200 | 197. | 198 | 208 | 201 |

Sheep and lambs

| Total | 835 | 829 | 893 | 895 | 854 | 812 | 742 | 683 | 672 | 654 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Ewes for breeding | 382 | 377 | 402 | 403 | 854 | 364 | 332 | 301 | 300 | 295 |
| Rams for service | 11 | 10 | 13 | 12 | 12 | 11 | 10 | 9 | 10 | 9 |
| Other sheep: |  |  |  |  |  |  |  |  |  |  |
| $\quad$ One year old and over | 39 | 36 | 46 | 43 | 51 | 71 | 60 | 61 | 65 | 71 |
| $\quad$ Under one year | 403 | 406 | 433 | 437 | 413 | 366 | 340 | 312 | 297 | 279 |

Pigs

| Total | 522 | 570 | 561 | 627 | 475 | 351 | 271 | 257 | 237 | 249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sows for breeding | 57 | 54 | 58 | 63 | 42 | 29 | 28 | 24 | 26 | 27 |
| Boars for service | 2 | 2 | 2 | 2 | । | 0.6 | 0.5 | 0.3 | 0.4 | 0.4 |
| Other pigs: |  |  |  |  |  |  |  |  |  |  |
| Five months old and over |  |  | 83 | 90 | 93 | 78 | 65 | 41 | 31 | 34 |
| Two months and under five | 463 | 514 | 230 | 255 | 212 | 181 | 133 | 153 | 142 | 149 |
| Under two months |  |  | 189 | 217 | 128 | 61 | 45 | 40 | 38 | 39 |

Poultry

| Total | 10,570 | 10,182 | 10,193 | 10,220 | 9,122 | 12,933 | 14,601 | 15,430 | 16,646 | 17,471 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Fowls | 9,543 | 9,222 | 9,199 | 9,295 | 8,120 | 11,850 | 13,342 | 14,130 | 15,256 | 16,050 |
| Ducks | 499 | 428 | 425 | 415 | 396 | 530 | 664 | 701 | 759 | 794 |
| Geese | 139 | 112 | 113 | 104 | 103 | 115 | 118 | 114 | 123 | 124 |
| Turkeys | 389 | 420 | 456 | 406 | 413 | 438 | 478 | 485 | 508 | 504 |

[^35]
## 4. Horses grazed on agricultural land

At June in each year
Thousands

|  | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Great Britain Total | 1,013 | 1,005 | 1,002 | 987 | 959 | 962 | 917 | 871 | 829 | 796 |
| Used for agricultural purposes' | 672 | 663 | 668 | 649 | 642 | 667 | 585 | 616 | 577 | 545 |
| Unbroken horses: |  |  |  |  |  |  |  |  |  |  |
| One year old and over Under one year | $\begin{array}{r} 108 \\ 57 \end{array}$ | $\begin{array}{r} 114 \\ 61 \end{array}$ | $\begin{array}{r} 122 \\ 60 \end{array}$ | $\begin{array}{r} 131 \\ 57 \end{array}$ | $\begin{array}{r} 126 \\ 50 \end{array}$ | $\begin{array}{r} 114 \\ 42 \end{array}$ | $\begin{array}{r} 105 \\ 39 \end{array}$ | $\begin{aligned} & 90 \\ & 37 \end{aligned}$ | $\begin{aligned} & 87 \\ & 87 \end{aligned}$ | 87 34 |
| Stallions being used for service | 4 | 4 | 5 | 5 | 4 | 3 | 3 | 3 | 3 | 3 |
| Other ${ }^{2}$ | 171 | 162 | 148 | 146 | 136 | 136 | 184 | 125 | 126 | 127 |
| Northern Ireland Total | 99 | 98 | 99 | 97 | 97 | 97 | 95 | 90 | 88 | 85 |
| Used for agricultural purposes' | 81 | 81 | 80 | 76 | 77 | 80 | 80 | 77 | 75 | 72 |
| Unbroken horses: One year old and over ${ }^{3}$ Under one year | 5 | 6 4 | 7 5 | 9 5 | 8 | 7 3 | 6 3 | 5 2 | 4 3 | 4 3 |
| Other ${ }^{2}$ | 8 | 7 | 6 | 8 | 8 | 7 | 7 | 6 | 6 | 6 |

1. Including mares kept for breeding

Source: Agricultural Departments
2. Including all other horses grazed on agricultural holdings exceeding one acre in

Great Britain, or one quarter of an acre in Northern Ireland regardless of the use
to which they are put.
3. Including stallions being used for service.

## 4. 2 Agricultural tractors, machines and implements in use ${ }^{1}$

| Great Britain |  |  | Nurnber |
| :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} 1942 \\ \text { May } \end{array}$ | $1944$ April | $\begin{array}{r} 1946 \\ \text { January } \end{array}$ |
| Tractors: |  |  |  |
| Total | 116,830 | 173,370 | 203,420 |
| Tracklayers | 5,600 | 9,090 | 12,350 |
| Three and four-wheeled | 104,780 | 153,350 | 175,050 |
| Two-wheeled market garden type | 6,450 | 10,930 | 16,020 |
| Mouldboard ploughs: |  |  |  |
| Total | 465,630 | 466,860 | 482,190 |
| Horse drawn | 353,180 | 312,710 | 303,240 |
| Tractor drawn | 112,450 | 154,150 | 178,950 |
| Disc harrows | 33,840 | 58,860 | 65,200 |
| Cultivators or grubbers | 161,690 | 191,410 | 247,790 |
| Toolbars | 14,340 | 23,100 | 33,710 |
| Corn drills ${ }^{2}$ | 101,550 | 108,640 | 115,510 |
| Mowing machines | 220,420 | 210,590 | 228,320 |
| Binders | 131,600 | 144,040 | 149,500 |
| Threshing machines | $13,150{ }^{3}$ | $14,960{ }^{3}$ | 14,960 |
| Combined harvester-threshers | 1,000 | 2,500 | 3,800 |
| Potato spinners | 37,030 | 53,460 | 59,470 |
| Milking machines | 29,510 | 37,790 | 48,290 |

[^36]Source: Agricultural Departments

## 4.|3 Movement off farms of cereals, potatoes and sugar beet

|  | Weekly averages |  |  |  |  |  |  |  |  |  |  | Thousand tons |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year | Jan* | Feb | Mar | Apr* | May | Jun | Ju* | Aug | Sep | Oct* | Nov | Dec |
| Cereals: |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1940$ | 18.3 | 22.8 | 24.0 | 19.8 | 13.4 | 12.5 | 5.5 | 2.4 | 21.8 | 31.3 | 25.6 | 23.0 | 20.5 |
| 1941 | 18.4 | 20.0 | 19.5 | 18.3 | 12.2 | 10.0 | 6.5 | 2.0 | 4.3 | 31.0 | 34.0 | 33.0 | 31.0 |
| 1942 | 31.1 | 33.2 | 48.8 | 49.8 | 32.8 | 29.3 | 10.5 | 1.8 | 8.8 | 36.8 | 41.4 | 43.5 | 40.3 |
| 1943 | 44.6 | 41.6 | 47.8 | 47.0 | 41.8 | 46.8 | 34.0 | 11.6 | 30.8 | 62.3 | 61.8 | 60.5 | $53.0 *$ |
| 1944 | 47.9 | 64.0 | 67.0 | 70.0 | 58.8 | 57.8 | 38.5 | 14.0 | 38.0 | 49.5 | 43.6 | 39.5 | 37.0 |
| 1945 | 39.6 | 44.4 | 52.5 | 50.5 | 50.8 | 45.8 | 44.5 | 18.6 | 30.3 | 50.5 | 32.2 | 30.5 | 28.3 |
| Barley ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1941 | 13.6 |  |  |  |  |  |  | 1.2 | 20 | 21.8 | 23.0 | 28.3 | 30.0 |
| 1942 | 17.2 | 22.8 | 23.0 | 18.0 | 7.0 | 3.8 | 2.3 | 1.0 | 9.5 | 37.5 | 23.0 | 29.0 | 33.3 |
| 1943 | 24.8 | 30.4 | 32.3 | 30.0 | 16.2 | 11.5 | 6.5 | 6.8 | 34.8 | 36.3 | 28.6 | 39.0 | 29.2 * |
| 1944 | 23.7 | 30.2 | 30.8 | 27.3 | 15.0 | 10.3 | 5.5 | 4.0 | 28.5 | 42.0 | 32.6 | 31.3 | 30.5 |
| 1945 | 32.1 | 28.6 | 35.3 | 35.0 | 22.8 | 14.8 | 9.3 | 6.8 | 45.8 | 55.8 | 44.0 | 47.5 | 46.3 |
| Oats ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1941 | 4.5 |  |  |  |  |  |  | 1.7 | 1.2 | 5.6 | 6.2 | 7.8 | 8.3 |
| 1942 | 8.1 | 7.2 | 8.8 | 9.5 | 7.0 | 6.8 | 6.8 | 4.6 | 5.3 | 5.5 | 10.2 | 13.3 | 13.0 |
| 1943 | 10.8 | 14.0 | 15.5 | 16.0 | 14.2 | 14.5 | 11.8 | 8.6 | 4.8 | 3.3 | 8.8 | 9.0 | 9.8 * |
| 1944 | 6.9 | 9.6 | 9.8 | 8.8 | 8.0 | 5.8 | 6.0 | 4.0 | 2.8 | 5.3 | 7.2 | 8.3 | 7.5 |
| 1945 | 6.7 | 5.6 | 6.5 | 5.8 | 5.4 | 4.3 | 4.5 | 2.8 | 3.5 | 9.8 | 10.2 | 11.5 | 11.0 |
| Potatoes ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 63.9 | 67.4 | 72.0 | 68.5 | 72.2 | 54.8 | 38.0 | 54.4 | 53.5 | 60.5 | 69.8 | 72.8 | 80.5 |
| 1941 | 80.4 | 83.6 | 98.0 | 100.5 | 95.6 | 96.5 | 59.3 | 54.8 | 71.5 | 68.5 | 75.4 | 78.0 | 85.8 |
| 1942 | 97.1 | 87.6 | 121.3 | 112.3 | 88.6 | 90.8 | 94.0 | 98.8 | 81.3 | 92.3 | 91.2 | 102.3 | 110.5 |
| 1943 | 113.9 | 116.0 | 118.0 | 115.5 | 123.6 | 128.5 | 114.0 | 117.0 | 92.5 | 98.3 | 102.4 | 113.0 | 124.6* |
| 1944 | 122.8 | 139.8 | 141.0 | 140.5 | 142.2 | 110.0 | 113.3 | 107.0 | 103.0 | 116.0 | 114.2 | 123.3 | 120.8 |
| 1945 | 118.2 | 117.6 | 150.5 | 123.5 | 127.4 | 104.0 | 89.3 | 101.2 | 102.8 | 127.5 | 117.6 | 137.5 | 121.8 |
| Sugar ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 9.5 | 1.1 | - | - | - | - | - | - | - | 0.8 | 27.8 | 36.5 | 33.6 |
| 1940 | 9.64 | 12.8 | - | - | - | - | - | - | - | - | 31.5 | 34.3 | 33.8 |
| 1941 | 8.1 | 10.0 | - | - | - | - | - | - | - | - | 19.4 | 35.0 | 32.9 |
| 1942 | 9.1 | 18.2 | 0.7 | - | - | - | - | - | - | - | 22.8 | 35.9 | 31.7 |
| 1943 | 10.5 | 24.3 | 4.5 | - | - | - | - | - | - | 3 | 26.2 | 32.7 | 31.2* |
| 1944 | 7.5 | 14.4 | 0.5 | - | - | - | - | - | - | 0.3 | 20.9 | 28.5 | 24.3 |
| 1945 | 8.6 | 13.9 | 0.4 | - | - | - | - | - | - | - | 27.0 | 33.9 | 26.9 |

[^37]Source: Ministry of Food

## 4. 4 Animals purchased for slaughter

Weekly averages
Thousand

|  | Year | Jan* | Feb | Mar | Apr* | May | Jun | Ju* | Aug | Sept | Oct* | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cattle: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 42.0 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 38.7 | 42.8 | 34.6 | 37.7 | 36.7 | 28.6 | 30.0 | 31.0 | 42.0 | 57.6 | 57.1 | 37.2 | 25.9 |
| 1941 | 36.8 | 36.1 | 41.3 | 36.2 | 34.2 | 34.2 | 31.7 | 33.8 | 40.4 | 36.1 | 39.9 | 46.3 | 32.5 |
| 1942 | 30.9 | 25.7 | 22.3 | 25.2 | 28.2 | 31.1 | 27.8 | 30.6 | 37.7 | 37.8 | 44.7 | 35.2 | 22.9 |
| 1943 | 30.1 | 21.4 | 23.6 | 28.4 | 33.8 | 39.5 | 33.6 | 30.6 | 37.9 | 32.5 | 34.2 | 28.8 | 20.0* |
| 1944 | 33.5 | 20.8 | 24.3 | 29.7 | 36.1 | 36.3 | 28.8 | 36.4 | 38.0 | 40.4 | 46.8 | 39.5 | 23.6 |
| 1945 | 35.9 | 22.9 | 27.8 | 28.5 | 32.1 | 29.8 | 24.8 | 45.4 | 47.5 | 51.6 | 49.3 | 44.9 | 24.8 |
| Imported fat cattle |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 3.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 2.9 | 5.0 | 3.5 | 2.3 | 1.2 | 0.3 | 1.3 | 2.9 | 2.8 | 4.9 | 4.1 | 3.8 | 2.1 |
| 1941 | 5.7 | 2.5 | 3.5 | 2.3 | 1.5 | 0.4 | 1.8 | 4.9 | 5.9 | 7.0 | 9.4 | 15.9 | 14.0 |
| 1942 | 3.8 | 9.3 | 3.0 | 1.1 | 0.7 | 0.3 | 1.7 | 6.7 | 5.9 | 5.0 | 4.6 | 3.4 | 2.1 |
| 1943 | 1.5 | 0.8 | 1.4 | 0.8 | 0.3 | - | 1.7 | 3.1 | 3.0 | 3.6 | 2.5 | 1.1 | 0.2 |
| 1944 | 2.2 | - | - | - | - | - | 0.6 | 4.9 | 4.0 | 5.5 | 5.4 | 3.5 | 2.1 |
| 1945 | 3.3 | 0.8 | 0.9 | 0.2 | - | - | 1.6 | 7.1 | 6.6 | 8.1 . | 4.4 | 6.3 | 3.3 |

Home fed cattle:
Steers and heifers ${ }^{2}$
Home-bred

| 1940 | 17.1 | 15.1 | 16.6 | 17.9 | 17.6 | 13.9 | 14.0 | 11.9 | 18.6 | 27.1 | 26.6 | 14.3 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1941 | 16.0 | 16.1 | 19.5 | 17.0 | 16.7 | 18.0 | 16.0 | 13.5 | 18.1 | 16.3 | 16.1 | 15.9 |
| 1942 | 14.8 | 8.4 | 10.7 | 14.5 | 17.3 | 19.9 | 15.6 | 12.4 | 16.9 | 17.8 | 21.4 | 14.6 |
| 1943 | 13.0 | 8.1 | 9.6 | 12.9 | 16.5 | 20.9 | 16.1 | 13.0 | 17.3 | 14.1 | 13.6 | 9.3 |
| 1944 | 13.3 | 7.0 | 9.2 | 12.7 | 16.8 | 17.9 | 12.4 | 13.9 | 15.7 | 15.9 | 17.6 | 13.5 |
| 1945 | 14.5 | 7.3 | 10.5 | 12.2 | 15.1 | 14.3 | 9.3 | 18.4 | 20.6 | 21.9 | 206 | 15.9 |
|  | 7.6 |  |  |  |  |  |  |  |  |  |  |  |

Imported
from Eire

| as stores |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 8.4 | 10.0 | 7.8 | 8.2 | 8.3 | 6.6 | 6.1 | 6.1 | 10.0 | 13.4 | 12.3 | 6.7 |
| 1941 | 4.6 | 7.0 | 7.5 | 7.0 | 6.9 | 6.6 | 5.1 | 3.3 | 3.9 | 3.1 | 2.2 | 2.0 |
| 1942 | 3.3 | 1.0 | 1.2 | 2.0 | 3.0 | 3.9 | 3.5 | 3.4 | 5.1 | 5.7 | 5.4 | 3.3 |
| 1943 | 5.1 | 2.5 | 3.5 | 6.0 | 8.5 | 10.2 | 7.2 | 5.5 | 7.5 | 4.3 | 3.6 | 2.1 |
| 1944 | 5.6 | 2.6 | 4.6 | 6.7 | 9.8 | 9.5 | 5.7 | 6.5 | 7.3 | 5.5 | 4.4 | 2.6 |
| 1945 | 5.6 | 2.5 | 4.2 | 6.1 | 8.8 | 8.0 | 4.1 | 7.8 | 8.3 | 7.0 | 5.0 | 3.2 |
| 1.3 | 1.5 |  |  |  |  |  |  |  |  |  |  |  |

Cows, bulls

| and others |  |  |  |  |  |  |  | 12.8 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1940 | 10.3 | 12.7 | 6.7 | 9.3 | 9.5 | 7.8 | 8.6 | 10.1 | 10.6 | 12.2 | 14.1 | 12.5 |
| 1941 | 10.5 | 10.5 | 10.8 | 9.9 | 9.1 | 9.2 | 8.8 | 12.1 | 12.5 | 9.7 | 12.2 | 12.5 |
| 1942 | 9.0 | 7.0 | 7.4 | 7.6 | 7.2 | 7.0 | 7.0 | 8.1 | 9.8 | 9.3 | 13.3 | 13.9 |
| 1943 | 10.5 | 10.0 | 9.1 | 8.7 | 8.5 | 8.4 | 8.6 | 9.0 | 10.1 | 10.5 | 14.4 | 16.3 |
| 1944 | 12.4 | 11.2 | 10.5 | 10.3 | 9.5 | 8.9 | 10.1 | 11.1 | 11.0 | 13.5 | 19.4 | 19.9 |
| 1945 | 12.5 | 12.3 | 12.2 | 10.0 | 8.2 | 7.5 | 9.8 | 12.1 | 12.0 | 14.6 | 19.3 | 19.5 |

### 4.14 <br> Animals purchased for slaughter ${ }^{\prime}$

continued
Weekly averages
Thousands

|  | Year | Jan* | Feb | Mar | Apr* | May | Jun | Ju** | Aug | Sep | Oct* | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calves |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 15.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 16.5 | 10.4 | 19.0 | 21.4 | 19.1 | 12.5 | 11.6 | 15.6 | 16.1 | 20.9 | 21.6 | 15.9 | 14.4 |
| 1941 | 20.3 | 18.7 | 22.6 | 27.8 | 28.1 | 23.2 | 19.6 | 20.2 | 17.2 | 17.3 | 18.6 | 16.0 | 13.6 |
| 1942 | 21.5 | 16.3 | 20.8 | 28.0 | 25.4 | 20.5 | 16.9 | 19.6 | 19.7 | 22.5 | 26.7 | 22.0 | 19.0 |
| 1943 | 25.5 | 23.1 | 26.8 | 36.3 | 31.7 | 23.2 | 17.6 | 17.6 | 20.0 | 26.0 | 31.3 | 29.4 | 23.6* |
| 1944 | 25.9 | 24.9 | 30.2 | 36.0 | 25.2 | 15.9 | 14.9 | 17.3 | 22.1 | 30.0 | 36.6 | 33.2 | 24.2 |
| 1945 | 26.9 | 28.7 | 34.4 | 36.1 | 25.8 | 16.7 | 14.0 | 17.6 | 21.3 | 31.0 | 38.3 | 32.8 | 25.0 |
| Sheep and lambs |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 227.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 212.5 | 154.4 | 168.6 | 158.7 | 94.3 | 100.3 | 152.3 | 242.6 | 288.1 | 328.8 | 376.1 | 294.5 | 186.5 |
| 1941 | 158.4 | 186.7 | 149.0 | 142.9 | 141.0 | 101.3 | 106.4 | 172.5 | 172.9 | 139.3 | 149.5 | 264.8 | 170.1 |
| 1942 | 152.5 | 169.9 | 145.8 | 142.4 | 126.8 | 86.7 | 70.4 | 113.8 | 142.6 | 145.2 | 223.5 | 266.4 | 190.6 |
| 1943 | 140.7 | 181.7 | 139.7 | 136.9 | 139.6 | 89.9 | 72.5 | 83.5 | 102.5 | 121.3 | 162.7 | 232.3 | 207.6* |
| 1944 | 127.2 | 166.9 | 149.8 | 137.7 | 86.1 | 63.7 | 56.2 | 75.5 | 87.8 | 111.0 | 181.2 | 238.1 | 172.7 |
| 1945 | 121.4 | 163.5 | 131.3 | 131.7 | 97.2 | 64.2 | 48.6 | 65.0 | 83.2 | 120.3 | 160.7 | 221.0 | 169.3 |

Pigs ${ }^{3}$ :
Baconers

| 1939 | 41.8 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1940 | 49.4 | 17.8 | 21.9 | 42.4 | 46.0 | 57.6 | 63.0 | 53.6 | 60.7 | 64.3 | 56.1 | 59.4 | 56.8 |
| 1941 | 39.6 | 54.6 | 58.3 | 59.9 | 57.9 | 36.9 | 37.4 | 34.0 | 28.6 | 25.0 | 25.1 | 26.4 | 27.5 |
| 1942 | 24.4 | 25.8 | 24.8 | 26.5 | 25.6 | 25.8 | 26.9 | 25.8 | 22.7 | 21.6 | 20.9 | 22.6 | 23.8 |
| 1943 | 22.4 | 23.4 | 22.0 | 24.3 | 26.3 | 26.7 | 27.0 | 25.8 | 21.8 | 19.4 | 17.7 | 17.6 | $17.1 *$ |
| 1944 | 18.8 | 16.4 | 18.0 | 17.9 | 20.6 | 21.1 | 19.3 | 20.5 | 17.9 | 17.2 | 17.7 | 19.1 | 19.8 |
| 1945 | 25.9 | 20.4 | 25.0 | 27.0 | 29.6 | 29.2 | 29.4 | 33.3 | 25.2 | 24.0 | 22.3 | 22.7 | 21.9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Porkers4 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1940 | 30.6 | 12.0 | 47.2 | 48.9 | 48.4 | 40.0 | 31.1 | 26.9 | 18.1 | 29.7 | 28.6 | 19.3 | 18.8 |
| 1941 | 12.9 | 22.5 | 25.2 | 26.2 | 26.5 | 14.5 | 10.6 | 7.7 | 5.3 | 4.0 | 3.6 | 3.3 | 3.6 |
| 1942 | 3.2 | 3.7 | 4.0 | 4.2 | 3.7 | 2.5 | 2.2 | 2.4 | 2.5 | 2.9 | 2.8 | 3.8 | 4.0 |
| 1943 | 2.4 | 4.4 | 4.0 | 3.9 | 3.1 | 2.5 | 2.1 | 1.7 | 1.6 | 1.5 | 1.2 | 1.4 | $1.5 *$ |
| 1944 | 2.0 | 1.2 | 1.6 | 1.2 | 1.5 | 1.8 | 1.7 | 1.9 | 2.3 | 2.4 | 2.3 | 2.6 | 3.5 |
| 1945 | 3.5 | 4.4 | 4.8 | 4.2 | 4.3 | 3.1 | 2.1 | 7.7 | 2.8 | 2.0 | 1.9 | 2.2 | 2.1 |

Sows, boars and
other ${ }^{4}$

| 1940 | 9.5 | 5.4 | 10.2 | 14.2 | 13.2 | 9.9 | 8.7 | 8.8 | 9.2 | 11.0 | 7.4 | 8.3 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| 1941 | 5.0 | 8.3 | 9.6 | 8.6 | 8.9 | 5.5 | 4.5 | 3.6 | 2.6 | 2.0 | 1.7 | 1.7 |
| 1.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1942 | 1.9 | 1.6 | 1.7 | 2.0 | 2.0 | 2.0 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 2.1 |
| 1943 | 1.5 | 2.5 | 2.3 | 2.1 | 2.0 | 1.7 | 1.5 | 1.3 | 1.0 | 0.8 | 0.8 | 0.9 |
| 1944 | 2.0 | 0.9 | 0.9 | 1.1 | 1.3 | 2.0 | 4.0 | 4.1 | 2.6 | 1.8 | 1.7 | 1.9 |
| 1945 | 2.2 | 2.1 | 2.7 | 3.0 | 2.9 | 2.5 | 2.4 | 2.3 | 1.9 | 1.7 | 1.6 | 1.8 |

[^38]Source: Ministry of Food
4. I 5 Milk: Sales through the Marketing Schemes

|  | Monthly averages or calendar months |  |  |  |  |  |  |  |  |  |  | Million gallons |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | De |
| Total sales |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 108.3 | 90.1 | 85.8 | 100.0 | 107.2 | 130.3 | 131.2 | 128.8 | 124.6 | 114.3 | 108.0 | 91.8 | 87.6 |
| 1940 | 102.3 | 85.0 | 82.6 | 93.6 | 99.6 | 129.3 | 127.8 | 121.3 | 118.0 | 101.2 | 95.1 | 85.7 | 87.7 |
| 1941 | 101.9 | 88.3 | 83.2 | 97.7 | 100.3 | 121.4 | 127.7 | 119.5 | 110.9 | 103.8 | 100.5 | 86.5 | 83.5 |
| 1942 | 105.8 | 83.8 | 79.1 | 95.5 | 104.3 | 130.1 | 137.4 | 129.3 | 119.4 | 109.3 | 102.6 | 89.5 | 88.8 |
| 1943 | 112.0 | 90.9 | 86.6 | 105.1 | 117.5 | 147.0 | 145.6 | 132.6 | 118.0 | 106.4 | 104.4 | 94.2 | 95.8 |
| 1944 | 114.8 | 99.3 | 97.4 | 112.2 | 122.2 | 152.6 | 142.8 | 129.3 | 116.6 | 104.9 | 105.0 | 96.3 | 99.4 |
| 1945 | 118.7 | 101.9 | 96.9 | 115.8 | 130.0 | 155.3 | 145.6 | 133.9 | 121.2 | 106.7 | 109.3 | 102.0 | 105.6 |
| Liquid sales |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 72.0 | 73.2 | 68.4 | 74.8 | 71.7 | 75.6 | 74.2 | 74.7 | 72.1 | 67.6 | 70.2 | 69.4 | 71.5 |
| 1940 | 78.1 | 73.2 | 70.0 | 74.6 | 74.4 | 77.6 | 77.4 | 77.9 | 80.9 | 80.1 | 83.9 | 82.9 | 84.2 |
| 1941 | 88.6 | 86.1 | 81.6 | 92.8 | 85.1 | 89.5 | 88.6 | 93.6 | 92.6 | 91.4 | 95.3 | 85.1 | 82.2 |
| 1942 | 92.9 | 82.7 | 76.1 | 87.7 | 90.0 | 97.4 | 101.7 | 105.0 | 100.9 | 98.2 | 99.1 | 88.5 | 87.0 |
| 1943 | 97.4 | 89.7 | 83.9 | 96.0 | 95.0 | 109.5 | 107.1 | 105.7 | 97.9 | 97.6 | 100.2 | 93.0 | 93.4 |
| 1944 | 100.4 | 95.7 | 91.1 | 98.0 | 95.9 | 113.2 | 110.7 | 105.0 | 101.4 | 100.4 | 103.1 | 95.2 | 95.4 |
| 1945 | 103.6 | 97.7 | 89.9 | 102.4 | 103.7 | 112.5 | 111.8 | 110.9 | 104.8 | 102.5 | 106.2 | 99.3 | 101.1 |
| Used for manufacturel |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939 | 36.3 | 16.9 | 17.4 | 25.2 | 35.5 | 54.7 | 57.0 | 54.1 | 52.5 | 46.7 | 37.8 | 22.4 | 16.1 |
| 1940 | 24.2 | 11.8 | 12.6 | 19.0 | 25.2 | 51.7 | 50.4 | 43.4 | 37.1 | 21.1 | 11.2 | 2.8 | 3.5 |
| 1941 | 13.3 | 2.2 | 1.6 | 4.9 | 15.2 | 31.9 | 39.1 | 25.9 | 18.3 | 12.4 | 5.2 | 1.4 | 1.3 |
| 1942 | 12.9 | 1.1 | 3.0 | 7.8 | 14.3 | 32.7 | 35.7 | 24.3 | 18.5 | 11.1 | 3.5 | 1.0 | 1.8 |
| 1943 | 14.6 | 1.2 | 2.7 | 9.1 | 22.5 | 37.5 | 38.5 | 26.9 | 20.1 | 8.8 | 4.2 | 1.2 | 2.4 |
| 1944 | 14.4 | 3.6 | 6.3 | 14.2 | 26.3 | 39.4 | 32.1 | 24.3 | 15.2 | 4.5 | 1.9 | 1.1 | 4.0 |
| 1945 | 15.1 | 4.2 | 7.0 | 13.4 | 26.3 | 42.8 | 33.8 | 23.3 | 16.4 | 4.2 | 3.1 | 2.7 | 4.5 |

I. Manufacture into $m$ products together with the quantity used on farms for

Source: Ministry of Food cheese-making.

### 4.16 <br> Processed food: Production

Thousand tons

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Wheat milled | 5,627 ${ }^{2}$ | 5,973 | 6,067 | 5,326 | 5,026 | 5,348 | 5,716 |
| Flour produced | 3,939 ${ }^{2}$ | 4,391 | 4,600 | 4,394 | 4,527 ${ }^{3}$ | $4,470^{3}$ | 4,524 |
| Offals produced | 1,744 ${ }^{2}$ | 1,676 | 1,535 | 905 | $866^{3}$ | $825^{3}$ | 1,106 |
| Oat milling: 214 |  |  |  |  |  |  |  |
| Oats milled by oatmeal millers |  |  | 219 |  | 449 | 396 | 321 |
| Oatmeal produced | . |  | 124 | 178 | 252 |  | 176 |
| Seed crushing: |  |  |  |  |  |  |  |
| Oilseeds and nuts processed | 1,596 | 1,618 | 1,370 | 1,448 | 1,264 | 1,292 | 1,336 |
| Crude oil produced | 515 | 622 | 578 | 599 | 529 | 538 | 570 |
| Oilcake and meal produced | $1,082^{4}$ | 969 | 766 | 810 | 671 | 715 | 735 |
| Vegetable oil consumption ${ }^{5}$ |  |  |  |  |  |  |  |
| Total disposals |  | 787 | 819 | 768 | 696 | 745 | 782 |
| For food |  | 475 | 517 | 447 | 425 | 456 | 475 |
| Whale, herring and seal oil consumption ${ }^{5}$ : |  |  |  |  |  |  |  |
| Total disposals |  | 185 | 152 | 127 | 104 | 73 | 121 |
| For food |  | 157 | 128 | 108 | 86 | 55 | 93 |
| Production of home-killed meat ${ }^{6}$ : |  |  |  |  |  |  |  |
| Total | 1,180 | 1,072 | 902 | 772 | 754 | 783 | 812 |
| Beef | 602 | 557 | 523 | 453 | 445 | 487 | 517 |
| Veal | 23 | 25 | 28 | 28 | 33 | 32 | 34 |
| Mutton and lamb | 238 | 227 | 176 | 171 | 159 | 142 | 134 |
| Pork ${ }^{\text {² }}$ | 201 | 155 | 74 | 29 | 27 | 30 | 34 |
| Offal ${ }^{7}$ | 116 | 108 | 101 | 91 | 90 | 92 | 93 |
| Production of bacon and ham ${ }^{7}$ | 199 | 207 | 174 | 121 | 123 | 139 | 149 |
| Production of animal fats: |  |  |  |  |  |  |  |
| Lard | .. | 8 | 4 | 3 | 2 | 2 | 3 |
| Other edible fats |  | 35 | 31 | 34 | 45 | 41 | 32 |
| Production of milk products: |  |  |  |  |  |  |  |
| Butter ${ }^{8}$ | 21 | 16 | 8 | 10 | 9 | 10 | 8 |
| Cheese ${ }^{9}$ | 43 | 32 | 30 | 20 | 22 | 18 | 22 |
| Condensed milk | $\ldots$ | 178 | 72 | 96 | 97 | 111 | 94 |
| Milk powder |  | 15 | 9 | 14 | 23 | 23 | 29 |
| Cream | 33 | 15 | - |  |  |  |  |
| Sugar: production from home-grown |  |  |  |  |  |  |  |
| sugar-beet (as refined sugar) | $487{ }^{10}$ | 501 | 419 | 474 | 557 | 391 | 449 |
| Production of compound edible fats: |  |  |  |  |  |  |  |
| Margarine | 226 | 359 | 419 | 406 | 392 | 399 | 406 |
| Compound cooking fat | 132 | 159 | 145 | 62 | 53 | 32 | 85 |
| Production of other processed foods: |  |  |  |  |  |  |  |
| Jam and marmalade | 22011 | 72 | 86 | 195 | 324 | 192 | 273 |
| Syrup and treacle | $95^{+1}$ | 72 | 86 | 82 | 96 | 108 | 106 |
| Canned vegetables | 160 | 190 | 209 | 195 | 177 | 192 | 204 |
| Canned and bottled fruit |  |  | 16 | 42 | 25 | 6 | 10 |
| Canned meat |  |  |  | 43 | 60 | 79 | 54 |
| Canned fish |  |  | I | 3 | 2 | , | 2 |
| Biscuits | 300 | 330 | 361 | 358 | 278 | 272 | 261 |
| Breakfast cereals |  |  | 45 | 47 | 45 | 47 | 47 |
| Chocolate confectionery |  | 173 | 187 | 162 | 145 | 148 | 127 |
| Sugar confectionery |  | 150 | 149 | 128 | 107 | 114 | 111 |
| Cocoa and drinking chocolate |  | 19 | 26 | 29 | 24 | 27 | 28 |
| Starch |  |  | 42 | 35 | 37 | 38 | 38 |
| Pearl barley and barley products | 4 | 13 | 16 | 12 | 13 | 19 | 27 |

[^39]Source: Ministry of Food

|  | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cereal products and sugar: |  |  |  |  |  |  |
| Flour: |  |  |  |  |  |  |
| Total disposals | 4,573 | 5,149 | 4,967 | 5,138 | 5,234 | 5,433 |
| For food in the United Kingdom | 4,497 | 5,086 | 4,856 | 4,982 | 5,095 | 5,161 |
| Rice | 188 | 156 | 92 | 84 | 86 | 36 |
| Sugar: |  |  |  |  |  |  |
| Total disposals | 1,657 | 1,550 | 1,533 | 1,540 | 1,765 | 1,761 |
| For food in thle United Kingdom | 1,588 | 1,453 | 1,478 | 1,519 | 1,641 | 1,629 |
| Syrup and treacle | 72 | 78 | 86 | 95 | 110 | 108 |
| Starch | .. | 153 | 134 | 106 | 119 | 114 |
| Oatmeal and flakes |  | 167 | 210 | 257 | 223 | 217 |
| Other breakfast cereals | . | 45 | 51 | 45 | 47 | 47 |
| Meat and fish: |  |  |  |  |  |  |
| Fresh and frozen meat and offal | 2,151 | 1,728 | 1,681 | 1,672 | 1,826 | 1,706 |
| Canned comed meat | 31 | 40 | 81 | 105 | 89 | 117 |
| Other canned meat | 26 | 44 | 178 | 193 | 220 | 259 |
| Bacon and ham | 440 | 417 | 408 | 401 | 508 | 365 |
| Fresh, frozen and cured fish (landed weight): |  |  |  |  |  |  |
| Total disposals | 495 | 425 | 493 | 504 | 560 | 735 |
| For food in the United Kingdom | 455 | 421 | 485 | 499 | 543 | 709 |
| Canned fish | 120 | 89 | 82 | 82 | 95 | 118 |
| Dairy products: |  |  |  |  |  |  |
| Butter | 290 | 205 | 166 | 170 | 161 | 183 |
| Cheese | 186 | 187 | 297 | 261 | 232 | 232 |
| Condensed milk | 224 | 189 | 224 | 219 | 205 | 175 |
| Milk powder | 32 | 18 | 62 | 97 | 79 | 105 |
| Eggs in shell | 399 | 344 | 248 | 207 | 203 | 257 |
| Dried egg | 2 | 3 | 40 | 57 | 59 | 81 |
| Frozen liquid egg | 49 | 31 | 6 | 4 | 9 | I |
| Fats: |  |  |  |  |  |  |
| Margarine | 343 | 399 | 395 | 394 | 410 | 424 |
| Lard and compound cooking fat | 193 | 208 | 248 | 253 | 256 | 234 |
| Fruit and vegetables: |  |  |  |  |  |  |
| Dried fruit | 159 | 173 | 192 | 151 | 223 | 202 |
| Canned and bottled fruit |  | 39 | 59 | 75 | 25 | 18 |
| Jam and marmalade | 227 | 251 | 290 | 363 | 345 | 290 |
| Potatoes ${ }^{2}$ |  |  |  |  |  |  |
| Total disposals | 3,404 | 4,194 | 5,058 | 6,043 | 6,421 | 6,111 |
| For food in the United Kingdom | 3,356 | 3,850 | 4,602 | 5,460 | 6,154 | 5,820 |
| Canned vegetables |  | 174 | 255 | 201 | 211 | 244 |
| Dried peas, beans and lentils | 111 | 150 | 132 | 132 | 156 | 157 |
| Other foods: |  |  |  |  |  |  |
| Chocolate and sugar confectionery | . | . |  | 249 | 258 | 241 |
| Biscuits |  |  | 352 | 272 | 272 | 260 |
| Tea | 213 | 184 | 181 | 164 | 168 | 191 |
| Raw coffee | 26 | 25 | 27 | 31 | 40 | 47 |
| Cocoa beans | 141 | 121 | 132 | 115 | 155 | 127 |
| Barley: |  |  |  |  |  |  |
| For brewing |  | .. | .. | 797 | 883 | 1,039 |
| For food |  | - | . | 424 | 50 | 44 |
| For animal feed |  |  |  | 4 | 307 | 280 |
| Maize: |  |  |  |  |  |  |
| Total disposals | 2,037 | 809 | 180 | 124 | 116 | 406 |
| Animal feed | 1,889 | 702 | 61 | 6 | 6 | 294 |
| Oilcake and meal | 1,329 | 899 | 902 | 690 | 786 | 825 |
| Milling offals | 1,989 | 1,600 | 886 | 898 | 817 | 1,108 |
| Fish and meat meal | 118 | 67 | 51 | 55 | 69 | 69 |

[^40]
## 4. 8 Estimated food supplies per head of civilian population

|  |   <br>  $1934-38$ <br> average  | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |

I. Including sugar in all home-produced manufactured foods.
2. Imported only.

## 4. 19 Arrivals of Lend-Lease foodstuffs from the United States of America ${ }^{1,2}$

Thousand tons

|  |  | Cereal products and sugar |  |  |  |  |  |  |  | Meat and fish |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total arrivals | Maize | Pulses | Rice | Soya beans, flour and gifts | Other cereals and cereal products | Starchmaize | Sugar (as refined sugar) | Fresh and frozen meat and offal | Canned meat | Bacon and ham | Caned fish |
| 1941 | April to December | 1,073 | 274 | 81 | - | 10 | 9 | 55 | - | - | 51 | 78 | 24 |
| 1942 |  | 1,427 | 98 | 27 | - | 20 | 12 | 90 | - | 33 | 170 | 114 | 64 |
| 1943 |  | 1,705 | 59 | 64 | 76 | 78 | 2 | 76 | 10 | 200 | 182 | 86 | 97 |
| 1944 |  | 1,280 | 21 | 57 | 6 | 20 | 2 | 51 | - | 289 | 22 | 92 | 12 |
| $1945{ }^{3}$ |  | 709 | 199 | 27 | 5 | 9 | 10 | 38 | - | 100 | - | 31 | 4 |
| 1941 | 2nd Quarter | 27 | - | 5 | - | - | - | - | - | - | - | 1 | - |
|  | 3rd Quarter | 382 | 61 | 46 | - | 5 | 1 | 24 | - | - | 20 | 34 | 7 |
|  | 4th Quarter | 664 | 213 | 30 | - | 5 | 8 | 31 | - | - | 31 | 43 | 17 |
| 1942 | Ist Quarter | 405 | 23 | 3 | - | 5 | 12 | 12 | - | - | 27 | 16 | 31 |
|  | 2nd Quarter | 281 | - | 6 | - | 5 | - | 21 | - | 1 | 52 | 34 | 7 |
|  | 3rd Quarter | 403 | 40 | 6 | - | 7 | - | 37 | - | 23 | 54 | 46 | 6 |
|  | 4th Quarter | 338 | 35 | 12 | - | 3 | - | 20 | 31 | 9 | 37 | 18 | 20 |
| 1943 | Ist Quarter | 287 | - | 3 | 9 | 13 | - | 18 | - | 43 | 8 | 23 | 28 |
|  | 2nd Quarter | 475 | 19 | 18 | 22 | 23 | 2 | 25 | 10 | 43 | 47 | 24 | 20 |
|  | 3rd Quarter | 531 | 38 | 16 | 28 | 21 | - | 16 | - | 45 | 102 | 26 | 17 |
|  | 4th Quarter | 412 | 2 | 27 | 17 | 21 | - | - | 17 | 69 | 25 | 13 | 32 |
| 1944 | 1st Quarter | 276 | - | 8 | 2 | 9 | 17 | - | - | 102 | 11 | 21 | 6 |
|  | 2nd Quarter | 406 | 20 | 22 | I | 4 | 1 | 7 | - | 117 | I | 49 |  |
|  | 3nd Quarter | 286 | 1 | 13 | I | 2 | - | 10 | - | 34 | 9 | 16 | I |
|  | 4th Quarter | 312 | - | 14 | 2 | 5 | 1 | - | 36 |  | 11 | 6 | 5 |
| 1945 | 1st Quarter | 289 | 63 | 16 | - | 2 | 5 | 12 | - | 60 | - | 18 | - |
|  | 2nd Quarter | 319 | 129 | । | 5 | 7 | 4 | 15 | - | 40 | - | 12 | 3 |
|  | 3rd Quarter | 101 | 7 | 10 | - | - | - 1 | 11 | - |  | - | 1 | 1 |

[^41]
### 4.19 <br> Arrivals of Lend-Lease foodstuffs from the United States of America ${ }^{1,2}$

continued

|  |  | Dairy products |  |  |  | Fats |  | Fruit and vegetables |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Cheese | Condensed and dried milk | Eggs in shell | Egg products | Lard and compound cooking fats | Other oils and fats | Dried fruit | Fruit pulp | Canned fruit | Canned vegetables | Fruit juices | Other fruit and vegetable products | Other foodstuffs |
| 1941 | April to Dec | 38 | 150 | 15 | 25 | 95 | - | 70 | 14 | 16 | 59 | I | 4 | 4 |
| 1942 |  | 122 | 224 | 2 | 57 | 215 | 5 | 91 | 28 | 4 | 18 | 7 | 14 | 12 |
| 1943 |  | 56 | 199 | - | 75 | 239 | 18 | 124 | 10 | 6 | 5 | 19 | 7 | 17 |
| 1944 |  | 110 | 162 | - | 66 | 181 | 2 | 125 | 9 | 14 | 3 | 15 | 9 | 12 |
| $1945^{3}$ |  | 29 | 63 | - | 17 | 68 | - | 59 | 14 | 5 | 2 | 5 | 22 | 2 |
| 1941 | 2nd Quarter | 3 | 3 | 6 | - | 1 | - | 7 | - | - | 1 | - | - |  |
|  | 3rd Quarter | 15 | 57 | 6 | 12 | 50 | - | 21 | 2 | 3 | 16 | - | - | 2 |
|  | 4th Quarter | 20 | 90 | 3 | 13 | 44 | - | 42 | 12 | 13 | 42 | I | 4 | 2 |
| 1942 | Ist Quarter | 28 | 103 | 2 | 14 | 39 | - | 49 | 6 | 4 | 18 | - | 11 | 2 |
|  | 2nd Quarter | 26 | 25 | - | 18 | 66 |  | 8 | 4 | - | - | 2 | , | 4 |
|  | 3rd Quarter | 25 | 50 | - | 11 | 69 | 1 | 11 | 9 | - | - | 3 | I | 4 |
|  | 4th Quarter | 43 | 46 |  | 14 | 41 | 3 | 23 | 9 | - | - | 2 | 1 | 2 |
| 1943 | Ist Quarter | 8 | 48 | - | 17 | 15 | 4 | 39 | 2 | - | 1 | 2 | 4 | 2 |
|  | 2nd Quarter | 10 | 75 | - | 22 | 70 | 6 | 23 | 5 | - | - | 7 | 3 | 1 |
|  | 3rd Quarter | 18 | 45 | - | 11 | 91 | 8 | 26 | 3 | 5 | 4 | 5 | - | 6 |
|  | 4th Quarter | 20 | 31 | - | 25 | 63 | - | 36 | - | I | - | 5 | - | 8 |
| 1944 | IstQuarter | 18 | 6 | - | 16 | 29 | - | 25 | 4 | 5 | - | 2 | 3 | 2 |
|  | 2nd Quarter | 28 | 19 | - | 18 | 47 | - | 53 | 3 | 3 | - | 8 | 3 | 2 |
|  | 3rd Quarter | 25 | 47 | - | 17 | 86 | , | 14 | - | 2 | 1 | 3 | - | 3 |
|  | 4th Quarter | 39 | 90 | - | 15 | 19 | I | 33 | 2 | 4 | 2 | 2 | 3 | 5 |
| 1945 | Ist Quarter | 7 |  | - | - | 27 | - | 33 | 8 | 2 | 2 | 1 | 14 | 1 |
|  | 2nd Quarter | 8 | 16 | - | 10 | 27 | - | 25 | 5 | 3 | - | 2 | 6 | I |
|  | 3rd Quarter | 14 | 29 | - | 7 | 14 | - | 1 | 1 | - | - | 2 | 2 | - |

[^42]Source: Ministry of Food


[^43]4.20

Losses of food and feeding-stuffs at sea

Monthly averages or calendar months
Thousand tons


### 4.20

Losses of food and feeding-stuffs at sea
continued
Monthly averages or calendar months
Thousand tons

|  |  | Total losses | Cereal products and sugar |  |  |  | Meat | Oilseeds, <br> Dairy oils <br> products and fats |  | Fruit and vegetables | Beverages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total grains and pulses | Wheat | Animal feedingstuffs | Sugar | Tea |  |  |  | Other | Other food |
| 1943 | January |  | 15.4 | 10.3 | 9.7 | - | - | - | - |  | 4.6 | 0.5 | - | - |  |
|  | February | 23.9 | 14.1 | 13.5 | - | - | 3.3 | 2.2 | - | 1.3 | 2.4 | - | 0.6 |
|  | March | 169.8 | 45.4 | 38.7 | - | 31.6 | 32.3 | 15.6 | 34.0 | 2.5 | 2.4 | 0.9 | 5.1 |
|  | April | 64.8 | 11.7 | 7.8 | - | - | 20.1 | 4.7 | 23.1 | 0.1 | 3.4 | - | 1.7 |
|  | May | 48.1 | 23.7 | 21.2 | - | 2.3 | 1.4 | 0.1 | 18.3 | 0.1 | 1.9 | 0.1 | 0.2 |
|  | June | 4.4 | 1.3 | 1.1 | - | - | 0.1 | 0.2 | 2.1 | 0.5 | - | - | 0.2 |
|  | July | 13.6 | 5.7 | 5.7 | - | - | - | 0.5 | 7.4 | - | - |  | - |
|  | August | 2.0 | 0.2 | - | - | 0.9 | 0.3 | 0.5 | 0 | 0.1 | 12 | - |  |
|  | September | 10.1 | 4.2 | - | - | - | 3.6 | 0.2 | 0.9 | - | 1.2 | - | - |
|  | October | 8.0 | 4.1 | 4.1 | - | - | - | 0.3 | 1.1 | - | 2.3 | - | 0.2 |
|  | November | - | - | - | - | - | - | - | - | - | - |  | . |
|  | December | 11.3 | 1.2 | - | - | 2.6 | - | 0.8 | 6.7 | - | - | - | - |
| 1944 | January | 3.4 | - | - | - | - | 2.4 | 0.3 | 0.3 | 0.4 | - | - | - |
|  | February | 2.1 | - | - | - | - | - | - | 5 | 0.1 | - | 1.8 | 0.2 |
|  | March | 5.4 | - | - | - | - | - | - | 5.4 | - | - | - |  |
|  | April | 4.1 | - | - | - | 3.9 | - | - | - | - | - | 0.2 | - |
|  | May | - | - | - | - | - | - | - | - | - | - | - | - |
|  | June | - | - | - | - | - | - | - | - | - | - | - | - |
|  | July | 1.0 | - | - | - | - | - | - | - | 0.4 | - | 0.5 | - |
|  | August | 6.0 | - | - | - | - | - | - | 3.8 | - | 2.2 | - | - |
|  | September | - | - | - | - | - | - | - | - | - | - | - | - |
|  | October | 7.3 | 0.5 | - | - | - | 2.2 | - | 4.6 | - | - | - | - |
|  | November | - | - | - | - | - | - | - | - | 5 | - | - | - |
|  | December | 10.7 | 2.0 | 1.5 | - | - | 3.0 | - | 2.2 | 0.5 | - | 3.0 | - |
| 1945 | January | 11.2 | 11.2 | 10.6 | - | - | - | - | - | - | - | - |  |
|  | February | - | - | - | - | - | - | - | - | - | - | - | - |
|  | March | 0.9 | - | - | 0.6 | - | - | - | 0.3 | - | - | - | - |
|  | April | - | - | - | - | - | - | - | - | - | - | - | - |
|  | May | - | - | - | - | - | - | - | - | - | - | - | - |


problems emerged in 1941 but part of their origins can be traced back to the loss of labour earlier in the war. The fall of France in 1940 and the loss of other overseas markets led to a marked decline in exports (from 37 million tons in 1939 to 20 million tons in 1940 and to a mere 5 million tons in 1941) and this had serious repercussions on the industry: unemployment in the export-orientated coal regions rose and miners left to find employment in other industries or in the Armed Forces (Supple 1987: 503-5; table 9.12). Thus, the labour force fell from a peak of 767,000 in June 1940 to 690,000 by May 194I and although state intervention (including the 'Bevin Boys' scheme which recruited approximately 20,000 new workers for the industry in 1944 and 1945) did reverse this trend, it never managed to restore the former level of employment (Court 1951: 304-6; table 5.6).

Furthermore, the percentage of total manshifts worked at the coal face was also declining and these factors, combined with increasing absenteeism and poor industrial relations (the coal industry accounted for by far the largest share of total days lost through industrial disputes, peaking in 1944 when 2.5 million days were lost) resulted in the falling output and productivity that characterised the industry during the war (Supple 1987: 504-16, 525-7; tables 5.6 and 3.30 ).
5. War-time performance of the coal industry


The shortfall in energy supplies created by problems in the coal industry was compensated by expansion in the gas industry and, particularly, the electricity industry: gas output increased by 18 per cent between 1939 and 1944 (tables 5.9 and 5.11). However, their expansion was not without its cost: about a fifth of the demand for coal came from the gas and electricity industries and their combined consumption rose from 39 million tons in 1939 to 45 million tons by 1944 (table 5.4). Whilst coal consumption by both industrial and domestic users declined continuously from 1940, electricity sales to industrial users increased by 71 per cent between 1939 and 1944 and by 32 per cent to domestic users (the latter helped by changes in the price structure which saw domestic electricity prices remain stable while domestic coal prices rose by two-thirds) (Hannah 1979: 305; court 1951: 147-62; tables 5.4 and 5.12).

In the early period of the war electricity sales had been adversely affected by the 'blackout' but the expansion of munitions production led to a rapid increase in consumption after 1940 (Hannah 1979: 291). To meet this increased demand the capacity of power stations was increased by 35 per cent; furthermore, the National Grid was extended to service factories that were relocated to Wales and the north to reduce the threat from bombing (Hannah 1979: 295,298). Although employment fell from 120,000 to 90,000 labour was used more intensively (longer hours were worked, there was more shift working and holidays were staggered) and productivity rose (Hannah 1979: 298-300).

The Second World War was a mechanised war and the aircraft, tanks and other motorised vehicles of the British
forces needed oil and, given the disruption of wartime trade routes, that oil would, primarily come from the USA. Although the production of petroleum products from indigenous materials increased during the war in terms of the overall supply it remained unimportant (table 5.15). There was some domestic processing of imported oil but this declined and was of significance to the overall supply only in the cases of bitumen and lubricating oils (PayntonSmith 1971: 187-93, 273-7; table 5.14). Thus, the supply of petroleum products was heavily reliant on imports, which increased from II.4 million tons in 1940 to 20.2 million tons in 1944 ( 77 per cent), although most of this increase came in 1943 and 1944 (table 5.13). These imports were dominated by aviation, motor and industrial spirits (which increased by an impressive 162 per cent and whose share of total petroleum imports increased from approximately one-third to a half) and fuel oil (which increased in volume by 65 per cent and accounted for more than a quarter of total imports) (table 5.13).

Although the supply did increase, most of it was used to meet the rising demands from both the British and American forces (by mid-I 944 the United States Army Air Force accounted for nearly half of the total aviation spinit consumption), and civilian consumption was squeezed (for example civilian consumption of motor spirit fell by approximately a third between 1941 and 1943)(PayntonSmith 1971: 288-93, 389-97; table 5.17). The defining event of the war, from the perspective of petroleum, was the build-up to D-Day and the invasion of Europe which required increased supplies of motor fuel and aviation spirit; as this process began in mid-I943 monthly oil consumption dramatically rose by 25 per cent (PayntonSmith 1971: 391).

### 5.2 Electricity production


5.3 Coal: production, consumption and stocks

|  |  |  |  |  |  |  |  |  | sand tons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Production 1 |  |  | Consumption (including exports) |  |  | Stocks 1 <br> (end of period) |  |  |
|  | Total | Saleable mined coal | Opencast coal ${ }^{2}$ | Total | Inland consumption ${ }^{3}$ | Overseas shipments and bunkers ${ }^{4}$ | Distributed | Opencast on sites or central stocking grounds | Colliery stocks held on pitbanks and in trucks ${ }^{5}$ |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1939 | 231,338 | 231,338 | - | 232,919 | 186,401 | 46,518 | 14,550 |  | 5,186 |
| 1940 | 224,299 | 224,299 |  | 222,301 | 195,666 | 26,635 | 17,259 |  | 4,475 |
| 1941 | 206,344 | 206,344 | - | 206,073 | 196,704 | 9,369 | 18,679 |  | 3,326 |
| 1942 | 204,944 | 203,633 | 1,311 | 205,124 | 197,404 | 7,720 | 18,625 | 254 | 2,950 |
| 1943 | 198,920 | 194,493 | 4,427 | 198,414 | 190,380 | 8,034 | 17,656 | 1,602 | 2,946 |
| 1944 | 192,746 | 184,098 | 8,648 | 193,403 | 187,296 | 6,107 | 16,031 | 2,324 | 2,552 |
|  | 182,773 | 174,658 | 8,115 | 188,028 | 179,500 | 8,528 | 12,314 | 716 | 2,229 |
| Weekly averages |  |  |  |  |  |  |  |  |  |
| 1939 | 4,437 | 4,437 | - | 4,467 | 3,575 | 892 | 14,550 |  | 5,186 |
| 1940 | 4,290 | 4,290 | - | 4,252 | 3,743 | 509 | 17,259 |  | 4,475 |
| 1941 | 3,957 | 3,957 | - | 3,952 | 3,772 | 180 | 18,679 |  | 3,326 |
| 1942 | 3,930 | 3,905 | 25 | 3,934 | 3,786 | 148 | 18,625 | 254 | 2,950 |
| 1943 | 3,815 | 3,730 | 85 | 3,805 | 3,651 | 154 | 17,656 | 1,602 | 2,946 |
| 1944 | 3,687 | 3,521 | 166 | 3,699 | 3,582 | 117 | 16,031 | 2,324 | 2,552 |
| 1945 | 3,506 | 3,350 | 156 | 3,606 | 3,442 | 164 | 12,314 | 716 | 2,229 |
| 1940 January | 4,136* | 4,136* | - | . | .. | 820 |  | - | 4,505 |
| February | 4,413 | 4,413 | - |  |  | 737 |  |  | 3,963 |
| March | 4,339 | 4,339 | - |  |  | 659 | . |  | 3,437 |
| April | 4,864 | 4,864 | - |  |  | 743 |  |  | 3,219 |
| May | 4,701* | 4,701 * | - | 4,448 | 3,665 | 783 | 10,679 |  | 3,084 |
| June | 4,758 | 4,758 | - | 4,217 | 3,609 | 608 | 12,631 |  | 3,197 |
| July | 4,365* | 4,365* | - | 4,050 | 3,627 | 423 | 15,078 |  | 3,322 |
| August | 4,087 | 4,087 | - | 3,744 | 3,441 | 303 | 16,563 |  | 3,465 |
| September | 4,130 * | 4,130 * | - | 3,741 | 3,404 | 337 | 17,872 |  | 3,762 |
| October | 4,029 * | 4.029* | - | 3,927 | 3,616 | 311 | 18,493 |  | 4,228 |
| November | 3,935 | 3,935 | - | 4,052 | 3,826 | 226 | 18,311 |  | 4,461 |
| December | 3,638 | 3,638 | - | 4,083 | 3,907 | 176 | 17,259 | - | 4,475 |
| 1941 January | 3,813* | 3,813* | - | 4,212 | 4,021 | 191 | 15,022 |  | 4,416 |
| February | 3,890 | 3,890 | - | 4,272 | 4,071 | 201 | 13,740 |  | 4,318 |
| March | 4,047 | 4,047 | - | 4,263 | 4,041 | 222 | 12,975 |  | 4,135 |
| April | 3,839* | 3,839 * | - | 4,098 | 3,880 | 218 | 12,345 | - | 3,779 |
| May | 4.051 | 4,051 | - | 3,987 | 3,790 | 197 | 13,856 |  | 3,536 |
| June | 3,913 | 3,913 | - | 3,721 | 3,523 | 198 | 12,952 |  | 3,395 |
| July | 3,980* | 3,980 * | - | 3,582 | 3,384 | 198 | 15,612 |  | 3,287 |
| August | 3,624 | 3,624 | - | 3,513 | 3,357 | 156 | 16,620 | - | 3,161 |
| September | 4,129 * | 4,129 * | - | 3,701 | 3,561 | 140 | 18,041 |  | 3,141 |
| October | 4,135* | 4,135* | - | 3,907 | 3,748 | 159 | 19,124 |  | 3,289 |
| November | 4,194 | 4,194 | - | 4.097 | 3,957 | 140 | 19,318 |  | 3,393 |
| December | 3,851 | 3,851 | - | 4,179 | 4,040 | 139 | 18,679 | - | 3,326 |
| 1942 January | 3,954 | 3,954 | - | 4,277 | 4,119 | 158 | 16,314 | - | 3,380 |
| February | 4,022 | 4,022 | - | 4,459 | 4,304 | 155 | 14,608 | - | 3,337 |
| March | 4,072 | 4.072 | - | 4,268 | 4.128 | 140 | 13,550 | - | 3,291 |
| April | 3,787* | 3,782* | 5* | 3,942 | 3,808 | - 134 | 12,850 |  | 3,166 |
| May | 3,770 | 3,766 | 4 | 3,758 | 3,606 | 152 | 13,146 |  | 3,031 |
| June | 3,986 | 3,973 | 13 | 3,673 | 3,510 | 163 | 13,918 |  | 3,008 |
| July | 3,914* | 3,871* | 43* | 3,680 | 3,518 | 162 | 15,317 |  | 2,776 |
| August | 3,455 | 3,410 | 45 | 3,454 | 3,320 | 134 | 15,688 |  | 2,889 |
| September | 4,097* | 4,046* | $51^{*}$ | 3,728 | 3,575 | 153 | 17,515 |  | 2,839 |
| October | 4,158 | 4,104 | 54 | 3,888 | 3,741 | 147 | 18,620 |  | 3,050 |
| November | 4,141 | 4,105 | 36 | 4,088 | 3,945 | -143 | 18,959 |  | 2,987 |
| December | 3,765* | 3,728 * | 37* | 4,110 | 3,974 | $4 \quad 136$ | 18,625 | 254 | 2,950 |

## 5.3 <br> Coal: production, consumption and stocks

continued

|  |  | Production ${ }^{\text {l }}$ |  |  | Consumption (including exports) |  |  | Stocks 1 (end of period) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Saleable mined coal | Opencast coal ${ }^{2}$ | Total | Inland consumption ${ }^{3}$ | Overseas shipments and bunkers ${ }^{4}$ | Distributed | Opencast on sites or central stocking grounds | Colliery stocks held on pitbanks and in trucks ${ }^{5}$ |
| 1943 | January | 3,995 | 3,967 | 28 | 4,107 | 3,974 |  | 17.800 |  | 3,009 |
|  | February | 4,010 | 3,976 | 34 | 4,119 | 3,986 | 133 | 17,517 |  | 3,103 |
|  | March | 4,339 | 4,020 * | 56 | 4,038 | 3,899 * | 139 | 17,377 |  | 3,043 |
|  | April | 3,726* | 3,657* | $69^{*}$ | 4,038 | 3,656 ${ }^{\text {* }}$ | 165 | 17,284 |  | 2,932 |
|  | May | 4,021 | 3,937 | 84 | 3,821 | 3,605 | 171 | 17,745 |  | 3,033 |
|  | June | 3,684 | 3,606 * | 78 * | 3,556 | 3,378 * | 178 | 18,264 |  | 3,197 |
|  |  | 3,801* | 3,682* | $119 *$ | 3,500 | 3,324* | 176 | 19,434 |  | 2,973 |
|  | August | 3,278 | 3,166* | 121* | 3,276 | 3,156* | 120 | 19,510 |  | 2,957 |
|  | September | 3,931* | 3,808* | 123* | 3,669 | 3,491* | 178 | 20,283 |  | 2,976 |
|  | October | 4,015 | 3,888 | 127 | 3,852 | 3,685 | 167 | 20,328 |  | 2,980 |
|  | November | 3,903 | 3,796 * | 107 * | 3,982 | 3,840 ${ }^{\text {3 }}$ | 142 | 19,757 |  | 3,025 |
|  | December | 3,532* | 3,455* | 77* |  | 3,885* | 149 | 17,656 | 1,602 |  |
| 1944 | January | 3,793 | 3,705 | 88 |  |  |  |  |  | $3,041$ |
|  | February | 3,847 3,634 | 3,738 3 * | 109 * | 4,103 4,023 | 3,959 3,893 | $\begin{array}{r}143 \\ +\quad 130 \\ \hline\end{array}$ | 14,727 13,134 | 1,854 1,953 | 2,997 2,820 |
|  | March | 3,634 3,460 | 3,508 3,338 | $126 *$ | 4,023 3,533 | 3,893 3,425 | 134 108 | 13,134 12,699 | 1,953 1,956 | 2,8114 |
|  | May | 3,969 | 3,772 | 197 | 3,666 | 3,569 | 97 | 13,643 | 1,526 | 2,713 |
|  | June | 3,749* | 3,538* | 211* | 3,437 | 3,324* | * 113 | 15,017 | 1,721 | 2,701 |
|  | July | 3,686 | 3,447 | 239 | 3,313 | 3,218 | 95 | 16,373 | 1,931 | 2,733 |
|  | August | 3,185 | 2,944 | 241 | 3,097 | 3,005 | 92 | 16,886 | 2,155 | 2,620 |
|  | September | 3,818* | 3,622* | 196* | 3,495 | 3,381 * | * 114 | 18,072 | 2,284 | 2,646 |
|  | October | 3,876 | 3,680 | 196 | 3,753 | 3,648 | 105 | 18,457 | 2,327 | 2,648 |
|  | November | 3,911 | 3,744 | 167 | 4,011 | 3,887 | 124 | 18,017 | 2,323 | 2,602 |
|  | December | 3,538* | 3,425* | 113* | 3,994 | 3,864* | * 130 | 16,031 | 2,324 | 2,552 |
| 1945 | January | 3,506 | 3,385 | 121 | 4,108 | 3,978 | 130 | 13,205 | 2,367 | 2,732 |
|  | February | 3,693 | 3,578 | 115 | 4,147 | 3,993 | 154 | 11,372 | 2,360 | 2,612 |
|  | March | 3,717* | 3,529 * | 188* | 3,918 | 3,745* | * 173 | 10,376 | 2,402 | 2,550 |
|  | April | 3,591 | 3,414 | 177 | 3,590 | 3,436 | 154 | 10,142 | 2,353 | 2,516 |
|  | May | 3,161 | 3,010 | 151 | 3,333 | 3,186 | 147 | 10,079 | 2,197 | 2,394 |
|  | June | 3,778* | 3,599 * | 179* | 3,463 | 3,293* | * 170 | 11,562 | 1,917 | 2,374 |
|  | July | 3,386 | 3,222 | 164 | 3,201 | 3,033 | 168 | 12,644 | 1,640 | 2,401 |
|  | August | 2,501 | 2,363 | 138 | 2,877 | 2,716 | 161 | 12,058 | 1,358 | 2,286 |

[^44]2. The opencast production figures have not been adjusted to allow for subsequent losses in stocking nor for some coal of inferior quality not included in the stock figures for the later periods.
3. Including shipments to Northem Ireland. Up to December 1942, computed from figures for calendar months.
4. Computed from figures for calendar months. The figures include bunkers for fishing vessels proceedingoutside territorial waters, but exclude coastwise bunkers.
5. A large proportion of the coal which was held by collieries in these years was of very inferior quality.

* Average of five weeks.


## 5.4

Coal: Inland consumption

Thousand ton


|  |  | Public utility undertakings |  |  | Coke ovens | Industrial consumers ${ }^{2,3}$ |  |  | Domestic ${ }^{3}$ |  |  | Collieries 3 | Miscellaneous 3,6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Gas | $\begin{aligned} & \text { Elec- } \\ & \text { tricity } \end{aligned}$ | Railways |  | Iron and steel | Engineering and other metal trades | Other indusries | Miners' coal | Merchants' disposals ${ }^{5}$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  | House | Anthracite and boiler fuel |  |  |
| 1943 | January | 457 | 478 | 293 | 415 | 226 | 128 | 578 | 96 | 770 | 42 | 229 | 262 |
|  | February | 446 | 463 | 300 | 416 | 238 | 132 | 570 | 98 | 783 | 42 | 235 | 263 |
|  | March | 432 | 452 | 296 | 416 | 235 | 126 | 562 | 97 | 743 | 46 | 235 | 259 |
|  | April | 396 | 408 | 285 | 408 | 223 | 101 | 531 | 85 | 713 | 41 | 222 | 243 |
|  | May | 381 | 405 | 282 | 401 | 221 | 83 | 526 | 85 | 711 | 42 | 226 | 242 |
|  | June | 356 | 379 | 272 | 402 | 206 | 68 | 490 | 75 | 647 | 39 | 217 | 227 |
|  | July | 351 | 377 | 277 | 390 | 190 | 62 | 472 | 74 | 656 | 38 | 214 | 223 |
|  | August | 346 | 367 | 268 | 383 | 187 | 58 | 450 | 67 | 584 | 32 | 202 | 212 |
|  | September | 370 | 418 | 286 | 392 | 213 | 65 | 497 | 80 | 673 | 39 | 224 | 234 |
|  | October | 396 | 453 | 292 | 395 | 219 | 81 | 556 | 84 | 699 | 40 | 223 | 247 |
|  | November | 431 | 498 | 300 | 395 | 228 | 104 | 581 | 92 | 686 | 41 | 227 | 257 |
|  | December | 457 | 521 | 296 | 395 | 220 | 115 | 581 | 94 | 686 | 41 | 219 | 260 |
| 1944 | January | 451 | 525 | 302 | 395 | 218 | 115 | 577 | 100 | 654 | 45 | 226 | 298 |
|  | February | 452 | 530 | 312 | 396 | 229 | 117 | 571 | 101 | 674 | 48 | 227 | 302 |
|  | - March | 449 | 526 | 311 | 384 | 220 | 116 | 566 | 97 | 665 | 46 | 215 | 298 |
|  | April | 386 | 437 | 295 | 363 | 193 | 80 | 502 | 86 | 579 | 39 | 203 | 262 |
|  | May | 367 | 432 | 296 | 389 | 202 | 72 | 512 | 89 | 675 | 43 | 219 | 273 |
|  | *une | 348 | 392 | 281 | 385 | 187 | 61 | 471 | 83 | 610 | 39 | 213 | 254 |
|  | July | 339 | 381 | 274 | 381 | 172 | 55 | 448 | 75 | 604 | 39 | 204 | 246 |
|  | August | 333 | 366 | 264 | 375 | 164 | 52 | 412 | 68 | 520 | 40 | 211 | 258 |
|  | - September | 356 | 427 | 282 | 383 | 190 | 62 | 464 | 80 | 628 | 40 | 211 | 258 |
|  | October | 389 | 472 | 292 | 387 | 199 | 84 | 515 | 90 | 679 | 43 | 220 | 278 |
|  | November | 434 | 520 | 302 | 395 | 207 | 106 | 554 | 98 | 702 | 48 | 223 | 298 |
|  | * December | 462 | 528 | 297 | 396 | 198 | 111 | 547 | 95 | 674 | 46 | 214 | 296 |
| 1945 | January | 490 | 587 | 303 | 390 | 197 | 129 | 561 | 101 | 669 | 46 | 216 | 289 |
|  | February | 479 | 544 | 308 | 392 | 211 | 122 | 548 | 107 | 720 | 51 | 221 | 290 |
|  | * March | 434 | 479 | 308 | 390 | 199 | 100 | 527 | 99 | 677 | 48 | 213 | 271 |
|  | April | 393 | 424 | 290 | 389 | 185 | 76 | 495 | 89 | 601 | 45 | 200 | 249 |
|  | May | 368 | 401 | 275 | 379 | 167 | 65 | 461 | 80 | 530 | 39 | 189 | 232 |
|  | * June | 358 | 398 | 287 | 390 | 184 | 65 | 483 | 86 | 561 | 43 | 204 | 240 |
|  | July | 347 | 368 | 277 | 384 | 166 | 49 | 443 | 76 | 469 | 40 | 192 | 222 |
|  | August | 341 | 342 | 252 | 359 | 142 | 42 | 381 | 61 | 400 | 32 | 165 | 199 |

I. Excluding consumption of coal at waterworks, which amounts on an average

Source: Ministry of Fuel and Power to 8,000 tons per week
2. Undertakings with an annual consumption of 100 tons or more of coal and/or coke
3. Calculated from four-weekly or monthly figures until December 1942; from then onwards figures are on a four or five week-basis.
4. Authorized electricity undertakings and railway and transport authorities only.
5. Including disposals to shops, offices and other establishments, partly or entirely non-residential, with an annual consumption of less than 100 tons of coal and/or coke. Including landsale deliveries until December 1942.
6. Including shipments to Northern Ireland, and consumption by Service departments and at waterworks.
7. In June 1942, a revised form of return was instituted, designed to cover all controlled premises, including industrial consumers with an annual consumption of less than 100 tons.
On the old basis the figure for June 1942 was about 701,000 tons.

* Average of five weeks.

|  | Public utility undertakings |  |  |  | Coke ovens | Industrial consumers ${ }^{2}$ |  |  | Merchants' stocks |  | Government dumps | Miscellaneous ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gas | Water | Electricity | Railways |  | Iron and steel | Engineering and other metal trades | Other industries | House coal | Anthracite and boiler fuel |  |  |
| 1939 | 2,811 | 117 | 2,827 | 1,306 | 393 |  |  |  |  | $\square$ |  |  |
| 1940 | 3,467 | 147 | 3,477 | 1,634 | 476 | 587 | 761 | 3,312 |  | , 500 | 768 | 1,130 |
| 1941 | 3,079 | 170 | 3,367 | 1,765 | 537 | 734 | 912 | 3,688 | 1,671 | 185 | 1,625 | 946 |
| 1942 | 2,887 | 154 | 3,712 | 1,021 | 596 | 737 | 1,067 | 3,475 | 1,808 | 248 | 1,772 | 1,148 |
| 1943 | 2,188 | 134 | 3,305 | 1,401 | 454 | 650 | 706 | 3,171 | 1,664 | 143 | 2,389 | 1,451 |
| 1944 | 2,391 | 136 | 3,247 | 898 | 484 | 701 | 736 | 3,184 | 1,073 | 114 | 2,217 | 850 |
| 1945 | 1,838 | 117 | 2,839 | 614 | 422 | 471 | 501 | 2,493 | 1,324 | $153$ | 848 | 694 |
| 1939 September |  | 3,235 | 2,900 | 1,293 | 434 | . | .. | .. |  |  |  | .. |
| October |  | 3,186 | 2,945 | 1,295 | 423 |  |  | $\cdots$ |  |  |  |  |
| November |  | 3,123 | 2,966 | 1,317 | 445 |  | . |  |  |  |  |  |
| December |  | 2,928 | 2,827 | 1,306 | 393 |  |  |  |  |  |  |  |
| 1940 January |  | 2,314 | 2,324 | 1,201 | 298 |  | . | . |  | .. |  | 235 |
| February |  | 1,956 | 2,111 | 1,031 | 301 | . | . |  |  |  |  | 213 |
| March |  | 1,938 | 2,161 | 914 | 312 |  | . | $\ldots$ |  |  |  | 244 |
| April |  | 2,120 | 2,292 | 925 | 336 |  |  |  |  | 665 |  | 262 |
| May |  | 2,606 | 2,576 | 1,002 | 376 | 354 | 459 | 1,999 |  | 992 |  | 315 |
| June |  | 3,141 | 2,891 | 1,128 | 417 | 436 | 566 | 2,462 |  | 1,225 |  | 365 |
| July |  | 3,845 | 3,336 | 1,308 | 462 | 533 | 692 | 3,012 |  | 1,266 | 150 | 474 |
| August |  | 4,095 | 3,587 | 1,398 | 488 | 598 | 776 | 3,376 |  | 1,413 | 232 | 600 |
| September |  | 4.244 | 3,740 | 1,535 | 524 | 642 | 833 | 3,627 |  | 1,592 | 374 | 761 |
| October |  | 4,241 | 3,800 | 1,669 | 547 | 647 | 840 | 3,654 |  | 1,670 | 489 | 936 |
| November |  | 4,059 | 3,691 | 1,707 | 562 | 632 | 820 | 3,567 |  | 1,585 | 628 | 1,060 |
| December |  | 3,614 | 3,477 | 1,634 | 476 | 587 | 761 | 3,312 |  | 1,500 | 768 | 1,130 |
| 1941 January |  | 2,965 | 2,992 | 1,469 | 486 | 531 | 689 | 2,999 |  | 1,008 | 916 | 967 |
| February |  | 2,556 | 2,740 | 1,367 | 465 | 500 | 647 | 2,814 |  | 840 | 1,003 | 808 |
| March |  | 2,226 | 2,570 | 1,277 | 487 | 490 | 635 | 2,765 |  | 744 | 1,047 | 734 |
| April |  | 1,939 | 2,463 | 1,166 | 477 | 491 | 637 | 2,771 |  | 591 | 1,084 | 726 |
| May |  | 1,977 | 2,572 | 1,193 | 520 | 515 | 569 | 3,004 |  | 679 | 1,095 | 828 |
| June |  | 2,070 | 2,773 | 1,255 | 520 | 565 | 661 | 3,196 |  | 743 | 1,108 | 965 |
| July |  | 2,442 | 3,149 | 1,404 | 556 | 639 | 743 | 3,456 |  | 1,092 | I,135 | 996 |
| August |  | 2,698 | 3,269 | 1,484 | 491 | 657 | 907 | 3,725 |  | 1,226 | 1,157 | 1,006 |
| September |  | 3,104 | 3,422 | 1,620 | 531 | 708 | 1,003 | 3,960 |  | 1,479 | 1,194 | 1,020 |
| October |  | 3,457 | 3,565 | 1,730 | 571 | 722 | 998 | 3,962 |  | 1,778 | 1,299 | 1,042 |
|  |  | $3,469^{4}$ |  |  |  |  |  |  |  |  |  |  |
| December |  | $3,249$ | $3,367$ | $1,765$ | $537$ | $734$ | $912$ | $3,688$ |  | $1,856$ | $1,625$ | 946 |
| 1942 January |  | 2,723 | 2,783 | 1,627 | 496 | 665 | 758 | 3,172 |  | 1,502 | 1,683 | 905 |
| February |  | 2,453 | 2,452 | 1,504 | 496 | 614 | 672 | 2,968 |  | 974 | 1,688 | 787 |
| March |  | 2,238 | 2,272 | 1,358 | 532 | 612 | 641 | 2,849 |  | 713 | 1,602 | 733 |
| April |  | 2,106 | 2,234 | 1,210 | 494 | 599 | 721 | 2,711 |  | 563 | 1,521 | 691 |
| May |  | 2,227 | 2,341 | 1,159 | 453 | 622 | 778 | 2,824 |  | 606 | 1,436 | 700 |
| June |  | 2,340 | 2,547 | 1,100 | 504 | 667 | 871 | 2,988 |  | 738 | 1,388 | 775 |
| July |  | 2,662 | 2,884 | 1,054 | 587 | 705 | 987 | 3,215 |  | 966 | 1,394 | 863 |
| August |  | 2,741 | 3,050 | 936 | 478 | 700 | 1,016 | 3,305 |  | 1,143 | 1,375 | 944 |
| September |  | 3,049 | 3,391 | 947 | 539 | 747 | 1.129 | 3,598 |  | 1,623 | -1,439 | 1,053 |
| October |  | 3,268 | 3,599 | 924 | 581 | 768 | 1,147 | 3,664 |  | 1,946 | 1,555 | 1.168 |
| November |  | 3,248 | 3,608 | 955 | 615 | 773 | 1,124 | 3,609 |  | 2,155 | 1,698 | 1,174 |
| December |  | 3,041 | 3,712 | 1,021 | 596 | 737 | 1,067 | 3,475 |  | 2,056 | 1,772 | 1,148 |

[^45]Source: Ministry of Fuel and Power

## $5-$ Coal: Distributed stocks ${ }^{\prime}$

continued

|  | Public utility undertakings |  |  |  | Coke ovens | Industrial consumers ${ }^{2}$ |  |  | Merchants' stocks |  | Government dumps | Miscellaneous ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gas | Water | Electricity | Railways |  | Iron and steel | Engineering and other metal trades | Other industries | House coal | Anthracite and boiler fuel |  |  |
|  | - |  |  |  |  |  |  |  |  |  |  |  |
| 1943 January |  | 634 | 3,558 | 1,038 | 555 | 698 | 986 | 3,265 | 1,701 | 240 | 1,843 | 1,282 |
| February |  | 80 | 3,581 | 1,098 | 564 | 651 | 940 | $3,155$ | 1,646 | 223 | 1,888 | $1,291$ |
| March |  | 394 | 3,632 | 1,106 | 537 | 636 | 883 | 3,119 | 1,681 | 193 | 1,948 | 1,248 |
| April |  | 335 | 3,691 | 1,105 | 511 | 641 | 862 | 3,138 | 1,608 | 174 | 2,010 | 1,209 |
| May |  | 343 | 3,813 | 1,176 | 556 | 654 | 897 | 3,248 | 1,617 | 162 | 2,065 | 1,214 |
| June |  | 405 | 3,924 | 1,231 | 520 | 678 | 933 | 3,374 | 1,676 | 151 | 2,130 | 1,242 |
| July |  | 44 | 4'071 | 1,343 | 540 | 734 | 982 | 3,656 | 1,808 | 148 | 2,241 | 1,367 |
| August |  | 461 | 4,042 | 1,314 | 434 | 727 | 998 | 3,721 | 1,834 | 138 | 2,313 | 1,528 |
| September |  | 627 | 4,105 | 1,380 | 477 | 740 | 980 | 3,962 | 1,940 | 134 | 2,392 | 1,546 |
| October |  | 714 | 4,062 | 1,412 | 495 | 748 | 956 | 3,883 | 2,000 | 140 | 2,408 | 1,510 |
| November |  | 680 | 3,839 | 1.449 | 503 | 724 | 860 | 3,672 | 2,022 | 153 | 2,405 | 1.450 |
| December |  | 322 | 3,305 | 1,401 | 454 | 650 | 706 | 3,171 | 1,664 | 143 | 2,389 | 1,451 |
| 1944 January | 1,918 | 127 | 2,894 | 1,317 | 452 | 612 | 605 | 2,840 | 1,551 | 133 | 2,366 | 1,232 |
| February | 1,808 | 125 | 2,549 | 1,247 | 464 | 546 | 524 | 2,573 | 1,413 | 116 | 2,341 | 1,021 |
| March | 1,698 | 121 | 2,242 | 1,109 | 450 | 461 | 453 | 2,167 | 1,165 | 87 | 2,311 | 870 |
| April | 1,673 | 126 | 2,251 | 1,026 | 453 | 484 | 529 | 2,035 | 971 | 96 | 2,262 | 793 |
| May | 1,939 | 135 | 2,530 | 1,133 | 510 | 538 | 590 | 2,250 | 911 | 101 | 2,218 | 78 |
| June | 2,214 | 138 | 2,898 | 1,202 | 519 | 623 | 681 | 2,671 | 1,014 | 110 | 2,202 | 745 |
| July | 2,470 | 146 | 3,244 | 1,252 | 537 | 663 | 785 | 3,027 | 1,159 | 124 | 2,197 | 769 |
| August | 2,492 | 146 | 3,449 | 1,151 | 414 | 673 | 842 | 3,220 | 1,305 | 123 | 2,195 | 876 |
| September | 2,741 | 150 | 3,676 | 1,040 | 450 | 715 | 915 | 3,550 | 1,505 | 127 | 2,217 | 986 |
| October | 2,893 | 150 | 3.794 | 1,009 | 484 | 732 | 900 | 3,626 | 1,532 | 130 | 2,221 | 986 |
| November | 2,807 | 148 | 3,707 | 989 | 525 | 733 | 843 | 3,520 | 1.467 | 131 | 2,218 | 929 |
| December | 2,391 | 136 | 3,247 | 898 | 484 | 701 | 736 | 3,184 | 1,073 | 114 | 2,217 | 850 |
| 1945 January | 1,815 | 125 | 2,574 | 734 | 401 | 619 | 570 | 2,688 | 734 | 105 | 2,114 | 726 |
| February | 1,406 | 114 | 2,212 | 580 | 423 | 558 | 481 | 2,383 | 562 | 98 | 1,914 | 641 |
| March | 1,199 | 110 | 2,191 | 461 | 467 | 545 | 479 | 2,229 | 439 | 102 | 1,574 | 580 |
| April | 1,090 | 107 | 2,247 | 513 | 442 | 533 | 529 | 2,197 | 399 | 110 | 1,391 | 584 |
| May | 1,038 | 106 | 2,322 | 510 | 363 | 524 | 550 | 2,215 | 417 | 111 | 1,289 | 634 |
| June | 1,278 | 113 | 2,789 | 543 | 445 | 567 | 629 | 2,533 | 717 | 121 | 1,097 | 730 |
| July | 1,406 | 123 | 3,099 | 532 | 443 | 590 | 694 | 2,791 | 1,028 | 134 | 1,023 | 781 |
| August | 1,183 | 125 | 3,041 | 410 | 273 | 552 | 718 | 2,823 | 1,059 | 132 | 966 | 776 |

[^46]Source: Ministry of Fuel and Power

## 5.6

 Mined coal: Productivity ${ }^{\prime}$Weekly averages

|  | Number of wage-earners on colliery | Average number of shifts worked per wage-earner on colliery books per week² | Average number of shifts possible per wage-earner on colliery books per week ${ }^{2}$ | Absenteeism percentages overall\| ${ }^{2}$ | Average output in tons per manshift worked ${ }^{2}$ |  | Manshifts at the coal face as percentage of total ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thousands |  |  |  | Overall | At the coal face |  |
| 1939 | 766 | 5.15 | 5.53 | 6.94 | 1.14 | 3.00 | 37.85 |
| 1940 | 749 | 5.27 | 5.75 | 8.26 | 1.10 | 2.97 | 37.04 |
| 1941 | 698 | 5.37 | 5.91 | 9.03 | 1.07 | 2.99 | 35.96 |
| 1942 | 709 | 5.34 | 5.96 | 10.40 | 1.05 | 2.91 | 35.94 |
| 1943 | $708^{3}$ | $5.12{ }^{4}$ | $5.85{ }^{4}$ | $12.46{ }^{4}$ | 1.03 | 2.754 | 37.48 |
| 1944 | 710 | 4.96 | 5.74 | 13.61 | 1.00 | 2.70 | 37.19 |
| 1945 | 709 | 4.73 | 5.65 | 16.31 | 1.00 | 2.70 | 36.96 |
| 1939 September | 748.6 | 5.36 | 5.77 | 7.08 | 1.12 | 2.98 | 37.57 |
| October | 755.2 | 5.40 | 5.80 | 6.92 | 1.14 | 3.02 | 37.74 |
| * November | 759.1 | 5.60 | 6.00 | 6.74 | 1.15 | 3.05 | 37.84 |
| December | 759.8 | 4.88 | 5.24 | 6.95 | 1.13 | 3.01 | 37.54 |
| 1940* January | 759.0 | 5.17 | 5.71 | 9.44 | 1.12 | 2.98 | 37.43 |
| February | 760.4 | 5.22 | 5.87 | 11.16 | 1.13 | 3.04 | 37.33 |
| March | 762.3 | 5.01 | 5.51 | 9.15 | 1.13 | 3.03 | 37.13 |
| April | 763.1 | 5.70 | 6.15 | 7.35 | 1.15 | 3.07 | 37.58 |
| *May | 763.3 | 5.62 | 6.08 | 7.66 | 1.14 | 3.03 | 37.55 |
| June | 766.9 | 5.46 | 5.89 | 7.26 | 1.11 | 2.95 | 37.50 |
| * July | 761.1 | 5.41 | 5.84 | 7.48 | 1.11 | 2.99 | 36.97 |
| August | 757.1 | 5.14 | 5.61 | 8.34 | 1.07 | 2.90 | 36.88 |
| September | 746.0 | 5.13 | 5.58 | 8.02 | 1.07 | 2.90 | 36.76 |
| *October | 731.2 | 5.35 | 5.79 | 7.60 | 1.09 | 2.96 | 36.63 |
| November | 712.4 | 5.18 | 5.60 | 7.62 | 1.09 | 2.99 | 36.36 |
| December | 702.7 | 4.86 | 5.30 | 8.22 | 1.08 | 2.98 | 36.06 |
| 1941* ${ }^{\text {* }}$ anuary | 698.9 | 5.29 | 5.85 | 9.49 | 1.08 | 2.99 | 36.26 |
| February | 694.6 | 5.29 | 5.86 | 9.72 | 1.09 | 3.00 | 36.15 |
| March | 692.0 | 5.31 | 5.87 | 9.57 | 1.09 | 3.02 | 35.99 |
| *April | 690.4 | 5.32 | 5.83 | 8.70 | 1.08 | 3.00 | 35.89 |
| May | 690.2 | 5.58 | 6.11 | 8.73 | 1.08 | 3.02 | 35.78 |
| June | 690.6 | 5.29 | 5.74 | 7.78 | 1.06 | 2.97 | 35.67 |
| * July | 692.1 | 5.55 | 6.02 | 7.87 | 1.07 | 3.00 | 35.85 |
| August | 697.3 | 4.86 | 5.30 | 8.25 | 1.06 | 2.98 | 35.58 |
| September | 704.0 | 5.60 | 6.16 | 9.16 | 1.08 | 2.98 | 36.14 |
| *October | 706.7 | 5.67 | 6.27 | 9.53 | 1.08 | 2.99 | 36.13 |
| November | 707.5 | 5.37 | 5.94 | 9.66 | 1.08 | 2.99 | 36.17 |
| December | 707.9 | 5.32 | 5.90 | 9.76 | 1.06 | 2.96 | 35.93 |
| 1942* January | 707.5 | 5.36 | 6.09 | 11.94 | 1.05 | 2.92 | 36.12 |
| February | 706.8 | 5.49 | 6.18 | 11.13 | 1.07 | 2.94 | 36.26 |
| March | 705.6 | 5.41 | 6.05 | 10.63 | 1.07 | 2.96 | 36.18 |
| *April | 706.0 | 5.25 | 5.81 | 9.59 | 1.05 | 2.92 | 35.92 |
| May | 707.9 | 5.07 | 5.64 | 10.13 | 1.04 | 2.91 | 35.86 |
| June | 708.9 | 5.52 | 6.14 | 10.06 | 1.04 | 2.91 | 35.88 |
| * July | 709.6 | 5.46 | 6.04 | 9.62 | 1.05 | 2.92 | 35.82 |
| August | 701.7 | 4.64 | 5.20 | 10.80 | 1.02 | 2.87 | 35.45 |
| *September | 711.4 | 5.58 | 6.20 | 10.02 | 1.05 | 2.93 | 35.97 |
| October | 711.0 | 5.58 | 6.21 | 10.21 | 1.06 | 2.95 | 36.01 |
| November | 712.93 | 5.39 | 6.02 | 10.41 | 1.06 | 2.94 | 35.95 |
| * December | 713.3 | 5.35 | 5.97 | 10.31 | 1.05 | 2.90 | 36.05 |

Mined coal: Productivity ${ }^{\prime}$
continued
Weekly averages

|  | Number of wage-earners on colliery | Average number of shifts worked per wage-earner on colliery books per week ${ }^{2}$ | Average number of shifts possible per wage-earner on colliery books per week ${ }^{2}$ | Absenteeism percentages overall\| | Average output in tons per manshift worked ${ }^{2}$ |  | Manshifts at the coal face as percentage of total ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thousands |  |  |  | Overall | At the coal face |  |
| 1943 January | 714.1 | 5.33 | 6.07 | 12.32 | 1.04 | 2.78 | 37.48 |
| February | 713.7 | 5.33 | 6.10 | 12.53 | 1.04 | 2.78 | 37.61 |
| March | 712.3 | 5.31 | 6.08 | 12.62 | 1.05 | 2.79 | 37.51 |
| * April | 711.0 | 5.01 | 5.71 | 12.23 | 1.03 | 2.75 | 37.29 |
| May | 710.3 | 5.36 | 6.05 | 11.45 | 1.03 | 2.77 | 37.30 |
| June | 708.9 | 4.99 | 5.62 | 11.27 | 1.02 | 2.72 | 37.40 |
| *July | 707.1 | 5.06 | 5.72 | 11.48 | 1.03 | 2.73 | 37.60 |
| August | 705.6 | 4.50 | 5.13 | 12.29 | 1.00 | 2.68 | 37.19 |
| *September | 704.4 | 5.25 | 6.00 | 12.49 | 1.03 | 2.73 | 37.63 |
| October | 703.0 | 5.33 | 6.07 | 12.25 | 1.04 | 2.76 | 37.65 |
| November | 701.9 | 5.22 | 6.03 | 13.47 | 1.04 | 2.76 | 37.54 |
| * December | 702.2 | 4.84 | 5.66 | 14.40 | 1.02 | 2.71 | 37.44 |
| 1944 January | 703.0 | 5.22 | 5.96 | 12.44 | 1.01 | 2.70 | 37.37 |
| February | 703.4 | 5.25 | 5.96 | 12.00 | 1.01 | 2.70 | 37.44 |
| * March | 704.3 | 4.95 | 5.67 | 12.68 | 1.01 | 2.70 | 37.20 |
| April | 706.5 | 4.76 | 5.44 | 12.44 | 0.99 | 2.67 | 37.23 |
| May | 709.8 | 5.22 | 5.98 | 12.67 | 1.02 | 2.72 | 37.38 |
| * June | 713.1 | 4.94 | 5.67 | 12.89 | 1.01 | 2.71 | 37.05 |
| July | 713.6 | 4.85 | 5.58 | 13.14 | 1.00 | 2.70 | 36.90 |
| August | 713.6 | 4.26 | 5.02 | 15.21 | 0.97 | 2.65 | 36.56 |
| * September | 713.8 | 5.04 | 5.94 | 15.14 | 1.01 | 2.70 | 37.23 |
| October | 713.4 | 5.08 | 5.97 | 14.86 | 1.01 | 2.73 | 37.16 |
| November | 713.2 | 5.14 | 6.02 | 14.55 | 1.02 | 2.73 | 37.41 |
| * December | 713.7 | 4.80 | 5.65 | 15.04 | 1.00 | 2.69 | 37.21 |
| 1945 January | 715.6 | 4.81 | 5.77 | 16.60 | 0.98 | 2.65 | 37.11 |
| February | 716.9 | 4.98 | 5.95 | 16.40 | 1.00 | 2.69 | 37.20 |
| * March | 717.4 | 4.92 | 5.83 | 15.55 | 1.00 | 2.70 | 37.09 |
| April | 717.1 | 4.80 | 5.68 | 15.46 | 0.99 | 2.68 | 37.03 |
| May | 716.0 | 4.32 | 5.09 | 15.10 | 0.97 | 2.65 | 36.77 |
| * June | 713.6 | 5.01 | 5.87 | 14.69 | 1.01 | 2.71 | 37.20 |
| July | 709.3 | 4.63 | 5.49 | 15.78 | 0.98 | 2.67 | 36.77 |
| August | 706.2 | 3.62 | 4.42 | 18.00 | 0.92 | 2.57 | 35.98 |

[^47]2. Up to and including 1942, the figures are obtained from returns collected by the Joint Accountants to the industry for the purpose of wages ascertainment.
3. The introduction of a revised form of return in November 1942 resulted in a net increase of about 1,250 in the total wage-eamers.
4. Owing to the introduction of a revised forrn of return the figures are not comparable with those for previous years. On the old basis the figures for 1943 are: shifts worked, 5.24; shifts possible, 5.96 ; absenteeism percentage, 12.06; average output, 2.86; percentage of shifts at the coal face, 35.94 .

* Average of five weeks.
5.7

|  | Production 1 |  |  | Consumption |  |  | Stocks ${ }^{\text {I }}$ (end of period) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | At coke ovens | At gasworks | Total | Inland consumption² | Overseas shipments ${ }^{3}$ | Total | At coke ovens |  |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1939 | 24,226 | 14,026 | 10,200 | 24,226 | 21,758 | 2,468 |  | 487 | 706 |
| 1940 | 25,268 | 15,351 | 9,917 | 25,488 | 24,544 | 944 | 2,731 | 441 | 532 |
| 1941 | 25,099 | 14,547 | 10,552 | 25,140 | 24,697 | 443 | 2,690 | 160 | 572 |
| 1942 | 26,104 | 14,900 | 11,204 | 26,100 | 25,819 | 281 | 2,694 | 183 | 453 |
| 1943 | 25,861 | 14,453 | 11,408 | 25,485 | 25,192 | 293 | 3,070 | 332 | 680 |
| 1944 | 25,576 | 14,081 | 11,495 | 26,546 | 26,433 | 113 | 2,100 | 82 | 290 |
| 1945 | 25,622 | 13,986 | 11,636 | 25,545 | 25,362 | 183 | 2,177 | 77 | 279 |
| Weekly averages 460 |  |  |  |  |  |  |  |  |  |
| 1939 | 465 | 269 | 196 | 465 | 417 | 48 |  | 487 | 706 |
| 1940 | 484 | 294 | 190 | 488 | 470 | 18 | 2,731 | 441 | 532 |
| 1941 | 481 | 279 | 202 | 482 | 474 | 8 | 2,690 | 160 | 572 |
| 1942 | 501 | 286 | 215 | 501 | 495 | 6 | 2,694 | 183 | 453 |
| 1943 | 496 | 277 | 219 | 489 | 483 | 6 | 3,070 | 332 | 680 |
| 1944 | 489 | 269 | 220 | 508 | 506 | 2 | 2,100 | 82 | 290 |
| 1945 | 491 | 268 | 223 | 490 | 486 | 4 | 2,177 | 77 | 279 |
| 1939 September | 429 | 271 | 158 | 473 | 424 | 49 |  | 590 | 868 |
| October | 463 | 286 | 177 | 489 | 440 | 49 |  | 545 | 811 |
| November | 488 | 293 | 195 | 512 | 464 | 48 |  | 487 | 749 |
| December | 509 | 292 | 217 | 520 | 465 | 55 |  | 487 | 706 |
| 1940 January | 535* | $295 *$ | $240 *$ | 586* | $543 *$ | 43 |  | 400 | 540 |
| February | 525 | 295 | 230 | 579 | 541 | 38 |  | 361 | 364 |
| March | 508 | 299 | 209 | 537 | 502 | 35 |  | 305 | 305 |
| April | 505 | 305 | 200 | 518 | 480 | 38 |  | 266 | 291 |
| May | 479* | $305 *$ | $174{ }^{*}$ | 469* | 441* | 28 |  | 243 | 362 |
| June | 468 | 302 | 166 | 449 | 440 | 9 |  | 243 | 438 |
| July | 463* | 296* | 167* | 424* | 420* | 4 |  | 379 | 496 |
| August | 457 | 289 | 168 | 431 | 429 | 2 |  | 437 | 548 |
| September | 442 | 283 | 159 | 435 | 431 | 4 |  | 486 | 527 |
| October | 451* | $282^{*}$ | 169* | $447 *$ | 443* | 4 |  | 517 | 515 |
| November | 468 | 284 | 184 | 481 | 475 | 6 |  | 463 | 516 |
| December | 485 | 279 | 206 | 487 | 481 | 6 | 2,731 | 441 | 532 |
| 1941 January | 505* | 281* | 224* | 520* | 510* | 10 |  | 428 | 450 |
| February | 505 | 278 | 227 | 522 | 518 | 4 |  | 423 | 370 |
| March | 496 | 278 | 218 | 517 | 506 | 11 |  | 381 | 313 |
| April | 481* | 276* | 205* | $500 *$ | 490* | 10 |  | 303 | 274 |
| May | 470 | 275 | 195 | 478 | 466 | 12 |  | 252 | 275 |
| June | 457 | 278 | 179 | 447 | 434 | 13 |  | 227 | 325 |
| July | 445* | 276* | 169* | 434* | 424* | 10 |  | 198 | 388 |
| August | 450 | 274 | 176 | 444 | 437 | 7 |  | 160 | 433 |
| September | 462 | 278 | 184 | 419 | 443 | 6 | . | 143 | 484 |
| October | 480* | 282* | 198* | 462* | 455* | 7 | . | 141 | 557 |
| November | 509 | 285 | 224 | 507 | 501 | 6 |  | 148 | 544 |
| December | 515 | 286 | 229 | 501 | 496 | 5 | 2,690 | 160 | 572 |
| 1942 January | 534* | 286* | 248* | $526 *$ | 520* | 6 | . | 163 | 601 |
| February | 541 | 288 | 253 | 563 | 559 | 4 | . | 154 | 515 |
| March | 531 | 288 | 243 | 561 | 556 | 5 |  | 140 | 402 |
| April | 505* | 286* | 219* | 533* | 527* | 6 | $\cdots$ | 130 | 263 |
| May | 487 | 285 | 202 | 462 | 455 | 7 |  | 124 | 359 |
| June | 478 | 283 | 195 | 472 | 467 | 5 |  | 131 | 369 |
| July | 470* | 283* | 187* | 461* | 455* | 6 | . | 142 | 391 |
| August | 463 | 281 | 182 | 451 | 443 | 8 |  | 150 | 424 |
| September | 481** | 290* | 191* | 466* | 460* | 6 | .. | 160 | 481 |
| October | 495 | 291 | 204 | 484 | 480 | 4 | . | 181 | 497 |
| November | 517 | 291 | 226 | 525 | 521 | 4 |  | 186 | 452 |
| December | $520^{*}$ | 288* | 232* | $518 *$ | 516* | 2 | 2,694 | 183 | 453 |

[^48]|  |  | Production ${ }^{\text {l }}$ |  |  | Consumption |  |  | Stocks ${ }^{\text {(end of period) }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total |  |  | Total | Inland consumption ${ }^{2}$ | Overseas shipments ${ }^{3}$ | Total |  |  |
| 1943 | January | 535 | 289 | 246 | 536 | 530 | 6 |  | 184 | 448 |
|  | February | 530 | 288 | 242 | 533 | 530 | 3 |  | 188 | 432 |
|  | March | 522 | 287 | 235 | 525 | 520 | 5 |  | 194 | 414 |
|  | April | 496* | $281 *$ | $215 *$ | 479* | 475* | 4 |  | 230 | 463 |
|  | May | 485 | 278 | 207 | 458 | 452 | 6 | 2,836 | 259 | 540 |
|  | June | 470 | 276 | 194 | 417 | 410 | 7 | 3,049 | 293 | 625 |
|  | July | 462* | 270* | 192* | 415* | 408* | 7 | 3,284 | 322 | 717 |
|  | August | 453 | 265 | 188 | 419 | 411 | 8 | 3,543 | 369 | 794 |
|  | September | 473* | $272{ }^{*}$ | $201 *$ | 419* | 414* | 5 | 3,688 | 355 | 839 |
|  | October | 492 | 274 | 218 | 477 | 466 | 11 | 3,749 | 360 | 849 |
|  | November |  |  |  |  | $549{ }^{*}$ | 2 | 3,583 | 337 | 812 |
|  | December | $527 *$ | $275 *$ | $252 *$ | $630^{*}$ | 627* | 3 | 3,070 | 332 | 680 |
| 1944 | January | 524 | 275 | 249 | 579 | 575 | 4 | 2,851 | 316 | 493 |
|  | February | 530 | 276 | 254 | 648 | 645 | 3 | 2,379 | 269 | 320 |
|  | March | $516 *$ | 266* | 250* | 626* | 623* | 3 | 1,830 | 189 | 180 |
|  | April | 468 | 253 | 215 | 474 | 472 | 2 | 1,806 | 138 | 166 |
|  | May | 479 | 272 | 207 | 460 | 459 | 1 | 1,880 | 98 | 188 |
|  | June | 460* | 268* | 192* | 420* | $418{ }^{*}$ | 2 | 2,078 | 74 | 228 |
|  | July | 453 | 267 | 186 | 406 | 404 | 2 | 2,266 | 70 | 255 |
|  | August | 446* | 263* | 183* | 390* | 389* | 1 | 2,489 | 78 | 275 |
|  | September | 464 | 267 | 197 | 431 | 429 | 2 | 2,655 | 80 | 301 |
|  | October | 484 | 270 | 214 | 493 | 491 | 2 | 2,619 | 81 | 304 |
|  | November | 516 | 276 | 240 | 589 | 587 | 2 | 2,326 | 75 | 299 |
|  | December | $533^{*}$ | $278 *$ | $255 *$ | $578 *$ | $577 *$ | । | 2,100 | 82 | 290 |
| 1945 | January | 544 | 273 | 271 | 617 | 616 | 1 | 1,809 | 80 | 241 |
|  | February | 535 | 272 | 263 | 595 | 594 | 1 | 1,571 | 88 | 184 |
|  | March | $513 *$ | $271 *$ | $242 *$ | $544 *$ | $543 *$ | 1 | 1,415 | 78 | 149 |
|  | April | 490 | 270 | 220 | 479 | 477 | 2 | 1,460 | 69 | 152 |
|  | May |  | 262 | 203 | 434 | 432 | 2 | 1,584 | 69 | 170 |
|  | June | 472* | $271 *$ | $201 *$ | 425* | 423* | 2 | 1,819 | 63 | 180 |
|  | July | 462 | 267 | 195 | 411 | 409 | 2 | 2,023 | 67 | 204 |
|  | August | 435 | 247 | 188 | 493 | 489 | 4 | 2,254 | 79 | 257 |

[^49]Source: Ministry of Fuel and Power

Great Britain

|  | Unit | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Road tar (including refined tar) | Thousand tons | 640 | 650 | 606 | 628 |
| Creosote/pitch mixture |  | 530 | 624 | 591 | 559 |
| Creosote oil | Thousand gallons | 64,000 | 49,000 | 55,000 | 60,000 |
| Pitch | Thousand tons | 467 | 380 | 404 | 412 |
| White naphthalene |  | 7.6 | 9.0 | 7.4 | 7.4 |
| Hot-pressed naphthalene |  | 8.4 | 9.2 | 9.3 | 10.0 |
| Crude naphthalene |  | 15.2 | 14.5 | 14.1 | 14.9 |
| Pyridine bases | Thousand gallons | 157 | 137 | 132 | 132 |
| Natural phenol | Thousand tons | 8.2 | 8.7 | 9.2 | 8.2 |
| Refined cresylic acid (all grades) | Thousand gallons | 6,176 | 7,242 | 7,056 | 6,990 |
| Anthracene 40/50 per cent | Thousand tons | 1.9 | 2.4 | 2.5 | 1.9 |

Source: Ministry of Fuel and Power

### 5.9 Gas: Production

Great Britain

|  | Total gas available |  | Gas bought from coke ovens | Gas made |  |  |  | Materials used for gas making |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Coal gas | Water gas | Other gas | Coal | Gas oil |
|  | Million therms |  |  | Million cubic feet |  |  |  |  | Thousand tons |  |
| 1939 | 1,655 | 352,072 | 33,010 | 319,062 | 284,570 | 27,489 | 7,003 | 18,866 | 128.91 |
| 1940 | 1,579 | 343,440 | 36,883 | 306,557 | 268,781 | 30,192 | 7,584 | 17,983 | 152.21 |
| 1941 | 1,725 | 370,123 | 40,647 | 329,476 | 287,795 | 33,425 | 8,256 | 19,319 | 177.79 |
| 1942 | 1,813 | 388.755 | 45,693 | 343,062 | 296,363 | 38,097 | 8,602 | 20,634 | 200.22 |
| 1943 | 1,840 | 395,457 | 47,478 | 347,979 | 298,521 | 40,784 | 8,674 | 20,732 | 190.71 |
| 1944 | 1,948 | 414,342 | 49,188 | 365,154 | 296,600 | 60,424 | 8,130 | 20,620 | 353.15 |
| 1945 | 2,021 | 427,941 | 51,691 | 376,250 | 302,430 | 65,331 | 8,489 | 20,845 | 401.02 |

Source: Ministry of Fuel and Power

### 5.10 Gas: Sales

Great Britain


## 5. II <br> Electricity: Production

Great Britain

|  | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Million units (million kilo-watt hours) |  |  |  |  |  |  |
| Electricity generated: |  |  |  |  |  |  |  |
| Total | 27,733 | 29,976 | 33,577 | 36,903 | 38,217 | 39,649 | 38,611 |
| Authorised undertakings: |  |  |  |  |  |  |  |
| Public authorities | $14,340$ |  | $17,977$ $14.383$ | $\begin{aligned} & 19,607 \\ & 16,047 \end{aligned}$ | $\begin{aligned} & 20,225 \\ & 16,726 \end{aligned}$ | 21,480 16,883 | 20,702 16,582 |
| Companies Railway and transport authorities | 12,069 1,324 | $\begin{array}{r} 12,802 \\ 1,203 \end{array}$ | 14,383 1,217 | 16,047 1,249 | 16,726 1,266 | 16,883 1,286 | 16,582 1,327 |
| Railway and transport authorities | 1,324 | 1,203 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Steam plant | 26,578 | 29,003 | 32,616 | 35,699 | 36,800 | 38,378 | 37,373 |
| Oil engines | 51 | 57 | 57 | 46 | 38 | 45 | 44 |
| Gas engines | 3 | 3 | 3 | 2 | 2 | 3 | 2 |
| Water power | 982 | 800 | 831 | 1,097 | 1,329 | 1,176 | 1,144 |
| Destructor plant, waste heat, etc | 119 | 113 | 70 | 59 | 48 | 47 | 48 |
|  | Thousand tons |  |  |  |  |  |  |
| Materlals used: |  |  |  |  |  |  |  |
| Coal | 15,925 | 18,112 | 20,435 | 22,283 | 22,599 | 24,074 | 23,493 |
| Coke and coke breeze | 235 | 258 | 275 | 320 | 318 | 337 | 330 |
| Oil | 19 | 26 | 20 | 18 | 14 | 8 | 20 |

Source: Ministry of Fuel and Power

## 5. 2 Electricity: Sales ${ }^{1,2}$

| Great Britain | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 22,234 | 24,263 | 27,308 | 30,286 | 31,449 | 32,519 | 31,363 |
| Total |  |  |  |  |  |  |  |
|  | 5,936 | 6,228 | 6,637 | 6,720 | 6,709 | 7,835 | 8,805 |
| Domestic and farm premises | 3,117 | 2,997 | 3,266 | 3,256 | 3,062 | 3,510 | 3,482 |
| Shops, offlces and other commercial premises | 11,672 | 13,874 | 16,244 | 19,142 | 20,516 | 19,976 | 17,679 |
| Factories and other industrial premises | 248 | 17 | 18 | 20 | 20 | 29 | 161 |
| Public lighting | 1,261 | 1,147 | 1,143 | 1,148 | 1,142 | 1,169 | 1,236 |
| Traction |  |  |  |  |  |  |  |

[^50]Source: Ministry of Fuel and Power

[^51]
## 5. 3 Arrivals of petroleum products

Thousand tons

|  |  | Total | Refined petroleum products |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Aviation, motor and industrial spint | White spirit | Kerosine | Gas/Diesel oils | Fuel oil | Lubricating oils |  |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1940 |  | 11,381 | 3,592 | 64 | 999 | 1,367 | 3,235 | 578 | 1,546 |
| 1941 |  | 13,05 1 | 4,741 | 58 | 1,062 | 1,790 | 3,850 | 491 | 1,060 |
| 1942 |  | 10,232 | 4,083 | 103 | 856 | 1,364 | 2,407 | 565 | 854 |
| 1943 |  | 14,828 | 5,306 | 69 | 1,214 | 1,887 | 5,122 | 433 | 798 |
| 1944 |  | 20,176 | 9,417 | 111 | 1,334 | 2,210 | 5,336 | 575 | 1,194 |
| 1945 |  | 15,924 | 6,999 | 98 | 1,292 | 2,101 | 3,703 | 337 | 1,394 |
| Weekly averages 21770070 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 1941 |  | 250.3 | 90.9 | 1.1 | 20.4 | 34.3 | 73.9 | 9.4 | 20.3 |
| 1942 |  | 196.2 | 78.3 | 2.0 | 16.4 | 26.1 | 46.2 | 10.8 | 16.4 |
| 1943 |  | 284.4 | 101.8 | 1.3 | 23.3 | 36.2 | 98.2 | 8.3 | 15.3 |
| 1944 |  | 385.9 | 180.1 | 2.1 | 25.5 | 42.3 | 102.1 | 11.0 | 22.8 |
| 1945 |  | 305.4 | 134.2 | 1.9 | 24.8 | 40.3 | 71.0 | 6.5 | 26.7 |
| 1939 | September | 131.4 | 58.1 | - | 4.5 | 17.5 | 24.2 | 3.5 | 23.6 |
|  | October | 128.6 | 57.2 |  | 3.7 | 20.6 | 29.9 | 8.7 | 8.5 |
|  | November | 185.5 | 63.9 |  | 36.2 | 18.1 | 37.1 | 1.6 | 28.6 |
|  | December | 215.4 | 64.0 | 0.5 | 25.1 | 16.2 | 65.9 | 4.9 | 38.8 |
| 1940 * | * January | 216.3 | 88.9 | 0.8 | 14.6 | 19.5 | 53.0 | 12.9 | 26.6 |
|  | February | 192.7 | 59.8 | 1.8 | 8.2 | 16.1 | 56.5 | 6.0 | 44.3 |
|  | March | 263.3 | 91.7 | 1.2 | 21.3 | 33.1 | 58.5 | 21.7 | 35.8 |
|  | * April | 221.3 | 76.7 | 1.0 | 19.8 | 36.8 | 56.6 | 5.8 | 24.6 |
|  | May | 286.2 | 99.9 | 2.2 | 15.1 | 42.5 | 64.6 | 19.9 | 42.0 |
|  | June | 326.5 | 91.1 | 1.1 | 21.5 | 30.3 | 94.9 | 15.8 | 71.8 |
|  | * July | 200.0 | 57.4 | 0.7 | 16.0 | 25.5 | 67.3 | 15.6 | 17.5 |
|  | August | 215.7 | 69.0 |  | 6.9 | 31.4 | 76.3 | 6.1 | 26.0 |
|  | * September | 150.0 | 38.3 | 2.6 | 16.8 | 15.9 | 53.2 | 6.9 | 16.3 |
|  | October | 132.9 | 46.3 | 0.5 | 24.9 | 10.1 | 34.3 | 5.5 | 11.3 |
|  | November | 218.2 | 53.5 | 1.9 | 32.3 | 23.3 | 76.3 | 8.1 | 22.8 |
|  | * December | 180.3 | 48.2 | 0.8 | 28.4 | 26.3 | 47.8 | 7.9 | 20.9 |
| 1941 | January | 99.9 | 38.2 | - | 9.6 | 3.8 | 30.0 | 3.3 | 15.0 |
|  | February | 204.3 | 72.4 | - | 11.9 | 30.8 | 60.4 | 2.5 | 26.3 |
|  | * March | 196.0 | 55.8 | - | 17.4 | 28.2 | 65.4 | 3.4 | 25.8 |
|  | April | 230.0 | 71.3 | 0.9 | 6.9 | 34.1 | 81.2 | 10.4 | 25.2 |
|  | May | 198.6 | 89.5 | - | 5.0 | 25.4 | 48.2 | 5.1 | 25.4 |
|  | * June | 279.9 | 99.7 | 2.8 | 6.3 | 43.1 | 91.1 | 10.8 | 26.1 |
|  | July | 275.2 | 91.2 | 1.1 | 24.8 | 44.7 | 83.0 | 18.0 | 12.4 |
|  | August | 280.1 | 104.4 | 1.4 | 25.2 | 43.4 | 75.1 | 12.1 | 18.5 |
|  | * September | 367.9 | 136.5 | 1.8 | 41.2 | 38.3 | 118.5 | 15.0 | 16.6 |
|  | October | 298.9 | 105.2 | 0.4 | 30.4 | 37.5 | 94.1 | 6.2 | 25.1 |
|  | November | 270.0 | 112.9 | 2.5 | 35.7 | 43.2 | 60.5 | 4.4 | 10.8 |
|  | * December | 280.7 | 108.0 | 1.9 | 27.8 | 38.1 | 68.9 | 19.4 | 16.6 |
|  |  |  |  |  |  |  | 39.5 | 6.8 | 13.1 |
|  | February | 239.9 | 99.9 | 1.4 | 19.7 | 29.5 | 60.7 | 9.7 | 19.0 |
|  | * March | 140.3 | 67.5 | 1.6 | 14.8 | 6.1 | 24.0 | 15.6 | 10.7 |
|  | April | 209.4 | 93.1 | 3.9 | 14.5 | 27.5 | 31.3 | 12.6 | 26.5 |
|  | May | 119.8 | 49.9 | - | 8.7 | 17.2 | 19.7 | 13.9 | 10.4 |
|  | * June | 163.1 | 71.1 | 2.7 | 9.9 | 24.1 | 25.2 | 12.7 | 17.4 |
|  | July | 234.4 | 92.1 | 4.9 | 23.6 | 28.5 | 57.4 | 10.5 | 17.4 |
|  | * August | 180.6 | 47.7 | 3.1 | 12.1 | 23.9 | 52.3 | 18.1 | 23.4 |
|  | September | 268.1 | 96.8 | 2.4 | 32.5 | 30.8 | 85.1 | 2.9 | 17.6 |
|  | October | 173.9 | 48.4 | 1.3 | 25.3 | 21.4 | 50.2 | 13.3 | 14.0 |
|  | * November | 197.5 | 72.0 | 0.6 | 9.3 | 34.4 | 57.8 | 7.2 | 16.2 |
|  | December | 253.0 | 139.0 |  | 12.9 | 27.1 | 58.5 | 4.7 | 10.8 |

## 5. 13 Arrivals of petroleum products

|  |  | Refined petroleum products |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Aviation, motor and industrial spirit | White spirit | Kerosine | Gas/Diesel oils | Fuel oil | Lubricating oils |  |
| 1943 | January | 147.4 | 31.7 | - | - | 44.6 | 55.4 | 4.4 | 11.3 |
|  | February | 236.6 | 74.6 | 0.8 | 15.5 | 40.7 | 79.8 | 12.6 | 12.6 |
|  | *March | 197.7 | 60.1 | 1.2 | 23.3 | 22.6 | 70.6 | 4.4 | 15.5 |
|  | April | 278.4 | 84.7 | - | 37.9 | 40.8 | 88.9 | 6.5 | 19.6 |
|  | *May | 262.6 | 67.0 | 1.8 | 18.8 | 44.9 | 104.7 | 8.0 | 17.4 |
|  | June | 372.9 | 122.7 | 1.1 | 34.1 | 52.4 | 144.0 | 6.2 | 12.4 |
|  | July | 408.8 | 143.4 | 3.5 | 28.3 | 36.0 | 167.5 | 9.2 | 20.9 |
|  | *August | 325.8 | 115.5 | 0.8 | 29.4 | 33.8 | 113.9 | 9.3 | 23.1 |
|  | September | 412.4 | 154.5 | 2.7 | 48.4 | 54.2 | 128.4 | 7.6 | 16.6 |
|  | October | 297.9 | 156.2 | 2.0 | 19.1 | 19.1 | 80.3 | 11.1 | 10.1 |
|  | *November | 269-3 | 123.9 | 1.4 | 15.1 | 23.2 | 86.6 | 9.0 | 10.1 |
|  | December | $233 \cdot 2$ | 100.6 | 0.8 | 11.6 | 28.0 | 66.5 | 12.3 | 13.4 |
| 1944 | *January | 225.2 | 101.2 | 3.4 | 22.4 | 17.1 | 66.2 | 4.9 | 10.0 |
|  | February | 278.6 | 126.6 | 0.8 | 7.0 | 36.4 | 74.1 | 13.5 | 20.2 |
|  | March | 348.9 | 167.9 | 2.7 | 17.0 | 30.6 | 87.7 | 5.0 | 38.0 |
|  | April | 427.0 | 199.2 | 6.1 | 17.1 | 55.9 | 107.6 | 12.4 | 28.7 |
|  | *May | 441.2 | 205.9 | 1.2 | 34.2 | 59.0 | 112.0 | 8.8 | 20.1 |
|  | June | 502.1 | 183.6 | 2.1 | 24.9 | 51.0 | 179.5 | 17.0 | 44.0 |
|  | *July | 466.7 | 191.5 | 1.7 | 35.4 | 60.8 | 137.1 | 19.0 | 21.2 |
|  | August | 471.0 | 182.2 | 3.0 | 31.9 | 70.7 | 145.1 | 11.3 | 26.8 |
|  | September | 492.6 | 267.9 | 2.1 | 44.7 | 41.6 | 98.0 | 15.6 | 22.7 |
|  | *October | 357.1 | 189.5 | 0.8 | 23.6 | 44.9 | 72.3 | 10.0 | 16.0 |
|  | November | 341.2 | 189.2 | 1.1 | 35.4 | 26.3 | 62.1 | 7.9 | 19.2 |
|  | December | 319.8 | 177.3 | 1.0 | 11.1 | 12.7 | 95.4 | 7.5 | 14.8 |
| 1945 | *January | 315.9 | 190.4 | 0.8 | 13.1 | 27.0 | 59.4 | 4.3 | 20.9 |
|  | February | 258.0 | 138.4 | 2.1 | 5.2 | 21.7 | 56.8 | 7.2 | 26.6 |
|  | March | 378.4 | 212.9 | 4.5 | 23.9 | 27.9 | 79.1 | 4.9 | 25.2 |
|  | *April | 365.5 | 204.3 | 1.7 | 11.4 | 39.1 | 80.7 | 7.4 | 20.9 |
|  | May | 478.5 | 227.7 | 2.9 | 27.2 | 55.9 | 138.9 | 4.7 | 21.2 |
|  | June | 485.5 | 186.3 | 2.1 | 36.5 | 62.8 | 147.8 | 12.9 | 37.1 |
|  |  | 296.0 | 115.4 | 1.0 | 30.8 | 45.2 | 74.8 | 8.0 | 20.8 |
|  | August | 205.2 | 49.7 | 3.8 | 30.6 | 55.9 | 42.0 | 6.0 | 17.2 |

[^52]Source: Ministry of Fuel and Power

|  |  | Total | Aviation, motor and industrial spirit | White spirit | Kerosine | Gas /Diesel oils। | Fuel oil2 | Lubricating oils | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1940 |  | 1,507 | 280 | 32.3 | 60.9 | 344 | 275 | 144 | 370 |
| 1941 |  | 1,023 | 186 | 19.4 | 29.8 | 242 | 97 | 109 | 339 |
| 1942 |  | 893 | 275 | 2.0 | 6.9 | 61 | 156 | 150 | 243 |
| 1943 |  | 835 | 306 | 0.1 | 3.8 | 59 | 105 | 189 | 172 |
| 1944 |  | 1,148 | 470 | 0.1 | 2.4 | 83 | 131 | 210 | 251 |
| 1945 |  | 1,249 | 438 | 2.8 | 4.2 | 117 | 167 | 242 | 278 |
| Weekly averages |  |  |  |  |  |  |  |  |  |
| 1940 |  | 28.8 | 5.3 | 0.6 | 1.2 | 6.6 | 5.3 | 2.7 | 7.1 |
| 1941 |  | 19.6 | 3.6 | 0.4 | 0.6 | 4.6 | 1.8 | 2.1 | 6.5 |
| 1942 |  | 17.1 | 5.3 | - | 0.1 | 1.2 | 3.0 | 2.9 | 4.6 |
| 1943 |  | 16.0 | 5.9 | - | 0.1 | 1.1 | 2.0 | 3.6 | 3.3 |
| 1944 |  | 22.0 | 9.0 | 0.1 | 0.1 | 1.6 | 2.5 | 4.0 | 4.8 |
| 1945 |  | 24.0 | 8.4 | 0.1 | 0.1 | 2.3 | 3.2 | 4.6 | 5.3 |
| 1939 | September |  |  |  | 1.2 | 3.3 | 11.0 | 3.3 | 9.5 |
|  | *October | 32.1 | 6.2 | 0.4 | 1.4 | 3.6 | 9.2 | 4.9 | 6.4 |
|  | November | 31.3 | 6.3 | 0.4 | 2.2 | 4.2 | 6.8 | 2.7 | 8.7 |
|  | December | 33.5 | 7.2 | 0.3 | 2.1 | 3.3 | 10.6 | 2.9 | 7.1 |
| 1940 | * January | 30.3 | 4.5 | 0.4 | 1.8 | 3.1 | 11.5 | 3.3 | 5.7 |
|  | February | 28.5 | 5.9 | 0.7 | 1.4 | 4.1 | 8.1 | 3.2 | 5.1 |
|  | March | 28.4 | 4.9 | 0.7 | 1.9 | 4.0 | 7.1 | 3.4 | 6.4 |
|  | *April | 25.5 | 3.7 | 0.5 | 0.9 | 4.6 | 4.4 | 3.4 | 8.0 |
|  | May | 27.3 | 4.1 | 0.3 | 0.9 | 5.3 | 5.1 | 2.9 | 8.7 |
|  | June | 30.5 | 5.0 | 0.7 | 1.5 | 3.5 | 7.3 | $3 \cdot 8$ | 8.7 |
|  | *July | 26.0 | 4.8 | 0.6 | 1.0 | 3.4 | 5.2 | 3.6 | 7.4 |
|  | August | 24.0 | 4.0 | 0.6 | 0.9 | 3.3 | 5.5 | 2.1 | 7.6 |
|  | *September | 22.2 | 3.8 | 0.5 | 0.7 | 2.6 | 6.0 | 1.9 | 6.7 |
|  | October | 25.9 | 3.4 | 0.6 | 0.7 | 2.9 | 6.6 | 3.3 | 8.4 |
|  | November | 20.9 | 3.5 | 0.5 | 0.9 | 2.5 | 4.4 | 2.8 | 6.3 |
|  | *December | 19.8 | 2.7 | 0.7 | 1.0 | 2.2 | 4.0 | 2.9 | 6.3 |
| 1941 | January | 19.7 | 3.3 | 0.3 | 0.9 | 3.1 | 4.5 | 2.5 | 5.1 |
|  | February | 19.9 | 1.8 | 0.4 | 1.1 | 2.3 | 5.8 | 2.4 | 6.1 |
|  | *March | 26.9 | 3.6 | 0.5 | 1.1 | 3.2 | 6.5 | 4.0 | 8.0 |
|  | April | 25.0 | 2.6 | 0.7 | 0.5 | 3.3 | 6.2 | 3.2 | 8.5 |
|  | May | 20.1 | 2.5 | 0.5 | 1.1 | 2.4 | 4.7 | 2.2 | 6.7 |
|  | *June | 21.6 | 2.4 | 0.6 | 0.7 | 2.8 | 4.6 | 2.5 | 8.0 |
|  | July | 19.0 | 2.2 | 0.5 | 0.5 | 2.3 | 4.2 | 2.7 | 6.6 |
|  | August | 16.0 | 1.5 | 0.3 | 0.2 | 1.6 | 3.8 | 2.3 | 6.3 |
|  | *September | 16.6 | 2.6 | 0.1 | 0.4 | 1.6 | 3.2 | 2.5 | 6.2 |
|  | October | 15.5 | 2.2 | 0.4 | 0.1 | 1.2 | 3.9 | 1.4 | 6.3 |
|  | November | 14.6 | 2.6 | 0.2 | 0.2 | 1.1 | 3.6 | 1.1 | 5.8 |
|  | *December | 14.3 | 3.4 | 0.2 | 0.1 | 1.2 | 3.5 | 0.9 | 5.0 |
| 1942 | January | 12.5 | 3.4 | 0.1 | 0.2 | 0.9 | 2.6 | 1.4 | 3.9 |
|  | February | 13.4 | 4.5 | . | 0.2 | 0.5 | 2.9 | 1.6 | 3.7 |
|  | *March | 15.2 | 4.4 |  | 0.2 | 1.0 | 2.9 | 1.6 | 5.1 |
|  | April | 14.9 | 3.2 | - | 0.1 | 0.4 | 3.0 | 3.4 | 4.8 |
|  | May | 13.4 | 3.1 | - | 0.3 | 0.7 | 2.7 | 2.0 | 4.6 |
|  | *June | 15.9 | 4.3 | - | 0.3 | 1.0 | 2.8 | 2.1 | 5.4 |
|  | July | 15.6 | 5.1 | - | - | 0.5 | 3.1 | 2.2 | 4.7 |
|  | *August | 14.6 | 3.5 | - | 0.1 | 1.3 | 2.4 | 3.1 | 4.2 |
|  | September | 17.9 | 5.4 | - | - | 0.9 | 2.8 | 3.0 | 5.8 |
|  | October | 17.6 | 4.5 | 0.2 | - | 1.4 | 3.4 | 2.8 | 5.3 |
|  | *November | 17.5 | 3.6 | - | - | 1.6 | 2.8 | 5.0 | 4.5 |
|  | December | 16.0 | 3.4 | 0.2 | 0.1 | 1.6 | 2.0 | 4.6 | 4.1 |

### 5.14 <br> Production of petroleum products from imported crude and process oils

|  |  | Total | Aviation, motor and industrial spirit | White spirit | Kerosine | Gas /Diesel oils। | Fuel oil2 |  | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 | January | 15.3 | 5.7 | - | - | 1.1 | 1.8 | 3.1 | 3.6 |
|  | February | 13.7 | 4.7 | - | - | 0.9 | 1.9 | 2.6 | 3.6 |
|  | *March | 15.1 | 4.6 | - | 0.3 | 1.2 | 1.9 | 3.3 | 3.8 |
|  | April | 12.2 | 4.3 | - | 0.2 | 0.2 | 2.0 | 2.8 | 2.7 |
|  | * May | 11.7 | 2.4 | - | - | 0.7 | 1.9 | 3.9 | 2.8 |
|  | June | 12.3 | 5.0 | - | - | 0.6 | 1.5 | 3.1 | 2.1 |
|  | July | 14.0 | 5.8 | - | - | 0.7 | 1.7 | 2.8 | 3.0 |
|  | * August | 13.7 | 4.1 | - | - | 0.9 | 1.8 | 3.7 | 3.2 |
|  | September | 17.6 | 6.2 | - | 0.1 | 0.7 | 2.6 | 4.2 | 3.8 |
|  | October | 17.6 | 5.9 | - | - | 1.0 | 2.7 | 3.7 | 4.3 |
|  | *November | 17.9 | 5.8 | - | - | 0.9 | 2.7 | 4.8 | 3.7 |
|  | December | 19.5 | 7.1 | - | - | 0.8 | 2.5 | 5.1 | 4.0 |
| 1944 | *January | 18.5 | 7.2 | - | - | 0.7 | 2.8 | 4.1 | 3.7 |
|  | February | 20.0 | 7.7 | - | - | 1.0 | 2.7 | 4.4 | 4.2 |
|  | March | 21.5 | 9.0 | - | - | 1.1 | 3.5 | 3.1 | 4.8 |
|  | April | 21.8 | 7.7 | - | - | 1.3 | 3.1 | 4.8 | 4.9 |
|  | * May | 22.0 | 7.6 | - | - | 0.9 | 3.4 | 4.6 | 5.5 |
|  | June | 22.3 | 6.7 | - | - | 1.2 | 3.6 | 4.7 | 6.1 |
|  | *July | 24.0 | 9.0 | - | 0.1 | 1.2 | 3.8 | 4.1 | 5.8 |
|  | August | 22.7 | 9.1 | - | - | 0.8 | 3.7 | 4.2 | 4.9 |
|  | September | 23.2 | 8.9 | - | 0.1 | 0.9 | 4.4 | 3.0 | 5.9 |
|  | *October | 20.6 | 8.4 | - | - | 0.8 | 3.7 | 3.8 | 3.9 |
|  | November | 19.8 | 7.8 | - | 0.1 | 0.7 | 3.5 | 3.5 | 4.2 |
|  | December | 20.5 | 9.6 | - | - | 0.9 | 3.1 | 3.4 | 3.5 |
| 1945 | * January | 20.6 | 9.0 | - | - | 0.7 | 3.8 | 4.3 | 2.8 |
|  | February | 21.2 | 8.6 | - | 0.1 | 0.8 | 3.8 | 4.6 | 3.3 |
|  | March | 21.2 | 7.9 | - | 0.1 | 1.2 | 3.5 | 3.4 | 5.1 |
|  | *April | 22.0 | 8.6 | 0.1 | 0.1 | 1.4 | 3.5 | 4.1 | 4.2 |
|  | May | 19.2 | 6.6 | - | 0.1 | 1.0 | 3.0 | 3.4 | 5.1 |
|  | June | 23.9 | 8.6 | - | 0.1 | 1.1 | 3.8 | 3.6 | 6.7 |
|  | *July | 22.9 | 9.2 | - | 0.1 | 1.1 | 3.3 | 4.2 | 5.0 |
|  | August | 23.4 | 7.1 | 0.1 | - | 1.5 | 3.8 | 4.1 | 6.8 |

[^53]Source: Ministry of Fuel and Power
5. 5 Production from indigenous materials of petroleum products and substitutes

Thousand tons

|  |  | Total | Aviation, motor and industrial spirit | Gas /Diesel oils। | Fuel oil2 | Lubricating oils | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual totals |  |  |  |  |  |  |  |
| 1940 |  | 639 | 401 | 72.8 | 158 | - | 7.7 |
| 1941 |  | 765 | 350 | 80.8 | 327 |  | 5.0 |
| 1942 |  | 1,009 | 380 | 96.7 | 520 | 6.8 | 4.0 |
| 1943 |  | 1,113 | 385 | 108.7 | 594 | 20.5 | 5.7 |
| 1944 |  | 1,089 | 401 | 97.8 | 564 | 20.1 | 3.1 |
| 1945 |  | 1,002 | 389 | 84.2 | 514 | 12.0 |  |
| Weekly averages |  |  |  |  |  |  |  |
| 1940 |  | 12.2 | 7.7 | 1.4 | 3.0 | - | 0.1 |
| 1941 |  | 14.7 | 6.7 | 1.6 | 6.3 | - | 0.1 |
| 1942 |  | 19.4 | 7.3 | 1.9 | 10.0 | 0.1 | 0.1 |
| 1943 |  | 21.3 | 7.4 | 2.1 | 11.4 | 0.4 | , |
| 1944 |  | 20.8 | 7.6 | 1.9 | 10.8 | 0.4 | 0.1 |
| 1945 |  | 19.2 | 7.5 | 1.6 | 9.8 | 0.2 | 0.1 |
| 1939 | September | 5.0 | 2.6 | 1.2 | 0.9 | - | 0.3 |
|  | *October | 7.4 | 4.8 | 1.2 | 1.3 | - | 0.1 |
|  | November | 10.5 | 7.6 | 1.4 | 1.4 | - | 0.1 |
|  | December | 10.0 | 7.3 | 1.5 | 1.1 | - | 0.1 |
| 1940 | *January | 9.0 | 6.5 | 1.3 | 1.1 | - | 0.1 |
|  | February | 9.9 | 6.9 | 1.6 | 1.3 | - | 0.1 |
|  | March | 10.3 | 7.8 | 1.4 | 1.1 | - | - |
|  | *April | 12.1 | 9.1 | 1.2 | 1.8 | - | - |
|  | May | 13.5 | 9.4 | 1.5 | 2.4 | - | 0.2 |
|  | June | 11.4 | 7.5 | 1.3 | 2.5 | - | 0.1 |
|  | *July | 12.7 | 6.9 | 1.6 | 4.0 | - | 0.2 |
|  | August | 12.9 | 7.4 | 1.4 | 3.9 | - | 0.2 |
|  | *September | 12.5 | 7.5 | 1.1 | 3.8 | - | 0.1 |
|  | October | 13.9 | 7.5 | 1.5 | 4.7 | - | 0.2 |
|  | November | 14.4 | 7.5 | 1.4 | 5.3 | - | 0.2 |
|  | *December | 13.1 | 6.9 | 1.3 | 4.8 | - | 0.1 |
| 1941 | January | 13.6 | 6.9 | 1.5 | 5.1 | - | 0.1 |
|  | February | 13.9 | 6.3 | 1.7 | 5.8 | - | 0.1 |
|  | *March | 13.2 | 6.4 | 1.4 | 5.3 | - | 0.1 |
|  | April | 13.1 | 6.3 | 1.6 | 5.1 | - | 0.1 |
|  | May | 13.5 | 6.8 | 1.6 | 5.0 | - | 0.1 |
|  | *June | 13.1 | 6.8 | 1.6 | 4.6 | - | 0.1 |
|  | July | 12.9 | 6.5 | 1.6 | 4.7 | - | 0.1 |
|  | August | 14.7 | 6.7 | 1.5 | 6.4 | - | 0.1 |
|  | *September | 15.3 | 5.8 | 1.8 | 7.6 | - | 0.1 |
|  | October | 17.2 | 7.2 | 1.6 | 8.3 | - | 0.1 |
|  | November | 18.1 | 7.0 | 1.8 | 9.2 | - | 0.1 |
|  | *December | 16.9 | 7.0 | 1.7 | 8.1 | - | 0.1 |
| 1942 | January | 17.2 | 7.0 | 1.8 | 8.3 | - | 0.1 |
|  | February | 18.5 | 7.6 | 1.6 | 9.2 | - | 0.1 |
|  | *March | 19.2 | 7.7 | 1.6 | 9.8 | - | 0.1 |
|  | April | 18.3 | 7.7 | 2.1 | 8.4 | - | 0.1 |
|  | May | 17.3 | 7.1 | 1.6 | 8.4 | 0.1 | 0.1 |
|  | *June | 19.0 | 7.2 | 2.0 | 9.5 | 0.2 | 0.1 |
|  | July | 19.2 | 6.8 | 2.2 | 9.9 | 0.2 | 0.1 |
|  | *August | 17.4 | 6.8 | 2.0 | 8.3 | 0.2 | 0.1 |
|  | September | 20.9 | 6.4 | 2.0 | 12.2 | 0.1 | 0.2 |
|  | October | 20.1 | 6.7 | 1.5 | 11.2 | 0.6 | 0.1 |
|  | *November | 22.9 | 7.6 | 2.0 | 13.1 | 0.1 | 0.1 |
|  | December | 20.0 | 6.8 | 1.6 | 11.3 | 0.2 | 0.1 |

## 5. $\sqrt{5}$ Production from indigenous materials of petroleum products and substitutes

|  |  | Total | Aviation, motor and industrial spirit। | Gas /Diesel oils | Fuel oil ${ }^{2}$ | Lubricating oils | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 | lanuary | 21.8 | 7.2 | 1.7 | 12.7 | 0.1 | 0.1 |
|  | February | 23.8 | 7.4 | 2.3 | 13.9 | 0.1 | 0.1 |
|  | *March | 22.4 | 7.5 | 2.2 | 11.9 | 0.8 | - |
|  | April | 19.5 | 7.3 | 1.9 | 10.1 | 0.2 | - |
|  | *May | 21.2 | 7.7 | 2.0 | 11.3 | 0.1 | 0.1 |
|  | June | 20.2 | 7.3 | 2.1 | 10.5 | 0.2 | 0.1 |
|  | July | 18.0 | 7.2 | 2.2 | 8.3 | 0.2 | 0.1 |
|  | *August | 17.6 | 6.2 | 1.8 | 9.4 | 0.1 | 0.1 |
|  | September | 19.8 | 7.1 | 1.6 | 10.6 | 0.4 | 0.1 |
|  | October | 20.7 | 6.8 | 2.4 | 10.9 | 0.4 | 0.2 |
|  | *November | 23.6 | 7.7 | 2.2 | 13.3 | 0.3 | 0.1 |
|  | December | 21.6 | 6.6 | 1.8 | 12.3 | 0.8 | 0.1 |
| 1944 | *lanuary | 22.5 | 7.1 | 1.8 | 13.2 | 0.2 | 0.2 |
|  | February | 21.7 | 7.5 | 2.0 | 11.9 | 0.2 | 0.1 |
|  | March | 22.4 | 8.4 | 1.9 | 11.5 | 0.5 | 0.1 |
|  | April | 19.6 | 7.7 | 1.8 | 9.1 | 0.9 | 0.1 |
|  | *May | 20.5 | 7.7 | 2.0 | 10.5 | 0.1 | 0.2 |
|  | June | 20.7 | 7.7 | 2.0 | 10.2 | 0.5 | 0.3 |
|  | *July | 19.2 | 7.8 | 1.6 | 9.3 | 0.4 | 0.1 |
|  | August | 17.9 | 7.9 | 1.7 | 7.8 | 0.4 | 0.1 |
|  | September | 18.7 | 7.2 | 1.7 | 9.5 | 0.1 | 0.2 |
|  | *October | 21.2 | 7.5 | 1.7 | 11.4 | 0.6 | - |
|  | November | 24.5 | 8.3 | 1.9 | 13.6 | 0.6 | 0.1 |
|  | December | 21.9 | 7.9 | 1.6 | 12.0 | 0.4 | - |
| 1945 | *January | 20.2 | 6.6 | 1.5 | 11.6 | 0.4 | 0.1 |
|  | February | 20.7 | 7.5 | 1.7 | 11.2 | 0.2 | 0.1 |
|  | March | 21.5 | 7.4 | 1.8 | 11.8 | 0.4 | 0.1 |
|  | *April | 19.3 | 7.5 | 1.4 | 10.0 | 0.3 | 0.1 |
|  | May | 16.7 | 7.1 | 1.3 | 8.0 | 0.3 | - |
|  | June | 17.3 | 7.5 | 1.7 | 7.9 | 0.1 | 0.1 |
|  | *July | 15.0 | 6.3 | 1.5 | 6.7 | 0.4 | 0.1 |
|  | August | 13.3 | 5.8 | 1.0 | 6.4 | - | 0.1 |

[^54]Source: Ministry of Fuel and Power
5. 16 Deliveries into consumption of petroleum products

Thousand tons

|  |  | Total | Aviation, motor and industrial spirit | White spirit | Kerosine | Gas /Diesel oils | Fuel oill | Lubricating oils | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1940 |  | 11,649 | 3,786 | 82 | 874 | 1,448 | 4,562 | 517 | 380 |
| 1941 |  | 12,326 | 4,433 | 90 | 943 | 1,547 | 4,318 | 647 | 348 |
| 1942 |  | 12,603 | 4,367 | 101 | 1,012 | 1,575 | 4,672 | 628 | 248 |
| 1943 |  | 13,204 | 5,069 | 93 | 1,067 | 1,510 | 4,696 | 592 | 177 |
| 1944 |  | 19,447 | 8,519 | 106 | 1,134 | 1,745 | 6,981 | 699 | 263 |
| 1945 |  | 15,358 | 5,992 | 113 | 1,263 | 1.786 | 5,408 | 553 | 243 |
| Weekly averages 72.407807078 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 1941 |  | 236.4 | 85.0 | 1.7 | 18.1 | 29.7 | 82.8 | 12.4 | 6.7 |
| 1942 |  | 241.7 | 83.8 | 1.9 | 19.4 | 30.2 | 89.6 | 12.0 | 4.8 |
| 1943 |  | 253.2 | 97.2 | 1.8 | 20.5 | 28.9 | 90.0 | 11.4 | 3.4 |
| 1944 |  | 371.9 | 162.9 | 2.0 | 21.7 | 33.4 | 133.5 | 13.4 | 5.0 |
| 1945 |  | 294.5 | 114.9 | 2.2 | 24.2 | 34.2 | 103.7 | 10.6 | 4.7 |
| 1939 | September | 266.2 | 97.8 | 1.6 | 16.8 | 32.6 | 89.0 | 17.1 | 11.3 |
|  | * October | 199.3 | 62.4 | 0.7 | 15.2 | 24.9 | 71.8 | 15.6 | 8.7 |
|  | November | 201.7 | 64.1 | 1.4 | 15.0 | 28.3 | 74.6 | 9.8 | 8.5 |
|  | December | 205.6 | 59.3 | 1.5 | 15.9 | 29.0 | 80.4 | 12.2 | 7.3 |
| 1940 | *January | 207.2 | 58.2 | 1.6 | 22.5 | 32.0 | 78.0 | 9.9 | 5.0 |
|  | February | 208.1 | 59.1 | 1.2 | 19.7 | 33.0 | 80.1 | 9.7 | 5.3 |
|  | March | 209.4 | 64.9 | 1.4 | 17.2 | 29.6 | 79.9 | 9.2 | 7.2 |
|  | * April | 245.8 | 72.8 | 1.9 | 18.5 | 28.5 | 104.3 | 11.4 | 8.6 |
|  | May | 231.4 | 71.6 | 2.4 | 14.0 | 25.2 | 97.5 | 11.9 | 8.8 |
|  | June | 227.6 | 72.7 | 1.8 | 12.2 | 28.2 | 91.7 | 11.4 | 9.6 |
|  | * July | 214.3 | 77.3 | 1.9 | 12.1 | 26.9 | 79.7 | 8.9 | 7.5 |
|  | August | 213.4 | 76.8 | 1.4 | 14.7 | 27.6 | 76.5 | 9.1 | 7.3 |
|  | * September | 223.5 | 79.4 | 1.4 | 16.9 | 26.4 | 84.5 | 8.1 | 6.8 |
|  | October | 223.5 | 78.8 | 1.3 | 17.8 | 29.6 | 77.5 | 10.4 | 8.1 |
|  | November | 226.5 | 76.4 | 1.6 | 16.3 | 30.7 | 83.0 | 10.6 | 7.9 |
|  | * December | 221.1 | 77.2 | 1.4 | 18.3 | 31.9 | 76.0 | 9.6 | 6.7 |
| 1941 | January | 221.6 | 71.2 | 1.2 | 20.5 | 32.8 | 81.0 | 9.8 | 5.1 |
|  | February | 239.4 | 75.8 | 1.5 | 18.5 | 36.2 | 88.9 | 11.7 | 6.8 |
|  | * March | 256.1 | 83.6 | 1.5 | 20.4 | 37.4 | 93.4 | 11.6 | 8.2 |
|  | April | 255.6 | 88.8 | 1.5 | 21.8 | 32.2 | 92.5 | 10.5 | 8.3 |
|  | May | 254.1 | 92.9 | 1.7 | 17.6 | 31.7 | 90.0 | 12.9 | 7.3 |
|  | * June | 226.7 | 89.8 | 1.6 | 12.6 | 28.0 | 75.4 | 11.9 | 7.4 |
|  | July | 226.0 | 88.3 | 1.8 | 13.0 | 27.7 | 74.4 | 13.5 | 7.3 |
|  | August | 222.7 | 87.4 | 1.7 | 14.8 | 24.9 | 75.0 | 12.2 | 6.7 |
|  | * September | 234.8 | 90.7 | 1.9 | 18.7 | 28.1 | 76.8 | 12.2 | 6.4 |
|  | October | 231.2 | 84.6 | 2.1 | 21.6 | 28.7 | 74.8 | 13.2 | 6.2 |
|  | November | 236.6 | 83.1 | 2.2 | 20.2 | 30.7 | 82.6 | 11.9 | 5.9 |
|  | * December | 225.0 | 80.3 | 1.9 | 17.9 | 29.8 | 78.6 | 11.7 | 4.8 |
| 1942 | January | 231.6 | 76.1 | 1.9 | 18.7 | 32.5 | 86.7 | 11.7 | 4.0 |
|  | February | 243.7 | 80.8 | 1.9 | 19.2 | 37.0 | 89.9 | 10.8 | 4.1 |
|  | * March | 256.8 | 83.6 | 2.2 | 22.5 | 36.3 | 92.0 | 15.2 | 5.0 |
|  | April | 248.3 | 85.5 | 2.0 | 25.8 | 31.2 | 86.5 | 12.2 | 5.1 |
|  | May | 248.5 | 86.9 | 2.3 | 19.6 | 29.5 | 91.8 | 13.3 | 5.1 |
|  | * June | 235.2 | 89.7 | 1.7 | 14.0 | 29.2 | 81.7 | 14.3 | 4.6 |
|  | July | 232.0 | 85.0 | 2.0 | 14.0 | 29.3 | 86.2 | 10.8 | 4.7 |
|  | * August | 232.9 | 83.9 | 1.9 | 17.5 | 30.4 | 84.1 | 10.4 | 4.7 |
|  | September | 245.4 | 87.5 | 1.9 | 20.8 | 30.8 | 88.7 | 10.1 | 5.6 |
|  | October | 265.1 | 87.2 | 2.0 | 23.3 | 33.6 | 101.9 | 11.7 | 5.4 |
|  | *November | 232.7 | 83.0 | 2.0 | 20.5 | 33.3 | 76.6 | 12.4 | 4.9 |
|  | December | 222.9 | 75.4 | 1.7 | 18.0 | 29.9 | 83.9 | 10.2 | 3.8 |

## 5. 6 Deliveries into consumption of petroleum products

continued
Thousand tons

|  |  | Total | Aviation, motor and industrial spirit | White spirit | Kerosine | Gas/Diesel oils | Fuel oill | Lubricating oils | Bitumen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 | lanuary | 228.9 | 74.4 | 1.7 | 19.0 | 32.3 | 87.7 | 10.2 | 3.6 |
|  | February | 236.3 | 82.5 | 1.6 | 20.0 | 32.1 | 85.8 | 10.5 | 3.8 |
|  | * March | 251.7 | 91.9 | 1.8 | 29.4 | 31.9 | 81.7 | 11.5 | 3.5 |
|  | April | 234.5 | 88.3 | 1.6 | 23.2 | 28.1 | 80.6 | 10.3 | 2.4 |
|  | May | 249.3 | 96.5 | 1.8 | 17.0 | 29.7 | 88.8 | 12.6 | 2.9 |
|  | June | 259.8 | 100.2 | 1.6 | 14.4 | 29.4 | 100.2 | 11.5 | 2.5 |
|  | July | 231.2 | 98.0 | 1.9 | 16.1 | 27.1 | 74.6 | 10.9 | 2.6 |
|  | *August | 243.3 | 106.2 | 1.7 | 19.8 | 25.8 | 76.4 | 10.3 | 3.1 |
|  | September | 259.2 | 109.5 | 1.9 | 22.5 | 29.9 | 79.6 | 11.8 | 4.0 |
|  | October | 272.0 | 104.6 | 2.0 | 24.5 | 33.8 | 90.9 | 11.8 | 4.4 |
|  | November | 281.8 | 104.4 | 2.1 | 21.1 | 34.4 | 102.7 | 12.7 | 4.4 |
|  | * December | 276.6 | 105.1 | 1.6 | 18.4 | 35.2 | 101.5 | 11.3 | 3.5 |
| 1944 | * January | 305.1 | 117.1 | 1.9 | 21.2 | 38.4 | 108.7 | 13.7 | 4.1 |
|  | February | 337.1 | 135.9 | 2.1 | 23.3 | 38.1 | 118.6 | 14.7 | 4.4 |
|  | March | 374.8 | 156.6 | 2.2 | 29.5 | 42.1 | 124.0 | 15.2 | 5.2 |
|  | April | 386.4 | 164.5 | 2.0 | 26.7 | 38.3 | 134.9 | 15.1 | 4.9 |
|  | * May | 437.9 | 201.8 | 2.2 | 20.9 | 37.8 | 151.5 | 17.4 | 6.3 |
|  | June | 447.9 | 212.2 | 2.3 | 17.0 | 35.8 | 156.2 | 18.1 | 6.3 |
|  | * July | 392.3 | 181.2 | 1.9 | 16.4 | 31.1 | 141.7 | 13.9 | 6.1 |
|  | August | 384.7 | 178.8 | 1.8 | 22.3 | 30.0 | 136.2 | 10.5 | 5.1 |
|  | September | 372.2 | 165.9 | 2.0 | 22.5 | 32.0 | 132.4 | 11.5 | 5.9 |
|  | * October | 368.4 | 160.5 | 2.2 | 23.1 | 36.4 | 131.4 | 10.3 | 4.5 |
|  | November | 348.6 | 148.1 | 2.0 | 21.2 | 39.0 | 123.9 | 10.3 | 4.1 |
|  | December | 329.5 | 137.9 | 1.9 | 18.5 | 36.5 | 120.1 | 11.1 | 3.5 |
| 1945 | * January | 338.6 | 136.9 | 1.9 | 21.4 | 39.4 | 126.8 | 9.5 | 2.7 |
|  | February | 384.3 | 166.5 | 2.3 | 25.2 | 44.4 | 131.5 | 10.7 | 3.7 |
|  | March | 411.5 | 186.4 | 2.9 | 38.4 | 39.5 | 126.1 | 13.0 | 5.2 |
|  | * April | 370.0 | 157.9 | 2.4 | 30.2 | 35.1 | 129.1 | 10.6 | 4.7 |
|  | May | 318.1 | 119.2 | 2.0 | 18.9 | 34.7 | 131.0 | 7.9 | 4.4 |
|  | June | 274.7 | 106.9 | 2.4 | 18.0 | 33.3 | 98.5 | 10.2 | 5.4 |
|  | * July | 258.2 | 103.3 | 2.4 | 19.5 | 32.3 | 84.0 | 10.6 | 6.1 |
|  | August | 233.5 | 85.9 | 1.8 | 22.4 | 33.2 | 76.0 | 8.9 | 5.3 |

I. Including products used for refinery fuel.

Source: Ministry of Fuel and Power

- Average of five weeks.

5. 7 Deliveries into civilian consumption of motor spirit ${ }^{\text { }}$

|  |  | Great Britain |  |  |  |  |  | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Private cars and motor cycles |  |  | Commercial vehicles | Industrial uses | Agricultural uses |  |
|  |  |  | Basic ration ${ }^{2}$ | Supplementary ration |  |  |  |  |
| Annual totals |  |  |  |  |  |  |  |  |
| 1940 |  | 2,939 | 359 | 464 | 1,696 | 314 | 106 | 56 |
| 1941 |  | 3,001 | 336 | 429 | 1,783 | 347 | 106 | 68 |
| 1942 |  | 2,501 | 116 | 357 | 1,640 | 286 | 102 | 67 |
| 1943 |  | 2,139 | 4 | 296 | 1,545 | 194 | 100 | 58 |
| 1944 |  | 2,264 | 5 | 323 | 1,605 | 215 | 116 | 57 |
| 1945 |  | 2,734 | 217 | 430 | 1,742 | 204 | 141 | 66 |
| Weekly averages ${ }^{3}$ |  |  |  |  |  |  |  |  |
| 1940 |  | 56.2 | 6.9 | 8.9 | 32.4 | 6.0 | 2.0 | 1.1 |
| 1941 |  | 57.6 | 6.5 | 8.2 | 34.2 | 6.7 | 2.0 | 1.3 |
| 1942 |  | 48.0 | 2.2 | 6.8 | 31.5 | 5.5 | 2.0 | 1.3 |
| 1943 |  | 41.0 | 0.1 | 5.7 | 29.6 | 3.7 | 1.9 | 1.1 |
| 1944 |  | 43.3 | 0.1 | 6.2 | 30.7 | 4.1 | 2.2 | 1.1 |
| 1945 |  | 52.4 | 4.2 | 8.2 | 33.4 | 3.9 | 2.7 | 1.3 |
| 1940 | January | 50.6 | 7.8 | 8.1 | 29.2 | 3.8 | 1.7 | 1.0 |
|  | February | 52.1 | 6.6 | 8.4 | 30.5 | 4.6 | 2.0 | 1.0 |
|  | March | 55.1 | 7.0 | 9.0 | 32.2 | 4.8 | 2.1 | 1.0 |
|  | April | 61.9 | 8.0 | 10.4 | 35.7 | 5.5 | 2.3 | 1.3 |
|  | May | 59.0 | 7.6 | 10.0 | 34.0 | 5.2 | 2.2 | 1.1 |
|  | June | 53.4 | 7.0 | 9.1 | 29.9 | 5.3 | 2.1 | 1.0 |
|  | July | 57.6 | 7.6 | 9.9 | 32.2 | 5.7 | 2.2 | 1.2 |
|  | August | 56.1 | 7.0 | 9.4 | 31.8 | 5.7 | 2.2 | 1.1 |
|  | September | 55.2 | 6.8 | 9.2 | 31.4 | 5.7 | 2.1 | 11.1 |
|  | October | 57.9 | 7.0 | 9.2 | 33.8 | 5.7 | 2.2 | 1.1 |
|  | November | 58.9 | 6.7 | 9.0 | 35.5 | 5.5 | 2.2 | 1.1 |
|  | December | 56.3 | 6.5 | 8.7 | 33.8 | 5.2 | 2.1 | 1.1 |
| 1941 | January | 54.8 | 6.5 | 8.6 | 32.8 | 5.0 | 1.9 | 1.1 |
|  | February | 56.5 | 6.3 | 9.0 | 33.7 | 5.4 | 2.1 | 1.2 |
|  | March | 58.2 | 6.6 | 9.3 | 34.7 | 5.4 | 2.2 | 1.3 |
|  | April | 61.8 | 7.4 | 9.4 | 37.3 | 5.5 | 2.2 | 1.4 |
|  | May | 63.5 | 7.6 | 9.7 | 38.2 | 5.7 | 2.3 | 1.5 |
|  | June | 57.9 | 7.7 | 8.4 | 34.3 | 5.3 | 2.2 | 1.4 |
|  | July | 59.8 | 7.9 | 8.7 | 35.4 | 5.6 | 2.2 | 1.4 |
|  | August | 56.1 | 7.1 | 8.0 | 34.1 | 4.8 | 2.1 | 1.3 |
|  | September | 59.0 | 7.6 | 8.4 | 35.6 | 5.2 | 2.2 | 1.4 |
|  | October | 55.5 | 3.8 | 8.4 | 35.9 | 5.2 | 2.2 | 1.3 |
|  | November | 52.7 | 6.2 | 7.6 | 32.4 | 4.5 | 2.0 | 1.3 |
|  | December | 53.6 | 5.6 | 7.6 | 33.8 | 4.7 | 1.9 | 1.3 |
| 1942 | January | 50.8 | 5.7 | 7.4 | 31.3 | 4.5 | 1.9 | 1.3 |
|  | February | 52.3 | 5.6 | 7.6 | 32.1 | 4.9 | 2.1 | 1.3 |
|  | March | 52.3 | 5.6 | 7.6 | 32.1 | 4.9 | 2.1 | 1.3 |
|  | April | 51.1 | 2.9 | 7.1 | 33.9 | 5.1 | 2.1 | 1.4 |
|  | May | 48.5 | 2.7 | 6.8 | 32.2 | 4.8 | 2.0 | 1.4 |
|  | June | 51.1 | 1.7 | 7.6 | 34.8 | 4.9 | 2.1 | 1.4 |
|  | July | 47.7 | 1.6 | 7.1 | 32.4 | 4.6 | 2.0 | 1.3 |
|  | August | 42.0 | 0.7 | 7.1 | 27.5 | 4.6 | 2.1 | 1.2 |
|  | September | 46.4 | 0.6 | 7.2 | 32.2 | 4.3 | 2.1 | 1.3 |
|  | October | 46.2 | 0.6 | 7.1 | 32.1 | 4.3 | 2.1 | 1.3 |
|  | November | 43.7 | 0.1 | 6.8 | 30.6 | 4.2 | 2.0 | 1.2 |
|  | December | 43.5 | 0.1 | 6.7 | 30.9 | 3.9 | 1.9 | 1.2 |

### 5.17

continued

|  |  | Total | Great Britain |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | vate cars otor cycles |  |  |  | Northern Ireland |
|  |  | $\begin{aligned} & \text { Basic } \\ & \text { ration² } \end{aligned}$ | Supplementary ration | vehicles | uses | uses |  |
| 1943 | January |  | 40.5 | 0.1 | 6.2 | 28.7 | 3.7 | 1.8 | 1.1 |
|  | February |  | 42.6 | 0.1 | 6.2 | 30.5 | 3.8 | 2.0 | 1.1 |
|  | March | 43.9 | 0.1 | 6.4 | 31.5 | 3.9 | 2.0 | 1.2 |
|  | April | 40.9 | 0.1 | 6.0 | 29.2 | 3.7 | 1.9 | 1.1 |
|  | May | 41.0 | 0.1 | 5.8 | 29.4 | 3.7 | 2.0 | 1.1 |
|  | June | 40.2 | 0.1 | 5.7 | 28.8 | 3.7 | 1.9 | 1.1 |
|  | July | 40.1 | 0.1 | 5.7 | 28.7 | 3.7 | 1.9 | 1.0 |
|  | August | 38.7 | 0.1 | 5.5 | 27.5 | 3.5 | 2.1 | 1.0 |
|  | September | 41.6 | 0.1 | 5.9 | 29.5 | 3.9 | 2.2 | 1.1 |
|  | October | 40.4 | 0.1 | 5.8 | 28.6 | 3.8 | 2.1 | 1.1 |
|  | November | 42.2 | 0.1 | 5.8 | 30.3 | 3.9 | 2.1 | 1.2 |
|  | December | 40.3 | 0.1 | 5.6 | 29.0 | 3.6 | 2.0 | 1.1 |
| 1944 |  | 39.9 | 0.1 | 5.7 | 28.3 | 3.8 | 2.0 | 1.1 |
|  | February | 43.5 | 0.1 | 6.2 | 30.9 | 4.1 | 2.2 | 1.1 |
|  | March | 45.4 | 0.1 | 6.5 | 32.2 | 4.3 | 2.3 | 1.2 |
|  | April | 40.9 | 0.1 | 5.8 | 29.0 | 4.0 | 2.0 | 1.1 |
|  | May | 43.9 | 0.1 | 6.3 | 30.9 | 4.3 | 2.3 | 1.1 |
|  | June | 44.4 | 0.1 | 6.4 | 31.4 | 4.2 | 2.3 | 1.1 |
|  | July | 41.2 | 0.1 | 5.9 | 29.1 | 3.9 | 2.2 | 1.0 |
|  | August | 42.9 | 0.1 | 6.2 | 30.4 | 3.9 | 2.3 | 1.1 |
|  | September | 44.1 | 0.1 | 6.5 | 31.0 | 4.1 | 2.4 | 1.1 |
|  | October | 44.4 | 0.1 | 6.5 | 31.2 | 4.2 | 2.4 | 1.1 |
|  | November | 47.5 | 0.1 | 7.0 | 33.6 | 4.2 | 2.6 | 1.2 |
|  | December | 40.7 | 0.1 | 6.0 | 28.8 | 3.6 | 2.2 | 1.0 |
| 1945 | January | 42.8 | 0.1 | 6.5 | 30.0 | 3.9 | 2.3 | 1.0 |
|  | February | 45.7 | 0.1 | 6.9 | 32.0 | 4.2 | 2.5 | 1.1 |
|  | March | 47.3 | 0.1 | 7.1 | 33.3 | 4.3 | 2.5 | 1.2 |
|  | April | 44.8 | 0.1 | 6.8 | 31.5 | 4.0 | 2.4 | 1.1 |
|  | May | 45.3 | 0.1 | 8.1 | 30.8 | 3.9 | 2.4 | 1.1 |
|  | June | 51.2 | 5.2 | 8.1 | 31.1 | 4.0 | 2.8 | 1.1 |
|  | July | 54.5 | 5.9 | 8.4 | 33.2 | 3.9 | 3.1 | 1.3 |
|  | August | 56.8 | 5.8 | 9.5 | 33.9 | 4.2 | 3.4 | 1.4 |

[^55]Source: Ministry of Fuel and Power

### 5.18 <br> Deliveries into consumption of fuel for diesel-engined road vehicles'

Thousand tons

|  | Total | Great Britain |  |  |  | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Public service vehicles | Goods vehicles | Others |  |
| Annual totals |  |  |  |  |  |  |
| 1940 | 429 | 426 | 314 | 103 | 8.8 | 3.6 |
| 1941 | 467 | 463 | 337 | 117 | 8.7 | 4.3 |
| 1942 | 473 | 469 | 338 | 122 | 8.6 | 4.5 |
| 1943 | 452 | 448 | 329 | 110 | 8.5 | 4.2 |
| 1944 | 499 | 495 | 342 | 143 | 9.7 | 4.4 |
| 1945 | 511 | 506 | 382 | 114 | 10.2 | 4.9 |

Weekly averages ${ }^{2}$

| 1940 |  | 8.2 | 8.1 | 6.0 | 2.0 | 0.1 | 0.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941 |  | 9.0 | 8.9 | 6.5 | 2.2 | 0.2 | 0.1 |
| 1942 |  | 9.1 | 9.0 | 6.5 | 2.3 | 0.2 | 0.1 |
| 1943 |  | 8.7 | 8.6 | 6.3 | 2.1 | 0.2 | 0.1 |
| 1944 |  | 9.5 | 9.4 | 6.5 | 2.7 | 0.2 | 0.1 |
| 1945 |  | 9.8 | 9.7 | 7.3 | 2.2 | 0.2 | 0.1 |
| 1940 | January | 7.4 | 7.3 | 5.2 | 2.0 | 0.1 | 0.1 |
|  | February | 7.7 | 7.6 | 5.7 | 1.7 | 0.2 | 0.1 |
|  | March | 7.9 | 7.8 | 5.6 | 2.0 | 0.2 | 0.1 |
|  | April | 8.6 | 8.5 | 6.2 | 2.1 | 0.2 | 0.1 |
|  | May | 8.6 | 8.5 | 6.1 | 2.2 | 0.2 | 0.1 |
|  | June | 8.2 | 8.1 | 5.6 | 2.4 | 0.1 | 0.1 |
|  | July | 8.8 | 8.7 | 5.9 | 2.7 | 0.1 | 0.1 |
|  | August | 8.7 | 8.6 | 6.0 | 2.5 | 0.1 | 0.1 |
|  | September | 8.3 | 8.2 | 5.7 | 2.4 | 0.1 | 0.1 |
|  | October | 8.4 | 8.3 | 5.6 | 2.6 | 0.1 | 0.1 |
|  | November | 8.6 | 8.5 | 5.8 | 2.6 | 0.1 | 0.1 |
|  | December | 8.5 | 8.4 | 5.2 | 2.9 | 0.3 | 0.1 |
| 1941 | January | 8.6 | 8.5 | 5.6 | 2.6 | 0.3 | 0.1 |
|  | February | 8.8 | 8.7 | 6.0 | 2.5 | 0.2 | 0.1 |
|  | March | 9.0 | 8.9 | 6.1 | 2.7 | 0.1 | 0.1 |
|  | April | 9.1 | 9.0 | 6.4 | 2.4 | 0.2 | 0.1 |
|  | May | 9.3 | 9.2 | 6.5 | 2.6 | 0.1 | 0.1 |
|  | June | 8.7 | 8.6 | 6.2 | 2.3 | 0.1 | 0.1 |
|  | July | 9.2 | 9.1 | 6.6 | 2.4 | 0.1 | 0.1 |
|  | August | 8.7 | 8.6 | 6.3 | 2.2 | 0.1 | 0.1 |
|  | September | 9.4 | 9.3 | 6.6 | 2.6 | 0.1 | 0.1 |
|  | October | 9.1 | 9.0 | 6.4 | 2.4 | 0.2 | 0.1 |
|  | November | 8.7 | 8.6 | 6.1 | 2.3 | 0.2 | 0.1 |
|  | December | 8.9 | 8.8 | 6.2 | 2.4 | 0.2 | 0.1 |
| 1942 | January | 8.8 | 8.7 | 6.2 | 2.3 | 0.2 | 0.1 |
|  | February | 9.2 | 9.1 | 6.3 | 2.6 | 0.2 | 0.1 |
|  | March | 9.0 | 8.9 | 6.2 | 2.5 | 0.2 | 0.1 |
|  | April | 9.2 | 9.1 | 6.6 | 2.3 | 0.2 | 0.1 |
|  | May | 8.9 | 8.8 | 6.4 | 2.2 | 0.2 | 0.1 |
|  | June | 9.3 | 9.2 | 6.5 | 2.5 | 0.2 | 0.1 |
|  | July | 9.5 | 9.4 | 6.6 | 2.6 | 0.2 | 0.1 |
|  | August | 8.6 | 8.5 | 5.8 | 2.6 | 0.1 | 0.1 |
|  | September | 9.2 | 9.1 | 6.3 | 2.6 | 0.2 | 0.1 |
|  | October | 9.2 | 9.1 | 6.3 | 2.6 | 0.2 | 0.1 |
|  | November | 8.8 | 8.7 | 6.0 | 2.5 | 0.2 | 0.1 |
|  | December | 8.9 | 8.8 | 6.0 | 2.6 | 0.2 | 0.1 |

## 5. 8 Deliveries into consumption of fuel for diesel-engined road vehicles

continued

|  |  | Total | Great Britain |  |  |  | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Public service vohicles | Goods vehicles | Others |  |
| 1943 | January | 8.7 | 8.6 | 5.7 | 2.7 | 0.2 | 0.1 |
|  | February | 8.9 | 8.8 | 6.1 | 2.5 | 0.2 | 0.1 |
|  | March | 9.1 | 9.0 | 6.2 | 2.6 | 0.2 | 0.1 |
|  | April | 8.5 | 8.4 | 5.9 | 2.4 | 0.1 | 0.1 |
|  | May | 8.4 | 8.3 | 5.9 | 2.2 | 0.2 | 0.1 |
|  | June | 8.5 | 8.4 | 6.0 | 2.2 | 0.2 | 0.1 |
|  | July | 8.5 | 8.4 | 6.0 | 2.2 | 0.2 | 0.1 |
|  | August | 8.2 | 8.1 | 5.7 | 2.3 | 0.1 | 0.1 |
|  | September | 8.7 | 8.6 | 6.0 | 2.5 | 0.1 | 0.1 |
|  | October | 8.5 | 8.4 | 5.9 | 2.3 | 0.2 | 0.1 |
|  | November | 9.1 | 9.0 | 6.2 | 2.6 | 0.2 | 0.1 |
|  | December | 9.0 | 8.9 | 6.1 | 2.6 | 0.2 | 0.1 |
| 1944 | January | 8.8 | 8.7 | 5.9 | 2.6 | 0.2 | 0.1 |
|  | February | 9.4 | 9.3 | 6.4 | 2.7 | 0.2 | 0.1 |
|  | March | 9.9 | 9.8 | 6.6 | 3.0 | 0.2 | 0.1 |
|  | April | 9.8 | 9.7 | 6.0 | 3.5 | 0.2 | 0.1 |
|  | May | 10.6 | 10.5 | 6.5 | 3.8 | 0.2 | 0.1 |
|  | June | 10.5 | 10.4 | 6.6 | 3.6 | 0.2 | 0.1 |
|  | July | 9.1 | 9.0 | 6.1 | 2.7 | 0.2 | 0.1 |
|  | August | 9.2 | 9.1 | 6.3 | 2.6 | 0.2 | 0.1 |
|  | September | 9.3 | 9.2 | 6.5 | 2.5 | 0.2 | 0.1 |
|  | October | 9.3 | 9.2 | 6.6 | 2.4 | 0.2 | 0.1 |
|  | November | 9.7 | 9.6 | 6.9 | 2.5 | 0.2 | 0.1 |
|  | December | 8.9 | 8.8 | 6.3 | 2.3 | 0.2 | 0.1 |
| 1945 | January | 9.4 | 9.3 | 6.8 | 2.3 | 0.2 | 0.1 |
|  | February | 9.9 | 9.8 | 7.1 | 2.5 | 0.2 | 0.1 |
|  | March | 9.8 | 9.7 | 7.1 | 2.4 | 0.2 | 0.1 |
|  | April | 9.5 | 9.4 | 6.8 | 2.4 | 0.2 | 0.1 |
|  | May | 9.7 | 9.6 | 7.0 | 2.4 | 0.2 | 0.1 |
|  | June | 9.7 | 9.6 | 7.0 | 2.4 | 0.2 | 0.1 |
|  | July | 9.6 | 9.5 | 6.9 | 2.4 | 0.2 | 0.1 |
|  | August | 9.7 | 9.6 | 7.0 | 2.4 | 0.2 | 0.1 |

[^56]5. 19 Deliveries into consumption of gas, diesel and fuel oil

Thousand tons

|  |  | Total | Bunkers | Inland |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Road vehicles 1 | Burning | Power | Manufacture | Petroleum industry | Government departments ${ }^{2}$ |
| Annual totals |  |  |  |  |  |  |  |  |  |
| 1940 |  | 6,010 | 3,849 | 429 |  |  | 1,732 |  |  |
| 1941 |  | 5,865 | 3,537 | 467 | 916 | 349 | 213 | 259 | 124 |
| 1942 |  | 6,247 | 3,906 | 473 | 939 | 330 | 216 | 287 | 96 |
| 1943 |  | 6,206 | 3,965 | 452 | 883 | 326 | 248 | 224 | 108 |
| 1944 |  | 8,726 | 6,279 | 499 | 843 | 341 | 405 | 260 | 99 |
| 1945 |  | 7,194 | 4,726 | 511 | 797 | 347 | 452 | 291 | 70 |
| Weekly averages ${ }^{3}$ |  |  |  |  |  |  |  |  |  |
| 1940 |  | 114.9 | 73.6 | 8.2 |  |  | 33.1 |  |  |
| 1941 |  | 112.5 | 67.8 | 9.0 | 17.5 | 6.7 | 4.1 | 5.0 | 2.4 |
| 1942 |  | 119.8 | 74.9 | 9.1 | 18.0 | 6.3 | 4.2 | 5.5 | 1.8 |
| 1943 |  | 118.9 | 76.0 | 8.7 | 16.9 | 6.2 | 4.7 | 4.3 | 2.1 |
| 1944 |  | 166.9 | 120.1 | 9.5 | 16.1 | 6.5 | 7.8 | 5.0 | 1.9 |
| 1945 |  |  | 90.6 | 9.8 | 15.3 | 6.6 | 8.7 | 5.6 | 1.3 |
| 1940 | January | 107.8 | 64.3 | 7.4 |  |  | 36.1 |  |  |
|  | February | 115.7 | 65.7 | 7.7 |  |  | 42.3 |  |  |
|  | March | 106.2 | 66.4 | 7.9 |  |  | 31.9 |  |  |
|  | April | 128.8 | 88.2 | 8.6 |  |  | 32.0 |  |  |
|  | May | 121.7 | 86.0 | 8.6 | 15.0 | 7.0 | 2.3 | 2.2 | 0.6 |
|  | June | 117.1 | 83.3 | 8.2 | 13.9 | 6.8 | 2.2 | 2.2 | 0.5 |
|  | July | 106.6 | 71.5 | 8.8 | 14.5 | 6.8 | 2.0 | 1.9 | 1.1 |
|  | August | 102.5 | 69.4 | 8.7 | 13.3 | 6.3 | 1.7 | 2.0 | 1.1 |
|  | September | 106.3 | 72.1 | 8.3 | 13.7 | 6.1 | 2.6 | 2.0 | 1.5 |
|  | October | 105.4 | 65.7 | 8.4 | 16.4 | 6.8 | 3.5 | 2.5 | 2.1 |
|  | November | 113.3 | 72.1 | 8.6 | 18.2 | 6.5 | 4.0 | 2.1 | 1.8 |
|  | December | 105.8 | 64.6 | 8.5 | 18.1 | 6.5 | 3.9 | 1.9 | 2.3 |
| 1941 | January | 115.4 | 66.6 | 8.6 | 21.1 | 7.0 | 4.8 | 4.7 | 2.6 |
|  | February | 123.5 | 73.1 | 8.8 | 20.9 | 7.4 | 4.9 | 5.2 | 3.2 |
|  | March | 129.1 | 81.6 | 9.0 | 19.4 | 7.2 | 4.3 | 4.1 | 3.4 |
|  | April | 123.0 | 74.4 | 9.1 | 18.8 | 7.1 | 4.4 | 5.4 | 3.7 |
|  | May | 123.0 | 76.8 | 9.3 | 17.7 | 7.3 | 4.5 | 3.7 | 3.7 |
|  | June | 100.8 | 63.0 | 8.7 | 14.4 | 6.8 | 2.9 | 3.2 | 1.8 |
|  | July | 104.0 | 64.3 | 9.2 | 13.9 | 7.0 | 3.2 | 4.5 | 1.8 |
|  | August | 98.0 | 61.9 | 8.7 | 13.3 | 6.1 | 3.3 | 4.6 | 1.4 |
|  | September | 105.8 | 64.0 | 9.4 | 15.7 | 7.0 | 3.7 | 4.6 | 1.4 |
|  | October | 105.5 | 61.2 | 9.1 | 17.2 | 6.8 | 4.4 | 4.9 | 1.9 |
|  | November | 111.5 | 65.4 | 8.7 | 19.5 | 6.4 | 4.8 | 5.0 | 1.7 |
|  | December | 108.2 | 62.6 | 8.9 | 19.6 | 6.4 | 3.9 | 5.3 | 1.5 |
| 1942 | January | 120.4 | 69.9 | 8.8 | 22.0 | 6.7 | 5.9 | 5.3 | 1.8 |
|  | February | 127.2 | 73.2 | 9.2 | 23.4 | 7.0 | 6.9 | 5.6 | 1.9 |
|  | March | 126.1 | 75.8 | 9.0 | 21.0 | 7.0 | 6.7 | 4.8 | 1.9 |
|  | April | 118.5 | 74.6 | 9.2 | 18.3 | 6.6 | 4.1 | 4.0 | 1.7 |
|  | May | 120.9 | 80.6 | 8.9 | 16.1 | 6.1 | 3.4 | 4.4 | 1.4 |
|  | June | 111.3 | 70.3 | 9.3 | 16.4 | 6.8 | 2.7 | 4.0 | 1.8 |
|  | July | 116.3 | 76.9 | 9.5 | 15.1 | 6.4 | 2.5 | 4.0 | 1.9 |
|  | August | 112.5 | 75.1 | 8.6 | 13.9 | 6.0 | 2.5 | 4.4 | 1.9 |
|  | September | 121.9 | 80.3 | 9.2 | 15.8 | 6.6 | 3.3 | 4.7 | 2.0 |
|  | October | 134.1 | 91.3 | 9.2 | 16.9 | 6.5 | 3.6 | 4.7 | 1.9 |
|  | November | 108.3 | 62.5 | 8.8 | 19.6 | 6.5 | 4.6 | 4.3 | 2.0 |
|  | December | 115.5 | 70.9 | 8.9 | 18.8 | 6.2 | 4.0 | 4.5 | 2.2 |

## 5. 9 Deliveries into consumption of gas, diesel and fuel oil

continued

|  |  |  |  | Inland |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Bunkers | Road vehicles! | Burning | Power | Manufacture | Petroleum industry | Government departments ${ }^{2}$ |
| 1943 | January | 116.3 | 71.6 | 8.7 | 19.7 | 6.0 | 3.7 | 4.7 | 1.9 |
|  | February | $119.3$ | 72.7 | $8.9$ | 19.8 | 6.6 | 3.9 | 5.2 | 2.2 |
|  | March | 115.4 | 68.2 | 9.1 | 19.6 | 6.8 | 4.3 | 5.1 | 2.3 |
|  | April | 109.6 | 69.7 | 8.5 | 16.5 | 6.0 | 3.1 | 3.8 | 2.0 |
|  | May | 117.6 | 79.0 | 8.4 | 15.5 | 6.1 | 3.0 | 3.8 | 1.8 |
|  | June | 130.4 | 91.4 | 8.5 | 14.9 | 6.0 | $3.7{ }^{\prime}$ | 3.7 | 2.2 |
|  | July | 103.4 | 66.4 | 8.5 | 14.0 | 6.0 | 3.0 | 3.7 | 1.8 |
|  | August | 101.7 | 65.6 | 8.2 | 13.5 | 5.6 | 3.5 | 3.4 | 1.9 |
|  | September | 109.3 | 67.2 | 8.7 | 15.9 | 6.5 | 4.8 | 4.2 | 2.0 |
|  | October | 121.9 | 76.1 | 8.5 | 15.8 | 6.4 | 8.5 | 4.6 | 2.0 |
|  | November | 139.5 | 91.4 | 9.1 | 18.6 | 6.7 | 7.2 | 4.1 | 2.4 |
|  | December | 141.3 | 91.4 | 9.0 | 19.6 | 6.5 | 8.3 | 4.2 | 2.3 |
| 1944 | January | 143.6 | 93.9 | 8.8 | 19.1 | 6.5 | 8.6 | 4.4 | 2.3 |
|  | February | 154.2 | 102.4 | 9.4 | 20.3 | 6.9 | 8.6 | 4.4 | 2.2 |
|  | March | 169.3 | 112.7 | 9.9 | 20.2 | 7.3 | 10.4 | 5.9 | 2.9 |
|  | April | 171.3 | 123.3 | 9.8 | 15.5 | 6.4 | 7.9 | 5.8 | 2.6 |
|  | May | 188.8 | 141.7 | 10.6 | 15.3 | 6.8 | 7.6 | 4.6 | 2.2 |
|  | June | 192.1 | 147.2 | 10.5 | 14.3 | 6.8 | 6.6 | 4.6 | 2.1 |
|  | July | 169.1 | 130.1 | 9.1 | 12.6 | 6.0 | 5.0 | 4.8 | 1.5 |
|  | August | 170.6 | 131.5 | 9.2 | 12.4 | 6.0 | 5.5 | 4.7 | 1.3 |
|  | September | 164.6 | 122.3 | 9.3 | 14.1 | 6.3 | 6.8 | 4.8 | 1.0 |
|  | October | 166.5 | 119.6 | 9.3 | 15.7 | 6.3 | 8.8 | 5.2 | 1.6 |
|  | November | 163.5 | 113.5 | 9.7 | 17.6 | 6.9 | 9.2 | 4.8 | 1.8 |
|  | December | 156.1 | 110.0 | 8.9 | 16.5 | 6.0 | 8.2 | 4.9 | 1.6 |
| 1945 | January | 169.6 | 114.8 | 9.4 | 20.3 | 6.5 | 10.7 | 6.0 | 1.9 |
|  | February | 174.7 | 120.0 | 9.9 | 19.0 | 7.0 | 10.9 | 5.7 | 2.2 |
|  | March | 168.2 | 119.1 | 9.8 | 17.0 | 7.0 | 8.0 | 5.4 | 1.9 |
|  | April | 163.9 | 119.1 | 9.5 | 14.3 | 6.5 | 6.4 | 6.5 | 1.6 |
|  | May | 167.3 | 123.3 | 9.7 | 14.1 | 6.3 | 8.0 | 4.6 | 1.3 |
|  | June | 132.0 | 87.9 | 9.7 | 13.8 | 6.4 | 7.3 | 5.6 | 1.3 |
|  | July | 115.2 | 74.7 | 9.6 | 11.9 | 6.4 | 6.6 | 5.0 | 1.0 |
|  | August | 111.7 | 71.1 | 9.7 | 11.5 | 6.2 | 7.3 | 5.0 | 1.0 |

[^57]Source: Ministry of Fuel and Power
2. Includes smoke-screens until I April 1943
3. Based on calendar months. The weekly average for any given month shown in this table will not be exactly the same as the weekly average for the four or five weeks period under the same name in Table 5.16.

economy placed great pressures on the raw material supplies of the nation. Despite this, it has been judged that the supply of raw materials did not act as a constraint on munitions production during the war (Hargreaves and Gowing 1952: 127). This was mainly because of the success of the state in finding alternative suppliers, increasing domestic production and decreasing nonessential uses, and its relatively efficient framework for controlling and allocating the available supplies.

The loss of European and eastern supplies due to the victories of Germany and Japan was crucial for many raw materials ; for example, more than three-quarters of the pre-war British imports of materials such as flax, ferroalloys, bauxite, iron ore and softwood, rubber, raw silk and tungsten ore had been supplied by territories which were effectively cut off from Britain during the war (Hurstfield 1953: 158,167 ). Some of these lost supplies were replaced by new or increased supplies from Canada (for example, aluminium, abrasives, and paper making materials), other Empire countries (antimony, chrome and tungsten ores, bauxite, flax, and hemp) and especially the USA (iron and steel, chemicals and fertilisers, non-ferrous metals, and synthetic rubber).

## 6. Home production of iron ore



## 6.2 <br> Home production of virgin aluminium



Even before the passage of the Lend-Lease Act in March 1941 the USA proved a vital source of increased supplies, raising their exports of raw materials to the UK from 1.9 million tons in 1939 to 5.4 million tons in 1940 (Hurstfield 1953: 160-4, 169-72). Despite this, the need to conserve scarce shipping capacity, and the impact of enemy action, meant that raw material imports fell from more than 22 million tons in 1940 to less than 12 million tons in 1942, although much of this loss (more than 8 million tons) was due to reductions in the import of just one material, timber (Hargreaves and Gowing 1952: 126; Ford 1951: 144; table 6.23).

The option of increasing the domestic production to replace the lost supplies was simply not available for many raw materials but where this was practical (for example, in the cases of iron ore, ferro-chrome, magnesium and magnesium alloys, virgin aluminium and timber) it occurred (Hurstfield 1953: 239-4I; tables 6.3 and 6.7-6.10). In many of these industries, given that labour, capital, raw materials, energy and transport were all in short supply, increased production had to rely on a greater utilisation of the existing capacity; however, in the case of certain strategic materials (such as alloy steel and aluminium) and synthetic substitutes (rubber and plastics) there was little alternative but to build new plant (Hornby 1958: 279-84; Howlett 1994b: 527-8; tables 6.9, 6.13, 6.16). In the case of timber the response to the loss of imported supplies was to dramatically increase home production (from 444,000 tons in 1940 to a wartime peak of 745,000 tons for softwood, and from 496,000 tons to 1.13 million tons for hardwoods) (House 1965: 318-9; Meiggs 1949:43).

The pressure on raw material supplies was eased by the use of scrap or other recycled material (such as waste) rubber and by using substitute materials, although this latter option often merely represented an ordering of the current relative scarcity of materials (as in the case of pit props in 1940 where scarce steel was substituted for the even more scarce timber) (Hurstfield 1953:356-62; tables 6.5 and 6.13). The pressure was further lessened by reducing the quantity and quality of finished goods that were considered less essential to the war effort.

Thus, the production of many consumer goods (such as textiles, clothing, leather, wood and paper) was deliberately curtailed by the state and quality was sacrificed by simply using less of the raw material input (for example, reducing the height of ladies' shoe heels, which saved several thousand tons of shipping space, and slimming the thickness of coffins, which saved 0.5 million cubic feet of wood per year) or by producing a much limited and more basic range of designs (as was the case with the utility schemes in furniture and clothing) (Ford 1951: 149; Hargreaves and Gowing 1952: 335-7, 431-79, 507-10; tables 6.17-6.22).

The role the state played in the supply of raw materials during the war was crucial: it monitored production, imports (through a licensing system), exports (which, after 1940, were severely curtailed on state direction), stocks and distribution, and it centrally allocated most of them. This monitoring (including the collection of a vast amount of statistical information), and some of the allocation, was carried out by the raw material Controls (Hargreaves and Gowing 1952: 127-8; House 1965). The first Controls to

be created were the Iron and Steel Control and the Flax Control in October 1939 and the last to be established was the Tin Control in March 1942; typically the Head Controller was a businessman with many years of experience in the relevant industry (Hurstfield 1953:414, 447). The most important body in this process was, however, the Materials Committee (originally a War Cabinet sub-committee and later part of the Ministry of Production) which was responsible for the allocation of scarce materials.

Government departments made bids to the Materials Committee for the amount of a particular raw material (for example steel) that they felt they needed to fulfil their production programme in the coming quarter; the Committee would then assess these bids in the light of the
supply position as detailed by the relevant Control (the Iron and Steel Control) and the strategic priorities set by the War Cabinet and decide how much material (steel) each department would actually be allocated (Howlett 1993; Howlett 1994b). The process at the level of the firm was controlled by licences which were issued, depending on the raw material, either by government departments (up to an amount equal to their allocation as decided by the Materials Committee) or by the relevant material Control (Howlett 1994b: 531-2; Ford 1951: 146). Finally, with the entry of the USA into the war a Combined Raw Materials Board was established in Washington to allow the allies to assess requirements and supplies globally, although within Britain the Materials Committee still remained the linchpin of the allocation system (Duncan Hall and Wrigley 1956: 262-3II).

### 6.3 Iron ore and manganese ore

Thousand tons


|  |  | Home iron ore |  |  |  |  | Imported iron ore |  |  |  |  | Manganese ore |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Stocks (end of period) |  |  | Arrivals | Consumption |  | Stocks (end of period) |  |  |  |
|  |  | Production | Consumption | Total | At mines | At blast furnaces and steel works |  | Total | Blast furnaces ${ }^{2}$ | Total | At blast furnaces and steel works | Consumption | Stocks ${ }^{4}$ (end of period) |
| 1942 | January | 348.5* | 346.9* | 2,367 | 1.197 | 1,170 | 43.8* | 36.8* | 27.7* | 927.9 | 877.4 | 7.7* | 117.8 |
|  | February | 358.1 | 341.3 | 2,326 | 1,181 | 1,145 | 29.6 | 38.0 | 28.4 | 882.7 | 866.4 | 7.4 | 129.3 |
|  | March | 374.9 | 352.7 | 2,315 | 1.195 | 1,120 | 45.9 | 37.4 | 27.0 | 898.3 | 881.8 | 7.5 | 123.9 |
|  | April | 383.2* | 357.4* | 2,341 | 1,184 | 1,158 | 43.8* | 43.4 | 33.1* | 913.6 | 887.4 | 6.7* | 127.4 |
|  | May | 376.6 | 355.5 | 2,339 | 1,165 | 1,174 | 38.2 | 43.1 | 33.4 | 915.1 | 889.0 | 8.1 | 136.1 |
|  | June | 397.7 | 356.1 | 2,386 | 1,147 | 1,239 | 56.7 | 44.2 | 33.9 | 947.3 | 906.1 | 7.9 | 136.8 |
|  | July | 398.2* | 353.8* | 2,516 | 1,199 | 1,318 | 30.7* | 39.8* | 30.6* | 887.1 | 882.5 | 8.1* | 152.1 |
|  | August | 376.3 | 343.3 | 2,531 | 1,230 | 1,301 | 59.4 | 41.2 | 32.9 | 967.6 | 945.1 | 8.2 | 142.1 |
|  | September | 394.5 | 358.1 | 2,583 | 1,264 | 1,319 | 30.6 | 42.8 | 33.5 | 918.2 | 910.4 | 6.3 | 165.7 |
|  | October | 384.3* | 356.9* | 2,600 | 1,290 | 1,311 | 34.7* | 34.7* | 25.9* | 926.1 | 913.2 | 8.1 * | 157.3 |
|  | November | 372.0 | 357.9 | 2,578 | 1,312 | 1,266 | 11.3 | 34.4 | 25.6 | 834.2 | 832.1 | 8.5 | 132.3 |
|  | December | 348.9* | 351.7* | 2,451 | 1,302 | 1,149 | 16.3* | 32.6* | 24.2* | 752.3 | 749.5 | 7.7* | 94.3 |
| 1943 | January | 372.0 | 348.4 | 2,446 | 1,323 | 1,124 | 26.4 | 31.8 | 28.4 | 714.4 | 700.5 | 7.1 | 77.6 |
|  | February | 367.3 | 343.1 | 2453 | 1,324 | 1,128 | 18.7 | 31.3 | 21.8 | 675.7 | 658.5 | 6.5 | 62.3 |
|  | March | 368.3* | 345.8* | 2,453 | 1,348 | 1,105 | 383* | 33.9* | 24.2* | 693.3 | 675.8 | 6.0* | 79.2 |
|  | April | 334.1 | 325.9 | 2,429 | 1,351 | 1,078 | 43.0 | 31.7 | 23.1 | 727.9 | 697.9 | 5.4 | 106.9 |
|  | May | 371.1 | 337.2 | 2,470 | 1,364 | 1,105 | 14.1 | 29.8 | 21.4 | 682.4 | 682.3 | 4.7 | 129.0 |
|  | June | 362.8* | 328.8* | 2,517 | 1,399 | 1,118 | 57.5* | 30.3* | 21.8* | 819.1 | 813.3 | 5.7* | 163.2 |
|  | July | 353.7 | 318.0 | 2,565 | 1,414 | 1,151 | 33.9 | 38.2 | 29.7 | 804.3 | 801.4 | 5.9 | 180.6 |
|  | August | 328.5 | 312.0 | 2,571 | 1,467 | 1,104 | 45.0 | 38.2 | 30.7 | 801.8 | 764.8 | 6.2 | 211.4 |
|  | September | 365.3* | 325.1* | 2,668 | 1,561 | 1,107 | 35.4* | 38.6* | 30.5* | 798.7 | 773.3 | 6.5* | 222.0 |
|  | October | 364.4 | 326.4 | 2,719 | 1,609 | 1,110 | 39.8 | 42.2 | 34.0 | 795.3 | 772.8 | 4.6 | 229.3 |
|  | November | 355.3 | 330.6 | 2,706 | 1,625 | 1,080 | 44.5 | 42.9 | 35.1 | 798.6 | 769.9 | 5.4 | 224.8 |
|  | December | 326.7* | $312.2 *$ | 2,677 | 1,644 | 1,033 | 40.9* | 44.2* | 36.8* | 787.4 | 756.0 | 6.9* | 208.1 |
| 1944 | January | 339.2 | 311.5 | 2,691 | 1,662 | 1,029 | 45.3 | 41.5 | 34.3 | 791.7 | 766.7 | 7.4 | 194.9 |
|  | February | 344.9 | 313.4 | 2,729 | 1,692 | 1,036 | 41.0 | 42.0 | 34.5 | 797.4 | 758.1 | 7.2 | 187.6 |
|  | March | 305.1* | 284.0* | 2,763 | 1,734 | 1,028 | 40.9* | 40.5* | 32.2* | 802.3 | 791.3 | 7.1* | 183.2 |
|  | April | 272.5 | 271.9 | 2,691 | 1,737 | 954 | 57.8 | 44.2 | 36.9 | 863.4 | 843.8 | 7.4 | 158.4 |
|  | May | 286.9 | 284.6 | 2,601 | 1,738 | 863 | 58.6 | 42.1 | 34.7 | 897.7 | 864.0 | 8.1 | 159.1 |
|  | June | 279.3* | 275.4* | 2,530 | 1,736 | 794 | 29.7* | 47.9* | 40.8* | 831.1 | 814.2 | 7.3* | 141.6 |
|  | July | 293.1 | 269.8 | 2,554 | 1,755 | 799 | 40.1 | 50.7 | 44.0 | 781.2 | 776.9 | 7.8 | 152.0 |
|  | August | 263.8* | 266.0* | 2,447 | 1,698 | 750 | 25.7* | 50.0* | 43.7* | 671.0 | 660.9 | 7.2* | 137.0 |
|  | September | r 302.8 | 290.1 | 2,396 | 1,641 | 755 | 30.1 | 47.6 | 41.1 | 594.4 | 584.3 | 7.7 | 122.7 |
|  | October | 311.5 | 294.0 | 2,392 | 1,609 | 783 | 40.0 | 47.6 | 41.4 | 556.7 | 543.5 | 7.0 | 103.0 |
|  | November | 301.7* | 299.3* | 2,300 | 1,569 | 732 | 44.6* | 53.5* | 46.5* | 532.5 | 510.6 | $6.1{ }^{*}$ | 100.2 |
|  | December | 286.5 | 285.9 | 2,216 | 1,532 | 684 | 48.6 | 52.2 | 45.7 | 515.9 | 482.2 | 6.5 | 117.2 |
| 1945 | January | 279.8* | * 280.5* | 2,117 | 1,520 | 597 | 46.0* | 52.2* | 46.7* | 484.5 | 411.0 | 6.2* | 108.3 |
|  | February | 31.2 .3 | 294.9 | 2,106 | 1,510 | 596 | 66.2 | 57.6 | 51.1 | 505.0 | 466.9 | 6.5 | 113.4 |
|  | March | 329.6 | 294.8 | 2,164 | 1,507 | 656 | 54.7 | 60.3 | 53.3 | 531.8 | 502.6 | 6.4 | 119.6 |
|  | April | 316.0 | 279.4 | 2,234 | 1,507 | 727 | 68.4 | 64.2 | 57.2 | 535.5 | 498.1 | 5.9 | 121.1 |
|  | May | 290.7* | * 260.2* | 2,299 | 1,506 | 793 | 68.7* | 61.4* | 55.1* | 576.7 | 531.5 | 5.3* | 114.2 |
|  | June | 288.0 | 261.2 | 2,337 | 1,523 | 813 | 111.0 | 68.7 | 61.6 | 714.5 | 638.5 | 4.6 | 116.4 |
|  | July | 274.5 | 252.2 | 2,372 | 1,556 | 816 | 104.0 | 77.5 | 70.8 | 786.5 | 716.6 | 4.9 | 122.4 |
|  | August | 221.4* | * 223.5* | 2,306 | 1,540 | 767 | 104.5* | 77.9* | 71.7* | 896.6 | 855.4 | $5.1 *$ | 123.4 |

[^58] and 1938 which relate to raw and raw equivalent of calcined ore.
2. Including consumption in sinter plant,
3. Production and consumption figures relate to calendar years for 1937, 1938 and 1939, to a period of 53 weeks for 1942 and to periods of 52 weeks for the remaining years.
4. Including consumption of manganese ore. Excluding consumption in steel works. The average weekly consumption of both home and imported ore in steel works amounted to 15,300 tons in 1937 and 11,400 tons in 1938 .

- Average of five weeks.

|  | Production |  |  | Consumption |  |  | Stocks (end of period) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Haematite | Basic | Total | Steel furnaces and nvertors | Foundries, forges and iron works ${ }^{2}$ | Total ${ }^{3}$ | Blast <br> furnaces | Steel works | Iron foundries |
| Annual totals ${ }^{4}$ A 6,256 |  |  |  |  |  |  |  |  |  |  |
| 1937 | 8,493 | 1,866 | 4,689 |  | 6,256 | . | . | .. | .. | . |
| $1938$ | 6,761 | 1,484 | 3,763 |  | 4,844 | . | . |  |  | 343. |
| $1939$ | 7,980 | 1,396 | 5,108 |  | 6,673 | 1970 |  | 323.4 | 252.4 | 343.1 |
| 1940 | 8,205 | 1,428 | 5,453 | 8,701 | 6,731 | 1,970 | 1,094 | 363.0 | 399.9 | 235.6 |
| 1941 | 7,393 | 906 | 5,182 | 8,038 | 6,311 | 1,727 | 1,417 | 459.2 | 466.4 | 264.0 |
| 1942 | 7,726 | 964 | 5,553 | 8,050 | 6,355 | 1,695 | 1,473 | 547.1 | 502.3 | 262.0 |
| 1943 | 7,187 | 927 | 5,070 | 7,784 | 6,125 | 1,659 | 1,207 | 496.8 | 364.7 | 270.6 |
| 1944 | 6,737 | 1,009 | 4,792 | 7,299 | 5,777 | 1,522 | 896 | 342.6 | 317.0 | 200.8 |
| 1945 | 7,107 | 1,076 | 4,884 | 7,049 | 5,663 | 1,386 | 1,023 | 441.0 | 392.2 | 243.8 |
| Weekly averages 323.42024 .3 |  |  |  |  |  |  |  |  |  |  |
| 1939 | 153.0 | 26.8 | 98.2 1049 |  | 128.3 129.4 | 37.9 | 1,904 | 323.4 363.0 | 399.9 | 235.6 |
| 1940 | 158.0 | 27.5 | 104.9 | 167.3 | 129.4 121.4 | 33.2 | 1,417 | 459.2 | 466.4 | 264.0 |
| 1941 | 142.2 | 17.4 | 104.8 | 154.6 151.9 | 119.9 | 32.0 | 1,474 | 547.1 | 502.3 | 2620 |
| 1943 | 138.2 | 17.8 | 97.5 | 149.7 | 117.8 | 31.9 | 1,207 | 496.8 | 364.7 | 270.6 |
| 1944 | 129.6 | 19.4 | 92.1 | 140.4 | 111.1 | 29.3 | 896 | 342.6 | 317.0 | 200.8 |
| 1945 | 136.7 | 20.7 | 93.9 | 135.6 | 108.9 | 26.7 | 1,023 | 441.0 | 392.2 | 243.8 |
| 1939 September | 160.0 | 28.0 | 103.0 |  |  |  |  | 456.5 | 237.4 | 325.0 |
| October | 167.0 | 30.0 | 107.0 | 180.0 | . | . |  | 384.8 | 238.8 | 347.0 |
| November | 166.0* | 31.0* | 105.0* | 188.0* |  | .. |  | 330.9 | 244.3 | 336.3 |
| December | 162.0 | 31.0 | 102.0 | 175.0 |  |  | 927 | 323.4 | 252.4 | 343.1 |
| 1940 January | 156.0* |  |  | 170.9* | 133,5* | 37,4* | 877 | 325,4 | 233,5 | 309.0 |
| February | 155.0 | 29.3 | 101.8 | 175.9 | 135.1 | 40.8 | 812 | 298.8 | 209.0 | 294.0 |
| March | 164.0 |  |  | 180.7 | 143.3 | 37.4 | 777 | 283.1 | 197.3 | 286.7 |
| April | 168.0 |  |  | 186.4 | 145.3 | 41.1 | 758 | 261.4 | 215.6 | 271.0 |
| May | 173.0* | 30.4 | 115.8 | 186.6 * | 144.2* | 42.4* | 720 | 256.0 | 220.7 | 234.9 |
| June | 171.0 |  |  | 178.9 | 137.3 | 41.6 | 692 | 221.0 | 243.7 | 219.4 |
| July | 165.0 |  |  | 166.4 | 126.3 | 40.1 | 738 | 233.0 | 281.5 | 209.1 |
| August | 153.0* | 27.7 | 100.8 | 149.7* | $113.8 *$ | 35.9 * | 835 | 265.0 | 339.7 | 221.0 |
| September | 144.0 |  |  | 145.2 | 110.7 | 34.5 | 935 | 312.8 | 370.6 | 224.5 |
| October | 145.0* |  |  | -153.6* | $116.6 *$ | 37.0* | 1,018 | 348.5 | 387.6 | 219.5 |
| November | 146.0 | 22.1 | 99.0 | 155.7 | 121.7 | 34.0 | 1,056 | 361.1 | 388.3 | 224.5 |
| December | 147.0 |  |  | 148.4 | 118.6 | 29.8 | 1,094 | 363.0 | 399.9 | 235.6 |
| 1941 January | 142.3* | * 20.4* | 97.9* | 153.0* | 119.2* | 33.8 * | 1,108 | 398.8 | 393.6 | 231.3 |
| February | 141.4 | 18.3 | 96.3 | 156.3 | 122.7 | 33.6 | 1,111 | 404.4 | 375.8 | 237.7 |
| March | 143.3 | 17.4 | 99.8 | 155.5 | 122.9 | 32.6 | 1,158 | 404.9 | 395.1 | 260.7 |
| April | 142.5* | * 17.1* | 98.5* | 151.5* | 118.0 * | 33.5 * | 1,239 | 439.3 | 430.5 | 269.1 |
| May | 140.2 | 16.3 | 97.3 | 152.1 | 118.0 | 34.1 | 1,277 | 454.3 | 449.9 | 274.3 |
| June | 140.2 | 17.5 | 97.7 | 147.9 | 116.4 | 31.5 | 1,317 | 470.0 | 478.1 | 273.4 |
| July | 140.4* | * 18.2* | 98.5* | 149.4* | 116.0 * | 33.4* | 1,369 | 480.5 | 505.4 | 271.2 |
| August | 139.7 | 17.9 | 98.3 | 143.1 | 113.9 | 29.2 | 1,430 | 489.9 | 529.6 | 279.4 |
| September | 142.8 | 16.3 | 101.7 | 155.2 | 121.7 | 33.5 | 1,471 | 489.7 | 530.7 | 280.7 |
| October | 142.8 * | 15.7* | 101.9* | 163.2* | 127.6* | 35.6* | 1,460 | 476.0 | 508.6 | 276.0 |
| November | 142.5 | 17.4 | 100.5 | 163.6 | 130.2 | 33.4 | 1.432 | 469.4 | 481.0 | 266.4 |
| December | 142.8 | 15.9 | 103.3 | 156.8 | 124.1 | 32.7 | 1,417 | 459.2 | 466.4 | 264.0 |

See footnotes on page 119

|  |  | Production |  |  | Consumption |  |  | Stocks (end of period) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Haematite | Basic | Total |  | Foundries forges and iron works ${ }^{2}$ | Total3 | $\begin{aligned} & \text { Blast } \\ & \text { furnaces } \end{aligned}$ | Stee works | foundries |
| 1942 | January | 140.9* | 16.0* | 101.7* | 153.1 * | 120.3* | 32.8* | 1,414 | 469.6 | 470.7 | 257.3 |
|  | February | 139.6 | 16.2 | 99.5 | 159.1 | 125.4 | 33.7 | 1,381 | 454.6 | 455.3 | 261.9 |
|  | March | 143.7 | 17.0 | 103.0 | 160.7 | 126.0 | 34.7 | 1,369 | 450.1 | 445.1 | 270.5 |
|  | April | 148.8* | 20.2* | 105.0* | 153.3* | 122.9* | 30.4* | 1,387 | 462.1 | 462.0 | 271.7 |
|  | May | 149.8 | 20.0 | 107.0 | 153.0 | 119.6 | 33.4 | 1,410 | 484.5 | 483.2 | 271.2 |
|  | June | 149.5 | 18.3 | 109.6 | 158.0 | 124.4 | 33.6 | 1,418 | 492.2 | 504.6 | 269.6 |
|  | July | 147.1* | 17.2* | 106.7* | 144.4* | 115.2* | 29.2* | 1,457 | 515.8 | 534.4 | 269.0 |
|  | August | 145.4 | 18.3 | 104.3 | 138.6 | 109.2 | 29.4 | 1,512 | 541.9 | 539.8 | 281.4 |
|  | September | 149.2 | 18.5 | 106.6 | 152.9 | 119.0 | 33.9 | 1,520 | 551.8 | 538.1 | 277.0 |
|  | October | 147.5* | 18.0* | 107.1* | 153.8* | 121.5* | 32.3* | 1,498 | 543.6 | 522.5 | 274.9 |
|  | November | 145.8 | 20.1 | 105.1 | 158.0 | 123.0 | 35.0 | 1,465 | 535.4 | 502.6 | 268.6 |
|  | December | 142.6* | 18.6* | 102.0* | 145.5* | 114.0* | 31.5* | 1,473 | 547.1 | 502.3 | 262.0 |
| 1943 | January | 140.3 | 17.0 | 100.2 | 151.7 | 119.1 | 32.6 | 1,443 | 553.3 | 499.1 | 261.8 |
|  | February | 140.2 | 16.8 | 100.3 | 157.7 | 124.8 | 32.9 | 1,415 | 536.0 | 482.7 | 268.2 |
|  | March | 143.4* | 16.9* | 102.6* | 158.3* | 124.7* | 33.6* | 1,356 | 519.3 | 464.7 | 266.6 |
|  | April | 136.8 | 17.0 | 99.1 | 149.0 | 117.0 | 32.0 | 1,334 | 503.7 | 463.0 | 274.5 |
|  | May | 137.4 | 16.8 | 97.7 | 153.5 | 120.2 | 33.3 | 1,299 | 483.1 | 454.5 | 275.7 |
|  | June | 136.3* | 16.2* | 95.9* | 147.6* | 117.9* | 29.7* | 1,287 | 477.7 | 451.4 | 271.9 |
|  | July | 135.8 | 18.0 | 93.4 | 141.1 | 111.1 | 30.0 | 1,303 | 481.1 | 447.9 | 280.5 |
|  | August | 131.8 | 17.5 | 91.7 | 134.8 | 105.7 | 29.1 | 1,333 | 501.2 | 449.3 | 287.8 |
|  | September | 137.7* | 18.0* | 95.4* | 152.9 * | 120.9* | 32.0* | 1,284 | 495.3 | 411.0 | 281.9 |
|  | October | 138.8 | 19.4 | 98.4 | 152.6 | 118.8 | 33.8 | 1,254 | 500.2 | 394.0 | 276.2 |
|  | November | 142.5 | 20.9 | 100.7 | 153.5* | 119.5 * | 34.0 | 1,219 | 493.0 | 370.3 | 273.3 |
|  | December | 137.3* | 19.7* | 94.9* | 142.1* | $112.4 *$ | 29.7* | 1,207 | 496.8 | 364.7 | 270.6 |
| 1944 |  |  |  |  |  |  |  |  |  |  |  |
|  | February | 137.7 | 19.7 | 97.3 | 153.0 | 119.5 | 33.5 | 1,136 | 437.8 | 358.8 | 284.3 |
|  | March | 127.1* | 19.2* | 88.5* | 145.0* | 112.9 * | 32.1 * | 1,071 | 375.1 | 349.7 | 300.5 |
|  | April | 122.2 | 19.4 | 85.7 | 137.7 | 108.0 | 29.7 | 1,049 | 337.2 | 359.6 | 303.3 |
|  | May | 125.6 | 20.1 | 89.2 | 147.0 | 115.1 | 31.9 | 978 | 309.2 | 328.5 | 294.4 |
|  | June | 126.6* | 19.6* | 91.4* | 139.2* | 112.0 * | 27.2 * | 921 | 287.9 | 322.0 | 267.2 |
|  | July | 124.7 | 19.6 | 91.0 | 127.1 | 99.4 | 27.7 | 919 | 299.6 | 328.3 | 247.7 |
|  | August | 123.2* | 19.7* | 88.6* | 126.2* | 102.0* | 24.2 * | 927 | 319.1 | 334.8 | 230.2 |
|  | September | 130.7 | 18.9 | 95.1 | 140.5 | 112.3 | 28.2 | 900 | 322.2 | 323.4 | $218.1$ |
|  | October | 133.3 | 17.8 | 97.0 | 142.1 | 112.7 | 29.4 | 886 | 316.6 | 330.3 | 205.4 |
|  | November | 136.4* | 20.1 * | 96.2* | 144.8* | 117.2* | 27.6* | 865 | 311.9 | 317.6 | 199.6 |
|  | December | 132.7 | 19.2 | 93.0 | 133.5 | 107.4 | 26.1 | 896 | 342.6 | 317.0 | 200.8 |
| 1945 |  |  |  |  |  |  |  |  |  |  |  |
|  | February | 136.7 | 20.7 | 94.9 | 143.1 | 114.8 | 28.3 | 912 | $363.6$ | 308.9 | 196.9 |
|  | March | 141.5 | 21.5 | 100.2 | 146.9 | 117.9 | 29.0 | 911 | 351.2 | 314.7 | 205.3 |
|  | April | 137.6 | 21.3 | 96.8 | 137.6 | 111.6 | 26.0 | 919 | 332.0 | 334.9 | 215.3 |
|  | May | 128.2* | 20.0* | 87.1* | 123.4* | 100.1* | 23.3* | 956 | 339.2 | 363.3 | 220.9 |
|  | June | 133.0 | 20.2 | 89.9 | 135.5 | 107.3 | 28.2 | 952 | 339.3 | 370.1 | 216.2 |
|  | July | 134.8 | 1.9 .5 | 91.0 | 125.3 | 99.2 | 26.1 | 986 | 375.3 | 365.4 | 224.6 |
|  | August | 125.2* | 20.2* | 81.6* | 113.5* | 92.5* | 21.0* | 1,035 | 416.5 | 371.2 | 235.8 |

[^59]Source: Ministry to Supply

### 6.5 Iron and steel scrap and steel ingots and castings

Thousand tons

|  |  | Iron and steel scrap |  |  |  |  | Steel ingots and castings |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receipts |  |  | Consumption | Stocks (end of period) | Production |  |
|  |  | Total | Bought | Own |  |  | Total | Alloy |
| Annual totals |  |  |  | 2.236 | 5,850 | .. | 9,859 |  |
| 1935 1936 |  |  | 3,828 | 2,236 2,704 | 6,850 6,915 |  | 11,785 |  |
| 1936 |  | 6,532 6,240 | 3,172 | 3,068 | 7,477 | 409 | 12,984 |  |
| 1938 |  | 5,304 | 2,652 | 2,652 | 6,128 | 448 | 10,398 |  |
| 1939 |  | 6,439 | 3,016 | 3,423 | 7,404 | 282.3 | 13,221 |  |
| 1940 |  | 6,524 | 2,978 | 3,546 | 7,182 | 482.0 | 12,975 | 825 |
| 1941 |  | 6,620 | 3,248 | 3,372 | 6,942 | 680.5 | 12,312 | 1,052 |
| 1942 |  | 7,810 | 3,957 | 3,853 | 7,616 | 835.1 | 12,942 | 1,593 |
| 1943 |  | 7,783 | 3,822 | 3,961 | 7,965 | 590.3 | 13,031 | 1,596 |
| 1944 |  | 7,350 | 3,609 | 3,741 | 7,367 | 539.3 | 12,142 | 1,126 |
| 1945 |  | 7,005 | 3,600 | 3,405 | 7,203 | 470.3 | 11,824 | 707 |
| Weekly averages |  |  |  |  |  |  |  |  |
| 1939 |  | 123.8 | 58.0 | 65.8 | 142.0 | 282.3 | 254 |  |
| 1940 |  | 125.5 | 57.3 | $68 ., 2$ | 138.1 | 482.0 | 250 | 16 |
| 1941 |  | 127.3 | 62.5 | 64.8 | 133.5 | 680.5 | 237 | 20 |
| 1942 |  | 147.4 | 74.7 | 72.7 | 143.7 | 835.1 | 244 | 30 |
| 1943 |  | 149.7 | 73.5 | 76.2 | 153.2 | 590.3 | 251 | 31 |
| 1943 |  | 141.3 | 69.4 | 71.9 | 141.7 | 539.3 | 233 | 22 |
| 19441945 |  | 134.7 | 69.2 | 65.5 | 138.5 | 470.3 | 227 | 14 |
| 1939 | September | 118.5 | 49.2 | 69.3 | 141.2 | 289.2 | 259 |  |
|  | October | 125.5* | 52.9 | 72.6 | 144.7 * | 270.8 * | 272 |  |
|  | November | 128.1 * | 53.8 | $74.3{ }^{*}$ | $142.9 *$ | $270.8{ }^{*}$ | 270 |  |
|  | December | 118.6 | 48.8 | 69.8 | 128.3 | 282.3 | 249 |  |
| 1940 | January | 108.5* | 42.2 | 66.3 * | 120.5* | 250.1 * | 238 |  |
|  | February | 114.5 | 45.7 | 68.8 | 121.8 | 233.0 | 241 | 13 |
|  | March | 127.8 | 55.4 | 72.4 | 136.7 | 244.7 | 262 | 13 |
|  | April | 136.5 | 61.9 | 74.6 | 144.7 * | 290.2 * | 272 | 14 * |
|  | May | 139.7 * | 65.1 | 74.6* | 149.4* | 328.9* | 275 | $14 *$ |
|  | June | 144.0 | 70.1 | 73.9 | 148.3 | 379.8 | 266 | 16 |
|  | July | 139.7 | 69.9 | 69.8 | 145.9 | 458.4 | 253 | 18 |
|  | August | 129.6* | 65.5 | $64.1{ }^{*}$ | 133.2 * | 551.0* | 229 | $18 *$ |
|  | September | 117.3 | 54.8 | 62.5 | 132.4 | 605.8 | 225 | 18 |
|  | October | 118.8 * | 53.5 | $65.3{ }^{*}$ | 143.8* | 586.6* | 242 | 20* |
|  | November | 122.8 | 55.7 | 67.1 | 145.3 | 530.2 | 247 | 19 |
|  | December | 109.8 | 49.7 | 60.1 | 129.6 | 482.0 | 230 | 15 |
| 1941 | January | 107.9 * | 47.3 | 60.6* | 125.5* | 428.6* | 227 | $16^{*}$ |
|  | February | 120.3 | 54.6 | 65.7 | 129.7 | 430.4 | 233 | 20 |
|  | March | 130.1 | 62.8 | 67.3 | 132.4 | 458.4 | 237 | 21. |
|  | April | 125.7 * | 61.3 | $64.4 *$ | 134.0 * | 501.9* | 234 | $20^{*}$ |
|  | May | 129.4 | 63.3 | 66.1 | 143.2 | 520.5 | 242 | 19 |
|  | June | 126.9 * | 63.2 | 63.7 * | 133.0 | 567.3 | 232 | 17. |
|  | July | 123.4* | 62.9 | $60.5 *$ | $126.4 *$ | $601.9 *$ | 226 | $18 *$ |
|  | August | 121.7 | 60.2 | 61.5 | 127.7 | 608.6 | 225 | 20 |
|  | September | 136.9 | 70.2 | 66.7 . | 137.0 | 635.7 | 241 | 22. |
|  | October | 140.5* | 71.4 | $69.1{ }^{*}$ | 137.4* | 684.8* | 246 | 23 * |
|  | November | 136.9 | 68.9 | 68.0 | 141.7 | 671.3 | 252 | 25 |
|  | December | 130.9 | 65.2 | 65.7 | 132.2 | 680.5 | 238 | 24 |

See footnotes on page 121 .
Source: Ministry of Supply

|  | Iron and steel scrap |  |  |  |  | Steel ingots and castings |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Receipts |  |  | Consumption' | Stocks' end of period | Production |  |
|  | Total | Bought | Own |  |  | Total | Alloy |
| 1942 * January | 127.5 | 61.8 | 65.7 | 132.5 | 661.9 | 234 | 24 |
| February | 138.2 | 67.7 | 70.5 | 141.8 | 646.3 | 247 | 28 |
| March | 148.0 | 75.3 | 72.7 | 142.4 | 667.1 | 250 | 29 |
| * April | 154.5 | 80.2 | 74.3 | 146.1 | 707.4 | 250 | 30 |
| May | 152.8 | 79.3 | 73.5 | 143.9 | 743.8 | 244 | 28 |
| June | 152.7 | 77.4 | 75.3 | 146.1 | 763.0 | 250 | 31 |
| * July | 143.9 | 72.5 | 71.4 | 139.1 | 786.0 | 235 | 29 |
| August | 139.4 | 72.1 | 67.3 | 132.2 | 811.4 | 223 | 27 |
| September | 155.7 | 81.2 | 74.5 | 150.0 | 830.4 | 249 | 33 |
| * October | 158.7 | 80.1 | 78.6 | 154.0 | 844.3 | 255 | 36 |
| November | 156.2 | 79.6 | 76.6 | 156.1 | 843.5 | 258 | 35 |
| * December | 142.5 | 69.8 | 72.7 | 142.2 | 835.1 | 236 | 30 |
| 1943 January | 145.9 | 71.9 | 74.0 | 150.8 | 813.9 | 249 | 31 |
| February | 156.0 | 77.7 | 78.3 | 161.0 | 789.3 | 264 | 35 |
| * March | 161.8 | 80.9 | 80.9 | 162.2 | 777.0 | 267 | 35 |
| April | 154.8 | 76.8 | 78.0 | 157.6 | 759.1 | 255 | 31 |
| May | 156.8 | 78.1 | 78.7 | 161.9 | 733.7 | 261 | 33 |
| * June | 150.8 | 75.1 | 75.7 | 151.7 | 712.0 | 249 | 30 |
| July | 140.9 | 70.3 | 70.6 | 140.8 | 709.6 | 234 | 25 |
| August | 130.6 | 64.7 | 65.9 | 136.6 | 682.8 | 224 | 28 |
| * September | 154.2 | 73.8 | 80.4 | 159.7 | 651.7 | 259 | 33 |
| October | 155.9 | 75.7 | 80.2 | 157.9 | 639.9 | 256 | 32 |
| November | 154.3 | 74.5 | 79.8 | 158.1 | 622.2 | 256 | 31 |
| * December | 133.6 | 62.9 | 70.7 | 139.7 | 590.3 | 232 | 24 |
| 1944 January | 142.0 | 67.5 | 74.5 | 148.0 | 559.4 | 242 | 26 |
| February | 152.3 | 72.9 | 79.4 | 158.8 | 531.2 | 258 | 28 |
| * March | 153.1 | 76.6 | 76.5 | 149.9 | 549.3 | 244 | 25 |
| April | 139.3 | 67.6 | 71.7 | 133.9 | 571.8 | 224 | 20 |
| May | 147.0 | 70.9 | 76.1 | 148.7 | 563.2 | 245 | 24 |
| * June | 143.6 | 70.1 | 73.5 | 139.6 | 578.3 | 233 | 22 |
| July | 129.9 | 66.8 | 63.1 | 125.5 | 594.6 | 208 | 18 |
| * August | 126.0 | 61.7 | 64.3 | 126.3 | 594.0 | 210 | 21 |
| September | 141.2 | 69.4 | 71.8 | 143.7 | 574.9 | 236 | 22 |
| October | 146.1 | 72.6 | 73.5 | 146.9 | 568.1 | 239 | 20 |
| * November | 145.6 | 72.7 | 72.9 | 147.8 | 552.1 | 244 | 19 |
| December | 129.6 | 63.5 | 66.1 | 132.4 | 539.3 | 220 | 15 |
| 1945 * January | 121.6 | 58.7 | 62.9 | 131.7 | 490.1 | 216 | 15 |
| February | 146.2 | 73.1 | 73.1 | 148.4 | 487.3 | 241 | 17 |
| March | 150.8 | 77.6 | 73.2 | 149.6 | 502.1 | 246 | 17 |
| April | 141.6 | 71.6 | 70.0 | 145.5 | 486.9 | 237 | 17 |
| * May | 130.2 | 68.1 | 62.1 | 129.3 | 494.9 | 211 | 14 |
| June | 147.9 | 75.9 | 72.0 | 151.9 | 485.5 | 238 | 17 |
| July | 129.5 | 67.9 | 61.6 | 133.3 | 484.3 | 214 | 13 |
| * August | 106.3 | 54.6 | 51.7 | 110.6 | 472.6 | 186 | 10 |
| September | 141.5 | 73.2 | 68.3 | 145.2 | 466.9 | 241 | 14 |

[^60]Source: Ministry of Supply

- Average of five weeks.


### 6.6 Semi-finished and finished iron and steel ${ }^{\prime}$

|  | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Production of semi-finished and finished iron and steel |  |  |  |  |  |  |  |  |  |  |  |
| Iron castings <br> Wrought iron: |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 346 | 424 | 462 | 317 |  |  |  |  |  | 226 |  |
| Forge Production | 188 | 232 | 259 | 177 | 199 | 178 | 166 | 164 | 147 | 130 | 111 |
| Finishing mills production | 158 | 192 | 203 | 140 | 156 | 124 | 112 | 111 | 110 | 96 | 82 |
| Semi-finished steel: |  |  |  |  |  |  |  | 5,510 |  |  |  |
| Billets, blooms and slabs2 Sheet bars and tinplate bars | $\begin{aligned} & 5,928 \\ & 2,080 \end{aligned}$ | $\begin{aligned} & 1,318 \\ & 2,388 \end{aligned}$ | $\begin{aligned} & 8,065 \\ & 2,650 \end{aligned}$ | 1,663 |  |  | 2,293 | 2,270 | 2,070 | 2,001 | 1,984 |
| Finished steel principal products ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| Bright steel bars | 117 | 132 | 179 | 119 | 140 | 238 | 289 | 363 | 413 | 390 | 246 |
| Heavy rails and sleepers | 442 | 547 | 518 | 491 | 395 | 247 | 215 | 260 | 292 | 337 | 400 |
| Heavy and medium plates | 1,101 | 1,431 | 1,624 | 1,372 | 1,430 | 1,612 | 1,582 | 1,589 | 1,723 | 1,602 | 1,394 |
| Armour and bullet proof plate |  |  |  |  | 71 | 64 | 80 | 145 | 113 | 99 | 56 |
| Other heavy steel products |  |  |  | 1,543 | 2,007 | 1,725 | 1,382 | 1,462 | 1,416 | 1,444 | 1,431 |
| Shell steel |  |  |  |  | 111 | 636 | 1,029 | 1,073 | 702 | 543 | 313 |
| Light rolled products |  |  |  | 2,251 | 2,909 | 3,416 | 3,217 | 3,387 | 3,387 | 3,273 | 2,907 |
| Cold rolled strip | 91 | 114 | 130 | 73 | 110 | 154. | 163 | 216 | 231 | 220 | 225 |
| Sheets coated and uncoated | 1,097 | 1,163 | 1,272 | 816 | 1,649 | 1,257 | 1,263 | 1,185 | 1,169 | 1,137 | 1,076 |
| Tin, terne and black plates | 708 | 815 | 958 | 610 | 919 | 977 | 720 | 678 | 532 | 521 | 512 |
| Tubes, pipes and fittings | 718 |  | 837 | $665{ }^{4}$ | 675 | 684 | 685 | 677 | 659 | 666 | 595 |
| Steel castings | $115{ }^{4}$ | $145{ }^{4}$ | $170{ }^{4}$ | $142^{4}$ | 159 | 227 | 248 | 338 | 365 | 355 | 285 |
| Steel forgings | 109 | 136 | 173 | $250{ }^{4}$ |  | 342 | 469 | 596 | 617 | 563 | 387 |
| Wire | 442 |  | 562 | 5004 | 583 | 648 | 642 | 694 | 644 | 639 | 537 |
| Tyres, wheels and axles | 155 | 160 | 158 | 159 | 131 | 134 | 89 | 114 | 122 | 136 | 158 |

Net deliveries of finished steel

| Total |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Home produced5 <br> Imported | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 10,497 | 11,387 | 11,006 | 10,270 | 8,922 |  |
| Deliveries for home consumption | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 10,127 | 10,647 | 10,282 | 10,010 | 8,865 |
| Stocks of steel6 |  |  |  |  |  |  |  |  |  |  |  |  |

[^61]Source: Ministry of Supply

## 6.7

| Production and consumption: calendar years or 52 week periods। |  |  |  | Stocks end of period: |  | Thousand tons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Chrome ore |  |  |  |  |  |  |
| Home consumption: Total | $\ldots$ | 64.4 | 70.0 | 72.1 | 73.3 | $74.1{ }^{2}$ |
| Refractory | . | 31.8 | 36.1 | 34.9 | 30.6 | 34.1 |
| Chemical |  | 22.9 | 22.4 | 19.8 | 20.4 | 21.3 |
| Metallurgical |  | 9.7 | 11.5 | 17.5 | 22.3 | 18.7 |
| Stocks:Total | 52.53 | 45.1 | 75.1 | 40.1 | 56.3 | 30.6 |
| Refractory |  | 15.9 | 32.4 | 14.6 | 25.8 | 12.4 |
| Chemical |  | 11.9 | 9.0 | 11.0 | 13.8 | 7.6 |
| Metallurgical |  | 17.2 | 33.7 | 14.5 | 16.7 | 10.6 |
| Tungsten |  |  |  |  |  |  |
| Production ${ }^{4}$ |  | 4.47 | 2.91 | 1.40 | 2.08 | 2.70 |
| Total disposals ${ }^{4}$ |  | 4.36 | 2.12 | 1.88 | 2.50 | 2.82 |
| Home consumption ${ }^{4}$ |  | 3.46 | 2.01 | 1.87 | 2.48 | 2.53 |
| Stocks: Ore (metal content) | 2.88 | 1.80 | 2.10 | 4.00 | 5.09 | 2.98 |
| Finished product ${ }^{4}$ |  | 1.43 | 2.21 | 1.94 | 1.54 | 1.49 |
| Molybdenum |  |  |  |  |  |  |
| Production 4 |  | 1.87 | 3.39 | 2.77 | 1.24 | 0.81 |
| Total disposals ${ }^{4}$ |  | 2.24 | 3.95 | 2.99 | 1.78 | 1.14 |
| Home consumption ${ }^{4}$ |  | 2.09 | 3.93 | 2.99 | 1.78 | 1.05 |
| Stocks: Ore (metal content) | 1.27 | 0.61 | 0.56 | 1.18 | 0.38 | 0.09 |
| Finished product ${ }^{4}$ | , | 0.68 | 1.06 | 1.37 | 0.82 | 0.52 |
| Vanadium |  |  |  |  |  |  |
| Production 4 |  | 0.51 | 0.58 | 0.53 | 0.22 | 0.19 |
| Total disposals ${ }^{4}$ |  | 0.55 | 0.57 | 0.51 | 0.29 | 0.24 |
| Home consumption ${ }^{4}$ |  | 0.53 | 0.53 | 0.45 | 0.28 | 0.21 |
| Stocks: Ore metal content | 0.40 | 0.21 | 0.17 | 0.29 | 0.41 | 0.30 |
| Finished product ${ }^{4}$ |  | 0.19 | 0.21 | 0.22 | 0.16 | 0.12 |
| Ferro-chrome |  |  |  |  |  |  |
| Production |  | 3.83 | 4.88 | 6.38 | 8.48 | 6.49 |
| Consumption |  | 24.40 | 27.84 | 28.16 | 20.49 | 16.26 |
| Stocks | 12.64 | 19.20 | 11.98 | 19.07 | 17.69 | 10.91 |
| Silico-manganese |  |  |  |  |  |  |
| Consumption |  | 14.0 | 14.9 | 10.8 | 10.1 | 9.8 |
| Stocks | 6.5 | 14.0 | 6.3 | 7.1 | 4.5 | 5.5 |
| Refined ferro-manganese |  |  |  |  |  |  |
| Production |  | 0.58 | 1.46 | 3.68 | 3.90 | 3.64 |
| Home consumption |  | 2.71 | 3.85 | 4.77 | 4.17 | 4.055 |
| Stocks | 1.24 | 1.21 | 1.62 | 4.21 | 3.96 | 2.60 |
| Ferro-silicon |  |  |  |  |  |  |
| Production |  | 4.9 | 7.2 | 8.0 | 5.0 | 6.0 |
| Consumption |  | 43.5 | 50.9 | 62.5 | 51.8 | 41.8 |
| Stocks | 20.4 | 23.9 | 15.0 | 43.6 | 23.5 | 16.8 |
| Calcium silicide |  |  |  |  |  |  |
| Consumption |  | 0.70 | 1.03 | 0.80 | 0.54 | 0.58 |
| Stocks | 0.42 | 0.74 | 0.47 | 0.52 | 0.38 | 0.29 |

[^62]Source: Ministry of Supply

## 6.8

Non-ferrous metals


[^63]Source: Ministry of Supply

## 6.9

## Aluminium

Thousands tons

|  |  | Production |  | Consumption |  | Stocks (end of period) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Virgin aluminium | Secondary aluminium ${ }^{1}$ | Virgin aluminium² | Secondary aluminium | Virgin aluminium ${ }^{3}$ | Secondary aluminium |
| Annual totals |  |  |  |  |  |  |  |
| 1938 |  | 23.04 |  | 44.4 |  | . | $\cdots$ |
| 1939 |  | 24.96 |  | 78.0 |  |  |  |
| 1940 |  | 18.95 | 37.92 | 102.3 | 32.17 |  |  |
| 1941 |  | 22.67 | 53.17 | 116.8 | 49.04 | 82.0 | 14.4 |
| 1942 |  | 46.78 | 78.81 | 195.3 | 63.78 | 77.0 | 27.5 |
| 1943 |  | 55.66 | 93.48 | 208.2 | 85.49 | 130.5 | 31.0 |
| 1944 |  | 35.47 | 104.48 | 150.1 | 71.68 | 142.4 | 58.7 |
| 1945 |  | 31.90 | 81.00 | 99.1 | 51.24 | 92.3 | 92.3 |
| Monthly averages |  |  |  |  |  |  |  |
| 1938 |  | 1.92 | - | 3.7 | $\cdots$ |  | . |
| 1939 |  | 2.08 |  | 6.5 |  |  |  |
| 1940 |  | 1.58 | 3.16 | 8.5 | 2.68 |  |  |
| 1941 |  | 1.89 | 4.43 | 9.7 | 4.08 | 82.0 | 14.4 |
| 1942 |  | 3.90 | 6.56 | 16.3 | 5.31 | 77.0 | 27.5 |
| 1943 |  | 4.64 | 7.79 | 17.3 | 7.12 | 130.5 | 31.0 |
| 1944 |  | 2.96 | 8.71 | 12.5 | 5.97 | 142.4 | 58.7 |
| 1945 |  | 2.66 | 6.75 | 8.3 | 4.27 | 92.3 | 92.3 |
| 1939 | October | $\cdots$ |  | 8.5 | 2.04 | . | . |
|  | November | . | . | 8.9 | $2.19$ | . . | . |
|  | December |  |  | 7.4 | 1.89 | . | . |
| 1940 | January | 1.57 | 2.85 | 7.7 | 1.87 | . | . |
|  | February | 0.84 | 2.53 | 7.8 | 2.63 | . | . |
|  | March | 1.27 | 2.79 | 7.9 | 2.02 | . . | . . |
|  | April | 1.61 | 3.18 | 8.6 | 2.26 | . . | . |
|  | May | 1.78 | 3.24 | 8.1 | 2.35 | . | . |
|  | June | 1.21 | 2.89 | 7.5 | 1.96 | . | . |
|  | July | 0.87 | 3.68 | 7.4 | 2.41 | - | .. |
|  | August | 1.22 | 3.30 | 9.1 | 3.38 | . . | . |
|  | September | 1.48 | 3.17 | 8.3 | 2.85 | . |  |
|  | October | 2.30 | 3.47 | 10.2 | 3.70 | .. | . |
|  | November | 2.24 | 3.39 | 7.5 | 3.52 | . . | . |
|  | December | 2.56 | 3.43 | 12.2 | 3.22 | . | . |
| 1941 | January | 2.71 | 3.61 | 11.6 | 3.83 |  | . |
|  | February | 1.94 | 3.78 | 11.3 | 3.56 | . ${ }^{1}$ |  |
|  | March | 1.77 | 5.16 | 10.9 | 4.17 | 33.1 | 12.8 |
|  | April | 1.77 | 4.45 | 10.4 | 3.92 | 43.5 | 14.2 |
|  | May | 1.92 | 4.90 | 9.3 | 4.03 | 48.3 | 15.4 |
|  | June | 1.52 | 4.25 | 7.2 | 3.97 | 54.4 | 15.2 |
|  | July | 0.95 | 4.66 | 5.5 | 3.29 | 66.2 | 15.1 |
|  | August | 1.24 | 3.79 | 6.9 | 3.09 | 67.6 | 14.9 |
|  | September | 1.67 | 4.37 | 12.6 | 3.75 | 63.2 | 14.3 |
|  | October | 2.16 | 4.81 | 11.3 | 5.46 | 67.0 | 14.7 |
|  | November | 2.31 | 4.72 | 7.3 | 4.75 | 72.1 | 14.0 |
|  | December | 2.71 | 4.67 | 12.5 | 5.22 | 82.0 | 14.4 |
| 1942 |  | 4.37 | 5.44 | 19.0 | 4.85 | 78.7 | 14.9 |
|  | February | 3.66 | 5.69 | 11.5 | 5.02 | 78.3 | 15.9 |
|  | March | 3.95 | 5.99 | 17.3 | 5.22 | 81.7 | 16.7 |
|  | April | 4.09 | 5.92 | 16.3 | 5.33 | 82.0 | 18.8 |
|  | May | 3.49 | 5.75 | 14.1 | 5.15 | 86.4 | 18.8 |
|  | June | 3.54 | 6.16 | 17.3 | 5.47 | 88.6 | 19.9 |
|  | July | 3.22 | 6.63 | 16.6 | 4.99 | 91.5 | 20.9 |
|  | August | 3.16 | 5.92 | 13.7 | 4.32 | 90.6 | 21.2 |
|  | September | 3.92 | 7.52 | 13.5 | 5.83 | 89.1 | 22,9 |
|  | October | 4.32 | 7.92 | 19.0 | 6.13 | 85.9 | 23.8 |
|  | November | 4.35 | 8.03 | 17.3 | 6.03 | 81.3 | 25.2 |
|  | December | 4.71 | 7.84 | 19.7 | 5.44 | 77.0 | 27.5 |

### 6.9 Aluminium

|  |  | Production |  | Consumption |  | Stocks (end of period) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Virgin aluminium | Secondary aluminium | Virgin aluminium² | Secondary aluminium | Virgin aluminium ${ }^{3}$ | Secondary aluminium |
| 1943 |  | 4.84 | 7.05 | 20.2 | 5.80 | 72.1 | 28.1 |
|  | February | 4.49 | 6.91 | 14.6 | 6.20 | 65.0 | 27.2 |
|  | March | 4.72 | 7.66 | 23.2 | 6.92 | 64.8 | 28.6 |
|  | April | 4.52 | 6.99 | 19.3 | 6.73 | 70.8 | 31.3 |
|  | May | 4.48 | 7.19 | 15.6 | 6.55 | 78.4 | 31.5 |
|  | June | 4.56 | 7.17 | 11.2 | 6.94 | 87.4 | 30.5 |
|  | July | 4.88 | 7.46 | 15.7 | 6.42 | 102.4 | 30.4 |
|  | August | 4.50 | 6.90 | 15.1 | 6.97 | 119.5 | 29.8 |
|  | September | 4.49 | 8.68 | 14.8 | 8.00 | 125.0 | 30.1 |
|  | October | 4.73 | 9.35 | 17.5 | 8.49 | 122.2 | 27.9 |
|  | November | 4.65 | 9.37 | 20.6 | 8.56 | 123.7 | 28.0 |
|  | December | 4.80 | 8.75 | 20.4 | 7.91 | 130.5 | 31.0 |
| 1944 | January | 4.71 | 10.13 | 17.3 | 8.76 | 131.3 | 32.3 |
|  | February | 3.48 | 9.57 10.17 | 17.8 | 8.83 | 127.1 | 32.4 |
|  | March | 3.25 | 10.17 | 17.8 | 8.17 | 125.8 | 32.1 |
|  | April | 2.45 | 7.54 | 16.3 | 5.59 | 126.4 | 33.1 |
|  | May | 2.47 | 8.32 | 14.7 | 6.57 | 130.0 | 36.3 |
|  | June | 2.72 | 8.42 | 12.9 | 5.38 | 156.0 | 39.3 |
|  | July | 2.61 | 8.53 | 12.7 | 5.29 | 146.2 | 42.7 |
|  | August | 2.84 | 7.53 | 7.5 | 4.95 | 142.2 | 45.0 |
|  | September | 2.65 | 8.65 | 9.7 | 5.22 | 136.6 | 48.0 |
|  | October | 2.66 | 8.90 | 7.0 | 4.81 | 148.1 | 51.0 |
|  | November | 2.54 | 9.28 | 9.3 | 4.47 | 145.8 | 54.7 |
|  | December | 3.09 | 7.44 | 7.1 | 3.64 | 142.4 | 58.7 |
| 1945 | January | 3.03 | 8.79 | 8.7 | 3.27 | 137.3 | 63.3 |
|  | February | 2.74 | 7.71 | 9.4 | 3.05 | 130.9 | 66.7 |
|  | March | 2.96 | 7.67 | 9.3 | 3.77 | 124.7 | 73.7 |
|  | April | 2.66 | 6.53 | 8.7 | 4.06 | 119.6 | 76.9 |
|  | May | 2.68 | 6.15 | 10.2 | 3.42 | 112.1 | 79.7 |
|  | June | 2.61 | 7.36 | 11.6 | 3.30 | 103.3 | 84.5 |
|  | July | 2.86 | 6.81 | 4.8 | 3.88 | 101.8 | 87.0 |
|  | August | 2.32 | 5.12 | 7.9 | 3.06 | 96.9 | 90.5 |

[^64]Source: Ministry of Supply

## 6. 10 Softwood and hardwood



[^65]
## 6. Softwood and hardwood <br> continued

|  |  | Softwood ${ }^{\prime}$ |  |  |  |  | Hardwood ${ }^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production ${ }^{2}$ | Consumption |  | Stock (end of period) |  | Production ${ }^{2}$ | Consumption |  | Stocks (end of period) |  |
|  |  | Imported | Home grown ${ }^{2}$ | ported | Home grown | $\begin{array}{r} \text { Im- } \\ \text { ported } \end{array}$ |  | Home grown ${ }^{2}$ | $\begin{array}{r} \text { Im- } \\ \text { ported } \end{array}$ | Home grown |
|  |  | Thousand standard ${ }^{3}$ | Million cubic feet |  |  |  |  |
| 1943 | January |  | 22.29 | 34.99 | 21.72 | 290.9 | 54.30 | 3.66 | 1.29 | 3.32 | 9.81 |  |
|  | February | 23.45 | 33.14 | 18.07 | 280.3 | 59.99 | 3.81 | 1.22 | 3.04 | 9.14 | 7.50 |
|  | March | 27.50 | 38.71 | 24.15 | 255.6 | 69.34 | 4.39 | 1.24 | 2.77 | 8.81 | 9.37 |
|  | April | 25.81 | 32.35 | 20.73 | 246.6 | 74.41 | 4.56 | 1.14 | 4.06 | 8.42 | 9.86 |
|  | May | 25.75 | 33.72 | 22.93 | 254.3 | 77.23 | 4.57 | 1.05 | 4.28 | 8.20 | 10.15 |
|  | June | 25.65 | 34.06 | 20.13 | 273.8 | 82.75 | 4.56 | 1.16 | 3.47 | 7.96 | 11.23 |
|  | July | 25.47 | 35.16 | 20.24 | 298.3 | 87.67 | 4.51 | 1.02 | 4.41 | 8.24 | 11.17 |
|  | August | 26.02 | 32.43 | 20.10 | 321.3 | 93.59 | 3.92 | 1.09 | 3.58 | 8.62 | 11.51 |
|  | September | 26.57 | 33.78 | 20.49 | 371.7 | 99.66 | 4.63 | 1.12 | 4.05 | 9.18 | 12.10 |
|  | October | 21.87 | 37.34 | 22.92 | 396.2 | 98.62 | 4.30 | 1.07 | 4.05 | 8.88 | 11.60 |
|  | November | 19.16 | 42.87 | 18.45 | 389.9 | 99.33 | 4.20 | 1.00 | 4.19 | 9.08 | 11.60 |
|  | December | 18.63 | 41.03 | 18.91 | 410.7 | 99.05 | 3.72 | 0.78 | 3.73 | 9.38 | 11.60 |
| 1944 | January | 18.21 | 37.58 | 19.47 | 398.0 | 97.79 | 3.78 | 0.73 | 3.81 | 9.20 | 11.57 |
|  | February | 18.26 | 47.82 | 20.82 | 378.5 | 95.23 | 4.04 | 0.87 | 3.91 | 9.20 | 11.71 |
|  | March | 19.55 | 55.88 | 22.11 | 347.6 | 92.67 | 4.35 | 0.94 | 4.28 | 9.36 | 11.78 |
|  | April | 7.11 | 54.67 | 19.73 | 326.1 | 90.05 | 3.75 | 0.88 | 3.77 | 9.65 | 11.75 |
|  | May | 18.44 | 50.17 | 24.76 | 317.4 | 83.73 | 4.20 | 0.98 | 4.53 | 10.02 | 11.43 |
|  | June | 17.10 | 54.03 | 24.95 | 305.6 | 75.88 | 4.20 | 1.14 | 4.57 | 10.40 | 11.06 |
|  | July | 14.54 | 53.60 | 21.34 | 276.7 | 69.07 | 3.91 | 0.88 | 3.85 | 10.62 | 11.06 |
|  | August | 15.41 | 53.36 | 20.71 | 254.2 | 63.66 | 3.63 | 0.74 | 3.54 | 11.74 | 11.08 |
|  | September | 15.74 | 47.73 | 21.33 | 273.5 | 58.06 | 3.97 | 0.91 | 3.65 | 12.66 | 11.39 |
|  | October | 15.66 | 48.67 | 22.10 | 295.7 | 51.62 | 3.96 | 1.21 | 4.13 | 13.88 | 11.22 |
|  | November | 13.94 | 51.26 | 19.31 | 328.4 | 46.25 | 3.88 | 1.28 | 3.93 | 14.58 | 11.18 |
|  | December | 12.13 | 50.12 | 16.27 | 330.2 | 42.10 | 3.30 | 0.62 | 3.35 | 14.74 | 11.12 |
| 1945 | January | 9.42 | 55.86 | 17.74 | 324.4 | 35.66 | 3.25 | 1.66 | 3.64 | 14.23 | 10.97 |
|  | February | 10.52 | 56.84 | 15.95 | 290.2 | 28.69 | 3.33 | 1.11 | 3.70 | 14.23 | 10.38 |
|  | March | 13.40 | 54.75 | 15.66 | 273.1 | 26.48 | 3.77 | 1.33 | 4.18 | 14.08 | 10.19 |
|  | April | 12.67 | 54.96 | 15.81 | 241.2 | 23.29 | 3.53 | 1.27 | 3.83 | 13.95 | 9.67 |
|  | May | 12.05 | 60.38 | 15.80 | 228.9 | 19.97 | 3.62 | 1.23 | 3.72 | 13.83 | 9.46 |
|  | June | 12.24 | 59.57 | 16.31 | 228.5 | 15.47 | 3.75 | 1.46 | 3.76 | 13.89 | 9.56 |
|  | July | 10.44 | 67.58 | 14.85 | 259.4 | 12.00 | 3.55 | 1.41 | 3.96 | 14.42 | 9.40 |
|  | August | 9.74 | 54.98 | 12.60 | 325.9 | 8.19 | 3.08 | 1.34 | 3.41 | 14.85 | 8.83 |

1. Excluding sleepers of all kinds except in figures for production before 1942.
2. In the figures for production after 1941 and in all figures for consumption of home-grown timber an allowance of 10 per cent. (softwood) and 5 per cent. (hardwood) has been made for conversion to square edged material.
3. Standards of 165 cubic feet.

### 6.11 <br> Pitwood and plywood



[^66]|  | Production of pitwood |  |  |  |  |  | Stocks of sawn and round pitwood (end of period) | Plywood |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Sawn |  | Round |  |  |  | Constructional |  |  | Technical |
|  |  | Trade | Home <br> Timber Production Department | Trade | Home <br> Timber Production Department |  |  | Production | Con-sumption | Stocks end of period | Production |
|  | Thousand standards ${ }^{\prime}$ |  |  |  |  |  |  | Million square feet |  |  |  |
| 1942 January | 37.65 | 9.52 | 4.72 | 13.69 | 9.72 | 72.19 | 414.1 | 0.32 | 22.94 | 84.4 |  |
| February | 38.21 | 9.67 | 3.58 | 13.85 | 11.11 | 65.80 | 386.9 | 0.32 | 17.14 | 67.1 |  |
| March | 45.13 | 11.39 | 4.58 | 15.95 | 13.21 | 66.80 | 365.3 | 0.51 | 21.56 | 49.8 | .. |
| April | 53.88 | 12.15 | 4.19 | 18.55 | 18.99 | 69.06 | 351.2 | 0.56 | 18.08 | 40.7 |  |
| May | 58.04 | 12.80 | 4.80 | 20.04 | 20.40 | 67.69 | 340.8 | 0.39 | 9.98 | 41.1 | .. |
| June | 60.88 | 13.90 | 3.33 | 22.85 | 20.80 | 67.13 | 334.8 | 0.93 | 10.49 | 43.9 |  |
| July | 59.47 | 12.03 | 3.37 | 22.17 | 21.90 | 69.67 | 328.0 | 0.61 | 12.04 | 47.7 |  |
| August | 56.82 | 12.53 | 3.56 | 20.98 | 19.75 | 60.63 | 324.2 | 0.52 | 12.24 | 40.8 | . |
| September | 62.84 | 13.23 | 4.84 | 22.21 | 22.56 | 66.22 | 320.3 | 0.81 | 13.84 | 43.3 |  |
| October | 60.35 | 12.25 | 4.33 | 22.15 | 21.62 | 71.51 | 310.0 | 0.79 | 10.66 | 46.7 |  |
| November | 53.17 | 11.33 | 4.84 | 18.81 | 18.19 | 66.31 | 296.4 | 0.85 | 9.73 | 45.2 |  |
| December | 50.33 | 10.81 | 3.50 | 18.29 | 17.73 | 60.57 | 286.7 | 0.69 | 8.90 | 43.0 | . |
| 1943 January | 44.47 | 9.74 | 3.51 | 15.37 | 15.85 | 56.46 | 290.3 | 0.50 | 9.20 | 42.3 |  |
| February | 49.44 | 11.03 | 3.44 | 16.99 | 17.98 | 57.48 | 290.2 | 0.53 | 7.89 | 46.8 | . |
| March | 66.72 | 11.45 | 3.78 | 23.10 | 28.39 | 62.32 | 293.1 | 0.59 | 9.75 | 51.6 | . |
| April | 67.35 | 12.55 | 3.51 | 23.61 | 27.68 | 55.53 | 303.3 | 0.29 | 10.60 | 55.9 | . |
| May | 64.66 | 13.04 | 4.51 | 20.45 | 26.66 | 60.31 | 307.0 | 0.33 | 7.72 | 68.8 |  |
| June | 69.52 | 13.24 | 4.76 | 21.97 | 29.55 | 60.62 | 313.5 | 0.27 | 8.70 | 78.5 |  |
| July | 68.87 | 12.59 | 4.36 | 23.85 | 28.07 | 63.82 | 317.7 | 0.34 | 9.18 | 94.2 | . |
| August | 62.59 | 12.48 | 3.84 | 20.92 | 25.35 | 54.09 | 326.9 | 0.14 | 9.99 | 112.2 | .. |
| September | 65.34 | 13.41 | 3.65 | 22.07 | 26.21 | 65.04 | 331.3 | 0.45 | 7.84 | 126.2 |  |
| October | 61.75 | 13.23 | 4.42 | 21.57 | 22.53 | 62.03 | 336.1 | 0.25 | 12.99 | 147.0 | . |
| November | 52.86 | 12.22 | 4.52 | 17.88 | 18.24 | 61.02 | 331.7 | 0.27 | 12.82 | 173.7 |  |
| December | 47.00 | 11.64 | 3.57 | 15.80 | 15.99 | 61.72 | 332.6 | 0.25 | 14.34 | 192.0 |  |
| 1944 January | 45.98 | 11.62 | 2.50 | 14.57 | 15.29 | 53.46 | 326.4 | 0.19 | 14.50 | 217.5 |  |
| February | 50.88 | . 12.11 | 3.82 | 14.90 | 20.05 | 63.74 | 322.4 | 0.17 | 19.17 | 237.1 | . |
| March | 57.47 | 14.10 | - 4.22 | 17.61 | 21.54 | 62.82 | 319.5 | 0.20 | 22.93 | 247.6 | . |
| April | 50.96 | 12.63 | - 5.00 | 16.18 | 17.15 | 56.92 | 314.4 | 0.22 | 17.91 | 268.8 | - |
| May | 57.17 | 13.36 | - 4.91 | 18.86 | 20.04 | 65.56 | 312.0 | 0.15 | 21.63 | 284.9 | .. |
| June | 54.78 | 14.07 | - 4.82 | 18.16 | 17.73 | 64.39 | 301.0 | 0.21 | 24.02 | 285.7 | . |
| July | 52.42 | 12.33 | 4.05 | 16.74 | 19.30 | 60.96 | 291.0 | 0.09 | 23.24 | 272.2 | .. |
| August | 55.10 | 13.27 | - 4.38 | 15.61 | 21.84 | 58.62 | 290.7 | 0.12 | 22.02 | 266.2 | . |
| September | 50.40 | 13.39 | - 4.50 | 15.39 | 17.12 | 63.54 | 284.0 | 0.16 | 28.62 | 253.8 |  |
| October | 47.55 | 12.76 | - 4.16 | 14.66 | 15.97 | 62.71 | 281.1 | 0.53 | 37.56 | 234.9 | . |
| November | 43.03 | 12.11 | 4.27 | 11.44 | 15.21 | 64.11 | 269.6 | 1.14 | 41.66 | 206.5 | . |
| December | 36.60 | 11.43 | - 2.84 | 10.10 | 12.23 | 60.49 | 251.1 | 1.06 | 30.96 | 190.9 | . |
| 1945 January $\begin{aligned} & \text { February } \\ & \text { March } \\ & \text { April } \\ & \text { May } \\ & \text { June } \\ & \text { July } \\ & \text { August }\end{aligned}$ | 27.73 | 8.32 | 2.20 | 7.58 | 9.63 | 53.32 | 226.1 | 1.68 | 38.5 | 176.8 | 5.50 |
|  | 35.92 | 9.69 | - 3.39 | 9.10 | 13.74 | 64.62 | 198.3 | 2.42 | 35.4 | 159.4 | 4.34 |
|  | 49.01 | 12.49 | - 3.57 | 13.46 | 19.49 | 59.17 | 195.0 | 2.88 | 40.2 | 142.3 | 5.16 |
|  | 49.44 | 12.52 | 2.4 .21 | 13.65 | 19.06 | 58.31 | 186.5 | 2.37 | 31.9 | 130.8 | 4.30 |
|  | 44.42 | 12.31 | 13.41 | 12.52 | 16.18 | 53.19 | 182.1 | 2.18 | 29.9 | 123.0 | 4.20 |
|  | 50.74 | 13.40 | - 4.33 | 13.38 | 19.63 | 58.66 | 180.0 | 3.47 | 31.1 | 124.3 | 3.29 |
|  | 47.19 | 12.61 | 13.86 | 13.10 | 17.62 | 56.46 | 183.7 | 3.35 | 26.9 | 133.4 | 3.59 |
|  | 39.01 | 11.34 | 42.61 | 11.05 | 14.01 | 46.81 | 197.9 | 3.46 | 24.0 | 136.2 | 1.94 |

## 6. I2 Hides, skins and finished leather



[^67]Source: Board of Trade


Thousand tons

|  |  | Waste ${ }^{\prime}$ |  |  | Reclaimed ${ }^{\prime}$ |  |  | Natural (Including latex) ${ }^{2}$ |  | Synthetic ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production ${ }^{4}$ | Consumption | Stocks (end of period) | Production | Consumption 6.7 | Stocks end of period | Consumption 7 | Stocks (end of period) | Consumption | Stocks (end of period) |
| 1943 | January | 1.13 | 0.74 | 59.7 | 0.59 | 0.73 | 11.09 | 1.49 | 59.2 | 0.02 | 0.82 |
|  | February | 2.57 | 0.75 | 65.8 | 0.61 | 0.75 | 11.36 | 1.56 | 58.9 | 0.02 | 0.78 |
|  | - March | 2.18 | 0.75 | 72.6 | 0.59 | 0.78 | 11.47 | 1.56 | 59.0 | 0.02 | 0.89 |
|  | April | 2.00 | 0.80 | 77.4 | 0.69 | 0.72 | 11.70 | 1.38 | 59.5 | 0.02 | 1.17 |
|  | May | 2.02 | 0.90 | 81.8 | 0.78 | 0.85 | 11.44 | 1.58 | 57.3 | 0.03 | 1.27 |
|  | - June | 1.83 | 0.83 | 86.8 | 0.71 | 0.85 | 10.65 | 1.42 | 56.5 | 0.03 | 1.60 |
|  | July | 2.06 | 0.81 | 91.8 | 0.74 | 0.80 | 10.49 | 1.35 | 54.6 | 0.03 | 2.25 |
|  | August | 1.21 | 0.86 | 93.2 | 0.66 | 0.74 | 10.10 | 1.27 | 56.4 | 0.05 | 2.64 |
|  | - September | 2.15 | 0.96 | 99.1 | 0.75 | 0.91 | 9.12 | 1.54 | 57.4 | 0.08 | 3.73 |
|  | October | 2.60 | 0.97 | 105.8 | 0.81 | 0.88 | 8.35 | 1.52 | 56.9 | 0.09 | 5.78 |
|  | November | 2.00 | 1.04 | 109.7 | $0.88$ | 0.87 | 8.36 | 1.52 | 54.1 | 0.16 | 6.39 |
|  | - December | 1.68 | 0.91 | 113.5 | $0.65$ | $0.77$ | $8.09$ | 1.25 | 60.3 | 0.26 | 8.06 |
| 1944 | January | 1.93 | 1.08 | 116.9 | 0.64 | 0.60 | 7.43 | 1.23 | 58.1 | 0.38 | 8.06 |
|  | February | 2.28 | 1.12 | 121.6 | 0.65 | 0.61 | 7.60 | 1.20 | 60.0 | 0.53 | 14.58 |
|  | - March | 2.01 | 1.01 | 126.6 | 0.60 | 0.59 | 7.74 | 1.11 | 58.1 | 0.62 | 18.91 |
|  | April | 2.03 | 0.94 | 131.0 | 0.64 | 0.52 | 8.54 | 0.98 | 58.5 | 0.63 | 27.35 |
|  | May | 2.44 | 1.04 | 136.6 | 0.63 | 0.57 | 9.68 | 1.13 | 55.8 | 0.76 | 31.96 |
|  | * June | 1.49 | 0.85 | 139.7 | 0.56 | 0.56 | 9.69 | 0.93 | 54.2 | 0.78 | 41.86 |
|  | July | $1.19{ }^{9}$ | $0.24{ }^{9}$ | $96.8{ }^{9}$ | 0.54 | 0.51 | 9.92 | 0.95 | 53.4 | 0.86 | 52.72 |
|  | August | 1.07 | 0.11 | 100.7 | 0.43 | 0.45 | 9.84 | 0.65 | 54.1 | 0.73 | 54.11 |
|  | - September | 1.10 | 0.22 | 105.2 | 0.44 | 0.48 | 9.68 | 0.82 | 52.7 | 0.96 | 52.63 |
|  | October | 1.37 | 0.35 | 109.2 | 0.51 | 0.54 | 9.53 | 0.90 | 51.6 | 1.11 | 54.41 |
|  | November | 1.45 | 0.30 | 113.8 | 0.50 | 0.62 | 9.06 | 0.85 | 49.6 | 1.16 | 58.86 |
|  | - December | 0.71 | 0.18 | 116.5 | 0.38 | 0.37 | 9.12 | 0.71 | 47.4 | 1.45 | 55.08 |
| 1945 | January | 0.89 | 0.28 | 118.6 | 0.43 | 0.62 | 8.36 | 0.67 | 46.2 | 1.19 | 54.15 |
|  | February | 0.83 | 0.36 | 120.5 | 0.42 | 0.51 | 7.98 | 0.80 | 44.1 | 1.28 | 54.85 |
|  | - March | 0.95 | 0.60 | 122.2 | 0.40 | 0.55 | 7.27 | 0.74 | 42.1 | 1.25 | 49.69 |
|  | April | 1.18 | 0.44 | 125.2 | 0.40 | 0.50 | 6.89 | 0.63 | 41.2 | 1.18 | 45.05 |
|  | May | 1.24 | 0.31 | 128.9 | 0.37 | 0.50 | 6.40 | 0.83 | 38.7 | 1.08 | 40.76 |
|  | - June | 1.09 | 0.18 | 133.5 | 0.39 | 0.59 | 5.42 | 0.60 | 38.2 | 1.34 | 35.31 |
|  | July | 1.24 | 0.38 | 136.9 | 0.44 | 0.55 | 4.95 | 0.49 | 37.0 | 1.24 | 32.41 |
|  | August | 0.99 | 0.26 | 139.8 | 0.36 | 0.51 | 4.36 | 0.55 | 39.6 | 1.20 | 35.73 |

[^68]
## 6. 4 Chemicals

Production and consumption: calendar years Stocks: end of year

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industrial alcohol ${ }^{1}$ Production Consumption Stocks | Million bulk gallons | $\begin{array}{r} 27.24 \\ 27.36 \\ 1.79 \end{array}$ | $\begin{array}{r} 29.88 \\ 30.24 \\ 1.90 \end{array}$ | $\begin{array}{r} 29.42 \\ 30.25 \\ 2.65 \end{array}$ | $\begin{array}{r} 32.40 \\ 35.11 \\ 5.50 \end{array}$ | $\begin{array}{r} 22.48 \\ 40.03 \\ 5.24 \end{array}$ | $\begin{array}{r} 7.78 \\ 34.67 \\ 7.37 \end{array}$ | $\begin{array}{r} 32.50 \\ 40.58 \\ 7.94 \end{array}$ | $\begin{array}{r} 20.83 \\ 27.24 \\ 3.28 \end{array}$ |
| Industrial methylated spirit Production Consumption Stocks | " | 7.84 | 9.40 | $\begin{array}{r} 10.94 \\ 10.97 \\ 0.31 \end{array}$ | $\begin{aligned} & 9.03 \\ & 8.87 \\ & 0.34 \end{aligned}$ | $\begin{aligned} & 8.55 \\ & 8.58 \\ & 0.37 \end{aligned}$ | $\begin{aligned} & 9.63 \\ & 9.74 \\ & 0.34 \end{aligned}$ | $\begin{aligned} & 9.48 \\ & 9.57 \\ & 0.34 \end{aligned}$ | $\begin{aligned} & 8.65 \\ & 8.75 \\ & 0.32 \end{aligned}$ |
| Methanol Production Consumption Stocks | Thousand tons |  |  | 7.2 | $\begin{aligned} & 28.0 \\ & 23.3 \\ & 11.9 \end{aligned}$ | $\begin{aligned} & 36.6 \\ & 36.7 \\ & 11.8 \end{aligned}$ | $\begin{aligned} & 48.7 \\ & 46.7 \\ & 13.9 \end{aligned}$ | $\begin{aligned} & 54.5 \\ & 53.9 \\ & 14.5 \end{aligned}$ | $\begin{array}{r} 30.1 \\ 40.6 \\ 4.0 \end{array}$ |
| Urea Production Consumption Stocks | "' |  |  | 2.7 | $\begin{aligned} & 4.3 \\ & 4.5 \\ & 2.5 \end{aligned}$ | $\begin{aligned} & 4.7 \\ & 5.2 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 4.4 \\ & 5.0 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 4.5 \\ & 4.6 \\ & 1.1 \end{aligned}$ | $\begin{aligned} & 7.5 \\ & 7.2 \\ & 1.4 \end{aligned}$ |
| Nitric acid Production Consumption Stocks | "' |  |  |  | $\begin{array}{r} 254.5 \\ 5.6 \end{array}$ | $\begin{array}{r} 349.4 \\ 344.0 \\ 11.4 \end{array}$ | $\begin{array}{r} 380.7 \\ 381.0 \\ 10.3 \end{array}$ | $\begin{array}{r} 341.7 \\ 338.7 \\ 12.1 \end{array}$ | $\begin{array}{r} 281.0 \\ 283.2 \\ 4.8 \end{array}$ |
| Pyrites ${ }^{2}$ Production ${ }^{3}$ Consumption Stocks | " | 279.6 | $\begin{aligned} & 313.2 \\ & 318.0 \end{aligned}$ | $\begin{array}{r} 6.4 \\ 335.8 \\ 353.1 \end{array}$ | $\begin{array}{r} 7.6 \\ 294.8 \\ 279.9 \end{array}$ | $\begin{array}{r} 15.4 \\ 279.5 \\ 212.4 \end{array}$ | $\begin{array}{r} 26.9 \\ 243.1 \\ 174.6 \end{array}$ | $\begin{array}{r} 26.0 \\ 222.8 \\ 131.7 \end{array}$ | $\begin{array}{r} 20.1 \\ 201.1 \\ 88.9 \end{array}$ |
| Sulphur (for acid) Production ${ }^{3}$ Consumption Stocks | " | 74.4 | $\begin{aligned} & 92.9 \\ & 63.6 \end{aligned}$ | $\begin{array}{r} 2.0 \\ 127.9 \\ 64.4 \end{array}$ | $\begin{array}{r} 3.9 \\ 153.5 \\ 129.6 \end{array}$ | $\begin{array}{r} 4.3 \\ 170.6 \\ 59.0 \end{array}$ | $\begin{array}{r} 3.0 \\ 159.4 \\ 101.2 \end{array}$ | $\begin{array}{r} 3.8 \\ 171.5 \\ 81.2 \end{array}$ | $\begin{array}{r} 3.7 \\ 173.8 \\ 61.8 \end{array}$ |
| Sulphur (regular) Production ${ }^{4}$ Consumption Stocks | "' |  |  | $\begin{array}{r} 3.3 \\ 28.1 \end{array}$ | $\begin{array}{r} 5.6 \\ 67.2 \\ 49.2 \end{array}$ | $\begin{array}{r} 6.0 \\ 62.4 \\ 26.7 \end{array}$ | $\begin{array}{r} 9.5 \\ 68.3 \\ 37.7 \end{array}$ | $\begin{aligned} & 11.2 \\ & 65.6 \\ & 35.6 \end{aligned}$ | 7.3 59.4 30.0 |
| Spent oxide ${ }^{2}$ Production ${ }^{3}$ Consumption Stocks | "' | 145.2 | $\begin{array}{r} 155.4 \\ 74.6 \end{array}$ | $\begin{array}{r} 154.1 \\ 16.27 \\ 162.7 \\ 65.9 \end{array}$ | $\begin{array}{r} 171.4 \\ 150.1 \\ 150.1 \\ 87.3 \end{array}$ | $\begin{aligned} & 182.4 \\ & 153.3 \\ & 153.3 \\ & 116.0 \end{aligned}$ | $\begin{aligned} & 191.7 \\ & 192.1 \\ & 192.1 \\ & 115.5 \end{aligned}$ | $\begin{aligned} & 195.4 \\ & 190.9 \\ & 190.9 \\ & 120.2 \end{aligned}$ | $\begin{aligned} & 196.8 \\ & 187.0 \\ & 187.0 \\ & 130.2 \end{aligned}$ |
| Anhydrite ${ }^{2}$ Production ${ }^{3}$ Consumption Stocks | " |  |  |  | $\begin{array}{r} 139.7 \\ 139.9 \\ 0.5 \end{array}$ | $\begin{array}{r} 143.6 \\ 143.2 \\ 0.9 \end{array}$ | $\begin{array}{r} 134.2 \\ 134.3 \\ 0.8 \end{array}$ | $\begin{array}{r} 150.5 \\ 150.8 \\ 0.4 \end{array}$ | $\begin{array}{r} 161.1 \\ 161.1 \\ 0.4 \end{array}$ |
| Sulphuric acid ${ }^{5}$ Production Consumption Stocks | " | 994.8 | 1,119.6 | $\begin{array}{r} 1,196.4 \\ 1,206.0 \\ 65.5 \end{array}$ | $\begin{array}{r} 1,200.0 \\ 1,213.7 \\ 67.5 \end{array}$ | $\begin{array}{r} 1,284.0 \\ 1,284.8 \\ 81.8 \end{array}$ | $\begin{array}{r} 1,250.4 \\ 1,273.4 \\ 81.7 \end{array}$ | $\begin{array}{r} 1,268.2 \\ 1,281.7 \\ 82.2 \end{array}$ | $\begin{array}{r} 1,216.1 \\ 1,248.9 \\ 67.6 \end{array}$ |
| Calcium carbide Production Consumption Stocks | Thousand metric tons | 65.0 . |  | 17.3 | $\begin{array}{r} 3.1 \\ 24.2 \end{array}$ | $\begin{array}{r} 24.8 \\ 107.9 \\ 22.3 \end{array}$ | $\begin{array}{r} 62.4 \\ 106.3 \\ 44.4 \end{array}$ | $\begin{array}{r} 70.2 \\ 129.0 \\ 37.1 \\ \hline \end{array}$ | $\begin{array}{r} 72.1 \\ 100.6 \\ 27.6 \\ \hline \end{array}$ |

[^69]Source: Board of Trade

## 6. I5 Fertilizers, ammonia and molasses



[^70]
## 6. 6 Plastics and materials for plastics

Production and consumption: calendar years Stocks: end of year

|  | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total synthetic resins |  |  |  |  |  |
| Production <br> Total disposals Home consumption Stocks | $\begin{array}{r} 16,096 \\ 15,766 \\ 15,560 \\ 1,124 \end{array}$ | $\begin{array}{r} 20,931 \\ 20,291 \\ 20,202 \\ 1,764 \end{array}$ | $\begin{array}{r} 23,979 \\ 24,069 \\ 24,005 \\ 1,674 \end{array}$ | $\begin{array}{r} 24,424 \\ 24,551 \\ 24,502 \\ 1,547 \end{array}$ | $\begin{array}{r} 25,424 \\ 25,696 \\ 25,186 \\ 1,275 \end{array}$ |
| Phenolic: <br> Production <br> Total disposals Home consumption Stocks | .. |  | $\begin{array}{r} 8,937 \\ 9,033 \\ 9,016 \\ 912 \end{array}$ | $\begin{array}{r} 9,644 \\ 9,640 \\ 9,636 \\ 916 \end{array}$ | $\begin{array}{r} 10,058 \\ 10,279 \\ 10,064 \\ 695 \end{array}$ |
| Cresylic: <br> Production <br> Total disposals <br> Home consumption <br> Stocks | . $\ldots$ $\ldots$ $\ldots$ | . . | $\begin{array}{r} 8,723 \\ 8,737 \\ 8,695 \\ 606 \end{array}$ | $\begin{array}{r} 8,293 \\ 8,465 \\ 8,436 \\ 434 \end{array}$ | $\begin{array}{r} 6,996 \\ 7,114 \\ 6,964 \\ 316 \end{array}$ |
| Urea: <br> Production <br> Total disposals Home consumption Stocks |  | . | $\begin{array}{r} 5,924 \\ 5,898 \\ 5,894 \\ 120 \end{array}$ | $\begin{array}{r} 5,905 \\ 5,905 \\ 5,890 \\ 120 \end{array}$ | $\begin{array}{r} 7,902 \\ 7,823 \\ 7,701 \\ 199 \end{array}$ |
| Other synthetic resins: <br> Production <br> Total disposals <br> Home consumption Stocks | . | . . | $\begin{array}{r} 395 \\ 401 \\ 400 \\ 36 \end{array}$ | $\begin{array}{r} 582 \\ 541 \\ 540 \\ 77 \end{array}$ | $\begin{array}{r} 468 \\ 480 \\ 457 \\ 65 \end{array}$ |
| Moulding powders |  |  |  |  |  |
| Phenolic and cresylic: Production <br> Total disposals Home consumption Stocks | $\begin{array}{r} 13,521 \\ 12,593 \\ 11,117 \\ 2,926 \end{array}$ | $\begin{array}{r} 13,124 \\ 13,100 \\ 11,952 \\ 2,910 \end{array}$ | $\begin{array}{r} 14,289 \\ 14,195 \\ 13,679 \\ 3,090 \end{array}$ | $\begin{array}{r} 15,249 \\ 15,330 \\ 14,742 \\ 3,009 \end{array}$ | $\begin{array}{r} 17,531 \\ 17,487 \\ 15,814 \\ 1,078 \end{array}$ |
| Urea: <br> Production <br> Total disposals <br> Home consumption <br> Stocks | $\begin{array}{r} 4,136 \\ 4,039 \\ 2,456 \\ 714 \end{array}$ | $\begin{array}{r} 4,080 \\ 4,046 \\ 3,243 \\ 748 \end{array}$ | $\begin{array}{r} 3,869 \\ 3,948 \\ 3,447 \\ 727 \end{array}$ | $\begin{array}{r} 2,760 \\ 2,824 \\ 2,396 \\ 663 \end{array}$ | $\begin{array}{r} 3,996 \\ 4,067 \\ 3,115 \\ 351 \end{array}$ |
| Cellulose acetate: <br> Production <br> Total disposals <br> Home consumption <br> Stocks | $\begin{array}{r} 1,207 \\ 1,204 \\ 1,063 \\ 262 \end{array}$ | $\begin{array}{r} 1,343 \\ 1,335 \\ 1,279 \\ 270 \end{array}$ | $\begin{array}{r} 1,489 \\ 1,344 \\ 1,326 \\ 415 \end{array}$ | $\begin{array}{r} 1,307 \\ 1,324 \\ 1,262 \\ 398 \end{array}$ | $\begin{array}{r} 2,162 \\ 1,967 \\ 1,784 \\ 271 \end{array}$ |

### 6.16

continued Plastics and materials for plastics

| continued | Production and consumption: calendar years | Stocks: end of year |  |  | Tons |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1942 | 1943 | 1944 | 1945 |
| Cellulose acetate sheet, rods, tubes and film |  |  |  |  |  |
| Production | 2,335 | 2,718 | 3,059 | 2,623 | 1,133 |
| Total disposals | 2,255 | 2,772 | 2,941 | 2,573 | 1,279 |
| Home consumption | 1,938 | 2,041 | 2,928 | 2,571 | 1,215 |
| Stocks | 323 | 212 | 244 | 277 | 131 |
| Acrylic sheet |  |  |  |  |  |
| Production | 1,463 | 2,507 | 3,796 | 4,718 | 1,832 |
| Total disposals | 1,182 | 2,594 | 3,629 | 4,370 | 1,851 |
| Home consumption | 1,011 | 1,102 | 2,764 | 3,407 | 1,798 |
| Stocks | 358 | 260 | 424 | 772 | 753 |
| Celluloid |  |  |  |  |  |
| Production | 1,719 | 1,531 | 1,486 | 1,572 | 1.976 |
| Total disposals | 1,723 | 1,651 | 1,544 | 1,450 | 1,857 |
| Home consumption | 1,019 | 1,518 | 1,501 | 1,331 | 1,391 |
| Stocks | 281 | 165 | 112 | 234 | 353 |
| Polyvinyl chloride (unplasticised) |  |  |  |  |  |
| Production |  | . | 745 | 3,365 | 4,122 |
| Consumption |  |  | 3,875 | 5,892 | 5,122 |
| Stocks | . |  | 1.118 | 1,834 | 4,227 |
| Polyvinyl chloride (plasticised) |  |  |  |  |  |
| Production | .. | .. | .. | 10,082 | 8,463 |
| Consumption |  |  |  | 10,025 | 8,736 |
| Stocks |  |  | 894 | 951 | 678 |
| Casein plastic materials |  |  |  |  |  |
| Production | 1,480 | 1,724 | 1,523 | 1,433 | 2,051 |
| Total disposals | 2,018 | 1,851 | 1,566 | 1,443 | 1,899 |
| Home consumption | 1,801 | 1,735 | 1,530 | 1,370 | 1,421 |
| Stocks | 266 | 139 | 96 | 86 | 238 |
| Laminated material2 |  |  |  |  |  |
| Production |  |  | 7.672 | 8,474 | 5,929 |
| Consumption |  |  | 7,422 | 8,446 | 5,895 |
| Stocks |  |  | 359 | 387 | 421 |

[^71]
## RAW MATERIALS

### 6.17 <br> Paper and paper-making materials

Production and consumption: periods of 52 weeks Stocks: end of period
Thousand tons


[^72]Source: Board of Trade

### 6.18 <br> Raw cotton, cotton waste and cotton linters

Thousand tons

|  | Raw cotton |  |  | Cotton wastel |  |  | Cotton linters |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Home consumption |  |  | Production ${ }^{2}$ | Home consumption | Stocks (end of period) | Home consumption ${ }^{2}$ | Stocks (end of period) |
|  | Cotton spinning | Other uses | Stocks (end of period) |  |  |  |  |  |
| Annual totals |  |  |  |  |  |  |  |  |
| 1937 | 624 | 15 | 308 |  |  |  |  | . |
| 1938 | 483 | 12 | 311 |  |  |  |  |  |
| 1939 | 574 | 15 | 275 |  |  |  | . |  |
| 1940 | 603 | 17 | 228 |  | - | 39.5 |  | 31.0 |
| 1941 | 412 | 18 | 179 | 57.9 | 112.0 | 35.0 | 27.8 | 17.4 |
| 1942 | 378 | 42 | 291 | 52.4 | 91.8 | 42.5 | 28.9 | 13.6 |
| 1943 | 367 | 28 | 349 | 55.0 | 76.3 | 47.4 | 29.5 | 19.7 |
| 1944 | 346 | 13 | 350 | 52.1 | 66.8 | 48.0 | 33.3 | 19.4 |
|  |  |  |  |  |  |  |  | 18.3 |
| Weekly averages |  |  |  |  |  |  |  |  |
| 1940 | 11.6 | 0.33 | 228 |  |  | 39.52 |  | 30.98 |
| 1941 | 7.9 | 0.35 | 179 | 1.11 | 2.11 | 34.96 | 0.53 | 17.41 |
| 1942 | 7.3 | 0.80 | 291 | 1.00 | 1.80 | 42.51 | 0.55 | 13.56 |
| 1943 | 6.9 | 0.52 | 349 | 1.05 | 1.44 | 47.36 | 0.57 | 19.73 |
| 1944 | 6.6 | 0.25 | 350 | 1.00 | 1.29 | 48.04 | 0.64 | 19.41 |
| 1945 | 5.9 | 0.23 | 411 | 0.91 | 1.30 | 41.14 | 0.67 | 18.28 |
| 1940 January | $11.4 *$ |  | 298 |  | . |  | .. |  |
| February | 11.5 | $0.33^{3}$ | 350 |  | . |  | $\ldots$ | . |
| March | 10.6 |  | 391 |  |  |  |  |  |
| April | 12.5* |  | 380 |  | . |  |  |  |
| May | 11.6 | 0.33 | 380 |  |  |  |  |  |
| June | 14.0 * |  | 369 |  |  |  |  |  |
| July | 12.4 10.8 | $0.33^{3}$ | 366 343 | 1.48 1.37 |  | 38.97 |  |  |
| September | 10.3 |  | 323 | 1.30 |  | 38.52 |  |  |
| October | 11.5 * |  | 284 | 1.42 | - | 41.67 |  | 32.20 |
| November | 11.5 | $0.33{ }^{3}$ | 272 | 1.52 |  | 42.12 | 0.52 | 32.07 |
| December | 10.8 |  | 228 | 1.38 |  | 39.52 | 0.52 | 30.98 |
| 1941 January | 10.9* | $0.31{ }^{*}$ | 205 | 1.32 | 2.24 | 41.05 | 0.48 | 26.53 |
| February | 11.2 | 0.34 | 185 | 1.45 | 2.69 | 44.66 | 0.60 | 25.59 |
| March | 8.8 | 0.31 | 173 | 1.30 | 2.19 | 44.55 | 0.52 | 24.29 |
| April | 8.2 | 0.35 | 156 | 1.09 | 2.11 | 43.92 | 0.59 | 19.76 |
| May | 7.4* | 0.31 * | 137 | 1.11 | 2.26 | 41.12 | 0.65 | 17.50 |
| June | 6.8 | 0.33 | 128 | 0.95 | 2.14 | 39.83 | 0.50 | 16.60 |
| July | 7.0 | 0.33 | 109 | 1.04 | 2.02 | 42.41 | 0.48 | 14.51 |
| August | 6.3 | 0.28 | 105 | 0.97 | 2.07 | 40.15 | 0.51 | 12.30 |
| September | 6.7 | 0.38 | 112 | 1.04 | 2.48 | 40.58 | 0.50 | 10.26 |
| October | 7.3* | 0.43 * | 150 | 1.06 | 1.90 | 38.89 | 0.58 | 9.32 |
| November | 7.3 | 0.44 | 162 | 1.01 | 2.14 | 35.22 | 0.46 | 8.73 |
| December | 7.1 | 0.43 | 179 | 1.02 | 1.64 | 34.96 | 0.53 | 17.41 |
| 1942 January | 7.0* | 0.46 * | 186 | 0.94 | 2.05 | 33.74 | 0.49 | 17.73 |
| February | 7.6 | 0.79 | 188 | 1.08 | 1.88 | 33.09 | 0.53 | 16.76 |
| March | 7.7 | 0.85 | 183 | 1.06 | 1.89 | 35.53 | 0.55 | 16.43 |
| April | 7.2* | 0.71* | 184 | 1.02 | 1.70 | 36.29 | 0.59 | 15.66 |
| May | 7.4 | 0.88 | 213 | 0.98 | 1.83 | 37.82 | 0.50 | 14.32 |
| June | 7.4 | 0.97 | 267 | 1.05 | 1.96 | 39.10 | 0.55 | 15.65 |
| July | 7.4* | 0.69 * | 302 | 0.98 | 1.75 | 39.66 | 0.56 | 15.58 |
| August | 6.7 | 0.83 | 319 | 0.93 | 1.59 | 43.52 | 0.56 | 16.42 |
| September | 6.9 * | 0.83 * | 347 | 0.99 | 1.79 | 45.86 | 0.61 | 15.24 |
| October | 7.5* | 0.74 * | 338 | 1.01 | 1.67 | 45.08 | 0.67 | 13.94 |
| November | 7.4 | 0.91 | 313 | 1.01 | 1.86 | 43.17 | 0.50 | 13.14 |
| December | 7.0 | 1.06 | 291 | 1.01 | 1.73 | 42.51 | 0.49 | 13.56 |

## 6. 8 Raw cotton, cotton waste and cotton linters

continued

|  |  | Raw cotton |  |  | Cotton waste ${ }^{1}$ |  |  | Cotton linters |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Home consumption |  | Stocks (end of period) | Production ${ }^{2}$ | Home consumption | Stocks (end of period) | Home consumption ${ }^{2}$ | Stocks (end of period) |
|  |  | Cotton spinning | Other uses |  |  |  |  |  |  |
| 1943 | January | 6.8 * | 0.84* | 277 | 0.98 | 1.47 * | 43.53 | 0.54 | 14.75 |
|  | February | 7.1 | 0.83 | 247 | 1.11 | 1.70 | 41.80 | 0.56 | 14.05 |
|  | March | 7.2* | 0.61* | 218 | 1.12 | 1.83* | 41.96 | 0.60 | 12.16 |
|  | April | 6.5 | 0.64 | 202 | 1.00 | 1.71 | 39.58 | 0.53 | 10.05 |
|  | May | 7.4 | 0.63 | 191 | 1.06 | 1.64 | 36.93 | 0.50 | 7.54 |
|  | June | 6.7* | 0.42* | 220 | 1.09 | 1.38* | 37.00 | 0.59 | 6.01 |
|  | July | 7.3 | 0.43 | 261 | 1.04 | 1.37 | 35.85 | 0.50 | 5.44 |
|  | August | 6.6 | 0.42 | 292 | 1.00 | 1.23 | 43.04 | 0.57 | 13.10 |
|  | September | 7.0* | 0.33* | 317 | 1.09 | 1.35* | 46.89 | 0.58 | 12.80 |
|  | October | 7.6 | 0.44 | 317 | 1.09 | 1.21 | 47.40 | 0.64 | 17.02 |
|  | November | 7.1 * | 0.38 * | 328 | 1.06 | $1.31{ }^{\text {1 }}$ | 47.91 | 0.60 | 19.04 |
|  | December | $6.1{ }^{*}$ | $0.34{ }^{*}$ | 349 |  | $1.13 *$ | 47.36 |  | 19.73 |
| 1944 | January | 6.8 | 0.30 | 344 | 0.96 | 1.21 | 49.82 | 0.63 | 19.59 |
|  | February | 7.0 | 0.28 | 367 | 1.05 | 1.27 * | 49.70 | 0.66 | 17.76 |
|  | March | $7.4 *$ | 0.32 * | 360 | 1.15 | 1.25* | 52.04 | 0.67 | 15.78 |
|  | April | 6.6 | 0.26 | 372 | 0.96 | 1.21 * | 51.02 | 0.62 | 15.49 |
|  | May | 6.9 * | 0.25* | 365 | 1.09 | 1.20* | 50.36 | 0.62 | 15.76 |
|  | June | 6.8 | 0.25 | 350 | 1.06 | 1.40 | 49.49 | 0.68 | 12.84 |
|  | July | 6.7 | 0.24 | 331 | 0.90 | 1.29 * | 49.54 | 0.53 | 12.75 |
|  | August | 5.9* | 0.20* | 327 | 0.94 | 1.21 * | 48.09 | 0.59 | 15.64 |
|  | September | 6.6 | 0.24 | 313 | 0.98 | 1.36 | 48.38 | 0.73 | 15.92 |
|  | October | 7.0 | 0.26 | 303 | 1.00 | 1.47 | 47.77 | 0.58 | 16.84 |
|  | November | 6.5* | 0.21* | 336 | 1.01 | 1.44* | 47.81 | 0.70 | 16.91 |
|  | December | 5.7 | 0.20 | 350 | 0.87 | 1.19 | 48.04 | 0.65 | 19.41 |
| 1945 | January | 5.9* | 0.46* | 346 | 0.89 | 1.23* | 47.71 | 0.68 | 19.32 |
|  | February | 6.3 | 1.88 | 331 | 1.02 | 1.36 | 48.19 | 0.71 | 23.56 |
|  | March | 6.0 | 0.59 | 332 | 0.95 | 1.37 | 48.57 | 0.66 | 24.22 |
|  | April | 6.1 | 0.69 | 339 | 0.92 | 1.36 | 49.73 | 0.67 | 24.05 |
|  | May | 5.5* | 0.56* | 354 | 0.90 | 1.16* | 49.76 | 0.65 | 22.32 |
|  | June | 6.3 | 0.64 | 376 | 0.96 | 1.46 | 49.54 | 0.70 | 21.50 |
|  | July | 5.8 | 0.39 | 375 | 0.82 | 1.27 | 47.21 | 0.59 | 22.64 |
|  | August | 4.8* | 0.49* | 411 | 0.78 | 1.05* | 48.09 | 0.48 | 22.76 |

[^73]Source: Board of Trade
2. Computed from figures relating to calendar months.
3. Estimated.

* Average of five weeks.



## 6. 9 Cotton yarn

continued

|  |  | Cotton yarn |  |  |  |  |  |  |  | Produc-Consumption of tion by cotton weavers waste of yarns cotton yarn |  | Spindles running |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production ${ }^{\text {I }}$ |  |  | Deliveries |  |  |  |  |  |  |  |
|  |  | Total A | $\begin{array}{r} \text { erican } \\ \text { type } \end{array}$ | Egyptian type | Total ${ }^{\text {G }}$ | Government Departments | Industrial uses | Civilian home trade | Export trade |  |  |  |
|  |  | Million lb |  |  |  |  |  |  |  |  |  | Millions |
| 1943 | January | 13.25* | 9.53* | 3.72* | 14.81 | 4.57 | 5.23 | 2.62 | 2.39 | 1.16* | 11.36* | 18.96* |
|  | February | 13.77 | 9.87 * | 3.90 * | 15.65 | 4.63 | 5.56 | 2.90 | 2.56 | 1.22 | 11.96 | 18.79 |
|  | March | 13.88* | 9.95* | 3.93* | 15.71* | 4.62* | 5.98* | 2.70* | 2.41* | 1.21* | 12.15* | 18.74* |
|  | April | 12.42 | 8.92 | 3.50 | 15.19 | 4.44 | 5.61 | 2.79 | 2.35 | 1.12 | 11.06 | 18.69 |
|  | May | 14.23 | 10.17 | 4.06 | 15.14 | 4.19 | 5.63 | 3.02 | 2.30 | 1.25 | 12.30 | 18.89 |
|  | June | 13.05* | 9.39* | 3.66* | 14.84* | 4.08* | 5.30* | $3.18 *$ | 2.28* | 1.14* | 11.49* | 17.92* |
|  | July | 14.11 | 10.05 | 4.06 | 15.43 | 4.20 | 5.57 | 3.23 | 2.43 | 1.23 | 10.46 | 17.74 |
|  | August | 12.73 * | 8.96 * | 3.77 | 14.55 | 3.83 | 5.17 | 2.92 | 2.63 | 1.12 | 11.62 | 16.73 |
|  | September | 13.76* | 9.86* | 3.90* | 15.28* | 3.96* | 5.73* | 2.61* | 2.98* | 1.26 | 11.56 * | 18.05* |
|  | October | 14.62 | 10.36 | 4.26 | 16.54 | 4.24 | 5.83 | 3.14 | 3.33 | 1.32* | 12.37 | 18.38 |
|  | November | 13.66 * | 9.68 | 3.98 | 16.00 | 4.02 | 5.86 | 2.59 | 3.53 | 1.28 | 11.96 | 18.19 |
|  | December | 11.76 * | 8.24* | $3.52{ }^{*}$ |  |  |  |  |  |  | 10.42* | 17.37* |
| 1944 | January | 13.03 | 9.30 | 3.73 | 15.60* | * $4.40 *$ | 5.47* |  |  |  |  |  |
|  | February | 13.42 * | 9.53 | 3.89 4. | 15.72 $16.32 *$ | * 4.47 * 4.70 * | 5.58 $5.79 *$ | 2.56 $2.60 *$ | 3.11 $3.23 *$ | 1.31 $1.36{ }^{*}$ | 11.37 $11.25 *$ | $\begin{aligned} & 18.12 \\ & 18.17 * \end{aligned}$ |
|  | March | 14.14* | $9.97 *$ 8.95 | 4.17 3.70 | $16.32 *$ 14.54 | * $4.70 *$ 4.20 | 5.79* 5.10 | 2.64 | 3.23 2.90 | 1.21 | 10.66 | $\begin{aligned} & 18.17 \\ & 17.91 \end{aligned}$ |
|  | April | 12.65** | ${ }^{8.935}{ }^{*}$ | $3.95{ }^{*}$ | 15.95 | 4.51 | 5.58 | 2.65 | 3.21 | 1.25* | 10.83* | 17.79* |
|  | June | 13.19 | 9.36 | 3.83 | 14.20* | * 4.06 * | 4.98* | 2.30 * | 2.86* | 1.32 | 11.37 | 16.88 |
|  | July | 12.94 | 9.18 | 3.76 | 14.68 | 4.20 | 5.29 | 2.30 | 2.89 | 1.17 | 9.24 | 16.50 |
|  | August | $11.28 *$ | $7.78{ }^{*}$ | 3.50 * | 13.49 | 3.71 | 4.82 | 2.08 | 2.88 | 1.18* | $10.25 *$ | 15.39* |
|  | September | 12.75 | 9.00 | 3.75 | 13.68 | 3.73* | 5.00* | 2.15 * | 2.80 * | 1.24 | 10.33 | 17.07 |
|  | October | 13.42 | 9.37 | 4.05 | 15.33 | 4.27 | 5.47 | 2.42 | 3.17 | 1.30 | 11.33 | 17.28 |
|  | November | 12.60* | 8.84* | 3.76 * | 14.41 | 3.74 | 5.23 | 2.42 | 3.02 | 1.26 * | 10.70* | $17.38{ }^{*}$ |
|  | December | 10.96 | 7.62 | 3.34 | 12.95* | * 3.30* | 4.72* | 2.19* | 2.74* | 1.12 | 9.71 | 17.14 |
| 1945 | January | 11.40* | 8.01 * | * 3.39* | 13.39 | 3.62 | 4.80 | 2.16 | 2.81 | 1.17* | 9.59* | 16.67* |
|  | February | 12.08 | 8.47 | 3.61 | 13.38 | 3.40 | 4.83 | 2.22 | 2.93 | 1.23 | 10.37 | 16.91 |
|  | March | 11.61 | 8.16 | 3.45 | $13.48{ }^{*}$ | 3.29* | 4.77* | 2.39* | $3.03{ }^{*}$ | 1.16 | 10.07 | 17.19 |
|  | April | 11.88 | 8.32 | 3.56 | 13.39 | 3.36 | 4.80 | 2.37 | 2.86 | 1.19 | 10.10 | 17.25 |
|  | May | 10.55* | 7.27* | * 3.28* | 11.96 | 3.01 | 4.18 | 2.10 | 2.67 | 1.03* | 9.05* | 17.40* |
|  | June | 12.26 | 8.68 | 3.58 | 14.17* | * 3.90* | $4.89{ }^{*}$ | $2.50{ }^{*}$ | 2.88* | 1.26 | 10.69 | 16.66 |
|  | july | 11.22 | 7.82 | 3.40 | 13.29 | 3.13 | 4.86 | 2.18 | 3.12 | 1.11 | 8.56 | 16.03 |
|  | August | $9.41^{*}$ | 6.46 * | * 2.95* | 10.86 | 2.48 | 3.90 | 2.01 | 2.47 | $1.00^{*}$ | 8.51 * | 15.45* |

[^74]2. Figures expressed as mule equivalent. Up to October 1941, the number of spindles running on cotton only; from November 1941, including in addition the number running
on spun rayon and mixtures. Spindles running on waste yarns are excluded.

* Average of five weeks.


### 6.20 <br> Rayon, rayon yarn and woven fabrics

|  | Production |  |  |  |  | onsumption of rayon | Loomsrunning |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rayon |  | Spun rayon and mixture yarns (including waste) | Woven fabric |  |  |  |
|  | Continuous filament yarn (single) | Staple fibre |  | Cotton | Rayon and mixtures | yarn |  |
|  | Million lb |  |  | Million linear yards |  | Million lb | Thousands |
| Annual totals 1937 | 114.9 | 33.5 |  | 3,640 | $483.6^{2}$ | 38.1 |  |
| $\begin{aligned} & 1939 \\ & 1940 \\ & 1941 \\ & 1942 \\ & 1943 \\ & 1944 \\ & 1945 \end{aligned}$ | $\begin{array}{r} 111.0 \\ 110.7 \\ 78.9 \\ 73.0 \\ 72.0 \\ 77.6 \\ 85.1 \end{array}$ | $\begin{aligned} & 58.8 \\ & 58.4 \\ & 57.6 \\ & 48.1 \\ & 52.3 \\ & 55.0 \\ & 53.3 \end{aligned}$ | $\begin{aligned} & 37.6 \\ & 38.5 \\ & 34.5 \\ & 31.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2,150 \\ & 1,772 \\ & 1,793 \\ & 1,648 \\ & 1,539 \\ & \hline \end{aligned}$ | $\begin{aligned} & 302.1 \\ & 282.4 \\ & 286.6 \\ & 290.7 \\ & 308.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 70.1 \\ & 72.3 \\ & 75.8 \\ & 83.1 \\ & \hline \end{aligned}$ |  |
| Weekly or monthly averages | Mont or cale | rages onths |  |  | Weekly ave | ages |  |
| $\begin{aligned} & 1940 \\ & 1941 \\ & 1942 \\ & 1943 \\ & 1944 \\ & 1945 \end{aligned}$ | $\begin{aligned} & 9.23 \\ & 6.58 \\ & 6.08 \\ & 6.00 \\ & 6.47 \\ & 7.09 \end{aligned}$ | $\begin{aligned} & 4.87 \\ & 4.80 \\ & 4.01 \\ & 4.36 \\ & 4.59 \\ & 4.44 \end{aligned}$ | $\begin{aligned} & 0.72 \\ & 0.73 \\ & 0.66 \\ & 0.61 \end{aligned}$ | $\begin{aligned} & 41.3 \\ & 34.1 \\ & 33.8 \\ & 31.7 \\ & 29.6 \end{aligned}$ | $\begin{aligned} & 5.8 \\ & 5.4 \\ & 5.4 \\ & 5.6 \\ & 5.9 \end{aligned}$ | $\begin{aligned} & 1.35 \\ & 1.36 \\ & 1.46 \\ & 1.60 \end{aligned}$ | $\begin{aligned} & 293.2 \\ & 227.9 \\ & 225.3 \\ & 222.8 \\ & 215.9 \end{aligned}$ |
| 1940 January February March April May June July August September October November December | $\begin{aligned} & 10.65 \\ & 10.07 \\ & 10.47 \\ & 11.66 \\ & 11.58 \\ & 10.93 \\ & 10.33 \\ & 7.15 \\ & 7.41 \\ & 7.57 \\ & 6.45 \\ & 6.46 \end{aligned}$ | $\begin{aligned} & 6.08 \\ & 5.52 \\ & 4.94 \\ & 5.61 \\ & 5.53 \\ & 5.23 \\ & 5.25 \\ & 3.34 \\ & 3.49 \\ & 4.17 \\ & 4.36 \\ & 4.92 \end{aligned}$ | $\because$ $\because$ $\because$ $\because$ $\because$ $\because$ $\because$ $\because$ $\because$ |  | $\begin{aligned} & 5.5 \\ & 5.7 \\ & 5.4 * \\ & 4.9 \end{aligned}$ |  | $\begin{aligned} & 368 \\ & 380 \\ & 375 \\ & 361 \end{aligned}$ |
| 1941 January <br> February <br> March <br> April <br> May <br> June <br> July <br> August <br> September <br> October <br> November <br> December | $\begin{aligned} & 7.03 \\ & 6.47 \\ & 7.36 \\ & 6.60 \\ & 6.80 \\ & 6.21 \\ & 6.51 \\ & 5.46 \\ & 6.74 \\ & 6.92 \\ & 6.48 \\ & 6.32 \end{aligned}$ | $\begin{aligned} & 6.04 \\ & 5.77 \\ & 5.84 \\ & 4.83 \\ & 5.47 \\ & 4.67 \\ & 3.86 \\ & 4.67 \\ & 4.74 \\ & 5.01 \\ & 3.54 \\ & 3.12 \end{aligned}$ | $\begin{aligned} & 0.72 \\ & 0.68 \end{aligned}$ | $\begin{aligned} & 50.5 * \\ & 52.0 \\ & 50.9 \\ & 45.9 \\ & 47.7 * \\ & 41.3^{*} \\ & 33.3^{*} \\ & 35.2^{*} \\ & 33.4 \\ & 36.2 * \\ & 35.8 \\ & 33.3 \end{aligned}$ | $\begin{aligned} & 5.2 * \\ & 5.7 \\ & 6.1 \\ & 5.7 \\ & 6.8 * \\ & 6.4 \\ & 5.6 * \\ & 5.7 \\ & 5.4 \\ & 5.7 * \\ & 6.0 \\ & 5.6 \end{aligned}$ | $\begin{aligned} & 1.42 \\ & 1.33 \end{aligned}$ | 363 366.4 356.9 345.2 335.5 309.9 239.0 239.7 239.9 244.4 240.5 236.4 |
| 1942 January <br> February <br> March <br> April <br> May <br> June <br> July <br> August <br> September <br> October <br> November <br> December | $\begin{aligned} & 6.54 \\ & 6.07 \\ & 6.55 \\ & 5.68 \\ & 5.88 \\ & 6.13 \\ & 6.69 \\ & 4.88 \\ & 5.97 \\ & 6.59 \\ & 6.09 \\ & 5.94 \end{aligned}$ | $\begin{aligned} & 3.52 \\ & 3.20 \\ & 3.27 \\ & 2.83 \\ & 2.89 \\ & 4.45 \\ & 5.00 \\ & 3.62 \\ & 4.98 \\ & 5.08 \\ & 4.67 \\ & 4.57 \end{aligned}$ | $\begin{aligned} & 0.69 * \\ & 0.74 \\ & 0.74 \\ & 0.68 * * \\ & 0.74 \\ & 0.79 \\ & 0.72 * \\ & 0.71 \\ & 0.72 \\ & 0.74 \\ & 0.72 \\ & 0.69 \end{aligned}$ | $\begin{aligned} & 33.2 * \\ & 34.0 \\ & 34.7 \\ & 32.5 * \\ & 33.5 \\ & 34.8 \\ & 30.7 * \\ & 34.2 \\ & 33.5 \\ & 36.8 * \\ & 36.6 \\ & 34.5 \end{aligned}$ | $5.4 *$ 5.5 5.5 $5.2 *$ 5.3 5.5 $5.0 *$ 5.3 5.4 $5.9 *$ 5.9 5.5 | $1.30 *$ 1.33 1.38 $1.27 *$ 1.30 * 1.38 $1.20 *$ 1.31 1.34 $1.51 *$ 1.49 1.39 | 231.3 2299.7 230.7 231.7 231.3 231.5 198.7 218.1 229.4 233.7 235.0 233.8 |

[^75]
### 6.20 Rayon, rayon yarn and woven fabrics

continued

|  |  | Production |  |  |  |  |  | $\begin{aligned} & \text { Looms } \\ & \text { runningI } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rayon |  | Spun rayon and mixture yarns (including waste) | Woven fabrics |  | Consumption of rayon yarn |  |
|  |  | Continuous filament yarn (single) | Staple fibre |  | Cotton | Rayon and mixtures |  |  |
|  |  | Million lb |  |  | Million linear yards |  | Million lb | Thousands |
| 1943 | January | 5.91 | 4.62 | 0.67 * | 34.0* | 5.4* | * 1.42* | 230.2 |
|  | February | 5.73 | 4.06 | 0.73 | 35.7 | 5.7 | 1.46 | 230.1 |
|  | March | 6.47 | 4.57 | 0.77 * | 36.1 * | 5.7* | * 1.48* | 231.3 |
|  | April | 5.84 | 4.17 | 0.69 | 32.7 | 5.3 | 1.36 | 231.3 |
|  | May | 6.10 | 4.58 | 0.78 | 36.2 | 5.8 | 1.48 | 234.2 |
|  | June | 5.88 | 4.06 | 0.70* | 33.8* | 5.4* | * 1.32* | 227.2 |
|  | july | 6.00 | 4.65 | 0.77 | 29.2 | 5.0 | 1.25 | 196.3 |
|  | August | 4.85 | 3.29 | 0.73 | 34.0 | 5.3 | 1.28 | 219.4 |
|  | September | 6.32 | 4.67 | 0.76* | 32.9 * | 5.3* | * 1.28* | 227.6 |
|  | October | 6.15 | 4.60 | 0.79 | 36.1 | 5.7 | 1.41 | 230.7 |
|  | November | 6.87 | 4.85 | 0.73 | 34.7 | 5.6 | 1.37 | 227.6 |
|  | December | 5.92 | 4.20 | 0.63 * | 29.9 * | 4.9* | * 1.21* | 215.0 |
| 1944 | January | 6.37 | 4.55 | 0.70 | 33.2 | 5.4 |  |  |
|  | February | 6.40 | 4.92 | 0.72 | 34.3 * | 5.6 ${ }^{\text {5.7 }}$ | * 1.47 * | 225.7 |
|  | March | 6.89 | 4.93 | 0.74* | 33.3* | 5.7* | * 1.49* | 227.5 |
|  | April | 5.61 | 4.06 | 0.67 * | 31.5 * | 5.3 5.4 | * 1.41** | 227.1 |
|  | May | 6.53 | 4.82 | 0.70* | 32.2 * | $5.4 *$ | * 1.41* | 221.0 |
|  | June | 6.71 | 4.48 | 0.65 | 33.4 | 5.8 | 1.51 | 224.0 |
|  | July | 6.76 | 5.05 | 0.63 | 26.2 | 4.8 | 1.31 | 217.3 |
|  | August | 5.48 | 3.58 | 0.60* | 30.5* | 5.4* | * 1.38* | 222.1 |
|  | September | 6.53 | 4.99 | 0.64 | 29.8 | 5.6 | 1.49 | 223.5 |
|  | October | 7.12 | 4.83 | 0.69 | 33.6 | 6.3 | 1.63 | 226.4 |
|  | November | 6.98 | 4.92 | 0.64 * | 32.5* | $6.2 *$ | * 1.60* | 224.7 |
|  | December | 6.24 | 3.91 | 0.57 | 29.4 | 5.5 | 1.45 | 208.3 |
| 1945 |  | 7.08 | 5.26 | 0.61* | 29.3* | $5.7 *$ | * 1.50* | 211.3 |
|  | February | 6.89 | 4.73 | 0.63 | 31.6 | 6.3 | 1.66 | 218.2 |
|  | March | 7.60 | 4.96 | 0.59 | 30.6 | 6.2 | 1.62 | 216.5 |
|  | April | 6.63 | 4.28 | 0.62 * | 31.0 | 6.1 | * 1.62 | 220.0 |
|  | May | 6.14 | 3.91 | 0.57 * | 27.9* | 5.4* | * 1.42* | 218.5 |
|  | June | 7.47 | 4.73 | 0.63 | 32.1 | 6.4 | 1.69 | 218.7 |
|  | July | 7.96 | 5.09 | 0.57 | 25.3 | 5.2 | * 1.40* | 214.6 |
|  | August | 5.63 | 3.00 | 0.51 * | 26.1* | 5.2* | * 1.40* | 216.6 |

I. Up to December 1943, weekly averages; from January 1944, number running at end

Source: Board of Trade of period. Annual figures for 1944 and 1945 are monthly averages.
2. Million square yards.

* Average of five weeks.


### 6.21 <br> Wool and silk

Production and consumption: calendar years 1 Stocks: end of period

| Unit | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Wool

Raw wool:
Production:
Actual weight, mainly greasy
Estimated clean weight

| Million |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| lb | 107 | 110 | 111 | 127 | 112 | 101 | 89 | 84 | 81 |
| " | 66 | 68 | 69 | 91 | 80 | 72 | 62 | 59 | 58 |
| " |  | - . | . | 536 | 381 | 333 | 269 | 258 | 331 |
| " |  |  | . | 481 | 365 | 329 | 269 | 257 | 272 |
|  |  |  |  | 11 | 16 | 4 |  | I | 11 |
| , |  |  |  | 44 | - | - | - | - | 48 |
|  |  |  | 342 | 378 | 406 | 367 | 284 | 436 | 453 |

Wool tops:

| Production4: | Million |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | lb | 278.5 | $334.9{ }^{5}$ | $236.3^{5}$ | $206.4{ }^{5}$ | 152.3 | 133.6 | 135.3 |
| Merino |  | 141.5 | $171.1{ }^{5}$ | $118.7^{5}$ | $116.2^{5}$ | 80.8 | 83.5 | 85.3 |
| Crossbred |  | 124.0 | $151.9^{5}$ | $108.6{ }^{5}$ | $85.8{ }^{5}$ | 66.8 | 46.9 | 46.4 |
| Hair |  | 13.0 | $11.9^{5}$ | $9.0{ }^{5}$ | $4.4{ }^{5}$ | 4.7 | 3.2 | 3.6 |
| orsted yarn (wool content): |  |  |  |  |  |  |  |  |
| Production |  | $224.2{ }^{6}$ |  |  | 152.3 | 130.5 | 123.1 | 126.9 |
| oven wool fabrics |  |  |  |  |  |  |  |  |
| xcluding blankets): | Mn linear |  |  |  |  |  |  |  |
| Production | $y d s$ | 316.7 |  |  |  | $236.4{ }^{5}$ | 194.5 | 193.1 |
| ankets: Production |  |  |  |  |  | $34.4{ }^{5}$ | 29.7 | 28.4 |

Silk

| Raw silk Consumption Stocks | Thousand lb | 5,832 | 5,493 | 2,062 | $\begin{aligned} & 1,982 \\ & 1,754 \end{aligned}$ | $\begin{array}{r} 1,625 \\ 506 \end{array}$ | $\begin{aligned} & 393 \\ & 452 \end{aligned}$ | $\begin{aligned} & 345 \\ & 578 \end{aligned}$ | 332804 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Silk noils: |  |  |  |  |  |  |  |  |  |
| Production | " |  |  |  | 300 | 345 | 262 | 280 | 202 |
| Consumption | " |  |  |  | 1,551 | 625 | 194 | 63 | 397 |
| Stocks | " |  |  | 445 | 406 | 488 | 630 | 797 | 609 |

[^76]Source: Board of Trade
2. Estimated clean weight.
3. Figures relate to beginning of September in 1939 and to 31 July in other years.
4. Clean scoured weight.
5. Years ended August.
6. Production of yarn wholly or mainly of wool, including admixtures amounting to about 5 per cent.

### 6.22 Jute, flax and hemps



[^77]
### 6.23 <br> Losses of raw materials at seal

Monthly averages or calendar months
Thousand tons

|  |  | Total | Iron ore, iron and steel and allied materials | Nonferrous metals and ores | Textiles | Timber | Hides, skins, etc. | Paper and papermaking materials | Materials for sulphuric acid and fertilizers | Miscellaneous |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941 |  | 75.1 | 49.1 | 5.4 | 3.4 | 4.3 | 1.0 | 3.4 | 5.8 |  |
| 1942 |  | 48.8 | 16.2 | 6.7 | 7.5 | 6.4 | 1.5 | 2.4 | 4.1 | 4.0 |
| 1943 |  | 35.8 | 18.1 | 6.2 | 2.6 | 2.5 | 0.9 | 0.7 | 2.6 | 2.2 |
| 1944 |  | 4.5 | 0.8 | 1.0 | 0.6 | 0.8 | 0.2 |  | 0.7 | 0.4 |
| 1941 | January | 88.4 | 54.4 | 15.5 | 3.0 | 7.2 | 0.9 | 0.4 | 0.6 | 6.4 |
|  | February | 126.5 | 96.3 | 1.0 | 6.2 | 8.3 | 2.8 | 1.7 | 6.9 | 3.3 |
|  | March | 141.2 | 96.4 | 10.8 | 5.1 | 1.5 | 4.4 | 13.0 | 3.9 | 6.1 |
|  | April | 89.1 | 50.1 | 2.0 | 6.9 | 10.6 | 1.0 | 3.5 | 12.7 | 2.3 |
|  | May | 56.8 | 30.5 | 6.2 | 2.1 | 0.8 | 0.2 | 11.2 |  | 5.8 |
|  | June | 69.5 | 57.4 | 7.0 | 3.1 | 0.7 | 0.9 | 0.4 |  | 5.8 |
|  | July | 57.2 | 43.8 | 5.8 | 3.3 | 0 |  | 2.2 |  | 2.1 |
|  | August | 21.1 | 18.4 |  | - | 0.3 | 1.0 |  |  | 1.4 |
|  | September | 93.5 | 48.7 | 10.3 |  | 15.7 | 1.0 | 0.9 | 17.9 | 1.4 |
|  | October | 89.3 | 52.5 | 3.2 | 7.2 | 2.8 | 0.3 | 1.2 | 19.6 | 2.5 |
|  | November | 34.0 | 23.8 | 1.8 | 2.7 | 2.8 | 0.3 | 1.1 | 19.6 | 1.5 |
|  | December | 34.8 | 17.0 | 0.7 | 1.9 | 1.0 | - | 4.6 | 8.2 |  |
| 1942 | January | 18.9 | 6.4 | 1.0 | 0.2 | 1.8 | 0.1 | 0.5 | 5.4 |  |
|  | February | 25.2 | 8.5 | 5.2 | 2.6 | 2.6 | 0.5 | 1.0 | 3.6 | 1.2 |
|  | March | 40.4 | 13.0 | 6.3 | 5.2 | 5.6 | 1.3 | 1.3 | 0.5 | 7.2 |
|  | April | 49.0 | 15.9 | 4.8 | 6.2 | 1.4 | 0.2 | 3.0 | 15.3 | 2.2 |
|  | May | 30.7 | 12.0 | 6.2 | 1.0 | 5.4 | 0.1 | 4.7 | . | 1.3 |
|  | June | 29.5 | 3.1 | 8.0 | 3.1 | 8.9 |  | . | 2.0 | 4.4 |
|  | July | 10.4 | 1.7 | 0.8 | 3.6 | 1.0 | 0.7 | 0.1 | 0.5 | 2.0 |
|  | August | 94.5 | 26.5 | 16.6 | 14.3 | 10.2 | 3.8 | 4.8 | 11.2 | 7.1 |
|  | September | 63.7 | 26.2 | 6.9 | 11.6 | 10.4 | 2.2 | 0.7 | 0.5 | 5.2 |
|  | October | 79.7 | 28.5 | 5.9 | 15.5 | 8.2 | 5.1 | 7.1 | 4.4 | 5.0 |
|  | November | 117.8 | 44.4 | 13.4 | 20.6 | 19.1 | 3.8 | 5.1 | 5.9 | 5.5 |
|  |  |  |  | 5.2 |  | 2.4 | 0.6 | 5. | 0.2 | 3.7 |
| 1943 |  |  |  |  |  |  | . | 3.5 | 8.0 | 0.5 |
|  | February | 34.3 | 16.9 | 4.0 | 0.2 | 7.9 |  | 1.0 | 8.0 | 4.3 |
|  | March | 144.1 | 90.8 | 28.6 | 4.0 | 9.5 | 0.4 | 1.4 | 1.3 | 8.1 |
|  | April | 76.7 | 26.8 | 14.9 | 6.0 | 7.7 | 3.4 | 1.1 | 12.9 | 3.9 |
|  | May | 56.7 | 28.0 | 8.2 | 10.3 | 3.0 | 4.1 | - | 0.6 | 2.5 |
|  | June | 11.0 | 2.1 | 3.6 | 1.0 | 0.3 | - | 0.1 | 3.1 | 0.8 |
|  | July | 3.2 | 0.6 | 4.6 | 1.6 | 0.1 | - | 0.2 | . | 0.7 |
|  | August | 25.0 | 13.9 | 4.6 | 4.5 | 0.4 |  | 0.7 | - | 0.9 |
|  | September | 7.5 | 2 | 7. | 0.5 | 0.5 | 2.9 | 1 | 0.1 | 3.5 |
|  | October | 16.0 | 1.2 | 7.2 | 3.0 | 0.1 | 0.4 | 0.1 | 4.0 | 3.5 |
|  | November | 14.2 | 14.2 | , | - | . |  |  | , |  |
|  | December | 13.1 | 5.2 | 3.3 | 0.6 | 0.5 | 0.1 | 0.9 | 1.7 | 0.8 |
| 1944 |  | 1.2 | 0 | 1.0 | 0 | 0.2 | - | - |  |  |
|  | February | 6.4 | 0.2 | - | 0.9 | - | - | - | 3.2 | 2.1 |
|  | March | 1.8 | 2 |  | - | 1.2 | - | - | 0.5 | 0.1 |
|  | April | 9.3 | 1.2 | - | - | 3.5 | - | - | 4.6 |  |
|  | May | 1.2 | -7 | - | . | . | - | 0.2 | . | 1.0 |
|  | June | 8.7 | 8.7 | 5 | 5 | - | \% | - | - | - |
|  | July | 6.0 | - | 2.5 | 0.5 | - | 2.6 | - | - | 0.3 |
|  | August | 6.0 | - | 5.5 | . | 4 | - | - | - | 0.5 |
|  | September | 3.4 | - | - | - | 3.4 | i | - | , | - |
|  | October | 0.7 | - | - | 3 | - | 0.2 | - | 0.2 | 0.3 |
|  | November | 5.4 4.1 | - | 2.5 | 5.3 | 1.1 | - | - | - | 0.1 0.5 |
| 1945 | January | - | - | - | - | - | - | - |  |  |
|  | February | 5.7 | 5.7 | - | - | - | - | - | - | - |
|  | March | 9.0 |  | 0.6 | - | 8.4 | - | - | - | - |
|  | April | 0.5 | - | 0.4 | - | - | 0.1 | - | - | - |

[^78]

The dramatic transformation of the British economy in the Second World War, both in terms of the displacement of a market economy by a centrally administered economy and in terms of the temporary change in the industrial structure, was the result of one objective - to fight the war successfully. To do this the strategic priorities of the conflict on land, sea and air had to be turned into production programmes and fighter aircraft, battleships and tanks had to be produced by the factories and shipyards of the nation. The government departments responsible for those production programmes (the Ministry

## DUCTION

of Supply, the Ministry of Aircraft Production, the production arm of the Admiralty, and the coordinating Ministry of Production which was created in February 1942) came to dominate the economy and firms working on their contracts had priority with regard to scarce resources (Howlett 1993).

There was a massive increase in the output of munitions, as tables 7.3 to 7.26 testify: for example, the tonnage of major combat naval vessels increased more than threefold between 1938 and 1942, the production of light bombers and fighter aircraft increased by more than tenfold, tank production by twentyfold, mortar production rose from 158 in 1938 to more than 29,000 in 1942, and from producing a mere $12,000.303$ rifles in 1938 the economy was producing more than 900,000 by 1943.

These crude measures of output almost certainly underestimate the scale of the achievement of the munitions industries because much of what they produced increased in complexity and often also in weight (for example, in 1939 the heaviest bomber produced was the Wellington which weighed 30,000 pounds and had a wing span of 86 feet but by 1944 the Lancaster bomber weighed in at 68,000 pounds and had a wing span of 102 feet); another important feature that should not be
7. Wartime aircraft production

underestimated was the output from repairs in both the shipbuilding and aircraft industries (Kohan 1952: 283; tables $7.23,7.7-7.8$ and 7.25 ). Furthermore this expansion occurred despite the constant modifications in weapons design and the disruption caused by air raids and the relocation of factories (Postan 1952: I64-6; 339-45). A related success story was that of machine tool production: this industry had a poor interwar record but its output increased from less than 20,000 machines prior to the start of rearmament in 1935 to 37,000 in 1939 to a wartime peak of nearly 100,000 in 1942; and small tool production increased from 17,000 in 1940 to more than 42,000 in 1943. However, imports from the USA still remained crucial for several groups of machine tools, such as automatic lathes and vertical drillers (Hornby 1958: 330-I).

The corollary of the expansion of munition sector was the contraction of the consumer orientated sector of the economy. This was engineered by the state by squeezing both demand (through such measures as rationing) and supply (through limiting access to raw materials; import and export restrictions; setting quantity ceilings on the amount wholesalers could sell and then progressively reducing those ceilings; and, more directly, by promoting a concentration of production drive in many consumer industries to release resources to the munitions and related industries, at least for the duration of the war) (Allen 1951; Hargreaves and Gowing: 202-33; tables 7.32, 6.16-6.22). Munitions output peaked in the first quarter of 1944 but its expansion during the war was not a smooth process but one of continual 'ebb and flow' whereby production expanded until it met a resource limit or a production or administrative bottleneck and was temporarily checked, then overcame this constraint and expanded again until the
next constraint was encountered (Harrison 1990: 665; Postan 1952). The 'ebb and flow' of munitions production also reflected the changing strategic priorities of the war: Although the military and political leaders were committed to a policy of 'armament in depth' (that is building up the long term strength of the army, navy and air force in order to eventually launch successful counter campaigns against Germany and Japan) the unpredictable nature of warfare meant that in the short term strategic priorities could change abruptly and in such cases the munitions industries had to respond rapidly to the new demands these made. An example of this was the Battle of Britain. One of the consequences of the collapse of France and the Dunkirk evacuation in May 1940 was that a German invasion was highly likely; a precondition for this was air supremacy and thus the overriding priority of the British economy in the Summer of 1940, as the Battle of Britain raged, was to produce fighter aircraft (Churchill 1949: 61). Thus, between the first and third quarters of 1940 the quarterly rate of aircraft produced increased by 93 per cent (and the official index of production increased from 569 in May 1940 to a level in excess of 700 between June and August, a level that was not reached again until February 1941) whilst the rate for the light bomber and fighter aircraft category increased by 170 per cent, with their share of the total output rising from 30 per cent to 41 per cent (tables 7.22 and 7.24).

The impressive increase in the domestic production of munitions should not mask the importance of munitions supplied by the USA (nor indeed those supplied by Canada) (Duncan Hall 1955; Duncan Hall and Wrigley 1956). The Lend-Lease Act of March 1941 released Britain, and her allies, from the financial burden of immediate payment for goods received (payment being postponed

### 7.2 Index of Ministry of Supply munitions production




British needs to supplying its own armed forces. Neither should it be forgotten they Britain itself supplied munitions to another ally: between October 1941 and June 1942
Britain supplied the USSR with I,800 aircraft, 2,250 tanks, I,800 Bren-gun carriers and 1,210 machine tools, as well as large quantities of other machinery, raw materials, foodstuffs and medical supplies (Postan 1952: I 19).
until after the war). Total Lend-Lease aid provided 17 per cent of all British empire munitions during war, and included the equivalent of 150 per cent of the domestic production of transport aircraft, 24 per cent of combat aircraft, 104 per cent of tanks, 67 per cent of small arms ammunition and 60 per cent of landing crafts and ships (Allen 1946: 268; Postan 1952: 247; tables 7.27-7.28). The only blip in this supply of munitions came, paradoxically, when the USA finally entered the war in December 1941 and needed to divert some of its capacity from supplying

Number and displacement in thousand tons

|  |  | Battleships |  | Aircraft carriers |  | Monitors |  | Cruisers |  | Destroyers |  | Submarines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number |  | Number |  | Number | S.D. | Number |  | Number | S.D. | Number | S.D. |
| 1936/3 |  | - |  | - | - | - | - | 4 | 30.3 | 10 | 13.7 | 3 | 3.7 |
| 1937 A | April-December | - | - | - | - | - | - | 4 | 32.5 | 8 | 11.1 | 3 | 0.7 |
| 1938 |  | - |  | 1 | 22.0 | - | - | 2 | 18.8 | 12 | 21.9 | 6 | 5.0 |
| 1939 |  | - | - | - | - | - | - | 3 | 29.6 | 22 | 38.6 | 7 | 8.1 |
| 1940 |  | 1 | 35.0 | 2 | 46.0 | - | - | 7 | 45.9 | 27 | 31.3 | 15 | 12.0 |
| 1941 |  | 2 | 70.0 | 2 | 46.0 | - 1 | 7.6 | 6 | 37.9 | 39 | 50.6 | 20 | 14.1 |
| 1942 |  | 2 | 70.0 | - |  | - | - | 6 | 40.4 | 73 | 99.5 | 33 | 24.0 |
| 1943 |  | - | - | 2 | 30.0 | 1 | 7.9 | 7 | 47.0 | 37 | 61.6 | 39 | 27.7 |
| 1944 |  | - | - | 4 | 74.5 | - | - | 2 | 13.8 | 31 | 53.7 | 39 | 29.0 |
| 1938 | Ist Quarter | - | - | - | - | - | - | - |  | 1 | 1.4 | - |  |
|  | 2nd Quarter | - | - | - | - | - | - | - |  | 2 | 3.7 | 1 | 0.7 |
|  | 3rd Quarter | - | - | 1 | 22.0 | - | - | । | 9.4 | 2 | 3.7 | 2 | 2.1 |
|  | 4th Quarter | - | - | - | - | - | - | 1 | 9.4 | 7 | 13.09 | 3 | 2.2 |
| 1939 | Ist Quarter | - | - | - |  | - | - | 1 | 9.6 | 5 | 9.4 | - | - |
|  | 2nd Quarter | - | - | - | - | - | - | - | - | 5 | 8.6 | 2 | 2.6 |
|  | July-August | r | - | - | - | - | - | 2 | 20.0 | 3 | 5.2 | 1 | 1.1 |
|  | September-December | er | - | - | - | - | - | - | - | 9 | 15.4 | 4 | 4.4 |
| 1940 | Ist Quarter | - | - | - | - | - | - | - | - | 4 | 5.1 |  | 3.3 |
|  | 2nd Quarter | - | - | 1 | 23.0 | - | - | 2 | 13.5 | 5 | 5.8 | 2 | 2.2 |
|  | 3rd Quarter | - | . | - | - | - | - | 5 | 32.4 | 6 | 6.0 | 4 | 2.7 |
|  | 4th Quarter | 1 | 35.0 | 1 | 23.0 | - | - | - | - | 12 | 14.4 | 6 | 3.8 |
| 1941 | Ist Quarter | 1 | 35.0 | - | - | - | - | 2 | 13.5 | 8 | 10.5 | 3 | 2.2 |
|  | 2nd Quarter | - | - | 1 | 23.0 | - | - | , | 5.5 | 9 | 11.1 | 4 | 2.7 |
|  | 3rd Quarter | - | - | - |  | - | - | - | - | 9 | 12.9 | 7 | 4.9 |
|  | 4th Quarter | I | 35.0 | 1 | 23.0 | 1 | 7.6 | 3 | 18.9 | 13 | 16.1 | 6 | 4.3 |
| 1942 | Ist Quarter | - | - | - | - | - | - | 1 | 8.0 | 14 | 18.6 | 3 | 1.8 |
|  | 2nd Quarter | 1 | 35.0 | - | - | - | - | 3 | 18.9 | 19 | 24.3 | 10 | 6.7 |
|  | 3rd Quarter | 1 | 35.0 | - | - | - | - | 2 | 13.5 | 18 | 25.4 | 8 | 6.7 |
|  | 4th Quarter | - | - | - | - | - | - | - | - | 22 | 31.2 | 12 | 8.8 |
| 1943 | Ist Quarter | - | - | - | - | - | - | 2 | 16.0 | 8 | 11.9 | 7 | 4.9 |
|  | 2nd Quarter | - | - | - | - | 1 | 7.9 | - | - | 9 | 15.0 | 11 | 7.7 |
|  | 3rd Quarter | - | - | - | - | - | - | 3 | 19.5 | 11 | 19.3 | 8 | 5.4 |
|  | 4th Quarter | - | - | 2 | 30.0 | - | - | 2 | 11.5 | 9 | 15.4 | 13 | 9.7 |
| 1944 | Ist Quarter | - | - | I | 14.5 | - | - | 1 | 5.8 | 9 | 15.4 | 9 | 7.3 |
|  | 2nd Quarter | - | - | I | 23.0 | - | - | , | 8.0 | 6 | 10.3 | 11 | 7.9 |
|  | 3rd Quarter | - | - | I | 23.0 | - | - | - | - | 8 | 14.3 | 7 | 4.9 |
|  | 4th Quarter | - | - | I | 14.0 | - | - | - | - | 8 | 13.7 | 12 | 8.9 |
| 1945 | Ist Quarter | - | - | 2 | 28.0 | - | - | - | - | 1 | 1.7 | 5 | 4.2 |
|  | 2nd Quarter | - | - | I | 14.0 | - | - | 1 | 8.0 | 3 | 5.7 | 6 | 5.4 |
|  | 3rd Quarter | - | - | I | 14.0 | - | - | - | - | 9 | 9.2 | 3 | 2.5 |

[^79]Source : Admiralty

## 7.4

Shipbuilding
Naval vessels: Ocean and coastal convoy vessels, mosquito craft and landing craft।
Number and displacement in thousand tons


1. See footnotel to Table 7.3
2. Year ended 31 March 1937
3. Including three vessels of 3,420 tons deep displacement.
4. Including the following A.A. escorts, each of 1,400 tons S.D. April, I; May, 2; June, 2; July, 2.

|  |  | Total |  |  | 100-1,599 gross tons |  |  | 1,600 gross tons and over |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Laid down | Under constructtion end of period | Com- Laid pleted ${ }^{2}$ down |  | Under construction end of period | Completed | Non-tankers |  |  | Tankers |  |  |
|  |  | Laid down |  |  |  | Under construction end of period |  | Completed | Laid down | Under construction end of period | Completed |
| 1940 |  |  | 1,073 | 1,184 | 810 |  | 31 | 31 | 38 | 811 | 836 | 741 | 231 | 317 | 31 |
| 1941 |  | 1,201 | 1,229 | 1,156 | 32 | 25 | 38 | 898 | 887 | 847 | 271 | 317 | 271 |
| 1942 |  | 1,345 | 1,271 | 1,301 | 38 | 29 | 34 | 1,076 | 1,007 | 956 | 230 | 235 | 312 |
| 1943 |  | 990 | 1,062 | 1,204 | 35 | 32 | 32 | 743 | 791 | 959 | 212 | 239 | 208 |
| 1944 |  | 941 | 990 | 1,014 | 74 | 47 | 59 | 665 | 677 | 779 | 202 | 266 | 175 |
| 1940 | 4th Quarter | 279 | 1,184 | 219 | 7 | 31 | 10 | 206 | 836 | 184 | 66 | 317 | 24 |
| 1941 | Ist Quarter | 271 | 1,236 | 219 | 6 | 28 | 9 | 180 | 858 | 158 | 85 | 349 | 53 |
|  | 2nd Quarter | 279 | 1,263 | 252 | 10 | 31 | 7 | 209 | 871 | 196 | 60 | 361 | 48 |
|  | 3rd Quarter | 330 | 1,266 | 327 | 10 | 32 | 9 | 258 | 892 | 237 | 62 | 341 | 82 |
|  | 4th Quarter | 321 | 1,229 | 358 | 6 | 25 | 13 | 251 | 887 | 256 | 64 | 317 | 88 |
| 1942 | Ist Quarter | 277 | 1,234 | 272 | 13 | 30 | 8 | 208 | 873 | 222 | 58 | 333 | 42 |
|  | 2nd Quarter | 353 | 1,253 | 334 | 10 | 31 | 9 | 286 | 920 | 239 | 57 | 304 | 86 |
|  | 3rd Quarter | 390 | 1,337 | 306 | 6 | 27 | 10 | 318 | 1,035 | 203 | 65 | 276 | 93 |
|  | 4th Quarter | 325 | 1,271 | 389 | 9 | 29 | 7 | 264 | 1,007 | 292 | 50 | 235 | 91 |
| 1943 | Ist Quarter | 262 | 1,304 | 229 | 6 | 27 | 8 | 189 | 1.007 | 189 | 67 | 269 | 32 |
|  | 2nd Quarter | 266 | 1,264 | 306 | 5 | 20 | 12 | 127 | 998 | 226 | 44 | 245 | 68 |
|  | 3rd Quarter | 254 | 1,285 | 233 | 8 | 22 | 6 | 189 | 980 | 207 | 57 | 282 | 20 |
|  | 4th Quarter | 208 | 1,062 | 431 | 16 | 32 | 6 | 148 | 791 | 337 | 44 | 239 | 88 |
| 1944 | Ist Quarter | 223 | 1,078 | 207 | 21 | 43 | 10 | 174 | 817 | 148 | 28 | 218 | 49 |
|  | 2nd Quarter | 215 | 1,054 | 239 | 17 | 43 | 17 | 164 | 783 | 198 | 34 | 228 | 24 |
|  | 3rd Quarter | 245 | 1,082 | 217 | 14 | 46 | 11 | 153 | 769 | 167 | 78 | 267 | 39 |
|  | 4th Quarter | 258 | 990 | 350 | 22 | 47 | 21 | 174 | 677 | $266^{3}$ | 62 | 266 | 63 |
| 1945 | 1st Quarter | 225 | 1,077 | 138 | 29 | 63 | 13 | 145 | 717 | 105 | 51 | 297 | 20 |
|  | 2nd Quarter | 362 | 1,216 | 223 | 23 | 66 | 20 | 251 | 840 | 128 | 88 | 310 | 75 |
|  | 3rd Quarter | 269 | 1,334 | 151 | 11 | 60 | 17 | 168 | 908 | 100 | 90 | 366 | 34 |

This table does not incorporate certain revisions which have been made to figures since the end of the war as the revisions cannot be made in the full detail required by this table.
In addition to vessels built in the United Kingdom, the following vessels were built on British account in the Commonwealth and United States of America:-

|  | Number | Thousand <br> gross tons |
| :---: | ---: | ---: |
| 1941: Total | 11 | 77.3 |
| Canada | 1 | 7.2 |
| Hong Kong | 5 | 34.3 |
| United States of America | 5 | 35.9 |
| 1942: Total | 56 | 401.8 |
| Canada | 1 | 7.2 |
| United States of America | 55 | 394.6 |

2. Including merchant-type vessels built for the Navy as follows: In 19414,000 gross tons non-tanker (all of 100-1,599 gross tons); 20,000 gross tons tanker (all of over 1,600 gross tons); in 1942 8,000 gross tons non-tanker (all of 100-1,599 gross tons); and in 19431,000 gross tons tanker and 63,000 gross tons non-tanker.
3. Including two suction dredgers of 3,944 and 1,747 gross tons.

## 7.6

## Shipbuilding

Merchant vessels built in the United Kingdom
Non-tankers of I,600 gross tons and over!

|  |  | Cargo liners |  |  |  |  |  | Tramps of 3,500 gross tons and over ${ }^{2}$ |  |  | Colliers and tramps of $1,600-3,499$ gross tons ${ }^{3}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fully refrigerated |  |  | Others |  |  |  |  |  |  |  |  |
|  |  | Laid down | Under constructtion end of period | Com- <br> pleted | Under <br> Laid construcdown tion end of period |  | Completed | Laid down | Under construction end of period | Completed | Laid down | Under construction end of period | Completed |
| 1940 |  | 37 | 95 |  | 124 | 152 | 193 | 601 | 539 | 406 | 49 | 50 | 44 |
| 1941 |  | 63 | 130 | 28 | 91 | 145 | 98 | 686 | 562 | 663 | 58 | 50 | 58 |
| 1942 |  | 99 | 134 | 95 | 200 | 273 | 72 | 696 | 549 | 709 | 81 | 51 | 80 |
| 1943 |  | 36 | 105 | 65 | 223 | 279 | $217^{4}$ | 436 | 373 | 612 | 48 | 34 | 65 |
| 1944 |  | 48 | 74 | 79 | $180^{5}$ | 261 | 198 | 400 | 312 | 461 | 37 | 30 | 41 |
| 1941 | 3rd Quarter | 9 | 117 | 7 | 35 | 151 | 16 | 208 | 588 | 206 | 6 | 37 | 10 |
|  | 4th Quarter | 34 | 130 | 21 | 33 | 145 | 39 | 162 | 562 | 188 | 22 | 50 | 9 |
| 1942 |  | 10 | 114 | 26 | 38 | 178 | 5 | 142 | 530 | 174 | 18 | 51 | 17 |
|  | 2nd Quarter | 33 | 133 | 14 | 41 | 201 | 18 | 190 | 534 | 186 | 22 | 53 | 20 |
|  | 3rd Quarter | 38 | 163 | 9 | 51 | 218 | 34 | 209 | 598 | 145 | 20 | 58 | 15 |
|  | 4th Quarter | 18 | 134 | 46 | 70 | 273 | 15 | 155 | 549 | 204 | 21 | 51 | 28 |
| 1943 | Ist Quarter |  | 127 | 7 | 61 | 309 | 25 | 113 | 515 | 147 | 15 | 56 | vo |
|  | 2nd Quarter | 10 | 109 | 28 | 54 | 333 | 30 | 136 | 503 | 148 | 17 | 53 | 20 |
|  | 3rd Quarter | 8 | 107 | 10 | 73 | 372 | 34 | 92 | 448 | 147 | 16 | 53 | 16 |
|  | 4th Quarter | 18 | 105 | 20 | 35 | 279 | 128 | 95 | 373 | 170 | - | 34 | 19 |
| 1944 | Ist Quarter | 8 | 104 | 9 | 53 | 316 | 16 | 107 | 367 | 113 | 6 | 31 | 9 |
|  | 2nd Quarter | 10 | 84 | 30 | 34 | 323 | 27 | 111 | 347 | 131 | 9 | 30 | 10 |
|  | 3rd Quarter | 9 | 75 | 18 | 36 | 296 | 63 | 99 | 366 | 80 | 9 | 32 | 7 |
|  | 4th Quarter | 21 | 74 | 22 | $57^{5}$ | 261 | 92 | 83 | 312 | 137 | 13 | 30 | 15 |
| 1945 | 1st Quarter | 44 | 110 | 8 | 53 | 287 | 27 | 33 | 280 | 65 | 15 | 40 | 5 |
|  | 2nd Quarter | 70 | 171 | 9 | 101 | 357 | 31 | 37 | 241 | 76 | 27 | 55 | 12 |
|  | 3rd Quarter | 14 | 177 | 8 | 143 | 483 | 17 | 5 | 180 | 66 | 6 | 52 | 9 |

I. In addition to the classes of vessel shown below, passenger liners of 98,000 gross tons were

Source: Admiralty completed in 1940.
2. These vessels are mostly of about 7,000 gross tons and 10,000 deadweight tons.
3. Including dredgers from May 1943.
4. Including four vessels totalling 56,800 gross tons handed over to the Royal Navy.
5. Including one cable ship.

|  | All vessels ${ }^{1}$ |  |  |  |  | Vessels of 1,600 gross tons and over |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Cause of | amage |  | Non-tank |  |  | Tankers |  | Troop- |
|  | Total | Undergoing repairs while working cargo | Immobilised by reason of repair | Enemy action | Other causes | Total | Undergoing repairs while working cargo | Immobilised by reason of repair | Total | Undergoing repairs while working cargo | Immobilised by reason of repair | hospital <br> ships |
| 1941 February 27 | 2,593 | 1,008 | 1,585 | 453 | 2,140 | 2,031 | 971 | 1,060 | 421 | 23 | 397 |  |
| March 27 | 2,306 | 860 | 1,447 | 567 | 1,740 | 1,819 | 821 | 999 | 364 | 30 | 334 |  |
| April 24 | 2,025 | 681 | 1,345 | 612 | 1,413 | 1,573 | 641 | 932 | 322 | 24 | 298 |  |
| May 29 | 2,070 | 935 | 1,135 | 592 | 1,478 | 1,615 | 874 | 741 | 338 | 44 | 294 |  |
| June 26 | 1,922 | 1,100 | 822 | 461 | 1,460 | 1,525 | 1,003 | 522 | 282 | 57 | 225 |  |
| July 31 | 1,618 | 735 | 883 | 428 | 1,189 | 1,264 | 691 | 573 | 246 | 12 | 234 |  |
| August 28 | 1,691 | 907 | 784 | 392 | 1,299 | 1,279 | 807 | 473 | 319 | 67 | 252 |  |
| September 25 | 1,694 | 1,051 | 643 | 306 | 1,388 | 1,309 | 910 | 399 | 282 | 111 | 172 |  |
| October 30 | 1,857 | 1,116 | 742 | 236 | 1,621 | 1,392 | 970 | 422 | 349 | 95 | 254 |  |
| November 27 | 1,668 | 972 | 696 | 254 | 1,414 | 1,181 | 814 | 367 | 378 | 114 | 264 |  |
| December 25 | 1,891 | 1,155 | 736 | 210 | 1,682 | 1,394 | 1,006 | 388 | 401 | 118 | 283 |  |
| 1942 January 29 | 1,768 | 926 | 841 | 176 | 1,592 | 1,245 | 776 | 468 | 415 | 104 | 311 | 198 |
| February 26 | 1,846 | 1,002 | 844 | 182 | 1,664 | 1,396 | 880 | 516 | 345 | 82 | 263 | 198 |
| March 26 | 1,567 | 919 | 648 | 139 | 1,428 | 1,200 | 816 | 384 | 277 | 76 | 201 | 223 |
| April 30 | 1,570 | 871 | 699 | 116 | 1,455 | 1,190 | 769 | 421 | 272 | 64 | 209 | 390 |
| May 28 | 1,508 | 851 | 658 | 146 | 1,362 | 1,190 | 809 | 381 | 223 | 10 | 213 | 320 |
| June 25 | 1,460 | 857 | 602 | 80 | 1,379 | 1,164 | 779 | 385 | 189 | 47 | 142 | 124 |
| July 30 | 1,402 | 731 | 671 | 48 | 1,354 | 968 | 626 | 342 | 317 | 75 | 241 | 246 |
| August 27 | 1,438 | 768 | 671 | 47 | 1,392 | 1,078 | 674 | 404 | 254 | 61 | 193 | 206 |
| September 24 | 1,701 | 905 | 796 | 71 | 1,630 | 1,279 | 828 | 452 | 314 | 52 | 262 | 307 |
| October 29 | 1,628 | 939 | 689 | 74 | 1,555 | 1,255 | 863 | 392 | 277 | 49 | 228 | 266 |
| November 26 | 1,597 | 868 | 728 | 81 | 1,516 | 1,200 | 777 | 423 | 300 | 63 | 237 | 215 |
| December 31 | 1,606 | 846 | 759 | 97 | 1,509 | 1,265 | 809 | 456 | 251 | 18 | 233 | 526 |
| 1943 January 28 | 1,781 | 938 | 843 | 89 | 1,692 | 1,371 | 861 | 510 | 299 | 50 | 249 | 342 |
| February 25 | 1,698 | 869 | 829 | 85 | 1,613 | 1,331 | 801 | 529 | 267 | 39 | 228 | 389 |
| March 25 | 1,759 | 837 | 922 | 92 | 1,667 | 1,386 | 787 | 600 | 267 | 22 | 245 | 350 |
| April 29 | 2,004 | 1,031 | 973 | 117 | 1,888 | 1,658 | 971 | 687 | 242 | 28 | 214 | 287 |
| May 27 | 1,846 | 1,027 | 820 | 87 | 1,759 | 1,536 | 962 | 574 | 209 | 38 | 171 | 464 |
| June 24 | 1,601 | 851 | 750 | 99 | 1,502 | 1,329 | 817 | 512 | 169 | 18 | 151 | 495 |
| July 29 | 1,531 | 956 | 576 | 83 | 1,449 | 1,236 | 843 | 393 | 198 | 84 | 114 | 534 |
| August 26 | 1,477 | 870 | 607 | 98 | 1,379 | 1,124 | 736 | 388 | 240 | 110 | 130 | 404 |
| September 30 | 1,609 | 985 | 624 | 89 | 1,520 | 1,263 | 876 | 387 | 236 | 70 | 166 | 426 |
| October 28 | 1,798 | 1.025 | 774 | 92 | 1,706 | 1,454 | 972 | 482 | 232 | 29 | 203 | 254 |
| November 25 | 1,536 | 806 | 729 | 88 | 1,448 | 1,211 | 770 | 442 | 220 | 14 | 205 | 363 |
| December 30 | 1,736 | 1,006 | 731 | 96 | 1,640 | 1,470 | 968 | 502 | 181 | 14 | 167 | 448 |
| 1944 January 27 | 1,753 | 1,005 | 748 | 98 | 1,656 | 1,479 | 968 | 512 | 182 | 17 | 165 | 446 |
| February 24 | 1.768 | 989 | 779 | 60 | 1,708 | 1,436 | 917 | 520 | 209 | 44 | 165 | 469 |
| March 30 | 1,506 | 747 | 759 | 72 | 1,434 | 1,167 | 681 | 486 | 237 | 39 | 199 | 319 |
| April 27 | 1,807 | 1,010 | 797 | 53 | 1,753 | 1,468 | 929 | 539 | 220 | 47 | 173 | 540 |
| May 25 | 1,723 | 991 | 731 | 47 | 1,676 | 1,446 | 940 | 506 | 185 | 33 | 152 | 246 |
| June 29 | 1,515 | 904 | 611 | 66 | 1,449 | 1,258 | 830 | 428 | 173 | 49 | 124 | 305 |
| July 27 | 1,510 | 863 | 647 | 74 | 1,436 | 1,184 | 811 | 373 | 236 | 36 | 200 | 309 |
| August 31 | 1,619 | 805 | 814 | 91 | 1,527 | 1,318 | 759 | 558 | 198 | 29 | 169 | 466 |
| September 28 | 1,618 | 806 | 812 | 111 | 1,507 | 1,325 | 749 | 576 | 183 | 35 | 148 | 522 |
| October 26 | 1,995 | 1,123 | 872 | 93 | 1,902 | 1,681 | 1,057 | 623 | 202 | 41 | 160 | 551 |
| November 30 | 2,053 | 1,100 | 952 | 84 | 1,969 | 1,684 | 1,054 | 630 | 241 | 21 | 220 | 577 |
| December 28 | 1,989 | 1,142 | 847 | 67 | 1,922 | 1,660 | 1,074 | 586 | 183 | 34 | 149 | 515 |
| 1945 January 25 | 2,127 | 1,121 | 1,006 | 67 | 2,060 | 1,705 | 1,009 | 696 | 254 | 71 | 183 | 412 |
| March 1 | 2,179 | 1,242 | 937 | 78 | 2,101 | 1,824 | 1,154 | 670 | 225 | 62 | 163 | 560 |
| March 29 | 1,860 | 947 | 913 | 65 | 1,795 | 1,536 | 902 | 634 | 197 | 23 | 174 | 274 |
| April 26 | 1,983 | 1,087 | 897 | 71 | 1,913 | 1,683 | 1,042 | 641 | 163 | 18 | 146 | 556 |
| May 31 | 2,047 | 1,049 | 998 | 125 | 1,922 | 1,695 | 970 | 725 | 208 | 54 | 154 | 480 |
| June 28 | 2,184 | 1,130 | 1,055 | 120 | 2,065 | 1.774 | 1,087 | 687 | 271 | 18 | 253 | 525 |
| July 26 | 2,076 | 902 | 1,174 | 125 | 1,951 | 1,502 | 791 | 711 | 413 | 87 | 327 | 455 |
| August 30 | 2,410 | 1,247 | 1,163 | 94 | 2,317 | 1,834 | 1,193 | 641 | 419 | 24 | 395 | 410 |

[^80]|  | Total | Vessels of 100 to 1,599 gross tons | Vessels of 1,600 gross tons and over |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Non-tankers | Tankers |
| 1942 | 728 | 62 | 544 | 122 |
| 1943 | 728 | 50 | 562 | 116 |
| 1944 | 847 | 60 | 701 | 85 |
| 1941. February | 768 934 | 40 | 639 755 | 89 |
| * March | 934 760 | 61 53 | 755 609 | 117 98 |
| April | 788 | 53 52 | 654 | 83 |
| - June | 881 | 59 | 706 | 116 |
| July | 743 | 54 | 584 | 105 |
| August | 749 | 57 | 592 | 99 |
| - September | 797 | 54 | 613 | 130 |
| October | 752 | 70 | 566 | 117 |
| November | 815 | 73 | 635 | 107 |
| - December | 789 | 62 | 575 | 153 |
| 1942 January | 800 | 65 | 607 | 128 |
| February | 825 | 74 | 572 | 179 |
| - March | 756 | 68 | 566 | 123 |
| April | 730 | 67 | 555 | 108 |
| May | 737 | 69 | 546 | 122 |
| - June | 675 | 61 | 521 | 93 |
| July | 742 | 64 | 570 | 107 |
| - August | 640 | 61 | 471 | 108 |
| September | 736 | 55 | 532 | 149 |
| October | 782 | 55 | 585 | 142 |
| - November | 674 | 55 | 519 | 101 |
| December | 679 | 52 | 505 | 122 |
| 1943 January | 674 | 55 | 518 | 101 |
| February | 771 | 58 | 592 | 121 |
| * March | 753 | 51 | 583 | 119 |
| April | 756 | 54 | 583 | 119 |
| * May | 744 | 55 | 568 | 121 |
| June | 811 | 50 | 633 | 129 |
| July | 692 | 46 | 514 | 132 |
| * August | 681 | 48 | 493 | 139 |
| September | 775 | 46 | 594 | 135 |
| October | 667 | 48 | 529 | 90 |
| * November | 710 | 46 | 565 | 99 |
| December | 707 | 42 | 577 | 89 |
| 1944* January | 750 | 43 | 620 | 88 |
| February | 796 | 49 | 678 | 70 |
| March | 804 | 51 | 668 | 85 |
| April | 713 | 51 | 551 | 110 |
| - May | 918 | 59 | 758 | 100 |
| June | 854 | 62 | 695 | 97 |
| * July | 798 | 63 | 669 | 66 |
| August | 848 | 64 | 697 | 87 |
| September | 811 | 57 | 676 | 77 |
| * October | 926 | 71 | 779 | 76 |
| November | 987 | 80 | 836 | 70 |
| December | 955 | 70 | 785 | 100 |
| $1945^{*}$ January | 924 | 74 | 748 | 102 |
| February | 984 | 74 | 842 | 68 |
| March | 1,088 | 67 | 913 | 107 |
| * April | 923 | 64 | 781 | 78 |
| May | - 843 | 62 | 709 | 73 |
| June | 858 | 56 | 699 | 103 |
| - July | 918 | 51 | 774 | 93 |
| August | 720 | 44 | 602 | 74 |

[^81]Munitions
Index of Ministry of Supply munitions production
Average September to December 1939=100


[^82]Munitions
Artillery equipments and instruments and tank and anti-tank guns ${ }^{\prime}$
Number


[^83]|  |  | Other than anti-aircraft | Anti-aircraft |  | Machine guns |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Long range | Short range | . 5 -in. Vickers | -303-in. Hefah |
| 1936/3 |  | 56 | 148 | 180 | 228 |  |
| 1937 A | April-December | 54 | 112 | 200 | 156 | - |
| 1938 |  | 41 | 364 | 396 | 448 | - |
| 1939 |  | 82 | 551 | 624 | 440 | - |
| 1940 |  | 59 | 676 | 747 | 1,450 | - |
| 1941 |  | 61 | 1,098 | 1,490 | 2,491 | - |
| 1942 |  | 171 | 1,797 | 1,830 | 3,507 | 39 |
| 1943 |  | 172 | 1,253 | 1,737 | 1,738 | 2,935 |
| 1944 |  | 139 | 407 | 399 | 1.738 | , 93 |
| 1938 | 1st Quarter | 7 | 60 | 84 | 136 |  |
|  | 2nd Quarter | 5 | 73 | 66 | 123 | - |
|  | 3rd Quarter | 7 | 110 | 114 | 121 | - |
|  | 4th Quarter | 22 | 121 | 132 | 68 | - |
| 1939 | Ist Quarter | 21 | 126 | 168 | 60 |  |
|  | 2nd Quarter | 15 | 146 | 144 | 137 |  |
|  | July-August | 22 | 138 | 144 | 63 |  |
|  | September-December | 24 | 141 | 168 | 180 | - |
| 1940 | 1st Quarter | 21 | 140 | 144 | 200 |  |
|  | 2nd Quarter | 21 | 178 | 168 | 321 |  |
|  | 3rd Quarter | 11 | 165 | 193 | 459 | - |
|  | 4th Quarter | 6 | 193 | 242 | 470 | - |
| 1941 | Ist Quarter | 10 | 182 | 347 | 568 |  |
|  | 2nd Quarter | 20 | 263 | 361 | 516 | - |
|  | 3rd Quarter | 11 | 293 | 357 | 619 | . |
|  | 4th Quarter | 20 | 360 | 425 | 788 | - |
| 1942 | Ist Quarter | 57 | 288 | 454 | 868 |  |
|  | 2nd Quarter | 42 | 484 | 431 | 844 | 2 |
|  | 3rd Quarter | 40 | 476 | 443 | 799 | 37 |
|  | 4th Quarter | 32 | 549 | 502 | 996 | - |
| 1943 | 1st Quarter | 47 | 518 | 537 | 818 | 171 |
|  | 2nd Quarter | 48 | 331 | 405 | 498 | 855 |
|  | 3rd Quarter | 30 | 190 | 407 | 322 | 1,302 |
|  | 4th Quarter | 47 | 214 | 388 | 100 | 607 |
| 1944 | 1st Quarter | 44 | 130 | 192 | - |  |
|  | 2nd Quarter | 36 | 89 | 147 | - | - |
|  | 3rd Quarter | 41 | 88 | 46 | - | - |
|  | 4th Quarter | 18 | 100 | 14 | - | - |
| 1945 | Ist Quarter | 19 | 142 | 166 | - | - |
|  | 2nd Quarter | 17 | 105 | 262 | - | - |
|  | 3rd Quarter | - | 93 | 286 | - | - |

[^84]Source: Admiralty

### 7.12 Munitions

Aircraft and light guns

|  | Aircraft guns |  |  | Light guns 20 mm . |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & -303 \text {-in. } \\ & \text { Vickers G.O. } \end{aligned}$ | -303-in. Browning | 40 mm . <br> Vickers | Hispano-Suiza (Aircraft) | Oerlikon (Naval) | Polsten (Army) |
| 1936/371 | 725 | 532 | - | - |  |  |
| 1937 April-December | 725 | 532 | - | - |  | - |
| 1938 | 2,525 | 9.139 | - | - |  |  |
| 1939 | 5,705 | 22,387 | - | 387 |  |  |
| 1940 | 11,364 | 55,352 |  | 3,319 | 1512- | - |
| 1941 | 15,177 | 128,952 | 4 | 11,927 | 1,512 |  |
| 1942 | 19,892 | 167,820 | 655 | 43,398 | 9,651 | - |
| 1943 | 28,227 | 70,218 | 1,311 | 56,950 | 16,861 | 240 |
| 1944 | 13,725 | 51,082 | 344 | 46,800 | 16,529 | 13,548 |
| 1938 1st Quarter | 675 | 1,194 |  |  |  |  |
| 2nd Quarter | 250 | 2,070 |  |  |  |  |
| 3rd Quarter | 1,075 | 1,659 | - | - |  | - |
| 4th Quarter | 525 | 4,216 | - |  |  |  |
| 1939 lst Quarter | 766 | 4,811 | - | - | - |  |
| 2nd Quarter | 1,330 | 5,392 | - | 45 |  |  |
| July-August | 1,120 | 3,533 | - | 102 |  |  |
| September-December | 2,489 | 8,651 | - | 240 |  |  |
| 1940 1st Quarter | 2,019 | 8,229 | - | 539 |  |  |
| 2nd Quarter | 2,990 | 14,420 | - | 809 |  |  |
| 3rd Quarter | 2,862 | 16,786 | - | 775 | - | - |
| 4th Quarter | 3,493 | 15,917 | - | 1,196 |  |  |
| 1941 1st Quarter | 3,479 | 16,787 | - | 1,329 | 6 |  |
| 2nd Quarter | 3,510 | 30,179 | - | 1,449 | 146 | - |
| 3rd Quarter | 3,739 | 36,211 |  | 3,095 | 440 |  |
| 4th Quarter | 4,449 | 45,775 | 4 | 6,054 | 920 |  |
| 1942 Ist Quarter | 4,358 | 44,383 | 47 | 7,205 | 1,386 |  |
| 2nd Quarter | 4,786 | 45,845 | 133 | 10,403 | 1,899 | - |
| 3rd Quarter | 5,206 | 38,830 | 187 | 12,412 | 2,829 | - |
| 4th Quarter | 5,542 | 38,762 | 288 | 13,378 | 3,537 |  |
| 1943 lst Quarter | 5,612 | 25,062 | 325 | 14,972 | 3,923 |  |
| 2nd Quarter | 6,294 | 19,111 | 356 | 13,878 | 4,207 | - |
| 3rd Quarter | 7,311 | 14,186 | 347 | 13,267 | 3,996 | - |
| 4th Quarter | 9,010 | 11,859 | 283 | 14,833 | 4,735 | 240 |
| 1944 lst Quarter | 7,428 | 11,296 | 173 | 14,888 | 5,037 | 1,720 |
| 2nd Quarter | 3,746 | 13,372 | 125 | 13,350 | 4,814 | 4,104 |
| 3rd Quarter | 1,479 | 12,723 | 46 | 10,444 | 3,696 | 4,367 |
| 4th Quarter | 1,072 | 13,691 | - | 8,118 | 2,982 | 3,357 |
| 1945 1st Quarter | 66 | 3,704 | - | 8,936 | 2,010 | 1,164 |
| 2nd Quarter |  | - | - | 5,915 | (1,221 | 3 |
| July-August |  |  |  | 3,103 | 6 |  |

[^85]Source: Admiralty and Ministry of Supply

Number

|  |  | Projectors |  |  | PI.IA.T. | Flame throwers | Bomb throwers | Smoke dischargers | Mortars |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U.P. and Rocket | Livens | Northover |  |  |  |  |  |
| 1936/371 |  |  | - | - |  |  | - |  | - |
| 1937 April-December |  |  | - | - |  |  |  |  | - |
| 1938 |  |  | 6 | - |  |  |  | 3,443 | 158 |
| 1939 |  | - | 1,150 | - |  |  |  | ] 1.618 | 2,822 |
| 1940 |  | 6,369 | 12,415 | - |  | 554 |  | 1,618 | 7,559 |
| 1941 |  | 1,881 | 11,847 | 19,171 | - | 1,445 | 2,384 | 10,229 | 21,725 |
| 1942 |  | 5,711 | 790 | 1,829 | 7,908 | I | 10,773 | 10,429 | 29,162 |
| 1943 |  | 1,264 | - | - | 98,326 | 4,326 | 10,504 | 31,196 | 17,121 |
| 1944 |  | 844 | - | - | 9,067 | 6,412 | 3,460 | 15,378 | 19.046 |
| 1939 | September-De | - | 673 | - | - | - | - | 756 | 1,317 |
| 1940 | Ist Quarter | - | 481 | - | - | - | - |  | 1,363 |
|  | 2nd Quarter | - | 220 | - | - |  |  |  | 2,111 |
|  | 3rd Quarter | 1,051 | 5,602 | - | - |  | - |  | 1,742 |
|  | 4th Quarter | 5,318 | 6,112 | - | - | 554 | - |  | 2,343 |
| 1941 | Ist Quarter | 1,719 | 6,759 | 3,963 | - | 1,299 | 128 | 1,551 | 2,505 |
|  | 2nd Quarter | 29 | 3,586 | 4,472 | - | 143 | 439 | 2,500 | 2,104 |
|  | 3rd Quarter | 1 | 1,126 | 3,850 |  | 3 | 620 | 3,209 | 5,195 |
|  | 4th Quarter | 132 | 376 | 6,886 | - | - | 1,197 | 2,969 |  |
| 1942 | Ist Quarter | 1,381 | 63 | 1,678 | - | I | 1,742 | 827 | 14,099 |
|  | 2nd Quarter | 2,048 | 526 | 151 | - |  | 2,113 | 1,223 | 7,013 |
|  | 3rd Quarter | 534 | 201 | - | 377 | - | 2,905 | 1,519 | 3,201 |
|  | 4th Quarter | 1,748 | - | - | 7.531 | - | 4,013 | 6,860 | 4,849 |
| 1943 | 1st Quarter | 968 | - | - | 30,612 | 21 | 4,060 | 14,321 | 6,932 |
|  | 2nd Quarter | 296 | - | - | 33,614 | 562 | 3,164 | 11,594 | 5,439 |
|  | 3rd Quarter | - | - | - | 22,279 | 1,395 | 1,970 | 3,164 | 2,788 |
|  | 4th Quarter | - | - | - | 11,821 | 2,348 | 1,310 | 2,117 | 1,962 |
| 1944 | lst Quarter | 83 | - | - |  | 2,380 | 1,176 | 2,318 | 6,620 |
|  | 2nd Quarter | 76 | - | - | 330 | 3,005 | 326 | 2,849 | 6,021 |
|  | 3rd Quarter | 637 | - | - | - | 448 | 1,113 | 4,833 | 4,903 |
|  | 4th Quarter | 48 | - | - | - | 579 | 845 | 5,378 | 1,502 |
| 1945 | 1st Quarter | 36 | - | - | - | 501 | 905 | 4,017 | 2,371 |
|  | 2nd Quarter | 64 | - | - |  | 589 | 682 | 1,707 | 1,697 |
|  | 3rd Quarter | 2 | - | - | - | 301 | 274 | 574 | 1,447 |

[^86]

[^87]|  |  | Artillery |  |  |  | Anti-aircraft |  | Tank and anti-tank | Mines | Grenades | Mortar bombs | P.IA.T. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Field | Medium | Heavy | Coast | Light | Heavy |  |  |  |  |  |
| $\begin{aligned} & \text { 1936/372 } \\ & 1937 \text { April-December } \\ & 1938 \\ & 1939 \text { January-August } \end{aligned}$ |  |  |  |  |  |  | 143 | 41 |  |  | 39 |  |
|  |  | 474 |  |  |  |  | 514 | 169 | - |  | 117 |  |
|  |  | 1,034 |  |  |  | 180 | 1,108 | 296 |  |  | 191 |  |
|  |  | 771 |  |  |  | 550 | 1,333 | 165 | 14 |  | 111 |  |
|  | September-December | 758 | 28 | 7.70 | 39 | 160 | 677 | 135 | 151 | 180 | 223 |  |
| 1940 |  | 6,175 | 626 |  | 76 | 2,338 | 2,138 | 836 | 1,043 | 15,812 | 2,127 |  |
| 1941 |  | 11,763 | 1,744 | 84.00 | 70 | 4,648 | 4,413 | 5,534 ${ }^{4}$ | 2,361 | 15,502 | 13,784 |  |
| 1942 |  | 20,146 | 2,117 | 357.60 | 120 | $10,582^{3}$ | 4,452 | $17,143^{4}$ | 6,480 | 22,098 | 35,017 | 357 |
| 1943 |  | 9,152 | 1,784 | 259.02 | 205 | $13,574{ }^{3}$ | 2,030 | $15,886^{4}$ | 9,611 | 21,510 | 23,772 | 4,113 |
| 1944 |  | 8,180 | 1,918 | 1.25 | 243 | 8,982 | 837 | 5,177 | 3,099 | 16,872 | 12,192 | 4,806 |
| 1938 | Ist Quarter | 190 |  |  |  |  | 214 | 47 | - |  | 81 |  |
|  | 2nd Quarter | 338 |  |  | - | 15 | 235 | 95 | - |  | 56 |  |
|  | 3 nd Quarter | 291 |  |  |  | 82 | 245 | 82 | - |  | 32 |  |
|  | 4th Quarter | 215 |  |  | . | 83 | 414 | 72 | - |  | 22 |  |
| 1939 | Ist Quarter | 316 | . |  |  | 110 | 503 | 48 | 7 |  | 52 | - |
|  | 2nd Quarter | 265 |  |  |  | 196 | 477 | 20 | 7 |  | 52 |  |
|  | July-August | 190 | . |  | . | 244 | 353 | 97 | 7 |  | 59 |  |
|  | September-December | 758 | 28 | 7.70 | 39 | 160 | 677 | 135 | 151 | 180 | 223 |  |
| 1940 | 1 st Quarter | 1,068 | 90 |  | 35 | 80 | 574 | 90 |  | 299 | 155 |  |
|  | 2nd Quarter | 1,516 | 189 |  | 19 | 542 | 530 | 156 |  | 1,478 | 278 |  |
|  | 3rd Quarter | 1,901 | 108 |  | 10 | 713 | 404 | 278 |  | 6,498 | 895 |  |
|  | 4th Quarter | 1,690 | 239 |  | 12 | 1,003 | 630 | 312 |  | 7,537 | 799 |  |
| 1941 | Ist Quarter | 2,580 | 349 |  | 3 | 585 | 773 | 279 | 306 | 5,195 | 1,291 |  |
|  | 2nd Quarter | 2,302 | 466 |  | 24 | 542 | 1,079 | 772 | 648 | 3,683 | 2,446 |  |
|  | 3rd Quarter | 3,091 | 470 |  | 15 | 1,545 | 1,115 | 1,522 | 437 | 3,023 | 4,335 |  |
|  | 4th Quarter | 3,790 | 459 |  | 28 | 1,976 | 1,446 | 2,961 | 970 | 3,601 | 5,712 |  |
| 1942 | Ist Quarter | 4,560 | 469 | 50.00 | 45 | 2,323 | 1,332 | 3,560 | 1,158 | 3,359 | 7,915 |  |
|  | 2nd Quarter | 5,388 | 517 | 93.00 | 29 | 2,682 | 1,029 | 4,068 | 1,717 | 5,357 | 9,701 |  |
|  | 3rd Quarter | 5,114 | 536 | 106.44 | 19 | 2,321 | 995 | 4,727 | 1,489 | 6,144 | 9,901 |  |
|  | 4th Quarter | 5,084 | 595 | 108.15 | 27 | 3,256 | 1,096 | 4,788 | 2,116 | 7,238 | 7,500 | 357 |
| 1943 | Ist Quarter | 5,351 | 579 | 136.80 | 42 | 3,126 | 1,034 | 4.755 | 1,854 | 6,438 | 7,537 | 939 |
|  | 2nd Quarter | 2,399 | 585 | 95.90 | 39 | 3,491 | 598 | 4,834 | 2382 | 4441 | 6,472 | 1,112 |
|  | 3rd Quarter | 783 | 336 | 25.50 | 35 | 3,230 | 209 | 3,338 | 2990 | 4575 | 5,254 | 1,023 |
|  | 4th Quarter | 619 | 284 | 0.82 | 89 | 3,727 | 189 | 2,959 | 2,385 | 6,057 | 4,509 | 1,039 |
| 1944 | Ist Quarter | 1,038 | 285 | 1.15 | 71 | 2,724 |  | 2840 | 1,854 | 5,444 | 3,994 | 1,292 |
|  | 2nd Quarter | 920 | 362 | 0.10 | 45 | 2,084 | 152 |  | 1,200 | 3,705 | 2,445 | 1,374 |
|  | 3 3rd Quarter | 2.486 | 392 |  | 43 | 2,294 | 345 | 1,037 | 45 | 3,724 | 2,147 | 1,176 |
|  | 4th Quarter | 3,736 | 879 |  | 84 | 1,880 | 230 | 1,300 | - | 3,999 | 3,606 | 964 |
| 1945 | Ist Quarter | 4,222 | 776 | - | 5 | 1,718 | 138 | 949 | 16 | 3,593 | 3,096 |  |
|  | 2nd Quarter | 3,420 | 759 |  | 26 | 1,296 | 206 | 721 | - | 3,026 | 1,815 | 231 |
|  | 3rd Quarter | 678 | 77 | - | 6 | 629 | 168 | 212 | - | 1,155 | 648 | 78 |

[^88]|  | Naval 1 |  |  |  | Aircraft bombs ${ }^{2}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shell | Mine and <br> Depth minecharge charges <br> cases |  | Torpedoes | H.E., A.P. and A.S. |  |  |  | Incendiary Smoke |  |
|  |  |  |  |  | tal | H.E. | A.P. and A.S. |  |  |
|  |  | Thousands |  |  | Number | Weight Weight of filled explosive |  | Weight filled |  |  |  |
|  |  |  |  | Short tons |  |  |  |  |  |
| 1936/393 | 2,7814 |  |  |  |  | . 5 | . | . |  |  |  |
| 1940 |  |  |  | 939 1.926 | 51,093 147,848 | 6,389 34,149 | 41,252 132,487 | 9,841 15,361 |  |  |
| 1941 | $5,674.0$ $7,154.8$ | 87.7 | 62.5 40.6 | 1,926 3,883 | 147,848 211,048 | 34,149 73,610 | 132,487 | 15,361 | 52.373 | 483 |
| 1943 | 6,505.8 | 101.3 | 35.3 | 7,288 | 223,807 | 104,844 | 204,746 | 19,061 | 102,138 | 3,858 |
| 1944 | 3,607.6 | 110.2 | 13.0 | 6,825 | 309,366 | 168,248 | 307,978 | 1,388 | 106,740 | 4,166 |
| 1939 September-December | .. |  | .. | 362 | 5,055 | 1,078 | 3,864 | 1.191 |  |  |
| 1940 1st Quarter | .. |  | . | 231 | 5,504 |  | 4,673 | 831 |  |  |
| 2nd Quarter |  |  |  | 241 | 11,303 |  | 8,043 | 3,260 |  |  |
| 3rd Quarter |  |  |  | 194 | 13,120 |  | 10,687 | 2,433 |  |  |
| 4th Quarter |  |  |  | 273 | 21,166 |  | 17,849 | 3,317 |  |  |
| 1941 1st Quarter | 1,304.3 | 9.0 | 40.8 | 350 | 26,673 |  |  |  |  |  |
| 2nd Quarter | $1,353.2$ 1,4625 | 24. | 16.1 1.4 | 411 505 | 45,020 37,641 | 8,562 8,764 | 41.365 32,842 | 3,655 4,799 |  | - |
| 3rd Quarter 4th Quarter | $1,462.5$ $1,554.0$ | 33.0 20. | 1.4 4.2 | 505 | 37,641 38,514 | 8,764 12,644 | 32,842 34,486 | 4,799 4,028 |  | - |
| 4th Quarter | 1,554.0 | 20. | 4.2 |  |  |  |  |  |  |  |
| 1942 1st Quarter | 1,586.4 | 9.5 | 5.9 | 711 | 39,959 |  | 34,946 | 5,013 |  |  |
| 2nd Quarter | 1,832.3 | 11. | 11.1 | 864 | 48,309 |  | 41,848 | 6,461 |  | 160 |
| 3rd Quarter | 1,901.8 | 13. | 14.9 | 985 | 58,218 |  | 51,137 | 7,081 |  | 183 |
| 4th Quarter | 1,834.3 | 21. | 8.7 | 1,323 | 64,562 |  | 56,319 | 8,243 |  | 140 |
| 1943 lst Quarter $\begin{aligned} & \text { 2nd Quarter } \\ & \text { 3rd Quarter } \\ & \text { 4th Quarter }\end{aligned}$ | 1,683.1 | 15. | 16.0 | 1,490 | 50,601 | 20,717 | 41,401 | 9,200 |  | 404 |
|  | 1,604.1 | 21. | 9.7 | 1,830 | 38,511 | 15,963 | 32,930 | 5,581 |  | 600 |
|  | 1,760.6 | 28. | 6.1 | 2,030 | 53,342 | 25,585 | 50,570 | 2,772 |  | 783 |
|  | 1,458.0 | 35. | 3.5 | 1,938 | 81,353 | 42,579 | 79,845 | 1,508 |  | 2,071 |
| 1944 Ist Quarter $\begin{aligned} & \text { 2nd Quarter } \\ & \text { 3rd Quarter } \\ & \text { 4th Quarter }\end{aligned}$ | 853.0 | 21. | 4.5 | 2,097 | 71,453 | 39,490 | 70,795 | 658 | 32,977 | 1,638 |
|  | 1,000.9 | 27 | 3.4 | 1,574 | 71,880 | 41,237 | 71,202 | 678 | 33,045 | 1,626 |
|  | 1,012.1 | 30 | 0.1 | 1,715 | 74,871 | 40,774 | 74,846 | 25 | 25,646 | 891 |
|  | 741.6 | 30 | 5.0 | 1,439 | 91,162 | 46,747 | 91,135 | 27 | 15,072 | 11 |
| 1945 Ist Quarter | 475.4 | 29. | 8.2 | 1,143 | 103,640 | 52,290 | 103,580 | 60 |  | 45 |
| 2nd Quarter | 403.4 | 23 | 15.6 | 575 | 90,703 | 44,470 | 90,693 | 10 | 3,402 | 582 |
| 3rd Quarter | 170.2 | 0 | 0.8 | 401 | 50,155 | 20,542 | 50,145 | 10 |  | 423 |

[^89]Source: Admiralty and Ministry of Supply
2. Despatches ex factory.
3. April 1936 to August 1939.
4. Unfilled shell.
5. Estimated weight filled under the Rearmament Prograrnme to 31 May 1939 was 57,000 tons.

|  |  | Rocket (U.P.) ammunition 2,3 | Small arms and 20 mm . ammunition |  |  | Propellants ${ }^{2}$ | High explosives 2,5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | -22-in. to $\cdot 455-$ in $^{4}$ | $\cdot 5$-in, to 15 mm . | 20 mm . |  |  |
|  |  | Thousands | Millions |  |  | Short tons |  |
| 1936/37 |  |  |  |  | - |  | 2,914 | 1,291 |
| 1937 | April-December |  |  | 0.205 |  | 5,851 | 2,905 |
| 1938 |  |  |  | 0.713 |  | 14,479 | 7,593 |
| 1939 |  | - |  | 12.053 | - | 23,989 | 41,555 |
| 1940 |  | 14 |  | 9.775 | 3.168 | 30,513 | 74,206 |
| 1941 |  | 301 | 1,266.513 | 16.492 | 15.454 | 58,525 | 112,558 |
| 1942 |  | 2,386 | 2,263.253 | 40.730 | 91.264 | 112,442 | 190,562 |
| 1943 |  | 1,932 | 3,078.380 | 88.202 | 167.502 | 89,222 | 220,717 |
| 1944 |  | 2,253 | 2,334.500 | 28.881 | 217.611 | 61,668 | 206,648 |
| 1938 | 1st Quarter | - |  | 0.002 | - | 3,132 | 1,497 |
|  | 2nd Quarter | - |  | 0.286 | - | 3,905 | 1,247 |
|  | 3rd Quarter | - |  | 0.078 | - | 3,702 | 1,433 |
|  | 4th Quarter | - |  | 0.346 | - | 3,740 | 3,416 |
| 1939 | 1st Quarter | - | .. | 0.301 | - | 5,292 | 2,827 |
|  | 2nd Quarter | - |  | 6.110 | - | 4,021 | 3,329 |
|  | July-August | - |  | 2.124 | - | 6,470 | 24,833 |
|  | September-December | - |  | 3.518 | - | 8,206 | 10,566 |
| 1940 | 1st Quarter | - |  | 1.907 | 0.768 |  | 11,641 |
|  | 2nd Quarter | - |  | 3.354 | 0.915 | . | 16,439 |
|  | 3rd Quarter |  |  | 2.521 | 0.738 |  | 22,210 |
|  | 4th Quarter | 14 |  | 1.993 | 0.747 |  | 23,916 |
| 1941 | Ist Quarter | 24 | 234.887 | 3.319 | 1.082 | 9,529 | 21,835 |
|  | 2nd Quarter | 32 | 312.678 | 4.008 | 2.028 | 11,462 | 25,003 |
|  | 3rd Quarter | 79 | 347.038 | 4.556 | 4.625 | 16,408 | 28,610 |
|  | 4rd Quarter | 166 | 371.910 | 4.609 | 7.719 | 21,126 | 37,110 |
| 1942 | Ist Quarter | 341 | 498.713 | 5.162 | 13.756 | 24,821 | 46,063 |
|  | 2nd Quarter | 630 | 571.944 | 7.736 | 19.014 | 30,767 | 44,743 |
|  | 3rd Quarter | 709 | 549.913 | 12.197 | 24.454 | 27,524 | 44,880 |
|  | 4th Quarter | 706 | 642.683 | 15.635 | 34.040 | 29,330 | 54,876 |
| 1943 | 1st Quarter | 609 | 742.845 | 20.344 | 32.079 | 26,103 | 57,545 |
|  | 2nd Quarter | 682 | 742.565 | 24.806 | 39.993 | 24,081 | 53,679 |
|  | 3rd Quarter | 367 | 786.592 | 21.655 | 43.855 | 21,678 | 51,198 |
|  | 4th Quarter | 274 | 806.378 | 21.397 | 51.575 | 17,360 | 57,895 |
| 1944 | Ist Quarter | 460 | 697.856 | 12.191 | 56.180 | 15,300 | 53,191 |
|  | 2nd Quarter | 570 | 631.547 | 3.783 | 54.038 | 14,135 | 47,652 |
|  | 3rd Quarter | 558 | 526.147 | 7.202 | 48.225 | 15,280 | 47,063 |
|  | 4th Quarter | 665 | 478.950 | 5.705 | 59.168 | 16,953 | 58,742 |
| 1945 | Ist Quarter | 566 | 270.757 | 3.593 | 44.835 | 15,481 | 67,097 |
|  | 2nd Quarter | 464 | 221.921 | 2.124 | 19.790 | 16,501 | 61,156 |
|  | 3rd Quarter | 285 | 94.581 | 1.282 | 5.825 | 4,172 | 38,973 |

[^90]Source: Admiralty and Ministry of Supply

|  | Tanks 1 |  |  | Armoured carriers, armoured cars, scout cars and armoured command vehicles |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom production |  | Supplies from overseas | United Kingdom production | Supplies from overseas |
|  | Number | Thousand tons ${ }^{2}$ |  | Number |  |
| 1936/373 | 42 | 0.23 | - | 26 | - |
| 1937 April-December | 32 | 0.18 |  | 83 |  |
| 1938 | 419 | 2.55 |  | 681 |  |
| 1939 | 969 | 7.44 | - | 1,920 |  |
| 1940 | 1,399 | 23.73 | - | 6,070 |  |
| 1941 | 4,841 | 109.24 | 1,390 | 10,681 | 4,550 |
| 1942 | 8,611 | 203.99 | 9,253 | 19,317 | 13,399 |
| 1943 | 7,476 | 186.19 |  | 24,375 | 23,534 |
| 1938 1st Quarter |  |  | - | 14 |  |
| 2nd Quarter | 75 | 0.41 |  | 46 |  |
| 3rd Quarter | 146 | 0.89 | - | 258 |  |
| 4th Quarter | 198 | 1.25 | - | 363 |  |
| 1939 lst Quarter | 145 | 0.95 | - | 406 |  |
| 2nd Quarter | 394 | 2.42 | - | 514 |  |
| July-August | 116 | 1.03 | - | 367 |  |
| September-December | 314 | 3.05 | - | 633 |  |
| 1940 1st Quarter | 218 | 2.65 | - | 618 |  |
| 2nd Quarter | 340 | 5.50 | - | 1,617 |  |
| 3rd Quarter | 392 | 7.17 | - | 1,985 |  |
| 4th Quarter | 449 | 8.40 | - | 1,850 |  |
| 1941 Ist Quarter | 653 | 12.98 | 300 | 2,338 | . |
| 2nd Quarter | 943 | 18.47 | - | 2,281 | . |
| 3rd Quarter | 1,368 | 31.59 | 349 | 2,764 |  |
| 4th Quarter | 1,877 | 46.20 | 741 | 3,298 |  |
| 1942 1st Quarter | 2,118 | 51.70 | 1,384 | 3,704 | 2,440 |
| 2nd Quarter | 2,220 | 52.84 | 2,118 | 4,701 | 3,014 |
| 3rd Quarter | 2,200 | 50.78 | 3,020 | 5,304 | 3,650 |
| 4th Quarter | 2,073 | 48.68 | 2,731 | 5,608 | 4,295 |
| 1943 lst Quarter | 2,041 | 49.46 | 2,934 | 5,965 | 5,402 |
| 2nd Quarter | 2,147 | 53.33 | 6,285 | 5,629 | 5,357 |
| 3rd Quarter | 1,878 | 45.91 | 3,633 | 5,441 | 5,881 |
| 4th Quarter | 1,410 | 37.48 | 3,081 | 7,340 | 6,894 |
| 1944 lst Quarter | 1,400 | 40.59 | 2,575 | 7,741 | 6,097 |
| 2nd Quarter | 1,074 | 33.11 | 4,095 | 6.216 | 4,614 |

[^91]Source: Ministry of Supply


[^92]
### 7.20

Munitions
Signal equipment
Number

|  | Wireless sets | Reception sets | Mine detectors | Charging sets | Telephones | Teleprinters | Switchboards |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1936-392 | 3,567 | 133 | - | 192 | 35,730 | 118 | 859 |
| 1940 | 19,616 | 140 | - | 1,470 | 58,243 | 444 | 6,416 |
| 1941 | 26,015 | 1,623 | - | 1,964 | 100,064 | 962 | 6,079 |
| 1942 | 101,145 | 5,848 | 2,026 | 3,603 | 112,767 | 939 | 8,283 |
| 1943 | 193,076 | 24,619 | 17,606 | 11,529 | 136,041 | 2,376 | 9,360 |
| 1944 | 144,161 | 21,099 | 33,802 | 14,077 | 111,367 | 3,308 | 6,157 |
| 1939 September-December | 3,044 | 188 | - | 265 | 13,271 | 176 | 1,899 |
| 1940 Ist Quarter | .. | .. | - | 142 | 12,008 | 107 | 1,603 |
| 2nd Quarter |  |  | - | 315 | 20,791 | 149 | 1.994 |
| 3rd Quarter |  | -. | - | 489 | 12,219 | 85 | 1,523 |
| 4th Quarter |  |  | - | 524 | 13,225 | 103 | 1,296 |
| 1941 1st Quarter |  |  | - | 660 | 21,892 | 267 | 2,152 |
| 2nd Quarter |  |  | - | 416 | 23,721 | 285 | 1,881 |
| 3rd Quarter |  |  | - | 495 | 29,210 | 254 | 1,498 |
| 4th Quarter |  |  | - | 393 | 25,241 | 156 | 548 |
| 1942 Ist Quarter | 11,921 | 1,018 | - | 552 | 26,389 | 134 | 1,880 |
| 2nd Quarter | 17,227 | 1,032 | - | 863 | 23,645 | 127 | 2,147 |
| 3rd Quarter | 29,268 | 1,362 | 494 | 807 | 29,867 | 138 | 1,804 |
| 4th Quarter | 42,729 | 2,436 | 1,532 | 1,381 | 32,866 | 540 | 2,452 |
| 1943 lst Quarter | 43,208 | . | 2,629 | 2,165 | 38,332 | 228 | 2,580 |
| 2nd Quarter | 42,352 | . | 3,671 | 2,399 | 35,545 | 772 | 2,057 |
| 3rd Quarter | 50,615 | . | 4.445 | 3,398 | 32,922 | 727 | 1,968 |
| 4th Quarter | 56,901 | . | 6,861 | 3,567 | 29,242 | 649 | 2,755 |
| 1944 lst Quarter | 50,950 | 4,620 | 7,461 | 4,291 | 32,440 | 876 | 2,417 |
| 2nd Quarter | 44,759 | 5,026 | 7.466 | 3,216 | 33,367 | 750 | 1,423 |
| 3rd Quarter | 24,731 | 4,947 | 8,961 | 3,168 | 18,882 | 638 | 1,058 |
| 4th Quarter | 23,721 | 6,506 | 9,914 | 3,402 | 26,678 | 1,044 | 1,259 |
| 1945 1st Quarter | 23,437 | 12,733 | 7,229 | 3,002 | 25,726 | 960 | 1,475 |
| 2nd Quarter | 24,643 | 9,903 | 11,523 | 3,128 | 26,614 | 1,408 | 2,524 |
| 3rd Quarter | 17,673 | 10,863 | 7,220 | 3,258 | 15,246 | 1,048 | 2,988 |

[^93]

[^94]Source: Ministry of Supply
2. April 1936 to August 1939.

### 7.22 Aircrat

Production by main groups
Number

|  |  | Total | Heavy bombers | Medium bombers | Light bombers and fighters | General reconnaissance | Transport and A.S.R | Naval | Trainers and miscellaneous |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1935 |  | 893 | - | - | 214 | 196 | - | 89 | 394 |
| 1936 |  | 1,830 | - | - | 468 | 222 | - | 181 | 959 |
| 1937 |  | 2,218 | - | 34 | 799 | 159 | - | 302 | 924 |
| 1938 |  | 2,828 | - | 160 | 909 | 38 | - | 286 | 1,435 |
| 1939 |  | 7,940 | - | 758 | 2,403 | 61 | - | 509 | 4,209 |
| 1940 |  | 15,049 | 41 | 1.926 | 5,804 | 387 |  | 476 | 6,415 |
| 1941 |  | 20,094 | 498 | 2,777 | 8,457 | 196 |  | 1,232 | 6,934 |
| 1942 |  | 23,672 | 1,976 | 3,463 | 10,663 | 546 | - | 1,082 | 5,942 |
| 1943 |  | 26,263 | 4,615 | 2,737 | 11.103 | 1,054 | 209 | 1,720 | 4,825 |
| 1944 |  | 26,461 | 5,507 | 2,396 | 10,730 | 1,123 | 889 | 2,939 | 2,877 |
| 1938 | Ist Quarter | 511 |  | 29 | 209 | 6 | - | 86 | 181 |
|  | 2nd Quarter | 534 | - | 17 | 157 | 10 |  | 75 | 275 |
|  | 3rd Quarter | 738 | - | 20 | 240 | 13 |  | 71 | 394 |
|  | 4th Quarter | 1,045 | - | 94 | 303 | 9 |  | 54 | 585 |
| 1939 | 1st Quarter | 1,736 | - | 163 | 542 | 9 | - | 109 | 913 |
|  | 2nd Quarter | 2,017 | - | 168 | 634 | 9 |  | 141 | 1,065 |
|  | 3rd Quarter | 2,044 | - | 168 | 591 | 11 |  | 143 | 1,131 |
|  | 4th Quarter | 2,143 | - | 259 | 636 | 32 | - | 116 | 1,100 |
| 1940 |  | 2,381 | - | 253 | 703 | 84 |  | 64 | 1,277 |
|  | 2nd Quarter | 3,951 | 2 | 552 | 1,409 | 153 |  | 108 | 1,727 |
|  | 3rd Quarter | 4,607 | 8 | 619 | 1,901 | 97 |  | 146 | 1,836 |
|  | 4th Quarter | 4,110 | 31 | 502 | 1,791 | 53 | - | 158 | 1,575 |
| 1941 |  |  |  | 601 |  |  |  | 224 | 1,632 |
|  | 2nd Quarter | 4,865 | 104 | 675 | 2,116 | 53 |  | 311 | 1,606 |
|  | 3rd Quarter | 5,376 | 148 | 722 | 2,278 | 29 |  | 353 | 1,846 |
|  | 4th Quarter | 5,338 | 171 | 779 | 2,130 | 64 | - | 344 | 1,850 |
| 1942 | Ist Quarter | 5,639 | 266 | 827 | 2,460 | 94 |  | 290 | 1,702 |
|  | 2nd Quarter | 5,945 | 432 | 879 | 2.765 | 122 |  | 202 | 1.545 |
|  | 3rd Quarter | 5,940 | 576 | 898 | 2,706 | 151 |  | 226 | 1,383 |
|  | 4th Quarter | 6,148 | 702 | 859 | 2,732 | 179 | - |  | 1,312 |
| 1943 | 1st Quarter | 6,407 | 984 | 766 | 2,831 | 224 | - | 346 | 1,256 |
|  | 2nd Quarter | 6,604 | 1,198 | 704 | 2,801 | 311 | 3 | 385 | 1,202 |
|  | 3rd Quarter | 6,515 | 1,151 | 643 | 2,750 | 285 | 62 | 442 | 1,182 |
|  | 4th Quarter | 6,737 | 1,282 | 624 | 2,721 | 234 | 144 | 547 | 1,185 |
| 1944 | Ist Quarter | 7,419 | 1,447 | 653 | 2,909 | 302 | 227 | 712 | 1.169 |
|  | 2nd Quarter | 7,188 | 1,442 | 637 | 2,847 | 293 | 249 | 821 | 899 |
|  | 3rd Quarter | 6,145 | 1,382 | 586 | 2,566 | 259 | 215 | 722 | 415 |
|  | 4th Quarter | 5,709 | 1,236 | 520 | 2,408 | 269 | 198 | 684 | 394 |
| 1945 | Ist Quarter | 5,264 | 1,073 | 384 | 2,334 | 186 | 299 | 657 |  |
|  | 2nd Quarter | 4,092 | 596 | 264 | 1,822 | 243 | 266 | 683 | 218 |
|  | 3rd Quarter | 2,714 | 400 | 95 | 1,289 | 171 | 131 | 485 | 143 |


|  |  | Total | Heavy bombers | Medium bombers | Light bombers and fighters | General reconnaissance transport and A.S.R. | Naval | Trainers and miscellaneous |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1935 |  | 1.91 | - | - | 0.52 | 0.64 | 0.20 | 0.55 |
| 1936 |  | 3.75 | - | - | 0.87 | 0.77 | 0.50 | 1.61 |
| 1937 |  | 6.54 | - | 0.36 | 2.81 | 0.57 | 0.85 | 1.95 |
| 1938 |  | 9.82 | - | 1.56 | 3.38 | 0.54 | 0.84 | 3.50 |
| 1939 |  | 28.89 | - | 6.83 | 8.33 | 0.79 | 1.63 | 11.29 |
| 1940 |  | 58.83 | 0.75 | 18.54 | 18.39 | 2.65 | 1.90 | 16.63 |
| 1941 |  | 87.25 | 9.29 | 27.96 | 26.69 | 1.69 | 4.41 | 17.19 |
| 1942 |  | 133.38 | 37.96 | 37.21 | 34.75 | 4.62 | 3.61 | 15.24 |
| 1943 |  | 185.25 | 88.96 | 29.30 | 38.16 | 9.95 | 6.29 | 12.60 |
| 1944 |  | 208.52 | 100.95 | 25.30 | 39.63 | 23.64 | 11.46 | 7.54 |
| 1938 | Ist Quarter | 1.77 | - | 0.32 | 0.75 | 0.03 | 0.24 | 0.43 |
|  | 2nd Quarter | 1.90 | - | 0.17 | 0.66 | 0.16 | 0.22 | 0.69 |
|  | 3rd Quarter | 2.47 | - | 0.19 | 0.86 | 0.20 | 0.20 | 1.02 |
|  | 4th Quarter | 3.68 |  | 0.88 | 1.11 | 0.15 | 0.18 | 1.36 |
| 1939 | 1st Quarter | 6.13 | - | 1.46 | 1.86 | 0.16 | 0.35 | 2.30 |
|  | 2nd Quarter | 6.93 | - | 1.48 | 2.09 | 0.16 | 0.45 | 2.75 |
|  | 3rd Quarter | 7.50 | - | 1.52 | 2.14 | 0.19 | 0.46 | 3.19 |
|  | 4th Quarter | 8.33 | - | 2.37 | 2.24 | 0.28 | 0.37 | 3.05 |
| 1940 | 1st Quarter | 8.86 |  | 2.32 | 2.29 | 0.57 | 0.23 | 3.46 |
|  | 2nd Quarter | 15.67 | 0.04 | 5.20 | 4.42 | 0.98 | 0.42 | 4.60 |
|  | 3rd Quarter | 18.23 | 0.16 | 6.10 | 5.94 | 0.67 | 0.60 | 4.77 |
|  | 4th Quarter | 16.07 | 0.55 | 4.92 | 5.74 | 0.43 | 0.65 | 3.80 |
| 1941 | 1st Quarter | 18.70 | 1.38 | 5.91 | 6.18 | 0.40 | 0.85 | 3.97 |
|  | 2nd Quarter | 20.90 | 1.88 | 6.70 | 6.81 | 0.43 | 1.10 | 3.96 |
|  | 3rd Quarter | 23.51 | 2.76 | 7.34 | 7.23 | 0.33 | 1.25 | 4.60 |
|  | 4th Quarter | 24.14 | 3.27 | 8.01 | 6.47 | 0.53 | 1.21 | 4.66 |
| 1942 | Ist Quarter | 27.51 | 5.12 | 8.68 | 7.69 | 0.80 | 1.05 | 4.17 |
|  | 2nd Quarter | 32.41 | 8.28 | 9.48 | 8.82 | 1.22 | 0.75 | 3.87 |
|  | 3rd Quarter | 35.46 | 11.23 | 9.73 | 8.90 | 1.22 | 0.70 | 3.68 |
|  | 4th Quarter | 38.00 | 13.33 | 9.32 | 9.34 | 1.38 | 1.11 | 3.52 |
| 1943 | Ist Quarter | 42.64 | 18.71 | 8.26 | 9.59 | 1.63 | 1.13 | 3.31 |
|  | 2nd Quarter | 46.61 | 23.09 | 7.54 | 9.61 | 1.89 | 1.36 | 3.13 |
|  | 3rd Quarter | 46.11 | 22.39 | 6.91 | 9.49 | 2.58 | 1.68 | 3.06 |
|  | 4th Quarter | 49.89 | 24.77 | 6.59 | 9.47 | 3.85 | 2.12 | 3.10 |
| 1944 | 1st Quarter | 56.47 | 27.09 | 6.90 | 10.58 | 6.13 | 2.76 | 3.01 |
|  | 2nd Quarter | 55.31 | 26.52 | 6.72 | 10.18 | 6.34 | 3.19 | 2.36 |
|  | 3rd Quarter | 50.40 | 25.14 | 6.18 | 9.61 | 5.58 | 2.83 | 1.06 |
|  | 4th Quarter | 46.34 | 22.20 | 5.50 | 9.26 | 5.59 | 2.68 | 1.11 |
| 1945 | Ist Quarter | 42.87 | 19.39 | 4.06 | 9.30 | 6.49 | 2.59 | 1.05 |
|  | 2nd Quarter | 31.95 | 10.83 | 2.78 | 7.51 | 7.53 | 2.61 | 0.68 |
|  | 3rd Quarter | 19.80 | 7.41 | 1.00 | 5.31 | 3.67 | 1.78 | 0.63 |

### 7.24

Aircraft
Index of aircraft production ${ }^{\prime}$
January $1942=1,000$

|  | January | February | March | April | May | June | July | August | September | October November | December |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1939 | 181 | 238 | 278 | 234 | 285 | 279 | 282 | 248 | 335 | 323 | 341 |
| 1940 | 333 | 300 | 373 | 463 | 569 | 736 | 735 | 731 | 581 | 609 | 635 |
| 1941 | 527 | 748 | 807 | 721 | 810 | 792 | 808 | 857 | 930 | 915 | 897 |
| 1942 | 1,000 | 958 | 1,046 | 1,129 | 1,190 | 1,175 | 1,236 | 1,139 | 1,348 | 1,425 | 1,277 |
|  |  |  |  |  |  |  |  |  |  |  | 1,282 |
| 1943 | 1,369 | 1,452 | 1,597 | 1,510 | 1,701 | 1,562 | 1,504 | 1,507 | 1,744 | 1,732 | 1,726 |
| 1944 | 1,852 | 1,823 | 2,081 | 1,808 | 1,922 | 1,926 | 1,630 | 1,725 | 1,800 | 1,762 | 1,673 |
| 1945 | 1,199 | 1,600 | 1,598 | 1,158 | 1,036 | 1,083 | 995 | 704 |  |  | 1,285 |

1. Based on airframe structure weight and man-hours per airframe.

Source: Ministry of Supply
Figures for the years immediately preceding the war were as follows: 1935 (year), 18; 1936
(year), 40; 1937 (year), 66; 1938- Ist Quarter, 71; 2nd Quarter, 73; 3rd Quarter, 96;
4th Quarter, 138

### 7.25 Aircraft

Aircraft undergoing and awaiting repair and repaired
Nurnber

| Undergoing and awaiting repair (end of period) |  |  | Repaired |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Heavy bombers | Medium bombers | Light bombers and fighters | General reconnaissance | Transport and A.S.R | Naval | Trainers and miscellaneous |
| Annual totals |  |  |  |  |  |  |  |  |  |  |
| 1941 |  | 2,354 | 13,560 |  |  |  |  |  |  |  |
| 1942 |  | 2,385 | 16,636 | 711 | 3,097 | 6,659 | 784 |  | 433 | 4,952 |
| 1943 |  | 2,625 | 17,932 | 1,971 | 3,336 | 5,976 | 779 | 10 | 1,164 | 4,696 |
| 1944 |  | 2,368 | 18,400 | 3,285 | 2,135 | 6,678 | 705 | 453 | 1,477 | 3,667 |
| Monthly averages |  |  |  |  |  |  |  |  |  |  |
| 1940 | 2nd Quarter |  | 177 | - | .. | .. | .. | . | . | .. |
|  | 3rd Quarter |  | 660 |  |  |  |  | .- |  |  |
|  | 4th Quarter | 1,785 | 738 |  |  |  |  | . | $\ldots$ |  |
| 1941 | Ist Quarter | 1,773 | 809 |  |  |  |  | .. |  |  |
|  | 2nd Quarter | 2,149 | 1,063 | . |  |  |  | . | . |  |
|  | 3rd Quarter | 2,646 | 1,336 |  |  |  |  |  |  |  |
|  | 4th Quarter | 2,354 | 1,312 | 17 | 227 | 583 | 53 | - | 31 | 401 |
| 1942 |  |  | 1,197 | 22 | 226 | 486 | 65 | - | 33 | 366 |
|  | 2nd Quarter | 2,537 | 1,395 | 48 | 272 | 555 | 77 | - | 25 | 418 |
|  | 3rd Quarter | 2,610 | 1,508 | 74 | 272 | 599 | 62 | - | 34 | 466 |
|  | 4th Quarter | 2,385 | 1,445 | 93 | 262 | 580 | 57 | - | 53 | 400 |
| 1943 |  |  |  |  |  | 491 | 59 | - | 56 |  |
|  | 2nd Quarter | 2,744 | 1,586 | 166 | 306 | 563 | 67 | - | 91 | 393 |
|  | 3rd Quarter | 2,774 | 1,567 | 194 | 304 | 507 | 64 | - | 103 | 395 |
|  | 4th Quarter | 2,625 | 1,464 | 187 | 243 | 430 | 70 | 3 | 139 | 392 |
| 1944 |  |  | 1,426 | 203 | 195 | 465 | 66 | 17 | 114 | 365 |
|  | 2nd Quarter | 2,733 | 1,642 | 279 | 193 | 593 | 57 | 38 | 149 | 333 |
|  | 3rd Quarter | 2,672 | 1,676 | 330 | 176 | 661 | 65 | 41 | 111 | 292 |
|  | 4th Quarter | 2,368 | 1,390 | 283 | 147 | 507 | 47 | 55 | 118 | 233 |
| 1945 | Ist Quarter | 2,493 | 1,256 | 233 | 109 | 476 | 56 | 44 | 117 | 221 |
|  | 2nd Quarter | 1,945 | 1,106 | 156 | 93 | 399 | 55 | 33 | 168 | 202 |
|  | 3rd Quarter | 1,880 | 644 | 62 | 52 | 198 | 22 | 29 | 107 | 173 |

Aircraft
Aircraft engines: Production, imports and repairs

|  |  | Piston types |  |  |  | Turbine types |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production |  | Imports | Repaired | Production |
|  |  | Number | Thousand horsepower |  | Number |  |
| 1936 April-December 1937 |  | 2,248 | 1,580 |  |  | - |
|  |  | 3,440 | 2,710 |  |  | - |
| 1938 |  | 5,431 | 4,037 |  |  | - |
| 1939 |  | 12,499 | 8,340 |  |  | - |
| 1940 |  | 24,074 | 17,398 |  |  | - |
| 1941 |  | 36,551 | 31,416 | 2,704 | 20,082 | - |
| 1942 |  | 53,916 | 59,447 | 3,145 | 27,563 | - |
| 1943 |  | 57,985 | 72,784 | 9,441 | 35,832 | 9 |
| 1944 |  | 56,931 | 80,042 | 11,327 | 44,594 | 98 |
| 1938 | 1st Quarter | 823 | 630 |  | .. | - |
|  | 2nd Quarter | 1,154 | 890 | . |  | - |
|  | 3nd Quarter | 1,176 | 869 | .. |  | - |
|  | 4th Quarter | 2,278 | 1,648 |  |  | - |
| 1939 | Ist Quarter | 2,947 | 2,092 |  | .. | - |
|  | 2nd Quarter | 2,971 | 2,026 | . | . | - |
|  | 3rd Quarter | 3,078 | 1,980 |  |  | - |
|  | 4th Quarter | 3,503 | 2,242 | - |  | - |
| 1940 | Ist Quarter | 3,940 | 2,555 |  |  | - |
|  | 2nd Quarter | 6,644 | 4,619 |  |  | - |
|  | 3rd Quarter | 7,162 | 5,205 |  | 3,174 | - |
|  | 4th Quarter | 6,328 | 5,019 |  | 3,552 | - |
| 1941 | 1 st Quarter | 7,271 | 5,963 | 698 | 4,299 | - |
|  | 2nd Quarter | 8,441 | 6,901 | 1,034 | 4,413 | - |
|  | 3rd Quarter | 9,603 | 8,273 | 583 | 5,233 | - |
|  | 4th Quarter | 11,236 | 10,279 | 389 | 6,137 | - |
| 1942 | Ist Quarter | 11,955 | 12,542 | 184 | 5,743 | - |
|  | 2nd Quarter | 13,316 | 14,177 | 435 | 6,547 | - |
|  | 3rd Quarter | 13,657 | 15,361 | 1,476 | 7,442 | - |
|  | 4th Quarter | 14,988 | 17,367 | 1,050 | 7,831 | - |
| 1943 | Ist Quarter | 14,463 | 17.489 | 1,264 | 7,990 | - |
|  | 2nd Quarter | 13,953 | 17,401 | 1,524 | 8,470 | - |
|  | 3rd Quarter | 13,780 | 17,644 | 3,028 | 8,803 | - |
|  | 4th Quarter | 15,789 | 20,250 | 3,625 | 10,569 | 9 |
| 1944 | Ist Quarter | 16,458 | 21,364 | 2,892 | 11,520 | 13 |
|  | 2nd Quarter | 15,185 | 20,552 | 3,522 | 11,183 | 24 |
|  | 3rd Quarter | 13,477 | 19,298 | 2,124 | 11,359 | 43 |
|  | 4th Quarter | 11,811 | 18,828 | 2,789 | 10,532 | 18 |
| 1945 | Ist Quarter | 10,091 | 16,44 \| | 1,228 | 10,299 | 102 |
|  | 2nd Quarter | 8,292 | 13,700 | 3,300 | 9,146 | 179 |
|  | 3rd Quarter | 4,438 | 7,290 |  | 7,244 | 186 |

## 727 Aircraft

Arrivals in United Kingdom from North America
$\left.\begin{array}{lrrrrrrrr}\hline & \text { Total } & \begin{array}{r}\text { Heary } \\ \text { bombers }\end{array} & \begin{array}{r}\text { Medium } \\ \text { bombers }\end{array} & \begin{array}{r}\text { Light bombers } \\ \text { and general } \\ \text { reconnaissance }\end{array} & \text { Fighters } & \text { Transports } & \text { Naval } & \begin{array}{r}\text { Trainers } \\ \text { and }\end{array} \\ & & 1,069 & - & - & 395 & 578 & - & 71 \\ \text { miscellaneous }\end{array}\right]$

[^95]|  | Total ${ }^{2}$ | Heavy bombers | Medium bombers | Light bombers and general reconnaissance | Fighters | Transports | Naval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941 | 2,761 | - | - | 408 | 922 | 42 | 30 | 1,359 |
| 1942 | 3,504 | 5 | 181 | 1,103 | 1,066 | 52 | 120 | 977 |
| 1943 | 4,292 | 146 | 350 | 1,218 | 648 | 227 | 180 | 1,523 |
| 1944 | 5,747 | 734 | 574 | 677 | 1,041 | 954 | 771 | 996 |
| 1941 1st Quarter | 421 | - | - | 48 | 143 | 8 | - | 222 |
| 2nd Quarter | 808 | - | - | 122 | 267 | 11 | - | 408 |
| 3rd Quarter | 699 | - | - | 54 | 273 | 23 | 27 | 322 |
| 4th Quarter | 833 | - | - | 184 | 239 |  | 3 | 407 |
| 1942 Ist Quarter | 792 | 5 | 2 | 264 | 307 | - | - | 214 |
| 2nd Quarter | 713 | . | 28 | 259 | 297 | - | 19 | 110 |
| 3rd Quarter | 937 | - | 107 | 307 | 253 | 33 | 19 | 218 |
| 4th Quarter | 1,062 | - | 44 | 273 | 209 | 19 | 82 | 435 |
| 1943 Ist Quarter | 967 | - | 29 | 409 | 149 | 1 | 11 | 368 |
| 2nd Quarter | 841 | 3 | 11 | 307 | 104 | 91 | 52 | 273 |
| 3rd Quarter | 996 | - | 63 | 322 | 210 | 71 | 7 | 323 |
| 4th Quarter | 1,488 | 143 | 247 | 180 | 185 | 64 | 110 | 559 |
| 1944 Ist Quarter | 1,317 | 110 | 189 | 198 | 141 | 243 | 217 | 219 |
| 2nd Quarter | 1,576 | 272 | 217 | 184 | 298 | 146 | 11 | 448 |
| 3rd Quarter | 1,434 | 152 | 85 | 196 | 275 | 261 | 205 | 260 |
| 4th Quarter | 1,420 | 200 | 83 | 99 | 327 | 304 | 338 | 69 |
| 1945 1st Quarter | 1,074 | 147 | 72 | 29 | 192 | 259 | 332 | 43 |
| 2nd Quarter | 620 | 128 | 13 | - | 68 | 171 | 240 | - |

1. To British overseas commands and other governments, including Canada.
2. 284 trainer aircraft which were delivered to Canada before June 1942 are excluded from the table as their exact dates of arrival are not available.
3. Including amendments to earlier figures.
7.29 Machine tools, welding sets and electric motors: Deliveries

|  | Unit | 1935 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Machine tools' | Thousand |  | 95.8 | 76.2 | 59.1 | 47.5 |
| Metal-working | Value $£$ million | 6.1 | 33.5 | 31.3 | 25.8 | 20.7 |
|  | Thousands |  | 9.0 | 11.3 | 10.7 | 9.4 |
| Wood-working | Value $£$ million | 0.6 | 1.3 | 1.5 | 1.7 | 1.5 |
| Engineers' small tools ${ }^{2}$ | " | .. | 35.8 | 42.4 | 40.2 | 23.3 |
| Welding sets: |  |  |  |  |  |  |
| Arc | Thousands |  | .. | .. | 8.6 | 6.6 |
|  | Value $£$ million | $0.22^{3}$ | . |  | 1.47 | 1.20 |
|  | Thousands | . . | . | 2.8 | 2.4 | 2.5 |
| Resistance | Value $£$ million |  | . | 0.73 | 0.51 | 0.59 |
| Electric motors 1-300 horse-power: |  |  |  |  |  |  |
| A.C. | " |  |  | 6.5 | 6.2 | 12.5 |
| D.C. | " | . | .. | 6.5 | 7.7 |  |

1. Excluding, except in 1935, machine tools of low value.

Source: Ministry of Supply
2. From January 1943 the figures include roller box tools, and from January 1944 they include balancing and testing machines.
3. Including resistance.

### 7.30 Agricultural machinery: Production

Number

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Tractors: |  |  |  |  |  |  |  |  |
| $\quad$ Total | 10,679 | 15,733 | 19,316 | 24,401 | 27,056 | 25,059 | 23,022 | 23,296 |
| $\quad$ Tracklayers: |  |  |  |  |  |  |  |  |
| $\quad$ Full and half track | 48 | 30 | 19 |  | 48 | 87 | 133 | 45 |
| $\quad$ Market-garden type | 198 | 211 | 327 | 339 | 411 | 440 | 557 | 630 |
| $\quad$ Three-and four-wheeled | 9,981 | 14,632 | 17,906 | 22,168 | 24,099 | 21,595 | 18,716 | 17,455 |
| $\quad$ Two-wheeled market-garden type | 452 | 860 | 1,064 | 1,894 | 2,498 | 2,937 | 3,616 | 5,166 |
|  |  |  |  |  |  |  |  |  |
| Mouldboard ploughs: |  |  |  |  |  |  |  |  |
| $\quad$ Total | 12,580 | 16,665 | 23,172 | 24,657 | 21,414 | 19,246 | 23,701 | 30,227 |
| $\quad$ Horse-drawn | 7,424 | 9,541 | 14,492 | 14,162 | 12,485 | 10,939 | 13,963 | 17,345 |
| $\quad$ Tractor-drawn | 5,156 | 7,124 | 8,680 | 10,495 | 8,929 | 8,307 | 9,738 | 12,882 |
|  |  |  |  |  |  |  |  |  |
| Disc harrows | 1,260 | 2,108 | 3,905 | 5,696 | 8,343 | 9,791 | 10,521 | 12,940 |
| Cultivators or grubbers | 6,405 | 7,668 | 11,087 | 16,763 | 9,878 | 11,485 | 11,710 | 9,642 |
| Toolbars | 1,342 | 1,734 | 2,296 | 3,417 | 4,358 | 5,144 | 7,244 | 7,773 |
| Corn drills ${ }^{2}$ | 352 | 664 | 1,567 | 1,452 | 1,262 | 1,176 | 1,353 | 1,743 |
| Mowing machines | 4,641 | 5,587 | 7,087 | 5,896 | 5,910 | 5,611 | 5,802 | 6,297 |
| Binders | 687 | 708 | 954 | 1,010 | 798 | 1,567 | 2,957 | 2,722 |
| Threshing machines | 486 | 489 | 842 | 998 | 1,149 | 1,149 | 1,160 | 1,083 |
| Potato spinners | 1,496 | 1,253 | 2,108 | 5,226 | 7,534 | 9,831 | 5,586 | 6,021 |
| Milking machines | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 4,582 | 5,623 | 4,888 | 4,807 |

2. Including combined seed and fertilizer drills.

|  | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  |  |  |  |
| Steam locomotives': |  |  |  |  |  |  |
| Main line types | 272 | 234 | 350 | 797 | 1,050 | 754 |
| Industrial types ${ }^{2}$ | 84 | 110 | 110 | 58 | 45 | 43 |
| Motor vehicles: |  |  |  |  |  |  |
| Public service vehicles: |  |  |  |  |  |  |
| Total | - | 164 | 1,260 | 2,217 | 2,017 | 2,914 |
| Single deck buses | - | 1 | 624 | 1.172 | 606 | 791 |
| Double deck buses | - | 163 | 636 | 1,045 | 1,411 | 2,123 |
| Other heavy type vehicles ${ }^{3}$ |  |  |  |  |  |  |
| Total | 112,531 | 124,574 | 136,079 | 125,496 | 111,234 | 99,709 |
| For the Services | 112,345 | 109,522 | 108,928 | 104,308 | 90,333 | 60,385 |
| For other users ${ }^{4}$ | 186 | 15,052 | 27,151 | 21,188 | 20,901 | 39,324 |
| Light cars and vans ${ }^{5}$ |  |  |  |  |  |  |
| Total | 21,338 | 20,692 | 23,183 | 21,605 | 19,704 | 36,782 |
| For the Services | 21,232 | 17,324 | 15,963 | 17,306 | 12,511 | 9,197 |
| For other users ${ }^{4}$ | 106 | 3,368 | 7,220 | 4,299 | 7,193 | 27,585 |
|  | Thousands |  |  |  |  |  |
| Motor cycles: |  |  |  |  |  |  |
| Total ${ }^{6}$ | 70.0 | 73.0 | 77.0 | 81.7 | 77.4 | 50.0 |
| For the services | 68.5 | 70.8 | 75.1 | 78.6 | 74.6 | 42.6 |
| For other users ${ }^{46}$ | 1.5 | 2.2 | 1.9 | 3.1 | 2.8 | 7.4 |

1. Production by the railway companies and by private makers.

Source: Ministry ofTransport and Ministry of Supply
2. Including shunters for docks.
3. Goods vehicles of 15 cwt and over and passenger cars of over 16 horse-power.
4. For Govemment Departments and other essential users.
5. Goods vehicles of under 15 cwt and passenger cars of 16 horse-power and less.
6. Estimated.

### 7.32 Woven cloth, household textiles, hosiery and footwear

Supplies for home civilian use

|  | Unit | 1935 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Woven cloth for clothing 173 |  |  |  |  |  |  |
| Total | Mn.sq.yds. |  | 173 | 162 | 159 | 166 |
| Utility |  | .. | 128 | 119 | 104 | 133 |
| Non-utility |  | . | $45^{\prime}$ | 43 | 55 | 33 |
| Woven non-wool cloth: ". 371 |  |  |  |  |  |  |
| Total |  | . | 371 | 454 | 404 | 403 |
| Utility |  |  | 299 | 358 | 336 | 330 |
| Non-utility |  | .- | $72^{2}$ | 96 | 68 | 73 |
| Wool hand-knitting yarn | Million lb. |  | . | 8.7 | 9.4 | 11.1 |
| Household textiles |  |  |  |  |  |  |
| Blankets ${ }^{3}$ : Wool | Millions | 6.49 | .. | 2.26 | 2.70 | 3.80 |
| Cotton |  |  | .. | 4.40 | 4.76 | 5.02 |
| Sheets |  | . | . | 3.00 | 3.87 | 7.06 |
| Pillowcases |  |  | . | 5.82 | 7.56 | 10.78 |
| Towels: |  |  |  |  |  |  |
| Hand and bath Other | " | $\ldots$ |  | $\begin{aligned} & 18.5 \\ & 14.7 \end{aligned}$ | $\begin{aligned} & 15.1 \\ & 10.7 \end{aligned}$ | 12.5 9.8 |
| Hosiery |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Men's and youths': |  |  |  |  |  |  |
| Socks and stockings Pullovers and cardigans | Mn.pairs Millions | $90^{4}$ | 35.4 1.8 | 33.4 1.9 | 20.1 | 23.9 2.8 |
| Vests |  | - | 8.4 | 10.9 | 8.4 | 8.8 |
| Pants and trunks |  |  | 10.1 | 13.9 | 9.1 | 9.6 |
| Women's and maids': ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Stockings and socks | Mn.pairs | $280^{45}$ | 160.4 | 140.6 | 131.3 | 134.2 |
| Jumpers and cardigans | Millions |  | 6.6 | 5.3 | 6.0 | 6.2 |
| Vests |  |  | 19.6 | 17.8 | 15.8 | 17.1 |
| Children's: |  |  |  |  |  |  |
| Socks and stockings |  | $90^{4,6}$ | 51.0 | 66.0 | 61.8 | 61.7 |
| Underwear | Mn. pieces |  | 23.2 | 31.4 | 26.9 | 26.8 |
| Footwear ${ }^{7}$ |  |  |  |  |  |  |
| Total production for all uses | Mn. pairs | 132.5 | 108.2 | 102.7 | 99.7 | 99.8 |
| Production for home civilian use: Total | " | 129.0 | 90.3 | 89.4 | 87.4 | 87.7 |
| Leather uppers: |  |  |  |  |  |  |
| Total | " | 105.0 29.3 | 74.7 16.7 | 75.5 14.7 | 74.1 12.6 | 73.7 12.9 |
| Women's |  | 46.4 | 31.2 | 29.6 | 28.1 | 28.2 |
| Children's |  | 29.3 | 26.9 | 31.2 | 33.3 | 32.6 |
| Fabric uppers | " | 5.5 | 5.9 | 5.0 | 4.1 | 4.4 |
| Slippers |  | 18.4 | 9.7 | 9.0 | 9.2 | 9.6 |

[^96]Source: Board of Trade

### 7.33 Pottery, hollow-ware and brushes

Production and supplies for home civilian use
Millions

|  | 1943 |  | 1944 |  | 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Production | For home civilian use | Production | For home civilian use | Production | For home civilian use |
| Pottery |  |  |  |  |  |  |
| Cups, mugs and beakers | 138.7 | 108.9 | 125.9 | 94.9 | 108.8 | 80.2 |
| Saucers and small plates | 83.8 | 52.8 | 80.1 | 49.4 | 78.9 | 47.1 |
| Large plates | 53.7 | 25.1 | 51.2 | 26.8 | 46.7 | 23.9 |
| Teapots and coffee pots | 8.71 | 7.31 | 8.8 | 7.4 | 8.1 | 6.4 |
| Cooking ware (all types) | $4.1{ }^{2}$ | $3.6{ }^{2}$ | 4.3 | 3.7 | 4.7 | 4.2 |
| Hollow-ware |  |  |  |  |  |  |
| Kettles | 5.8 | 5.2 | 5.7 | 5.1 | 7.6 | 7.2 |
| Saucepans and stewpans | 11.7 | 10.9 | 13.3 | 12.6 | 18.0 | 16.9 |
| Dustbins | 1.18 | 0.71 | 1.11 | 0.97 | 1.47 | 1.37 |
| Brushes and brooms |  |  |  |  |  |  |
| Household type | 45.9 | $34.7{ }^{3}$ | 43.3 | 32.4 | 43.6 | 35.6 |
| Paint and paste | 17.9 | $10.5{ }^{3}$ | 17.2 | 10.8 | 20.1 | 14.2 |
| Toilet | 38.0 | 22.93 | 38.1 | 23.9 | 43.2 | 28.0 |

[^97]Source: Board of Trade
2. Until February 1943 including pie and baking dishes only.
3. First three months of 1943 include exports.


The transport sector of the economy came under great strain in the war as it bore the brunt of enemy action, from shipping sunk by German submarines to the railway and road system having to cope with the relocation of factories and the vast troop and equipment movement that was prompted by the D-Day build up. The loss of shipping capacity was one of the key constraints facing the wartime economy and problems with the inland transport system, and particularly the railways, posed major problems in 1940-41 (Robinson 1951: 37; Savage 1957: 191-256).

In the 1930's foreign shipping had carried between 40 and 50 per cent of British imports but with the onset of war Britain had problems chartering neutral shipping and by the end of March 1940 a mere 55 non-tanker foreign ships, amounting to 361,000 deadweight tons, had been chartered (Behrens 1955: 58-64; tables 8.3 and 8.5). The situation changed radically with the German conquests of the second quarter of that year which forced the major shipping nations of Holland, Norway and Greece out of neutrality and into the Allied arms of the British: by the end of September Britain had at its disposal more than 3.5 million deadweight tons of non-tanker foreign shipping and indeed the importance of foreign vessels to British shipping capacity increased during the war, rising to over 6.5 million deadweight tons by mid-1944 (Behrens 1955:91-118; table 8.5). This increase in the available foreign shipping helped to compensate for the marked decline in the UK and Colonies non-tanker shipping (from 17.7 million deadweight tons in September 1939 to a low of 11.5 million tons in mid-1943) although the total dry cargo merchant shipping under British control fell by more than 3 million tons (or approximately 15 per cent) between 1940 and 1943 (table 8.5). The deadweight tonnage of tankers under British control actually increased from 5 million deadweight tons to almost 7 million tons by the end of 1941 before declining to a level of about 5.5 million tons
8. Merchant shipping under British control (at September of each year)

from 1943 onwards, although here again it was a story of British losses being made good by foreign additions, with American shipping being particularly important (Hancock and Gowing 1949: 257; table 8.5). The shipping problems were compounded by two other features: first, as the war progressed the proportion of non-tanker shipping under British control that was unavailable at any one time because of repairs or other reasons increased from 8.5 per cent of the total in September 1939 to a peak of 15.6 per cent in December 1942; second, the entry of the Italians into the war closed the Mediterranean to merchant shipping and greatly increased the length of the journey to Suez and to India (Behrens 1955: 109; table 8.6).

The greatest threat to British shipping, however, came from enemy action (especially in the Battle of the Atlantic) with total losses of 2.4 million gross tons in 1940 and 2.9 million gross tons in 1941; it reached its peak in the fifteen months from January 1942 to March 1943 when 4.1 million gross tons was sunk, 81 per cent of it by submarine (table 9.10). The impact on government import programmes was as dramatic: monthly non-tanker imports fell from 2.68 million tons in December 1941 (which was itself far below the April 1940 peak of 4.2 million tons) to a low of I .18 million tons in January 1943; between 1941 and 1942 imports of food and raw materials declined, respectively, by 4 million tons ( 28 per cent) and 3.5 million tons ( 24 per cent)
(tables 8.I3-8.15). Although the increased effectiveness of the convoy escort ships (many provided by the USA) helped to dent the German campaign the decisive factor in the Battle of the Atlantic was a technological one: the invention and success of radar greatly reduced the threat from the U-boats and after July 1943 total losses due to enemy action fell dramatically so that by 1944 the total
losses had been reduced to 490,000 tons and imports recovered (Duncan Hall and Wrigley 1956:36; Hancock and Gowing 1949:417-35; tables 8.10 and 8.13-8.15).

The importance of the inland transport sector is illustrated by the fact that the state felt it was necessary for it to administer all four of its branches (rail, road, canal and coastal shipping), road haulage being the last to be brought into the fold in 1943 (Savage 1957: 119-29, 155-9, 446-8, 538-5). At the apex of the state administrative organisation was the Ministry of War Transport which was formed by the amalgamation of the Ministries of Shipping and Transport in May 1941 (Savage 1957: 279-83). The volume of traffic carried on the inland transport system increased during the war years but all of this increased burden fell on the railways: compared to their pre-war loads road, canal and coastal shipping all experienced a decline but railway freight traffic rose from 16.3 million tonmiles in 1938 to a wartime peak of 24.4 million ton-miles in 1944 whilst passenger traffic in the same period increased from 19 to 32 million passenger miles (Savage 1957: 634; tables 8.17 and 8.22-8.23).

The railway system was placed under great strain by various wartime pressures, including: the diversion of shipping form east to west coast ports; the transfer onto rail of freight normally carried by coastal shipping (which faced the threat of German attack) and road (to conserve petrol, rubber and manpower); the switch of AngloScottish freight to the east coast route to release the west coast route for the movement of American troops (who disembarked in the Clyde) and later the transfer of troops and their supplies to Southampton and the South-West for the D-Day build-up (Kohan 1952: 345; Savage 1957).

### 8.2 Losses of merchant shipping due to enemy action




Indeed, the story of the railways in the war was marked by a series of crises: the coal distribution crisis of the first winter of the war arose because although coal was diverted onto the railways due to the reduced coastal shipping capacity the existing railway capacity was overestimated (a problem exacerbated by the severity of the winter); in the following year, the shipping crisis centring on port congestion was again blamed on the railways and this time the chief culprit was a shortage of wagons, particularly specialist wagons; in the build-up to D-Day, and the increased demands it made on both freight and passenger traffic, problems again emerged because of shortage of wagons, this time of general wagons (Savage 1957: 136-9,

191-256,410-8, 569-634; Behrens 1955: 126-42). There were wartime improvements and expansions in the rail, and road, links between ports and inland sorting depots, to new airfields and to new and relocated factories, and to service the D-Day build-up (although the low priority attached to canals meant they experienced only basic repair and maintenance) (Kohan 1952: 347-51). However, despite their increased load even the railways only received £ I 1.5 million from the state during the war, mainly to increase the capacity on existing lines rather than to create new ones and their wartime inheritance was a deteriorating stock of labour and capital (Kohan 1952: 3456; Savage 1955: 634; Hancock and Gowing 1949: 480).
8.3

Merchant shipping under British control
(i) Vessels of 1,600 gross tons and over: Number

Number

|  | Total | British flag |  |  |  |  | Foreign flag vessels ${ }^{2}$ <br> Timechartered to United Kingdom |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | United Kingdom and Colonies |  | Foreign vessels |  |  |
|  |  | Total |  | Dominions | Bareboat charter | Requisitioned |  |
| Non-tankers |  |  |  |  |  |  |  |
| 1939 September 3 | 2,520 | 2,520 | 2,303 | 217 | - |  | - |
| December 31 | 2,524 | 2,503 | 2,257 | 245 | 1 | - | 21 |
| 1940 March 31 | 2,553 | 2.498 | 2,250 | 243 | 5 |  | 55 |
| June 30 | 2,906 | 2,597 | 2,242 | 291 | 10 | 54 | 309 |
| September 30 | 3,137 | 2.611 | 2.170 | 305 | 7 | 129 | 526 |
| December 31 | 3,065 | 2,556 | 2.122 | 298 | 7 | 129 | 509 |
| 1941 March 31 | 3,031 | 2,511 | 2.059 | 296 | 12 | 144 | 520 |
| June 30 | 2,943 | 2,382 | 1,926 | 296 | 17 | 143 | 561 |
| September 30 | 2,950 | 2,358 | 1,898 | 298 | 20 | 142 | 592 |
| December 31 | 2,962 | 2,360 | 1,886 | 306 | 25 | 143 | 602 |
| 1942 March 31 | 2.901 | 2,282 | 1,810 | 299 | 30 | 143 | 619 |
| June 30 | 2.823 | 2,214 | 1,739 | 296 | 39 | 140 | 609 |
| September 30 | 2,745 | 2.161 | 1,681 | 290 | 55 | 135 | 584 |
| December 31 | 2,607 | 2,065 | 1,569 | 289 | 87 | 120 | 542 |
| 1943 March 31 | 2.558 | 2,034 | 1,529 | 273 | 115 | 117 | 524 |
| June 30 | 2.570 | 2,052 | 1,472 | 298 | 167 | 115 | 518 |
| September 30 | 2,632 | 2,118 | 1,495 | 324 | 182 | 117 | 514 |
| December 31 | 2,704 | 2,204 | 1,493 | 362 | 234 | 115 | 500 |
| 1944 March 31 | 2.771 | 2,272 | 1,501 | 374 | 282 | 115 | 499 |
| June 30 | 2.895 | 2,351 | 1,509 | 403 | 326 | 113 | 544 |
| September 30 | 2,891 | 2,354 | 1,492 | 428 | 326 | 108 | 537 |
| December 31 | 2,907 | 2,375 | 1,508 | 439 | 325 | 103 | 532 |
| 1945 March 31 | 2,901 | 2,375 | 1,506 | 449 | 321 | 99 | 526 |
| June 30 | 2,898 | 2,406 | 1,537 | 456 | 324 | 89 | 492 |
| September 30 | 2,273 | 2.440 | 1,579 | 467 | 337 | 57 | 333 |
| Tankers |  |  |  |  |  |  |  |
| 1939 September 3 | 479 | 445 | 424 | 21 | - | - | 34 |
| December 31 | 483 | 449 | 425 | 24 | - | - | 34 |
| 1940 March 31 | 522 | 453 | 428 | 25 | - | - | 69 |
| June 30 | 629 | 452 | 419 | 28 | - | 5 | 177 |
| September 30 | 620 | 442 | 399 | 30 | - | 13 | 178 |
| December 31 | 607 | 435 | 392 | 31 | - | 12 | 172 |
| 1941 March 31 | 649 | 424 | 379 367 | 30 | - | 15 | 225 |
| June 30 | 624 | 408 | 367 | 28 | - | 13 | 216 |
| September 30 | 658 | 427 | 386 | 28 | - | 13 | 231 |
| December 31 | 654 | 427 | 387 | 28 | - | 12 | 227 |
| 1942 March 31 | 607 | 398 | 362 | 25 | - | 11 | 209 |
| June 30 | 575 | 375 | 341 | 23 | - | 11 | 200 |
| September 30 | 548 | 369 | 334 | 24 | - | 11 | 179 |
| December 31 | 535 | 360 | 327 | 24 | - | 9 | 175 |
| 1943 March 31 | 517 | 353 | 321 | 23 | - | 9 | 164 |
| June 30 | 513 | 352 | 320 | 23 | - | 9 | 161 |
| September 30 | 507 | 355 | 323 | 23 | - | 9 | 152 |
| December 31 | 512 | 363 | 330 | 24 | - | 9 | 149 |
| 1944 March 31 | 524 | 376 | 334 | 33 | - | 9 | 148 |
| June 30 | 529 | 381 | 336 | 34 | - | 11 | 148 |
| September 30 | 533 | 385 | 339 | 37 | - | 9 | 148 |
| December 31 | 536 | 390 | 345 | 37 | - | 8 | 146 |
| 1945 March 31 | 534 | 390 | 344 | 37 | - | 9 | 144 |
| June 30 | 523 | 397 | 352 | 37 | - | 8 | 126 |
| September 30 | 454 | 407 | 363 | 36 | 3 | 5 | 47 |

[^98]8.4

Merchant shipping under British control'
(ii) Vessels of 1,600 gross tons and over: Gross Tonnage

Thousand gross tons

|  | Total | British flag |  |  |  |  | Foreign flag vessels2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | United |  | Foreig |  | Time- |
|  |  | Total | and Colonies | Dominions | Bareboat charter | Requisitioned | United Kingdom |
| $\begin{array}{llll}\text { Non-tankers } & 14352 & 14352 & 13452\end{array}$ |  |  |  |  |  |  |  |
| 1939 September 3 <br> December 31 | 14,352 14,264 | $\begin{aligned} & 14,352 \\ & 14,143 \end{aligned}$ | $\begin{aligned} & 13,452 \\ & \|3,18\| \end{aligned}$ | $\begin{aligned} & 990 \\ & 957 \end{aligned}$ | 5 | - | 121 |
| 1940 March 31 | 14,484 | 14,242 | 13,263 | 954 | 25 | - | 242 |
| June 30 | 15,926 | 14,559 | 13,235 | 1,075 | 51 | 198 | 1,367 |
| September 30 | 16,910 | 14,512 | 12,779 | 1,124 | 34 | 575 | 2,398 |
| December 31 | 16,507 | 14,136 | 12,425 | 1,103 | 35 | 573 | 2,371 |
| 1941 March 31 | 16,337 | 13,900 | 12,093 | 1,100 | 66 | 641 | 2.437 |
| June 30 | 15,780 | 13,223 | 11,414 | 1,076 | 99 | 634 | 2,557 |
| September 30 | 15,925 | 13,22\| | 11,355 | 1,090 | 112 | 664 | 2,704 |
| December 31 | 16,083 | 13,329 | 11,400 | 1,094 | 148 | 687 | 2.754 |
| 1942 March 31 | 15,829 | 13,017 | 11,114 | 1,046 | 175 | 682 | 2,812 |
| June 30 | 15,560 | 12.709 | 10,766 | 1,030 | 245 | 668 | 2851 |
| September 30 | 15,047 | 12,392 | 10,387 | 1,006 | 351 | 648 | 2.655 |
| December 31 | 14,299 | 11,822 | 9,686 | 999 | 581 | 556 | 2.477 |
| 1943 March 31 | 14,112 | 11,685 | 9,450 | 958 | 742 | 535 | 2.427 |
| June 30 | 14,207 | 11,804 | 9,103 | 1,170 | 1,002 | 529 | 2.403 |
| September 30 | 14,631 | 12,249 | 9,299 | 1,349 | 1,067 | 534 | 2,382 |
| December 31 | 15,272 | 12,962 | 9,323 | 1,678 | 1,436 | 525 | 2,310 |
| 1944 March 31 | 15,771 | 13,478 | 9,395 | 1,766 | 1,779 | 538 | 2,299 |
| June 30 | 16,682 | 14,051 | 9,487 | 1,962 | 2,073 | 529 | 2,631 |
| September 30 | 16,704 | 14,097 | 9,402 | 2,134 | 2,057 | 504 | 2,607 |
| December 31 | 16,905 | 14,330 | 9,542 | 2,267 | 2,035 | 486 | 2,575 |
| 1945 March 31 | 16,939 | 14,387 | 9,565 | 2,337 | 2,011 | 474 | 2,552 |
| June 30 | 16,907 | 14,532 | 9,746 | 2,365 | 2,017 | 404 | 2,375 |
| September 30 | 16,274 | 14,675 | 9,907 | 2,428 |  | 265 | 1.599 |
| Tankers 260 |  |  |  |  |  |  |  |
| 1939 September 3 December 31 | 3,432 3,508 | $\begin{aligned} & 3,172 \\ & 3,248 \end{aligned}$ | $\begin{aligned} & 3,007 \\ & 3,079 \end{aligned}$ | 165 169 | - |  | 260 |
| 1940 March 31 | 3,716 | 3,192 | 3,021 | 171 | - |  | 524 |
| June 30 | 4,551 | 3,177 | 2,937 | 198 | - | 42 | 1,374 |
| September 30 | 4,463 | 3,078 | 2.778 | 202 | - | 98 | 1,385 |
| December 31 | 4,347 | 3,018 | 2,727 | 203 | - | 88 | 1,329 |
| 1941 March 31 | 4,546 | 2,928 | 2.615 | 201 | - | 112 | 1,618 |
| June 30 | 4,351 | 2.802 | 2,530 | 179 | - | 93 | 1,549 |
| September 30 | 4,627 | 2,944 | 2.671 | 180 | - | 93 | 1,683 |
| December 31 | 4,610 | 2,955 | 2.688 | 180 | - | 87 | 1,655 |
| 1942 March 31 | 4,291 | 2755 | 2,528 | 147 | - | 80 | 1,536 |
| June 30 | 4,063 | 2,585 | 2,383 | 122 | - | 80 | 1,478 |
| September 30 | 3,909 | 2,532 | 2,329 | 123 | - | 80 | 1,377 |
| December 31 | 3,823 | 2.486 | 2,296 | 123 | - | 67 | 1,337 |
| 1943 March 31 | 3,680 | 2.436 | 2,251 | 117 | - | 68 | 1,244 |
| June 30 | 3,651 | 2.429 | 2,244 | 117 | - | 68 | 1,222 |
| September 30 | 3,594 | 2,453 | 2,268 | 117 | - | 68 | 1,141 |
| December 31 | 3,667 | 2,544 | 2,336 | 140 | - | 68 | 1,123 |
| 1944 March 31 | 3,751 | 2,632 | 2,369 | 195 | - | 68 | 1,119 |
| June 30 | 3,788 | 2,669 | 2,386 | 204 | - | 79 | 1,119 |
| September 30 | 3.798 | 2,678 | 2.415 | 197 | - | 66 | 1,120 |
| December 31 | 3,821 | 2.720 | 2.463 | 197 | - | 60 | 1,1085 |
| 1945 March 31 | 3,795 | 2710 | 2.445 | 197 | - | 68 | 1,085 |
| June 30 | 3,703 | 2762 | 2.507 | 197 | 7 | 58 3 | 941 <br> 340 |
| September 30 | 3,176 | 2.836 | 2,594 | 196 | 7 | 39 | 340 |

[^99]8.5

Merchant shipping under British control।
(iii) Vessels of 1,600 gross tons and over: Deadweight tonnage

Thousand deadweight tons


|  |  | Total | Allocated to military services ${ }^{2}$ | Coasting trade ${ }^{3}$ | Carrying overseas civil or military cargoes |  | Under repair or otherwise out of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mainly with civil cargoes for the United Kingdom |  |  | Mainly with civil cargoes for other British countries |  |
| 1939 | September 3 |  | 18,710 |  |  |  |  |  |
|  | December 31 | 18,579 | 1,871 | 283 | 11,444 | 3,400 | 1,581 |
| 1940 | March 31 | 18,764 | 1,818 | 284 | 11,620 | 3,042 | 2,000 |
|  | June 30 | 21,096 | 2,192 | 360 | 14,173 | 3,071 | 1,300 |
|  | September 30 | 22,459 | 2,755 | 334 | 13,961 | 3,077 | 2,332 |
|  | December 31 | 21,963 | 3,196 | 398 | 12,733 | 3,095 | 2,541 |
| 1941 | March 31 | 21,622 | 3,593 | 461 | 12,193 | 2,893 | 2,482 |
|  | June 30 | 20,858 | 3,423 | 435 | 11,212 | 3,236 | 2,552 |
|  | September 30 | 21,115 | 3,540 | 409 | 11,009 | 3,502 | 2,655 |
|  | December 31 | 21,324 | 3,933 | 510 | 10,442 | 3,789 | 2,650 |
| 1942 | March 31 | 20,994 | 4,761 | 438 | 9,001 | 4,146 | 2,648 |
|  | June 30 | 20,505 | 3,939 | 572 | 8,597 | 4,907 | 2,490 |
|  | September 30 | 19,722 | 4,428 | 429 | 7.447 | 5,223 | 2,195 |

Source : Ministry of Transport
(ii) Analysis by employment : December 1942 to September 19454

Thousand deadweight tons

|  |  | Total | Wholly on military service | Engaged in local operations | Coasting trade |  | Carrying overseas civil or military cargoes |  | Under repair or out of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | United Kingdom and Eire | Other | Mainly with civil cargoes for the United Kingdom | Mainly with civil cargoes for other British countries |  |
| 1942 | December 31 | 18,900 | 2,775 | - | 464 | 1072 | 7,871 | 3,766 | 2,952 |
| 1943 | March 31 | 18,573 | 2,668 |  | 432 | 1,161 | 8,736 | 2,861 | 2,715 |
|  | June 30 | 18,567 | 2,601 | 496 | 384 | 1,393 | 8,657 | 3,168 | 1,868 |
|  | September 30 | 19,222 | 2,559 |  | 443 | 1,938 | 8,181 | 4,375 | 1,726 |
|  | December 31 | 20,138 | 2,649 | 359 | 500 | 1,918 | 7,135 | 5,249 | 2,328 |
| 1944 | March 31 | 20,752 | 2,817 | 419 | 500 | 2,092 | 7,075 | 6,049 | 1,800 |
|  | June 30 | 21,562 | 2,952 | 2,751 | 483 | 1,301 | 6,959 | 5,038 | 2,078 |
|  | September 30 | 21,557 | 2,757 | 2,467 | 503 | 1,313 | 8,127 | 4,355 | 2,035 |
|  | December 31 | 21,844 | 2,697 | 2,372 | 505 | 1,330 | 7,610 | 5,220 | 2,110 |
| 1945 | March 31 | 21,853 | 2,766 | 1,820 | 505 | 1,340 | 7,424 | 5,654 | 2,344 |
|  | June 30 | 21,701 | 2,736 | 1,997 | 458 | 1,257 | 7,304 | 5,708 | 2,241 |
|  | September 30 | 20,820 | 2,877 | 2,050 | 480 | 1,093 | 7,300 | 4,897 | 2,123 |

I. Vessels under the British flag and those under foreign flags on time-charter to the United Kingdom.
2. A substantial number of vessels carrying military cargoes on outward voyages returned to the United Kingdom with civil cargoes. Such vessels are shown according to their actual employment on the dates to which the figures relate.
3. Of United Kingdom and Eire.
4. War developments made changes in classification necessary after September 1942.

For the period covered by this part of the table the figures for vessels under British control exclude foreign flag vessels on time-charter and allocated for use by the United States of America, but include foreign vessels on time-charter to the United States of America and allocated for use by the United Kingdom. For this reason the figures vary slightly from those for the corresponding period in Table 153.

Summary of gains and losses of tonnage: Vessels of 1,600 gross tons and over
Thousand gross tons

|  |  | Gains |  |  | Losses |  |  | $\begin{array}{r} \text { Net gain (+) } \\ \text { or } \\ \text { less (-) } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Non-tankers | Tankers | Total | Non-tankers | Tankers |  |
| 1939 to 19452 |  | 13,526 | 11,799 | 1,727 | 13,539 | 11,476 | 2,063 | -13 |
| 19393 |  | 397 | 280 | 117 | 461 | 380 | 81 | -64 |
| 1940 |  | 2,380 | 2,202 | 178 | 2,656 | 2,261 | 395 | -276 |
| 1941 |  | 2,096 | 1,694 | 402 | 3,079 | 2,591 | 488 | -983 |
| 1942 |  | 2,111 | 1,834 | 277 | 4,034 | 3,341 | 693 | -1,923 |
| 1943 |  | 3,057 | 2,784 | 273 | 1,826 | 1,609 | 217 | $+1,231$ |
| 1944 |  | 2,448 | 2.175 | 273 | 907 | 809 | 98 | $+1,541$ |
| 1939 |  | 50 | 37 | 13 | 149 | 106 | 43 | -99 |
|  | 4th Quarter | 347 | 243 | 104 | 312 | 274 | 38 | +35 |
| 1940 | Ist Quarter | 295 | 277 | 18 | 335 | 262 | 73 | 40 |
|  | 2nd Quarter | 901 | 835 | 66 | 473 | 405 | 68 | +428 |
|  | 3rd Quarter | 717 | 652 | 65 | 892 | 726 | 166 | -175 |
|  | 4th Quarter | 467 | 438 | 29 | 956 | 868 | 88 | -489 |
| 1941 | Ist Quarter | 558 | 490 | 68 | 992 | 822 | 170 | -434 |
|  | 2nd Quarter | 429 | 351 | 78 | 1,227 | 1,028 | 199 | -798 |
|  | 3rd Quarter | 606 | 452 | 154 | 505 | 465 | 40 | $+101$ |
|  | 4th Quarter | 503 | 401 | 102 | 355 | 276 | 79 | $+148$ |
| 1942 | Ist Quarter | 347 | 313 | 34 | 855 | 642 | 213 | -508 |
|  | 2nd Quarter | 563 | 474 | 89 | 1,017 | 767 | 250 | -454 |
|  | 3 3rd Quarter | 536 | 469 | 67 | 909 | 778 | 131 | -373 |
|  | 4th Quarter | 665 | 578 | 87 | 1,253 | 1,154 | 99 | -588 |
| 1943 | Ist Quarter | 489 | 413 | 76 | 681 | 557 | 124 | -192 |
|  | 2nd Quarter | 653 | 598 | 55 | 542 | 476 | 66 | +111 |
|  | 3rd Quarter | 850 | 811 | 39 | 376 | 361 | 15 | $+474$ |
|  | 4th Quarter | 1,065 | 962 | 103 | 227 | 215 | 12 | +838 |
| 1944 | Ist Quarter | 803 | 685 | 118 | 199 | 169 | 30 | +604 |
|  | 2nd Quarter | 795 | 749 | 46 | 188 | 178 | 10 | +607 |
|  | 3rd Quarter | 405 | 356 | 49 | 350 | 310 | 40 | +55 |
|  | 4th Quarter | 445 | 385 | 60 | 170 | 152 | 18 | $+275$ |
| 1945 | Ist Quarter | 214 | 191 | 23 | 167 | 134 | 33 | +47 |
|  | 2nd Quarter | 358 | 273 | 85 | 161 | 128 | 33 | $+197$ |
|  | 3rd Quarter | 465 | 366 | 99 | 248 | 223 | 25 | $+217$ |

[^100]Source : Ministry of Transport

|  |  | Gains |  |  |  |  | Losses |  |  |  | Net |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Foreign tonnage |  |  |  | Other ${ }^{2}$ | Total | War ${ }^{3}$ | Marine | Other ${ }^{4}$ | gain $(+)$ or or |
|  |  | Total | New vessels | Bareboat charter | Requisitioned |  |  |  |  |  | loss <br> (-) |
| 1939 to 19455 |  | 11,799 | 6,831 | 2.402 | 931 | 1,635 | 11,476 | 9,449 | 833 | 1,194 | +323 |
| 19396 |  | 280 | 162 | - | - | 118 | 380 | 346 | 28 | 6 | $-100$ |
| 1940 |  | 2,202 | 757 | 65 | 604 | 776 | 2,261 | 1,968 | 216 | 77 | -59 |
| 1941 |  | 1,694 | 905 | 114 | 264 | 411 | 2,591 | 2,332 | 119 | 140 | -897 |
| 1942 |  | 1,834 | 1,313 | 473 | 9 | 39 | 3,341 | 2,906 | 181 | 254 | -1,507 |
| 1943 |  | 2.784 | 1,757 | 994 | 30 | 3 | 1,609 | 1,332 | 123 | 154 | +1,175 |
| 1944 |  | 2,175 | 1,422 | 712 | 24 | 17 | 809 | 427 | 96 | 286 | +1,366 |
| 1939 |  | $37$ | $35$ | - | - | 2 | 106 | 106 | - | - | -69 |
|  | 4th Quarter | $243$ | $127$ | - | - | 116 | 274 | 240 | 28 | 6 | -31 |
| 1940 | Ist Quarter | 277 | 189 | 25 | - | 63 | 262 | 145 | 87 | 30 | +15 |
|  | 2nd Quarter | 835 | 216 | 30 | 198 | 391 | 405 | 346 | 29 | 30 | +430 |
|  | 3rd Quarter | 652 | 159 | 4 | 382 | 107 | 726 | 693 | 19 | 14 | -74 |
|  | 4th Quarter | 438 | 193 | 6 | 24 | 215 | 868 | 784 | 81 | 3 | -430 |
| 1941 | Ist Quarter | 490 | 148 | 27 | 105 | 210 | 822 | 763 | 54 | 5 | -332 |
|  | 2nd Quarter | 351 | 201 | 33 | 48 | 69 | 1,028 | 916 | 16 | 96 | -677 |
|  | 3rd Quarter | 452 | 256 | 18 | 65 | 113 | 465 | 420 | 6 | 39 | -13 |
|  | 4th Quarter | 401 | 300 | 36 | 46 | 19 | 276 | 233 | 43 | - | +125 |
| 1942 | Ist Quarter | 313 | 259 | 32 | 7 | 15 | 642 | 459 | 68 | 115 | -329 |
|  | 2nd Quarter | 474 | 367 | 87 |  | 20 | 767 | 642 | 46 | 79 | -293 |
|  | 3rd Quarter | 469 | 346 | 119 | - | 4 | 778 | 717 | 28 | 33 | -309 |
|  | 4th Quarter | 578 | 341 | 235 | 2 | - | 1,154 | 1,088 | 39 | 27 | -576 |
| 1943 | Ist Quarter | 413 | 224 | - 187 | - | 2 | 557 | 495 | 41 | 21 |  |
|  | 2nd Quarter | 598 | 508 | 68 | 22 | - | 476 | 373 | 41 | 62 | +122 |
|  | 3rd Quarter | 811 | 478 | 327 | 5 | 1 | 361 | 294 | 26 | 41 | +450 |
|  | 4th Quarter | 962 | 547 | 412 | 3 | - | 215 | 170 | 15 | 30 | +747 |
| 1944 | Ist Quarter | 685 | 282 | 380 | 14 | 9 | 169 | 137 | 26 | 6 | +516 |
|  | 2nd Quarter | 749 | 422 | 309 | 10 | 8 | 178 | 104 | 27 | 47 | +571 |
|  | 3rd Quarter | 356 | 339 | 17 | - | - | 310 | 128 | 21 | 161 | +46 |
|  | 4th Quarter | 385 | 379 | 6 | - | - | 152 | 58 | 22 | 72 | +233 |
| 1945 | Ist Quarter | 191 | 191 | - | - | - | 134 | 101 | 25 | 8 | +57 |
|  | 2nd Quarter | 273 | 182 | 13 | - | 78 | 128 | 37 | 38 | 53 | +145 |
|  | 3rd Quarter | 366 | 142 | 31 | - | 193 | 223 | - | 7 | 216 | +143 |

[^101] Source: Ministry of Transport

## 8.9

Merchant shipping under the British flag
Analysis of gains and losses: Tankers of 1,600 gross tons and over 1
Thousand gross tons

|  |  | Gains |  |  |  |  | Losses |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Foreign tonnage |  |  |  | Other ${ }^{2}$ | Total | War2 | Marine | Other ${ }^{4}$ |  |
|  |  | Total | $\begin{aligned} & \text { New } \\ & \text { vessels } \end{aligned}$ | Bareboat charter | Requisitioned |  |  |  |  |  |  |
| $\begin{aligned} & 1939 \text { to } 19455 \\ & 19396 \end{aligned}$ |  | 1,727 | 1,298 | 7 | 143 | 279 | 2,063 | 1,828 | 44 | 191 | -336 |
|  |  | 117 | 42 | - |  | 75 | 81 | 67 | 8 | 6 | +36 |
| 1940 |  | 178 | 44 | - | 98 | 36 | 395 | 385 | - | 10 | -217 |
| 1941 |  | 402 | 285 | - | 26 | 91 | 488 | 446 | 10 | 32 | -86 |
| 1942 |  | 277 | 266 | - |  | 11 | 693 | 646 | - | 47 | -416 |
| 1943 |  | 273 | 271 | - |  | 2 | 217 | 160 | 24 | 33 | +56 |
| 1944 |  | 273 | 259 | - | 12 | 2 | 98 | 67 | 2 | 29 | +175 |
| 1939 |  |  |  | - |  |  |  | $43$ | $\overline{-}$ |  |  |
|  | 4th Quarter | $104$ | 42 | - |  | $62$ | $38$ | $24$ | 8 | 6 | $+66$ |
| 1940 | Ist Quarter 2nd Quarter | 18 66 | 8 | - | 42 | 10 | $\begin{aligned} & 73 \\ & 68 \end{aligned}$ | $\begin{aligned} & 73 \\ & 60 \end{aligned}$ | - | 8 | -55 -2 |
|  | 3nd Quarter | 65 | - | - | 56 | 9 | 166 | 166 | - | 8 | -101 |
|  | 4th Quarter | 29 | 29 | - |  |  | 88 | 86 | - | 2 | -59 |
| 1941 | 1 Ist Quarter | 68 | 44 | - | 24 | II | 170 | 167 | - | 3 | -102 |
|  | 2nd Quarter | 78 | 65 | - | 2 | 11 | 199 | 170 | - | 29 | -121 |
|  | 3rd Quarter | 154 | 85 | - |  | 69 | 40 | 36 | 4 |  | +114 |
|  | 4th Quarter | 102 | 91 | - | - | 11 | 79 | 73 | 6 |  | +23 |
| 1942 | 1 st Quarter | 34 | 34 | - | - | $i$ | 213 | 202 | - | 11 | -179 |
|  | 2nd Quarter | 89 | 78 | - | - | 11 | 250 | 214 |  | 36 | -161 |
|  | 3rd Quarter 4th Quarter | $\begin{aligned} & 67 \\ & 87 \end{aligned}$ | $\begin{aligned} & 67 \\ & 87 \end{aligned}$ | - | - | - | $\begin{array}{r} 131 \\ 99 \end{array}$ | $\begin{array}{r} 131 \\ 99 \end{array}$ |  |  | -64 -12 |
| 1943 | Ist Quarter | 76 | 76 | - | - | - | 124 | 93 | 15 | 16 | 48 |
|  | 2nd Quarter | 55 | 53 | - | - | 2 | 66 | 54 | 8 | 4 | -11 |
|  | 3rd Quarter | 39 | 39 | - | - | - | 15 | 8 | - | 7 | +24 |
|  | 4th Quarter | 103 | 103 | - | - | - | 12 | 5 | 1 | 6 | +91 |
| 1944 | Ist Quarter | 118 | 116 | - | - | 2 | 30 | 22 | - | 8 | +88 |
|  | 2nd Quarter | 46 | 34 | - | 12 | - | 10 | 7 | - | 3 | +36 |
|  | 3rd Quarter | 49 | 49 | - | - | - | 40 | 26 | 2 | 12 | +9 |
|  | 4th Quarter | 60 | 60 | - |  | - | 18 | 12 | - | 6 | +42 |
| 1945 | Ist Quarter | 23 | 16 | - | 7 | - | 33 | 33 | - | - | -10 |
|  | 2nd Quarter | 85 | 58 | - |  | 27 | 33 | 24 | - | 9 | +52 |
|  | 3rd Quarter | 99 | 57 | 7 | - | 35 | 25 |  |  | 25 | +74 |

## 8. 10 Merchant shipping under the British flag: Losses from enemy action

|  |  | Vessels lost |  |  |  |  |  | Cause of loss |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Under 1,600 gross tons | 1,600 <br> gross <br> tons and over | Under 1,600 gross tons | 1,600 <br> gross <br> tons and over | Total | Submarine | Mine | Surface craft | Aircraft | Cause unknown or other cause |
|  |  | Number |  |  | Thousand gross tons |  |  |  |  |  |  |  |
| 1939 to 19452 |  | 2.627 | 731 | 1,896 | 440.6 | 10,956.4 | 11,396.9 | 7,622 | 823.0 | 965.4 | 1,589.3 | 396.1 |
| 1939 |  | 122 | 49 | 73 | 30.2 | 400.1 | 430.3 | 266.3 | 99.4 | 55.1 | 22 | 7.3 |
| 1940 |  | 587 | 192 | 395 | 123.4 | 2,323.4 | $2,446.8$ | 1,359.7 | 3428 | 343.0 | 310.8 | 90.6 |
| 1941 |  | 833 | 320 | 513 | 1827 | 2,681.2 | $2,863.8$ | 1,5626 | 191.4 | 3124 | 574.6 | 2227 |
| 1942 |  | 656 | 105 | 551 | 60.4 | 3,394.0 | 3,454.4 | 2.761 .7 | 45.1 | 1925 | 398.7 | 56.4 |
| 1943 |  | 278 | 28 | 250 | 15.9 | 1,505.7 | 1,521.6 | 1,175.3 | 44.0 | 27.1 | 273.3 | 21 |
| 1944 |  | 106 | 22 | 84 | 13.7 | 475.9 | 489.6 | 3655 | 53.2 | 25.1 | 29.7 | 16.1 |
| 19453 |  | 45 | 15 | 30 | 14.3 | 176.1 | 190.4 | 131.2 | 48.0 | 10.2 | - | 0.9 |
| 1939 |  | 37 | 10 | 27 | 5.4 |  |  |  |  | 5.1 | - | 6.4 |
|  | October | 23 | 4 | 19 | 3.2 | 1024 | 105.5 | 74.9 | 3.2 | 27.4 | - |  |
|  | November | 29 | 19 | 10 | 14.7 | 44.5 | 59.2 | 229 | 35.6 | 0.7 | - |  |
|  | December | 33 | 16 | 17 | 7.0 | 98.6 | 105.6 | 31.4 | 49.2 | 220 | 22 | 0.9 |
| 1940 | January | 28 | 11 | 17 | 7.9 | 90.6 | 98.4 | 11.3 | 63.4 | - | 23.7 |  |
|  | February | 25 | 7 | 18 | 3.4 | 1120 | 115.4 | 73.0 | 421 |  | 0.2 |  |
|  | March | 15 | 8 | 7 | 7.2 | 325 | 39.7 | 19.1 | 15.2 | - | 5.4 |  |
|  | April | 19 | 4 | 15 | 4.2 | 70.7 | 74.8 | 14.6 | 13.1 | 5.2 | - | 41.9 |
|  | May | 33 | 18 | 15 | 13.8 | 68.8 | 826 | 25.0 | 23.2 | 6.9 | 23.3 | 4.2 |
|  | June | 67 | 25 | 42 | 6.6 | 276.8 | 283.4 | 134.9 | 39.4 | 39.3 | 54.7 | 15.1 |
|  | July | 68 | 26 | 42 | 20.0 | 255.7 | 275.7 | 139.2 | 33.3 | 56.6 | 422 | 4.3 |
|  | August | 59 | 11 | 48 | 9.3 | 269.8 | 279.1 | 188.2 | 11.3 | 28.5 | 49.6 | 15 |
|  | September | 66 | 12 | 54 | 9.3 | 315.5 | 324.8 | 223.0 | 3.7 | 45.7 | 45.1 | 7.3 |
|  | October | 68 | 23 | 45 | 14.4 | 288.0 | 3024 | 257.4 | 23.2 | 10.3 | 4.6 | 6.9 |
|  | November | 76 | 23 | 53 | 11.6 | 301.5 | 313.1 | 110.7 | 39.7 | 1065 | 54.0 | 22 |
|  | December | 63 | 24 | 39 | 15.9 | 241.5 | 257.4 | 163.3 | 35.1 | 44.0 | 7.9 | 7.1 |
| 1941 |  |  |  |  |  |  |  |  | 16.8 | 40.0 | 47.2 | 05 |
|  | February | 80 | 25 | 55 | $18.8$ | $297.5$ | $316.3$ | $171.7$ | 13.2 | 67.9 | 51.9 | 11.7 |
|  | March | 98 | 38 | 60 | 18.9 | 348.0 | 366.8 | 174.3 | 16.1 | 104.0 | 70.3 | 21 |
|  | April | 79 | 20 | 59 | 13.4 | 349.1 | 3625 | 188.6 | 23.3 | 25.1 | 1225 | 3.0 |
|  | May | 100 | 34 | 66 | 7.9 | 380.0 | 387.8 | 234.0 | 23.2 | 15.0 | 115.6 |  |
|  | June | 63 | 11 | 52 | 8.1 | 260.5 | 268.6 | 203.8 | 9.6 | 13.6 | 39.3 | 24 |
|  | July | 36 | 17 | 19 | 8.5 | 87.0 | 95.5 | 71.9 | 8.6 | 5.8 | 6.1 | 3.1 |
|  | August | 31 | 12 | 19 | 7.8 | 89.2 | 97.0 | 60.7 | 1.4 | 15.6 | 19.0 | 0.2 |
|  | September | 61 | 21 | 40 | 18.6 | 196.6 | 215.2 | 156.6 | 14.9 | 7.7 | 34.2 | 1.8 |
|  | October | 32 | 6 | 26 | 7.0 | 144.8 | 151.8 | 106.4 | 15.8 | 15 | 27.4 | 0.6 |
|  | November | 29 | 10 | 19 | 5.5 | 85.8 | 91.4 | 55.2 | 1.1 | 15.7 | 19.4 | - |
|  | December | 179 | 114 | 65 | 60.8 | 240.5 | 301.3 | 34.4 | 47.4 | 05 | 21.7 | 1973 |
| 1942 | January | 38 | 9 | 29 | 4.0 | 143.9 | 147.9 | 124.4 | - 10.1 | - | 11.0 | 25 |
|  | February | 60 | 11 | 49 | 8.0 | 306.2 | 314.2 | 2075 | - | 5 | 85.8 | 20.8 |
|  | March | 67 | 30 | 37 | 11.5 | 239.2 | 250.7 | 195.5 | 123 | 5.6 | 21.4 | 15.8 |
|  | April | 52 | 4 | 48 | 3.1 | 289.8 | 2929 | 151.5 | 11.1 | 70.3 | 59.9 | 0.1 |
|  | May | 58 | 11 | 47 | 4.5 | 253.8 | 258.3 | 203.1 | 7.0 | 7.1 | 40.7 | 0.3 |
|  | June | 50 | 11 | 39 | 7.7 | 226.0 | 233.7 | 1824 | 20 | 16.9 | 322 | 0.2 |
|  | July | 43 | 7 | 36 | 4.0 | 228.8 | 2327 | 1927 | - | 27.1 | 129 | 0 |
|  | August | 58 | 6 | 52 | 22 | 3426 | 344.8 | 245.2 | - | 38.8 | 60.5 | 0.2 |
|  | September | 50 | 3 | 47 | 25 | 2724 | 275.0 | 249.4 |  | 10.4 | 15.1 | - |
|  | October | 59 | 2 | 57 | 2.1 | 4023 | 404.4 | 389.8 | 1.3 | 7.6 | 5.7 | 120 |
|  | November | 76 | 4 | 72 | 4.2 | 470.4 | 474.6 | 403.7 | 1.0 | 75 | 50.4 | 120 |
|  | December | 46 | 8 | 38 | 5.2 | 227.1 | 2323 | 216.5 | 0.3 | 126 | 29 | - |

[^102]continued

|  |  | Vessels lost |  |  |  |  |  | Cause of loss |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Under 1,600 gross tons | 1,600 <br> gross <br> tons and over | Under 1,600 gross tons | 1,600 <br> gross <br> tons and over | Total | Submarine | Mine | Surface craft | Aircraft | Cause unknown or other cause |
|  |  | Number |  |  | Thousand gross tons |  |  |  |  |  |  |  |
|  | January | 18 | 3 | 15 | 0.2 | 90.8 | 91.1 | 66.9 | 0.1 | - | 24.0 |  |
|  | February | 29 | 2 | 27 | 23 | 164.7 | 166.9 | 148.0 | 14.1 | 4.9 | . |  |
|  | March | 62 | 3 | 59 | 25 | 382.5 | 384.9 | 327.9 | 0.9 |  | 56.1 |  |
|  | April | 33 | 2 | 31 | 0.8 | 193.4 | 194.3 | 185.1 | 7.4 | 1.7 | - |  |
|  | May | 31 | 3 | 28 | 25 | 144.0 | 146.5 | 119.1 | 1.6 | 4.9 | 20.9 | - |
|  | June | 12 | 4 | 8 | 28 | 422 | 45.0 | 38.7 | 0.1 | - | 6.1 |  |
|  | July | 30 | 3 | 27 | 0.4 | 187.4 | 187.8 | 101.7 | - | - | 85.9 |  |
|  | August | 14 |  | 12 | - | 628 | 62.9 | 47.0 | - | - | 14.0 | 20 |
|  | September | 12 | I | 11 | 0.2 | 60.3 | 60.5 | 42.2 | 4.4 | - | 13.9 |  |
|  | October | 11 |  | 11 | - | 57.6 | 57.6 | 35.8 | 10.9 | - | 10.9 |  |
|  | November | 15 | 4 | 11 | 3.6 | 57.9 | 61.6 | 21.8 | 4.3 | 8.5 | 26.7 | 0.2 |
|  | December | 10 | I | 9 | 0.6 | 55.0 | 55.6 | 40.9 | - | . | 14.7 | - |
| 1944 | January | 14 | 3 | 11 | 1.4 | 65.4 | 66.8 | 51.7 | - | 5.0 | 9.9 | 0.2 |
|  | February | 11 | - | 11 | - | 63.2 | 63.2 | 53.8 | - | 2.1 | 7.3 | . |
|  | March | 10 | - | 10 | - | 49.6 | 49.6 | 41.8 | - | 7.8 | - |  |
|  | April | 3 | - | 3 | - | 21.4 | 21.4 | 13.5 | - | - | 7.9 |  |
|  | May | 5 | - | 5 | - | 27.3 | 27.3 | 24.4 | - | - | 20 | - |
|  | June | 16 | 6 | 10 | 3.7 | 50.9 | 54.6 | 24.9 | 15.4 | 1.8 | 1.8 | 10.7 |
|  | July | 11 | 4 | 7 | 1.2 | 39.3 | 40.5 | 25.1 | 8.1 | 7.2 | - | - |
|  | August | 17 | 2 | 15 | 1.2 | 79.3 | 80.6 | 68.2 | 7.2 | - | - | 5.2 |
|  | September | 4 | I | 3 | 1.3 | 25.1 | 26.4 | 26.4 | - | - | - |  |
|  | October | I | I | - | 1.2 |  | 1.2 | - | 1.2 | - | - |  |
|  | November | 4 | 2 | 2 | 1.4 | 9.8 | 11.3 | 10.1 | - | 1.1 | - | - |
|  | December | 10 | 3 | 7 | 23 | 44.4 | 46.7 | 25.5 | 21.3 | - | - | - |
| 1945 | January | 9 | 2 | 7 | 1.7 | 44.0 | 45.7 | 30.0 | 13.3 | 2.4 | - |  |
|  | February | 13 | 6 | 7 | 5.5 | 38.1 | 43.6 | 26.8 | 120 | 3.9 | - | 0.9 |
|  | March | 12 | 3 |  | 3.5 | 424 | 45.9 | 27.6 | 14.3 | 4.0 | - | - |
|  | April | 10 | 4 | 6 | 3.6 | 48.7 | 523 | 43.9 | 8.4 | - | - | - |
|  | May | 1 | - | 1 | - | 29 | 29 | 29 | - | - | - | - |
| 1. The difference between the figures for losses of vessels of 1,600 gross tons and in this table and those given in Tables 8.8 and 8.9 is explained in footnote <br> 2. 3 September 1939 to 2 September 1945. <br> 3. To 2 September 1945 . There were no sinkings of merchant ships anywhere between 8 May and 2 September 1945. |  |  |  |  |  |  |  |  |  |  | Source: Admiralty |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## 8.II <br> Shipping movement at United Kingdom ports: Entrances and clearances in the foreign trade

Monthly averages or calendar months
Thousand net tons

|  |  | Entered with cargo |  | Cleared with cargo |  | Entered in ballast |  | Cleared in ballast |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Brtish vessels | Foreign vessels | British | Foreign vessels | British vessels | Foreign vessels | British vessels | Foreign vessels |
| 1939 |  | 2,903 | 1,926 | 2.474 | 1,851 | 876 | 978 | 1,262 | 1,070 |
| 1940 |  | 2.110 | 633 | 1,303 | 456 | 452 | 276 | 1,294 | 405 |
| 1941 |  | 1,467 | 542 | 668 | 185 | 92 | 23 | 984 | 386 |
| 1942 |  | 1,176 | 592 | 530 | 155 | 175 | 97 | 904 | 536 |
| 1943 |  | 1,201 | 1,064 | 489 | 147 | 195 | 90 | 955 | 995 |
| 1944 |  | 1,345 | 1,321 | 458 | 141 | 930 | 1,148 | 1,834 | 2,327 |
| 1945 |  | 1,527 | 885 | 855 | 260 | 1,206 | 1.018 | 1,904 | 1,627 |
| 1939 | September | 1,813 | 1,141 | 1,518 | 1,100 | 1,014 | 745 | 1,646 | 624 |
|  | 4th Quarter | 2,224 | 833 | 1,676 | 1.267 | 697 | 876 | 1,081 | 480 |
| 1940 |  | 2,381 | 684 | 1,600 | 878 | 610 | 577 | 1,432 | 336 |
|  | 2nd Quarter | 2,512 | 756 | 1,728 | 570 | 877 | 446 | 1,710 | 501 |
|  | 3rd Quarter | 1,984 | 593 | 1,055 | 199 | 208 | 47 | 1,181 | 445 |
|  | 4th Quarter | 1,562 | 500 | 829 | 178 | 115 | 36 | 854 | 338 |
| 1941 | Ist Quarter | 1,348 | 420 | 690 | 181 | 71 | 20 | 909 | 340 |
|  | 2nd Quarter | 1,430 | 532 | 702 | 180 | 95 | 14 | 939 | 357 |
|  | 3rd Quarter | 1,559 | 598 | 654 | 178 | 113 | 34 | 1,130 | 453 |
|  | 4th Quarter | 1,533 | 618 | 627 | 203 | 88 | 26 | 957 | 393 |
| 1942 | Ist Quarter | 1,234 | 467 | 575 | 160 | 82 | 54 | 894 | 416 |
|  | 2nd Quarter | 1,207 | 552 | 579 | 177 | 126 | 93 | 879 | 485 |
|  | 3rd Quarter | 1,240 | 711 | 541 | 147 | 119 | 93 | 750 | 609 |
|  | 4th Quarter | 1,022 | 640 | 424 | 136 | 372 | 149 | 1,093 | 634 |
| 1943 | Ist Quarter | 980 | 580 | 445 | 135 | 327 | 129 | 906 | 625 |
|  | 2nd Quarter | 1,231 | 974 | 479 | 137 | 177 | 58 | 1,054 | 908 |
|  | 3rd Quarter | 1,314 | 1,390 | 485 | 161 | 128 | 62 | 942 | 1,244 |
|  | 4th Quarter | 1,280 | 1,313 | 548 | 157 | 148 | 109 | 918 | 1,202 |
| 1944 | Ist Quarter | 1,234 | 1,291 | 518 | 167 | 163 | 220 | 927 | 1,370 |
|  | 2nd Quarter | 1,369 | 1,523 | 368 | 115 | 533 | 887 | 1,464 | 2.249 |
|  | 3rd Quarter | 1,312 | 1,333 | 409 | 118 | 1,794 | 2.158 | 2752 | 3,405 |
|  | 4th Quarter | 1,466 | 1,139 | 537 | 162 | 1,232 | 1,326 | 2.193 | 2,283 |
| 1945 | Ist Quarter | 1,365 | 916 | 629 | 189 | 1,330 | 1,392 | 2,157 | 2,096 |
|  | 2nd Quarter | 1,523 | 1,130 | 730 | 244 | 1,268 | 993 | 2.042 | 1.829 |
|  | July | 1,662 | 1,011 | 868 | 250 | 1,111 | 795 | 2.108 | 1,403 |
|  | August | 1,723 | 725 | 907 | 261 | 1,181 | 900 | 1,915 | 1,423 |

- Including, from the end of 1943, the tonnage of certain foreign vessels

Source: Board of Trade
transferred temporarily to the British flag

## 8. 12 Arrivals of shipping at United Kingdom ports

Monthly averages or calendar months
Thousand net tons


## 8. 3 Imports into the United Kingdom



## 8. 13 Imports into the United Kingdom ${ }^{\prime}$


I. The monthly and quarterly figures of imports given in this and in the next two tables represent
the estimated weights of the commodities included in the Trade and Navigation Accounts for each month, and are unadjusted for small revisions subsequently made in the cumulative totals given in the Accounts for later months. From September 1939 to August 1940, imports from Eire are included under Departmental programmes.
2. Including imports of munitions on Canadian Government account from January 1943.
3. Petroleum products, molasses, unrefined whale oil and industrial alcohol. From January 1943 acetone is included. From January to May 1945, a further 760,000 tons of petroleum products were shipped direct to the Continent under this programme.
4. Adjusted for revisions. The figures for 1944 exclude approximately 36,000 tons of food and 23,000 tons of munitions destined for Europe and 104,000 tons of timber as a replacement of supplies delivered to the United States Army, since these amounts were not provided for in the United Kingdom import programme.
5. The figures of actual imports in 1945 exclude about 179,000 tons of cereals and oilseeds which have been shipped direct to the Continent, a corresponding amount having been transferred to United Kingdom stocks form S.H.A.E.F. emergency reserves held in this country. On the other hand, about 58,000 tons of foodstuffs intended for relief stockpile and 22,000 tons of softwood imported in repayment of a loan to the United States Army are included.

## 8. 4 Imports of food under the Ministry of Food programmel <br> Non-tanker imports (excluding imports from Eire)

Thousand tons

|  |  | Total | Grain and pulses | Animal feedingstuffs | Meat | Oilseeds, oils and fats ${ }^{2}$ | Sugar | $\begin{array}{r} \text { Dairy } \\ \text { produce } \\ \text { vegetables } \end{array}$ | Fruit | Beverages and other foods |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941 |  | 14,654 | 7,315 | 325 | 1,433 | 1,948 | 1,658 | 665 | 462 | 847 |
| 1942 |  | 10,606 | 4,162 | 74 | 1.583 | 1,905 | 713 | 789 | 458 | 862 |
| 1943 |  | 11.525 | 4,299 | 12 | 1,658 | 2.154 | 1.458 | 655 | 327 | 963 |
| 1944 |  | 10,996 | 3,843 | 98 | 1,768 | 1,975 | 1,156 | 664 | 646 | 846 |
| 1940 | 4th Quarter | 3,241 | 1,684 | 133 | 305 | 336 | 339 | 107 | 125 | 215 |
| 1941 | 1st Quarter | 3,132 | 1,560 | 163 | 253 | 403 | 302 | 159 | 69 | 226 |
|  | 2nd Quarter | 3,927 | 2,349 | 113 | 313 | 447 | 286 | 149 | 76 | 193 |
|  | 3rd Quarter | 4,183 | 2089 | 35 | 430 | 577 | 559 | 157 | 135 | 203 |
|  | 4th Quarter | 3,513 | 1,342 | 15 | 448 | 531 | 560 | 207 | 185 | 227 |
| 1942 | 1st Quarter | 2955 | 906 | 47 | 349 | 571 | 318 | 250 | 196 | 318 |
|  | 2nd Quarter | 3,308 | 1.528 | 11 | 466 | 598 | 223 | 160 | 86 | 237 |
|  | 3rd Quarter | 2.514 | 1,004 | 13 | 446 | 493 | 134 | 185 | 71 | 162 |
|  | 4th Quarter | 1,876 | 730 | 3 | 323 | 248 | 129 | 194 | 102 | 145 |
| 1943 | 1st Quarter | 2.038 | 730 | - | 302 | 371 | 210 | 161 | 69 | 195 |
|  | 2nd Quarter | 3,368 | 1,552 | - | 404 | 525 | 373 | 201 | 71 | 241 |
|  | 3 3rd Quarter | 3,182 | 1,373 | 3 | 440 | 511 | 397 | 146 | 69 | 242 |
|  | 4th Quarter | 2,998 | 643 | 8 | 519 | 750 | 523 | 153 | 115 | 286 |
| 1944 | Ist Quarter | 2.501 | 776 | 9 | 429 | 557 | 161 | 149 | 217 | 202 |
|  | 2nd Quarter | 2.912 | 1.055 | 3 | 534 | 444 | 338 | 141 | 157 | 238 |
|  | 3rd Quarter | 3,043 | 1,082 | 34 | 466 | 566 | 413 | 157 | 130 | 196 |
|  | 4th Quarter | 2.733 | 991 | 52 | 378 | 412 | 323 | 220 | 151 | 207 |
| 1945 | 1st Quarter3 | 2,544 | 840 | 44 | 355 | 437 | 189 | 149 | 322 | 208 |
|  | 2nd Quarter ${ }^{\text {3 }}$ | 3,229 | 1,500 | 64 | 291 | 360 | 491 | 129 | 171 | 217 |
|  | July and August ${ }^{3}$ | 2.103 | 1,156 | 30 | 162 | 175 | 251 | 118 | 67 | 145 |

[^103]
### 8.15 <br> Imports of food under the Ministry of Supply programmel <br> Non-tanker imports (excluding imports from Eire)

Thousand tons

|  |  | Total | Iron ore | Iron and steel and allied materials | Nonferrous ores and metals | Textiles | Wood and timber | Paper and papermaking materials | Materials for sulphuric acid and fertilizers | cellaneous materials |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941 |  | 15,046 | 2,298 | 5,176 | 1,463 | 785 | 1,976 | 588 | 1,683 | 1,077 |
| 1942 |  | 11,505 | 1,923 | 3,092 | 1,400 | 1,112 | 1,365 | 657 | 984 | 972 |
| 1943 |  | 12,834 | 1,895 | 3,358 | 1,671 | 891 | 1,932 | 573 | 1,557 | 956 |
| 1944 |  | 11,753 | 2.167 | 2,215 | 1,479 | 964 | 2,068 | 614 | 1,404 | 842 |
| 1940 | 4th Quarter | 4,988 | 665 | 1.747 | 426 | 211 | 1,123 | 223 | 289 | 302 |
| 1941 | Ist Quarter | 3,706 | 385 | 1,277 | 378 | 200 | 714 | 157 | 321 | 274 |
|  | 2nd Quarter | 3,738 | 698 | 1,383 | 309 | 136 | 416 | 133 | 375 | 288 |
|  | 3rd Quarter | 3,783 | 627 | 1,321 | 366 | 147 | 337 | 161 | 523 | 302 |
|  | 4th Quarter | 4,011 | 602 | 1,253 | 406 | 306 | 478 | 142 | 519 | 305 |
| 1942 | Ist Quarter | 2.696 | 523 | 675 | 392 | 312 | 173 | 129 | 224 | 270 |
|  | 2nd Quarter | 2,909 | 609 | 641 | 349 | 349 | 264 | 193 | 244 | 260 |
|  | 3rd Quarter | 3,497 | 518 | 1,144 | 327 | 317 | 463 | 217 | 272 | 239 |
|  | 4th Quarter | 2.483 | 313 | 649 | 341 | 147 | 467 | 122 | 237 | 207 |
| 1943 | Ist Quarter | 2.166 | 361 | 479 | 323 | 112 | 315 | 73 | 344 | 158 |
|  | 2nd Quarter | 3,206 | 525 | 990 | 476 | 178 | 325 | 116 | 366 | 228 |
|  | 3rd Quarter | 3,917 | 487 | 1,070 | 472 | 306 | 624 | 255 | 421 | 282 |
|  | 4th Quarter | 3,600 | 520 | 843 | 405 | 295 | 677 | 145 | 428 | 289 |
| 1944 | Ist Quarter | 3,122 | 586 | 743 | 437 | 269 | 437 | 101 | 331 | 218 |
|  | 2nd Quarter | 3,039 | 626 | 444 | 430 | 231 | 510 | 158 | 433 | 207 |
|  | 3rd Quarter | 2.515 | 389 | 459 | 286 | 197 | 469 | 184 | 323 | 209 |
|  | 4th Quarter | 3,244 | 566 | 590 | 341 | 273 | 765 | 177 | 324 | 208 |
| 1945 | Ist Quarter | 2.699 | 733 | 289 | 289 | 239 | 513 | 158 | 307 | 171 |
|  | 2nd Quarter | 3,064 | 1,051 | 200 | 234 | 270 | 450 | 261 | 421 | 178 |
|  | July and August | 2,785 | 814 | 138 | 190 | 185 | 717 | 342 | 256 | 143 |

[^104]
## 8. 6 Repair and availability of railway rolling stock



[^105]
## 8. 17 Passenger and goods traffic

| Great Bntain |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Unit | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |

## Passenger traffic

| Number of passenger joumeys. Total | Milions | 1,295.4 | 1,237.2 | 1,225.5 | 966.6 | 1,023.3 | 1,218.2 | 1,334.6 | 1,345.3 | 1,371.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Full fare |  |  | [ 77.8 | 77.2 | 64.9 | 626 | 81.4 | 103.8 | 110.7 | 116.0 |
| Monthly return, excursion, weekend, etc. | , | 659.1 | 474.5 | 463.2 | 284.3 | 297.4 | 359.1 | 3728 | 370.5 | 405.9 |
| Service or Government joumeys, etc. |  |  | L 53.6 | 53.4 | 77.7 | 116.1 | 163.7 | 227.4 | 250.5 | 256.9 |
| Workmen |  | 247.0 | 244.2 | 251.2 | 264.2 | 3022 | 340.1 | 3326 | 307.4 | 276.9 |
| Season tickets (on basis of 600 journeys per annum) | " | 389.3 | 387.1 | 380.5 | 275.5 | 245.0 | 273.9 | 298.0 | 306.2 | 316.1 |
| Average receipt |  |  |  |  |  |  |  |  |  |  |
| Per passenger journey. |  |  |  |  |  |  |  |  |  |  |
| Total | Pence |  | 11.38 | 1255 | 16.37 | 21.05 | 22.99 | 24.65 | 25.83 | 27.63 |
| Ordinary |  | 17.04 | 18.47 | 21.29 | 30.47 | 39.20 | 41.15 | 4220 | 43.16 | 44.70 |
| Workmen |  | 3.55 | 3.68 | 3.80 | 4.54 | 5.08 | 5.13 | 5.02 | 4.99 | 4.99 |
| Season | " | 5.02 | 5.19 | 5.51 | 6.00 | 6.17 | 6.07 | 6.15 | 6.38 | 6.39 |
| Per train mile | Shillings | 5.25 | 5.17 | 5.75 | 7.83 | 10.25 | 1283 | 14.75 | 15.83 | 16.00 |
| Estimated passenger miles |  |  |  |  |  |  |  |  |  |  |
| Total | Milions |  |  | .. | .. | . | .. | 32,273 | 32,052 | 35,248 |
| Ordinary ${ }^{2}$ |  |  | $12,5503$ | - | .. |  | . | 25,613 | 25,531 | 28,827 |
| Workmen |  |  | 1,7373 |  |  | - |  | 3,015 | 2.791 | 2,548 |
| Season tickets | " |  | 4,7063 | . | . | $\cdots$ | . | 3,645 | 3,730 | 3,873 |

## Goods traffic

| Goods, mineral and livestock traffic ${ }^{4}$. | Million |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | tons | 298.7 | 265.7 | 288.3 | 294.4 | 286.7 | 295.1 | 300.8 | 2926 | 266.4 |
| Merchandise and livestock | " | 51.8 | 45.6 | 520 | 58.9 | 61.8 | 71.0 | 820 | 87.4 | 73.5 |
| Minerals | , | 58.7 | 47.4 | 51.3 | 58.2 | 61.6 | 61.3 | 62.1 | 54.5 | 49.8 |
| Coal, coke and patent fuel | " | 188.1 | 1728 | 185.0 | 177.3 | 163.3 | 1628 | 156.7 | 150.7 | 143.1 |
| Estimated net ton miles । |  |  |  |  |  |  |  |  |  |  |
| Total | Milions | 17,935 | 16,266 | .. | .. | . | 23,822 | 24,358 | 24,444 | 22,023 |
| Merchandise and livestock |  | 5.442 | 4,980 | .. | .. |  | 8.591 | 9,659 | 10,275 | 8,850 |
| Minerals |  | 3,789 | 3,182 | . |  |  | 5,280 | 5,356 | 4,902 | 4,303 |
| Coal, coke and patent fuel |  | 8,703 | 8.104 | .. | .. | .. | 9,951 | 9,343 | 9,267 | 8,870 |

[^106]
## 8. | 8 Operating statistics of railways

|  | Unit | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Train-miles |  |  |  |  |  |  |  |  |  |  |
| Loaded: |  |  |  |  |  |  |  |  |  |  |
| Coaching Freight | Milions | $\begin{aligned} & 272.621 \\ & 125.031 \end{aligned}$ | $119.522$ | $\begin{aligned} & 245.96 \\ & 123.70 \end{aligned}$ | $\begin{aligned} & 190.45 \\ & 133.23 \end{aligned}$ | $\begin{aligned} & 191.78 \\ & 130.86 \end{aligned}$ | $\begin{aligned} & 93.16 \\ & 135.10 \end{aligned}$ | $\begin{aligned} & 194.05 \\ & 135.50 \end{aligned}$ | $\begin{aligned} & 191.08 \\ & 133.47 \end{aligned}$ | $\begin{aligned} & 204.79 \\ & 123.05 \end{aligned}$ |
| Empty | * | 24.681 | 23.992 |  | 28.42 | 27.97 | 28.29 | 28.45 | 30.51 | 27.80 |
| Wagon-miles |  |  |  |  |  |  |  |  |  |  |
| Loaded:Total | " | 3,252 | 3,003 |  |  | 3,838 |  |  |  |  |
| Merchandise and livestock | " |  |  |  |  |  | $2,402$ | $2537$ | $2,604$ | $2,331$ |
| Minerals | " | . |  |  |  | :. | 532 | 534 | 489 | 428 |
| Coal, coke and patent fuel | " |  |  | . |  |  | 1,048 | 981 | 971. | 925 |
| Empty |  | 1,591 | 1,492 | . |  | 1,446 | 1,412 | 1,392 | 1,427 | 1,257 |
|  |  |  |  |  |  |  |  |  |  |  |
| Total | Miles | 57.86 | 59.00 |  |  | .. | 75.90 | 76.16 | 78.64 | 77.73 |
| Merchandise and livestock |  | 103.21 | 107.49 |  |  |  | 115.45 | 11245 | 11216 | 114.92 |
| Minerals |  | 62.37 | 63.49 |  |  | . | 79.95 | 79.93 | 83.44 | 80.13 |
| Coal, coke and patent fuel |  | 44.29 | 45.21 | .. | . | . | 57.39 | 55.97 | 57.75 | 58.11 |

[^107]Source: Ministry of Transport
2. Fifty-two weeks ended 24 December:
3. Main line companies.
4. Including freehauled traffic

## 8. 19

## Traffic receipts

Main line railway companies and London Passenger Transport Board (including joint lines)'
Great Britain
Ethousand


[^108]8.20

Vehicles with licences current ${ }^{\prime}$

Great Britain
Thousands

|  | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total2 | 2,938 | 3,094 | 3,157 | 2,332 | 2,484 | 1,847 | 1,544 | 1,599 | 2,559 |
| Private cars, etc. | 1,798 | 1,944 | 2,034 | 1,423 | 1,503 | 858 | 718 | 755 | 1,487 |
| Cycles and tricycles | 488 | 462 | 418 | 278 | 317 | 306 | 124 | 124 | 309 |

Vehicles for public conveyance:

| Total | 95 | 97 | 98 | 88 | 92 | 92 | 93 | 97 | 105 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buses, coaches, taxis, private hire <br> cars, etc. | 84 | 85 | 90 | 81 | 85 | 85 | 87 | 90 | 99 |  |
| Trolleybuses | 2 | 3 |  |  |  |  |  |  |  |  |
| Tramcars | 10 | 9 | 8 | 7 | 7 | 6 | 6 | 6 | 6 |  |

Goods vehicles:

| Total | 481 | 497 | 492 | 447 | 453 | 455 | 452 | 452 | 477 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Haulage: |  |  |  |  |  |  |  |  |  |
| Petrol, heay oil, etc. | 459 | 473 | 466 | 418 | 423 | 422 | 415 | 411 | 434 |
| Other | 4 | 5 | 6 | 7 | 7 | 7 | 7 | 8 | 8 |
| Agricultural vans and lorries | 12 | 13 | 14 | 18 | 19 | 22 | 24 | 26 | 28 |
| Showmen's special vehides ${ }^{3}$ | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 3 | 3 |
| Local authorities vehides (watering and cleansing) | 1 | 1 | 1 | 1 | 1 | 1 | I | 1 | 1 |
| Tractors for general haulage | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Agricultural tractors and engines | 26 | 29 | 32 | 50 | 66 | 90 | 106 | 118 | 126 |
| Vehicles exempt from duty2: |  |  |  |  |  |  |  |  |  |
| Total | - 50 | 64 | 84 | 47 | 55 | 46 | 51 | 55 | 56 |
| Owned by Government authorities | 34 | 47 | . | . | $\cdots$ | $\cdots$ | . | . | $\cdots$ |
| Other | 17 | 18 | .. | . | .. | . | . | .. |  |

[^109]
### 8.21 New vehicle registrations 1

| Great Britain | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |  |

[^110]Source: Ministry of Transport

### 8.22 Canal traffic originating

Thousand tons

|  | 1937 | 1938 | 19392 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total | 14,358 | 12,952 | 6,307 | 11,005 | 11,241 | 11,043 | 11,315 | 11,047 | 10,060 |
| Coal, coke and patent fuel | 6,803 | 6,158 | 3,196 | 5,234 | 5,272 | 5,450 | 5,411 | 5,381 | 4,983 |
| Liquids in bulk | 1,259 | 1,329 | 576 | 1,254 | 1,353 | 1,563 | 1,616 | 1,814 | 1,491 |
| Other merchandise | 6,297 | 5,465 | 2,536 | 4,517 | 4,617 | 4,031 | 4,288 | 3,852 | 3,585 |

[^111]
### 8.23 Coasting trade

(i) Cargoes of coal: Analysis by areas of discharge


[^112]Source: Ministry of Transport
(ii) Cargoes other than coal: Analysis by areas of discharge


[^113]
## ADDE



The war disrupted trade and trading patterns: Britain was fighting a war against former trading partners (for example, in 1938 Germany provided 3.3 per cent of British imports and took 4.4 per cent of British exports) other trading partners would come under enemy control either directly (such as France, the Netherlands and Malaya) or indirectly (as was the case with Sweden), and enemy action would interfere with the routes to other trading areas (such as North America and Asia) and destroy shipping capacity (tables 9.6-9.7). The war also brought
inflation with export prices rising by 85 per cent between 1938 and 1945 (almost half of the increase occurring between 1939 and 1941) and import prices rising by 98 per cent (with more than half the increase coming in the first two years of the war) (Feinstein 1972:T139). The net result was that between 1938 and 1942 the volume of imports fell by 30 per cent whilst the cost of importing this reduced volume had risen by 16 per cent (and in 1944 Britain was paying 51 per cent more than in 1938 for a volume of imports that was 20 per cent less); exports, meanwhile, were a mere 29 per cent of their 1938 volume in 1943 although the fall in value terms was less steep at 50 per cent (table 9.3).

In 1938 Britain ran a trade deficit in food, drink and tobacco and the war did not aid the situation: in value terms imports of food, drink and tobacco increased by 22 per cent between 1938 and 1943 whilst exports fell by 47 per cent; and the cumulative deficit in these goods for the war years amounted to $£ 2.9$ billion (tables 9.4-9.5). A similar situation prevailed with raw materials: between 1938 and 1943 the value of raw material imports rose by 21 per cent whilst the value of exports, which were dominated by coal, fell by 84 per cent; and the accumulated wartime deficit was $£ 1.7$ billion (tables 9.4-9.5). However, possibly
9. Volume of imports and exports

9.2

Export and import prices

the most worrying aspect of the war from the trade position was the deterioration of the pre-war surplus in manufactures (which stood at $£ 150$ million in 1938) to a wartime deficit (peaking at $£ 245$ million in 1944 and amounting to a cumulative wartime deficit of $£ 640$ million). Although manufacturing exports fell by 45 per cent between 1938 and 1943 the main culprit in this deterioration was the rise in imports by 104 per cent in the same period (this included a rise in the value of iron and steel manufactures of over 300 per cent, a rise in oils
and related manufactures of 255 per cent, and of nonferrous metals by 163 per cent) (tables 9.4-9.5). The silver lining to this particular cloud was that by 1945 a small surplus in manufactures had again emerged.

Given the conditions of the war the trade deficits that were encountered were not unexpected, especially after the state abandoned its ill-conceived export drive of early 1940 (Sayers 1956: 257). This had been launched to help finance the war, and in particular to bolster hard currency reserves, but merely
 served to increase the pressure on the nation's scarce resources. Once a decision was taken that it was not possible to finance the war through maintaining high levels of exports resources were diverted from the export sector to the domestic war effort (in the case of manpower, for example, the 9.5 per cent of the pre-war labour engaged on exports had shrunk to 2 per cent by 1945 (Pollard 1983: 217). Thus, the squeeze on exports was not simply the result of enemy action but also reflected domestic political and economic

## 9. 3 Sources of imports to the United Kingdom


priorities. Likewise domestic economic constraints meant that Britain was forced to rely on imports and their strategic and financial importance meant that, following some initial but rather ad hoc moves, formal import controls were imposed in June 1940 (Pollard 1983: 218). Of all the major combatants of the SecondWorldWar Britain was the most reliant on net imports which at their peak, in 1941, were equal to 17 per cent of national income and which from 1942-45 accounted for about 10 per cent of national income (Harrison 1988: 189).

With whom Britain traded, and their level of trade with individual countries, was largely determined by enemy action and pressure and allied help (particularly help from the USA). Although exports had declined during the war, their geographical distribution in 1945 was not substantially different to what it had been in 1938, the most notable change being the increased importance of Africa (whose share of total British exports increased from 16 per cent to

21 per cent) (table 9.7). The distribution of imports had, however, changed: not surprisingly, imports from Europe collapsed from $£ 308$ million in 1938 to $£ 130$ million in 1945 (with their share of total imports declining from 34 per cent to 12 per cent) whilst imports from North America soared from $£ 199$ million to $£ 527$ million (from 22 per cent to 48 per cent of total imports) (tables 9.6). Although Canada played an important role in the latter (exporting $£ 200$ million worth of goods to Britain in 1945) they were dominated by the USA: the contribution of the USA to British imports peaked in 1943 at $£ 535$ million which represented 43.4 per cent of total imports (tables 9.6-9.7). The most important feature of the wartime trading relationship between Britain and the USA was the introduction of the Lend-lease programme by the American government, although until the end of 1942 imports from the USA paid for in cash exceeded Lendlease supplies (Milward 1984: 68).

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value ( $£$ million) |  |  |  |  |  |  |  |  |
| Imports |  |  |  |  |  |  |  |  |
| Total imports | 920 | 886 | 1,152 | 1.145 | 997 | 1,234 | 1,309 | 1,104 |
| Retained imports | 858 | 840 | 1,126 | 1,132 | 992 | 1,228 | 1,294 | 1,053 |
| Exports. |  |  |  |  |  |  |  |  |
| Exports of United Kingdom produce and manufactures | 471 | 440 | 411 | 365 | 271 | 234 | 266 | 399 |
| Reexports | 62 | 46 | 26 | 13 | 5 | 6 | 15 | 51 |
| Volume index2: $(1938=100)$ |  |  |  |  |  |  |  |  |
| Retained imports: |  |  |  |  |  |  |  |  |
| Total | 100 | 97 | 94 | 82 | 70 | 77 | 80 | 62 |
| Food, drink and tobacco | 100 | 94 | 78 | 72 | 73 | 78 | 74 | 60 |
| Raw material and articles mainly unmanufactured | 100 | 98 | 105 | 62 | 63 | 59 | 61 | 60 |
| Articles wholly or mainly manufactured | 100 | 100 | 112 | 121 | 72 | 94 | 102 | 62 |
| Exports |  |  |  |  |  |  |  |  |
| Total | 100 | 94 | 72 | 56 | 36 | 29 | 31 | 46 |
| Artides wholly or mainly manufactured: Total | 100 | 94 | 76 | 62 | 40 | 31 | 35 | 45 |
| Textiles | 100 | 101 | 80 | 69 | 55 | 36 | 36 | 41 |
| Metals | 100 | 87 | 65 | 47 | 29 | 23 | 29 | 42 |
| Other | 100 | 100 | 91 | 83 | 46 | 41 | 42 | 55 |

[^114]Source: Board of Trade

## 9.5

Value of retained imports
Analysis by classes and groups
Emillion

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Food, drink and tobacco |  |  |  |  |  |  |  |  |
| Total | 417.8 | 3875 | 4123 | 419.4 | 433.7 | 511.0 | 510.4 | 464.1 |
| A Grain and flour | 729 | 54.5 | 93.3 | 89.6 | 53.5 | 66.0 | 64.3 | 76.7 |
| B. Feeding-stuffs for animals | 11.4 | 8.9 | 8.3 | 25 | 0.8 | 0.2 | 1.5 | 29 |
| C. Animals, living for food | 9.2 | 11.0 | 10.9 | 7.1 | 13.1 | 11.4 | 11.6 | 126 |
| D. Meat | 90.1 | 928 | 96.8 | 118.7 | 148.8 | 166.8 | 161.7 | 107.8 |
| E. Dairy produce | 79.3 | 75.3 | 622 | 66.3 | 84.4 | 85.3 | 91.1 | 75.7 |
| F. Fresh fruit and vegetables | 36.3 | 33.8 | 26.8 | 4.4 | 5.4 | 23 | 8.2 | 15.9 |
| G. Beverages and cocoa preparations | 40.4 | 34.9 | 40.3 | 41.1 | 36.3 | 49.9 | 49.3 | 48.7 |
| H. Other food | 55.7 | 63.6 | 64.9 | 71.8 | 70.9 | 87.5 | 90.1 | 720 |
| I. Tobacco | 22.5 | 127 | 8.7 | 17.9 | 20.5 | 41.6 | 326 | 51.8 |
| II. Raw materials and articles mainly unmanufactured |  |  |  |  |  |  |  |  |
| Total | 218.0 | 2165 | 326.3 | 224.7 | 236.1 | 2627 | 278.3 | 279.9 |
| B. Other non-metalliferous mining and quarry products | 4.6 | 5.0 | 7.3 | 6.5 | 7.0 | 10.4 | 10.0 | 7.8 |
| C. Iron ore and scrap | 11.2 | 9.7 | 16.6 | 14.2 | 7.7 | 7.9 | 9.3 | 15.4 |
| D. Non-ferrous metalliferous ores and scrap | 15.4 | 17.3 | 24.4 | 224 | 24.6 | 26.5 | 20.7 | 19.5 |
| E Wood and timber | 426 | 36.9 | 37.7 | 24.8 | 20.4 | 326 | 35.9 | 45.7 |
| F. Raw cotton and cotton waste | 28.3 | 33.0 | 49.8 | 35.8 | 526 | 53.7 | 420 | 46.5 |
| G. Wool, raw and waste, and woollen rags | 30.1 | 31.8 | 625 | 21.9 | 27.4 | 19.0 | 35.7 | 29.2 |
| H. Silk, raw and waste, and artificial silk waste | 20 | 25 | 4.4 | 1.4 | 0.7 | 1.0 | 1.9 | 21 |
| 1. Other textile materials | 9.3 | 11.1 | 18.2 | 8.4 | 10.0 | 10.8 | 10.7 | 11.2 |
| J. Seeds and nuts for oil, oils, fats, resins and gums | 30.0 | 30.4 | 44.4 | 395 | 39.8 | 55.3 | 53.4 | 46.1 |
| K Hides and skins, undressed | 8.7 | 7.7 | 121 | 8.3 | 124 | 10.4 | 11.5 | 14.2 |
| L Papermaking materials | 17.7 | 16.4 | 14.4 | 8.6 | 11.6 | 10.2 | 10.0 | 17.1 |
| M. Rubber | 8.8 | 5.9 | 226 | 21.0 | 9.1 | 13.1 | 24.9 | 10.8 |
| Other Class II | 9.3 | 8.8 | 11.9 | 11.9 | 128 | 11.8 | 123 | 14.3 |
| III. Articles wholly or mainly manufactured |  |  |  |  |  |  |  |  |
| Total | 215.2 | 228.9 | 381.5 | 480.4 | 308.9 | 438.8 | 474.7 | 289.7 |
| B. Pottery, glass, abrasives, etc | 7.1 | 4.9 | 1.3 | 1.3 | 26 | 20 | 0.7 | 0.7 |
| C. Iron and steel and manufactures thereof | 14.6 | 18.5 | 48.1 | 69.0 | 47.0 | 58.9 | 329 | 6.2 |
| D. Non-ferrous metals and manufactures thereof | 31.8 | 36.0 | 58.8 | 56.6 | 60.3 | 83.7 | 65.7 | 16.6 |
| E Cutlery, hardware, implements and instruments | 6.3 | 5.1 | 3.8 | 5.2 | 9.2 | 13.9 | 10.4 | 5.8 |
| F. Electrical goods and apparatus | 3.0 | 27 | 4.1 | 26 | 27 | 8.2 | 23.9 | 187 |
| G. Machinery | 20.3 | 224 | 38.5 | 49.6 | 323 | 40.6 | 39.4 | 18.3 |
| H. Manufactures of wood and timber | 6.1 | 4.9 | 3.9 | 25 | 24 | 6.5 | 85 | 13.7 |
| I. Cotton yams and manufactures | 29 | 2.2 | 28 | 1.6 | 1.3 | 24 | 25 | 1.8 |
| L Manufactures of other textile materials | 4.5 | 6.9 | 16.1 | 4.2 | 5.7 | 4.4 | 10.2 | 7.4 |
| M. Apparel | 7.6 | 5.3 | 1.1 | 0.5 | 0.6 | 0.7 | 5.6 | 4.8 |
| O. Chemicals, drugs, dyes and colours | 13.1 | 15.4 | 16.9 | 15.4 | 18.8 | 220 | 23.7 | 18.6 |
| P. Oils, fats and resins, manufactured | 43.0 | 44.7 | 70.7 | 93.0 | 100.3 | 1525 | 220.4 | 1428 |
| Q. Leather and manufactures thereof | 55 | 7.2 | 8.4 | 3.6 | 4.1 | 6.2 | 4.5 | 4.4 |
| R Paper, cardboard, etc | 14.8 | 15.6 | 16.3 | 5.0 | 4.6 | 4.6 | 6.4 | 11.5 |
| S. Vehides (including locomotives, ships and aircraft) | 4.7 | 8.9 | 46.3 | 106.2 | 5.7 | 16.3 | 7.9 | 5.4 |
| Other Class III | 29.9 | 28.2 | 44.4 | 64.1 | 1.1 .3 | 15.9 | 120 | 13.0 |
| IV. Animals not for food | 26 | 25 | 22 | 0.8 | 29 | 22 | 27 | 3.9 |
| V. Parcel post | 4.3 | 4.0 | 3.8 | 7.1 | 10.7 | 13.1 | 27.6 | 15.1 |


|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

I. Food, drink and tobacco

| Total | 35.9 | 35.7 | 33.4 | 27.8 | 18.4 | 19.0 | 22.9 | 55.7 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |
| A Grain and flour | 1.7 | 1.2 | 0.6 | 0.3 | 0.1 | 0.2 | 1.3 | 20 |
| D. Meat | 1.2 | 1.2 | 0.7 | 0.3 | 0.1 | 0.2 | 0.2 | 0.4 |
| E Dairy produce | 1.1 | 1.1 | 0.9 | 0.2 | 0.1 | 0.3 | 0.6 | 29 |
| G. Beverages and cocoa preparations | 13.8 | 15.9 | 19.6 | 17.0 | 11.5 | 11.0 | 10.7 | 15.2 |
| L. | 4.9 | 5.0 | 4.8 | 5.6 | 4.3 | 5.2 | 5.1 | 121 |
| Tobacco | 13.2 | 11.3 | 6.8 | 4.4 | 23 | 2.1 | 5.0 | 23.1 |

II. Raw materials and articles mainly unmanufactured

| Total | 57.0 | 54.5 | 36.2 | 15.7 | 10.2 | 9.4 | 8.1 | 15.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Coal | 37.4 | 38.3 | 25.3 | 8.0 | 6.0 | 6.4 | 5.0 | 6.6 |
| B. Other non-metalliferous mining and quarry products | 1.1 | 1.2 | 0.8 | 0.6 | 0.5 | 0.3 | 0.3 | 0.7 |
| D. Non-ferrous metalliferous ores and scrap | 23 | 1.6 | 0.2 | 0.1 | - | - | - | - |
| G. Wool, raw and waste, and woollen rags | 6.3 | 4.7 | 3.3 | 28 | 0.9 | 0.2 | 0.2 | 1.7 |
| Seeds and nuts for oil, oils, fats, resins and gums | 29 | 20 | 20 | 0.6 | 0.2 | 0.1 | 0.1 | 1.3 |
| $K$ Hides and skins, undressed | 1.1 | 1.0 | 1.2 | 1.2 | 1.1 | 1.0 | 1.1 | 1.0 |
| L Paper-making materials | 1.2 | 0.9 | 0.3 | 0.2 | - | - | - | 0.2 |
| Other Class II | 4.7 | 4.8 | 3.1 | 22 | 1.5 | 1.4 | 1.4 | 3.6 |

III. Articles wholly or mainly manufactured

| Total | 365.2 | 338.1 | 334.1 | 316.1 | 236.6 | 201.4 | 229.9 | 306.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Coke and manufactured fuel | 3.3 | 4.0 | 22 | 1.2 | 0.8 | 1.1 | 0.4 | 0.5 |
| B. Pottery, glass, abrasives, etc | 9.6 | 9.4 | 11.5 | 135 | 11.4 | 9.0 | 9.5 | 13.0 |
| C. Iron and steel and manufactures thereof | 41.7 | 329 | 31.2 | 19.0 | 9.9 | 6.1 | 8.6 | 20.9 |
| D. Non-ferrous metals and manufactures thereof | 123 | 127 | 124 | 7.6 | 7.0 | 6.7 | 4.7 | 121 |
| E Cutlery, hardware, implements and instruments | 9.0 | 8.7 | 9.4 | 9.1 | 7.9 | 6.7 | 7.7 | 10.0 |
| F. Electrical goods and apparatus | 13.6 | 11.3 | 13.2 | 11.4 | 11.2 | 11.1 | 126 | 13.8 |
| G. Machinery | 57.2 | 47.0 | 36.2 | 30.9 | 29.9 | 27.9 | 40.9 | 46.2 |
| H. Manufactures of wood and timber | 1.2 | 1.1 | 0.8 | 0.5 | 0.4 | 0.2 | 0.2 | 0.5 |
| 1. Cotton yams and manufactures | 49.7 | 49.1 | 49.3 | 44.7 | 40.1 | 34.2 | 37.1 | 427 |
| J. Woollen and worsted yams and manufactures | 26.8 | 26.7 | 28.7 | 29.8 | 25.1 | 18.5 | 15.3 | 21.6 |
| K Silk and artificial silk yams and manufactures | 5.5 | 5.9 | 8.7 | 11.8 | 16.4 | 127 | 16.4 | 17.3 |
| L Manufactures of other textile materials | 10.7 | 11.1 | 124 | 9.6 | 8.9 | 6.3 | 5.2 | 7.1 |
| M. Apparel | 8.5 | 8.3 | 7.5 | 8.1 | 7.7 | 3.4 | 4.7 | 11.2 |
| N. Footwear | 20 | 1.9 | 1.8 | 5.4 | 1.4 | 0.7 | 0.7 | 1.2 |
| O. Chemicals, drugs, dyes and colours | 222 | 227 | 27.6 | 25.0 | 24.0 | 27.9 | 29.4 | 38.2 |
| P. Oils, fats and resins, manufactured | 5.4 | 4.7 | 3.0 | 22 | 0.7 | 0.7 | 1.3 | 3.0 |
| Q. Leather and manufactures thereof | 3.9 | 4.1 | 3.7 | 28 | 3.0 | 1.7 | 1.2 | 1.8 |
| R Paper, cardboard, etc | 6.9 | 6.7 | 9.8 | 7.2 | 5.0 | 4.1 | 4.1 | 5.2 |
| S. Vehides (including locomotives, ships and aircraft) | 45.1 | 40.0 | 31.5 | 35.7 | 9.2 | 8.8 | 13.4 | 20.2 |
| T. Rubber manufactures | 1.6 | 1.5 | 1.9 | 1.3 | 0.8 | 0.3 | 0.3 | 0.7 |
| U. Miscellaneous artides wholly or mainly manufactured | 28.8 | 28.4 | 31.4 | 39.4 | 15.9 | 13.4 | 16.3 | 19.8 |
| IV. Animals not for food | 0.7 | 0.7 | 0.8 | 0.3 | 0.2 | 0.1 | 0.3 | 0.7 |
| V. Parcel post | 120 | 10.5 | 6.7 | 5.5 | 5.8 | 3.6 | 5.2 | 21.0 |

Value of imports
Analysis by source


1. Including protectorates, mandated territories and territories under condominium

Source: Board of Trade
2. Including Austria in 1939 and 1945.
3. Straits Settlements and Dependencies (including Labuan) and

Federated and Unfederated Malay States.

Value of exports of the produce and manufactures of the United Kingdom
Analysis by destination
Emilion


[^115]Source: Board of Trade
2. Including Austria in 1939 and 1945.
3. Straits Settlements and Dependencies (including Labuan) and Federated and Unfederated Malay States.

Quantity of imports
Principal articles of food, drink and tobacco imported

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wheat | Mn.tons |  | 5.3 | 5.8 | 5.4 | 3.5 | 3.3 | 28 | 3.6 |
| Barley | Th. tons | 993.8 | 687.0 | 457.3 | 63.8 |  |  |  | 101.8 |
| Maize | Mn. tons | 29 | 23 | 21 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 |
| Rice | Th. tons | 133.7 | 143.2 | 1913 | 178.6 | 53.4 | 131.1 | 41.9 | 25.2 |
| Peas and beans, not fresh |  | 145.1 | 135.1 | 146.7 | 157.9 | 48.1 | 69.5 | 715 | 66.1 |
| Wheat meal and flour |  | 383.8 | 366.7 | 577.4 | 707.9 | 374.4 | 717.5 | 791.5 | 5428 |
| Feeding-stuffs for animals | Mn.tons | 1.9 | 1.7 | 1.1 | 0.3 | 0.1 | - | 0.1 | 0.2 |
| Cattle, living, for food | Thous. | 646.7 | 705.8 | 560.3 | 287.8 | 547.8 | 409.4 | 401.6 | 447.5 |
| Meat |  |  |  |  |  |  |  |  |  |
| Other than tinned or canned: |  |  |  |  |  |  |  |  |  |
| Veal |  | 17.4 | 17.9 | 11.9 | 9.0 | 5.6 | 13.4 | 16.3 | 14.9 |
| Mutton |  | 825 | 69.0 | 124.2 | 51.0 | 57.3 | 58.3 | 1021 | 111.9 |
| Lamb |  | 274.4 | 270.1 | 291.6 | 2829 | 326.0 | 371.0 | 2828 | 266.0 |
| Bacon and ham |  | 376.6 | 394.8 | 238.6 | 274.2 | 326.0 | 3345 | 399.8 | 2435 |
| Pork and other pig products |  | 70.7 | 60.3 | 68.6 | 93.3 | 108.4 | 225.2 | 389.4 | 201.7 |
| Tinned and canned meat of all descriptions |  | 729 | 1029 | 123.3 | 230.9 | 281.9 | 298.0 | 2135 | 97.4 |
| Poultry and game, dead (including tinned and canned) | " | 23.5 | 21.8 | 11.6 | 10.3 | 13.1 | 10.7 | 120 | 9.7 |
| Dairy products: |  |  |  |  |  |  |  |  |  |
| Butter |  | $475.9$ | $436.8$ | $264.4$ | $218.1$ | $\begin{aligned} & 134.3 \\ & 3157 \end{aligned}$ | $151.6$ | $153.2$ | 190.1 |
| Cheese |  | $\begin{aligned} & 146.4 \\ & 191.0 \end{aligned}$ | $\begin{aligned} & 1423 \\ & 195.4 \end{aligned}$ | $\begin{aligned} & 156.2 \\ & 1027 \end{aligned}$ | 218314 61.3 | $\begin{array}{r} 315.2 \\ 23.3 \end{array}$ | 151.0 15.8 | 153.9 23.1 | 191.2 47.6 |
| Eggs dried Whole |  | 0.3 | 0.1 | 0.4 | 75 | 56.0 | 73.4 | 80.0 | 24.4 |
| Condensed milk |  | 81.7 | 70.0 | 70.4 | 139.7 | 1920 | 137.3 | 93.2 | 65.4 |
| Milk powder |  | 17.8 | 15.1 | 15.8 | 26.6 | 65.0 | 81.1 | 83.0 | 30.0 |
| Fruit, fresh or raw. |  |  |  |  |  |  |  |  |  |
| Apples |  | 353.4 | 234.2 | 920 | 16.2 | 20.6 | 8.0 | 20.1 | 30.3 |
| Bananas |  | 305.0 | 287.6 | 193.1 | 0.1 |  | - |  | 1.1 |
| Oranges |  | 538.3 | 563.3 | 413.1 | 84.2 | 104.7 | 45.3 | 165.7 | 305.9 |
| Other fresh fruit |  | 280.3 | 236.2 | 927 | 10.1 | 1.0 | 21 | 18.9 | 54.0 |
| Nuts used as fruit |  | 70.6 | 59.9 | 35.9 | 4.0 | 4.9 | 29 | 8.9 | 5.4 |
| Vegetables fresh: |  |  |  |  |  |  |  |  |  |
| Potatoes |  | 146.2 | 146.2 | 104.9 | 28.5 | 18.0 | 6.7 | 8.1 | 7.9 |
| Onions |  | 228.6 | 249.3 | 138.8 | 9.9 | 5.0 | 0.1 | 27.9 | 46.2 |
| Tomatoes |  | 143.3 | 1420 | 58.2 | 1.8 |  |  |  | 7.4 |
| Other fresh vegetables |  | 50.5 | 43.9 | 10.3 | 0.8 | 0.7 | 05 | 0.6 | 0.4 |
| Cocoa, raw | * | 131.5 | 128.8 | 120.2 | 148.8 | 164.4 | 1722 | 145.3 | 95.3 |
| Coffee, not kiln dried, roasted or ground |  | 13.9 | 26.3 | 55.4 | 6.1 | 222 | 39.9 | 37.6 | 423 |
| Teal |  | 205.6 | 158.1 | 171.8 | 209.9 | 154.3 | 206.1 | 189.8 | 170.9 |
| Winel | Mn. galls | 15.4 | 16.8 | 14.6 | 1.8 | 0.9 | 1.1 | 1.3 | 3.8 |
| Fish (not of British taking): |  |  |  |  |  |  |  |  |  |
| Fresh or frozen | Th. tons | 81.8 | 97.6 | 163.6 | 144.6 |  |  |  | 229.1 |
| Canned |  | 77.1 | 84.8 | 97.7 | 79.6 | 135.6 | 148.6 | 627 | 38.7 |
| Fruit dried: |  |  |  |  |  |  |  |  |  |
| Currants and raisins | , | 136.0 | 148.2 | 87.4 | 133.2 | 89.2 | 109.4 | 164.8 |  |
| Plums, prunes and prunellos | , | 23.9 | 18.8 | 16.7 | 33.9 | 54.0 | 44.9 | 38.9 | 9.9 |
| Fruit tinned or bottled in syrup |  | 199.9 | 255.1 | 126.3 | 21.6 | 6.6 | 6.1 | 222 | 13.1 |
| Dates |  | 21.9 | 18.0 | 15.1 | 25.1 | 38.0 | 10.4 | 26.7 | 40.3 |
| Edible oils and fats, refined: |  |  |  |  |  |  |  |  |  |
| Lard | " | 720 | 79.6 | 34.7 | 96.6 | 218.5 | 218.4 | 189.2 | 90.7 |
| Other | " | 65.6 | 51.6 | 43.6 | 39.8 | 34.0 | 423 | 50.1 | 19.4 |
| Sugar, unrefined | Mn.tons | 24 | 21 | 1.4 | 1.6 | 0.8 | 1.4 | 1.2 | 1.1 |
| Tobacco, unmanufactured | Mn. lb. | 344.9 | 2115 | 141.4 | 213.7 | 264.9 | 354.1 | 229.9 | 368.8 |

I. Retained imports.

Quantity of imports
Principal raw materials imported

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asbestos, raw and fibre | Th. tons | 50.9 | 54.8 | 87.8 | 50.4 | 66.6 | 53.3 | 69.5 | 66.7 |
| Magnesite |  | 57.1 | 48.5 | 89.0 | 80.3 | 28.6 | 55.9 | 225 | 3.9 |
| Mica, slabs and splittings |  | 1.5 | 1.7 | 2.4 | 0.9 | 22 | 28 | 1.8 | 1.5 |
| Sulphur |  | 131.5 | 160.2 | 217.1 | 293.6 | 125.0 | 268.9 | 197.2 | 198.2 |
| Iron ore, other than manganiferous | Mn. tons | 5.1 | 5.2 | 4.5 | 23 | 1.9 | 1.9 | 22 | 4.1 |
| Iron and steel scrap |  | 0.6 | 0.6 | 0.9 | 0.5 |  |  |  | 0.2 |
| Bauxite | Th. tons | 249.6 | 302.1 | 1124 | 87.2 | 47.8 | 241.8 | 1721 | 1626 |
| Chromium ore (chromite or chrome iron ore) |  | 37.6 | 50.6 | 87.6 | 56.0 | 99.6 | 36.6 | 93.8 | 50.4 |
| Copper ore (including regulus and matte) and precipitate and cement copper; nickel ore, concentrates and matte |  | 29.6 | 34.1 | 327 | 27.7 | 26.5 | 20.3 | 21.8 | 19.4 |
| Cryolite |  | 5.3 | 4.7 | 1.3 | 3.6 | 4.9 | 1.6 | 0.1 | 0.8 |
| Manganese ore | , | 1927 | 325.0 | 247.1 | 314.2 | 421.2 | 444.6 | 315.3 | 314.9 |
| Molybdenum ore |  | 1.9 | 4.9 | 24 | 4.1 | 7.2 | 6.5 | 0.5 | 1.1 |
| Tin ore and concentrates |  | 55.5 | 54.0 | 83.9 | 65.5 | 43.9 | 52.0 | 329 | 44.9 |
| Tungsten (including tin-tungsten ores) |  | 10.9 | 9.9 | 13.4 | 126 | 7.6 | 6.6 | 6.2 | 3.7 |
| Vanadium ores (lead vanadate) |  |  |  |  |  | 26 | 26 | 0.6 | 1.3 |
| Zinc ore and concentrates |  | 157.3 | 177.5 | 226.2 | 2015 | 1427 | 97.1 | 179.0 | 156.6 |
| Timber: |  |  |  |  |  |  |  |  |  |
| Softwoods: |  |  |  |  |  |  |  |  |  |
| Sawn, not further prepared | Mn. standards | 1.5 | 1.2 | 0.7 | 0.5 | 0.3 | 0.5 | 0.4 | 0.7 |
| box-boards | Th. standards | 297.9 | 317.9 | 141.0 | 17.8 | 123 | 39.7 | 54.8 | 56.6 |
|  |  |  |  |  |  |  |  |  |  |
| Hewn Sawn, not further prepared | Mn. cuft | $\begin{array}{r} 4.4 \\ 30.7 \end{array}$ | $\begin{array}{r} 3.2 \\ 27.3 \end{array}$ | $\begin{array}{r} 5.5 \\ 21.4 \end{array}$ | $\begin{array}{r} 4.1 \\ 10.4 \end{array}$ | $\begin{aligned} & 3.5 \\ & 8.7 \end{aligned}$ | $\begin{aligned} & 4.1 \\ & 8.3 \end{aligned}$ | $\begin{array}{r} 4.9 \\ 11.3 \end{array}$ | 4.8 11.4 |
| Pitprops | Th. Standards | 821.7 | 634.1 | 433.2 | 74.9 | 11.4 | 28.3 | 74.4 | 193.5 |
| Sleepers |  | 117.2 | 69.6 | 13.1 | 25.0 | 41.7 | 14.7 | 51.0 | 60.7 |
| Veneers | Th. tons | 123 | 10.9 | 16.6 | 17.6 | 25.4 | 44.6 | 31.5 | 13.8 |
| Cotton, raw (except linters) ${ }^{1}$ | " | 518.3 | 5524 | 627.8 | 364.1 | 525.9 | 440.8 | 360.3 | 385.7 |
| Wool, raw. |  |  |  |  |  |  |  |  |  |
| Sheep's and lambs'। | $\underset{.}{\text { Mn. lb. }}$ | 624.6 | 730.5 | 1,005.3 | $330.3$ | $411.4$ | $269.5$ | $508.5$ | 428.4 |
|  |  |  |  |  |  |  |  |  |  |
| Silk, raw | " | 5.3 | 4.4 | 5.5 | 1.6 | 0.3 | 0.4 | 0.5 | 0.6 |
| Flax (excluding tow or codilla) | Th. tons | $\begin{aligned} & 40.7 \\ & 805 \end{aligned}$ | $\begin{array}{r} 46.2 \\ 1004 \end{array}$ | $17.3$ | $\begin{array}{r} 5.4 \\ 1018 \end{array}$ | $\begin{array}{r} 6.9 \\ 887 \end{array}$ | $\begin{aligned} & 122 \\ & 7 \end{aligned}$ | $\begin{aligned} & 129 \\ & 97 . \end{aligned}$ | 17.7 830 |
| Hemp (exduding tow or codilla) Jute, raw I |  | $\begin{array}{r} 80.5 \\ 160.2 \end{array}$ | $\begin{aligned} & 100.4 \\ & 1420 \end{aligned}$ | $\begin{aligned} & 1529 \\ & 1920 \end{aligned}$ | $\begin{array}{r} 101.8 \\ 94.8 \end{array}$ | $\begin{array}{r} 88.7 \\ 106.1 \end{array}$ | $\begin{array}{r} 70.1 \\ 103.1 \end{array}$ | $\begin{aligned} & 97.3 \\ & 828 \end{aligned}$ | 83.0 86.6 |
| Seeds, nuts and kernels for expressing oil Gums and resins! | Mn.tons <br> Th. tons | $\begin{array}{r} 1.6 \\ 90.6 \end{array}$ | $\begin{array}{r} 1.6 \\ 106.2 \end{array}$ | $\begin{array}{r} 1.6 \\ 96.3 \end{array}$ | $\begin{array}{r} 1.5 \\ 54.9 \end{array}$ | $\begin{array}{r} 1.4 \\ 70.8 \end{array}$ | $\begin{array}{r} 1.6 \\ 82.5 \end{array}$ | $\begin{array}{r} 1.5 \\ 33.1 \end{array}$ | 1.1 67.3 |
| Oils, fats and greases: |  |  |  |  |  |  |  |  |  |
| Tallow, technical |  | 24.3 | 23.8 | 43.2 | 28.6 | 34.7 | 18.7 | 30.4 | 20.9 |
| Whale oil unrefined |  | 225.7 | 251.9 | 2124 | 61.4 | 58.3 | 23.4 | 8.1 | 46.2 |
| Other fish oil, unrefined including liver oil |  | 21.3 | 16.4 | 36.5 | 37.1 | 33.6 | 29.0 | 35.6 | 18.9 |
| Crude petroleum | Mn. galls. | 568.0 | 541.4 | 375.4 | 234.3 | 141.9 | 126.5 | 164.1 | 227.7 |
| Vegetable oils, other than essential | Th. tons | 210.1 | 246.2 | 201.7 | 231.4 | 217.8 | 233.5 | 200.6 | 153.0 |
| Hides and skins, undressed: |  |  |  |  |  |  |  |  |  |
| Cattle hides and caltskins: .. ${ }^{\text {Wen }}$ |  |  |  |  |  |  |  |  |  |
| Wetl | " | 41.3 | 49.9 | 80.5 | 57.1 | 79.5 | 60.6 | 84.8 | 76.6 |
| Dry and dry salted I | , | 19.0 | 23.8 | 27.9 | 224 | 23.1 | 15.3 | 128 | 14.0 |
| Sheep and lamb skins I |  | 17.4 3 | $\begin{array}{r}18.0 \\ \hline\end{array}$ | 25.9 | 10.1 | 14.5 | 124 | 16.0 | 17.0 |
| Fur skins, undressed, except rabbit |  |  |  |  |  |  |  |  |  |
| Rubber, raw, including crepe and latex ${ }^{\text {I }}$ | " | 1320 | 69.2 | 199.8 | 168.0 | 66.5 | 69.5 | 33.9 | 36.4 |
| Synthetic rubber | , |  |  |  | 0.1 | 0.9 | 9.7 | 91.1 | 27.6 |
| Mineral phosphate of lime |  | 4105 | 4625 | 413.5 | 799.2 | 287.3 | 788.8 | 675.8 | 6427 |

[^116]
### 9.11

Quantity of imports
Principal imports of articles wholly or mainly manufactured

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Iron and steel: |  |  |  |  |  |  |  |  |  |
| Pig iron | Th.tons | 395.1 | 354.4 | 676.0 | 971.5 | 356.2 | 361.8 | 285.0 | 107.9 |
| Ferro-alloys: Total |  | 47.6 | 726 | 94.2 | 99.9 | 67.4 | 135.0 | 55.6 | 46.9 |
| Ferro-chromium |  | 10.5 | 14.7 | 19.6 | 27.3 | 17.1 | 28.3 | 11.3 | 3.2 |
| Ferro-manganese refined |  | 28 | 4.3 | 4.4 | 21 | 25 | 23 | 0.1 |  |
| Other ferro-manganese and spiegeleisen |  | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 1.6 | . |  |
| Ferro-silicon |  | 24.6 | 36.3 | 55.2 | 49.0 | 38.3 | 88.4 | 34.6 | 322 |
| Silico-manganese |  | 9.2 | 16.5 | 14.7 | 21.0 | 7.7 | 11.8 | 8.7 | 10.9 |
| Ingots and semi-finished steel: |  |  |  |  |  |  |  |  |  |
| Total |  | 373.5 | 830.4 | 2,0722 | $2,296.0$ | 1,599.0 | 1,463.1 | 998.9 | 116.6 |
| Steel ingots (non-alloy) |  | 226 | 23.5 | 488.2 | 561.5 | 480.4 | 498.1 | 297.9 | 36.4 |
| Steel blooms, billets and slabs (non-alloy) |  | 315.0 | 369.9 | 1,254.3 | 1,3623 | 884.2 | 845.8 | 6935 | 79.7 |
| Sheet bars and tinplate bars (non-alloy) |  | 33.9 | 433.9 | 2626 | 2095 | 25.6 | 28.0 | 1.7 |  |
| Finished steel and wrought iron:Total |  | 459.4 | 509.1 | 795.2 | 761.2 | 4723 | 8345 | 394.2 | 328 |
| Wire rods (non-alloy) |  | 60.0 | 66.3 | 150.6 | 118.2 | 118.3 | 1323 | 90.8 | 17.8 |
| Plates and sheets (uncoated) |  | 71.6 | 88.5 | 196.1 | 180.1 | 24.1 | 319.1 | 136.4 | 1.7 |
| Iron and steel manufacturers |  | 68.7 | 54.8 | 51.5 | 48.7 | 14.5 | 19.9 | 30.5 | 9.2 |
| Aluminium and aluminium alloy ingots, blocks, slabs, billets, etc.l | " | 41.0 | 57.7 | 66.1 | 1327 | 131.6 | 213.0 | 149.7 | 21.1 |
| Copper, unwrought, including rough ${ }^{\text {I }}$ |  | 259.6 | 307.6 | 4728 | 449.4 | 441.0 | 494.8 | 451.5 | 143.7 |
| Lead, unwrought\| |  | 3821 | 334.3 | 3365 | 139.3 | 2355 | 226.5 | 224.9 | 165.4 |
| Magnesium |  | 1.6 | 1.6 | 0.6 | 1.0 | 3.1 | 33.6 | 20.4 | 1.1 |
| Nickel and nickel alloys! |  | 9.2 | 7.7 | 11.1 | 7.3 | 5.4 | 5.0 | 3.5 | 1.3 |
| Zinc or spelter, unwrought |  | 165.0 | 167.3 | 204.6 | 209.8 | 211.7 | 187.6 | 119.3 | 97.1 |
| Watches, complete and complete movements | Millions | 8.1 | 4.8 | 1.8 | 1.0 | 0.5 | 0.6 | 0.9 | 1.2 |
| Wireless apparatus and valves | £million | 0.8 | 1.0 | 0.9 | 0.4 | 0.6 | 3.3 | 16.4 | 123 |
| Other electrical goods and apparatus |  | 24 | 1.8 | 3.3 | 23 | 21 | 4.9 | 75 | 6.4 |
| Machinery: |  |  |  |  |  |  |  |  |  |
| Agricultural | Th. tons | 8.2 | 10.5 | 21.8 | 29.5 | 25.1 | 30.6 | 19.6 | 17.6 |
| Machine tools, new, complete |  | 23.9 | 30.4 | 721 | 77.5 | 41.2 | 395 | 15.0 | 65 |
| Other machinery and parts |  | 85.4 | 67.9 | 33.8 | 19.1 | 18.1 | 47.3 | 1018 | 35.6 |
| Wood and timber manufactures: |  |  |  |  |  |  |  |  |  |
| Plywood | Mn.cu.ft | 10.9 | 8.8 |  | 26 | 27 | 6.3 | 8.2 | 8.4 |
| Other | Emilion | 29 | 23 | 1.2 | 0.6 | 0.6 | 0.7 | 0.9 | 6.8 |
| Cotton yarns and manufactures: |  |  |  |  |  |  |  |  |  |
| Woven piece goods ${ }^{\text {I }}$ | Mn. sq. yds. | 45.7 | 30.3 | 26.5 | 16.3 | 10.2 | 34.2 | 17.4 | 128 |
| Jute manufactures: |  |  |  |  |  |  |  |  |  |
| Piece goods | Th. tons | 55.2 |  |  | 34.1 | 37.2 | 25.8 | 67.0 | 43.3 |
| Sacks and bags |  | 39.6 | 84.1 | 131.5 | 28.5 | 39.0 | 35.7 | 429 | 29.0 |
| Apparel, not of fur: |  |  |  |  |  |  |  |  |  |
| Outer and under garments | £ million | 2.2 | 1.5 | 0.3 | 0.1 | 0.2 | 0.3 | 4.4 | 3.4 |
| Gloves M | Mn. doz prs. | 1.7 | 1.4 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Hosiery | E million | 25 | 1.7 | 0.4 | 0.2 | 0.2 | 0.3 | 1.0 | 0.8 |
| Footwear M | Mn. doz prs. | 1.5 | 1.6 | 1.0 | 0.7 | 0.2 | 0.1 | - | 0.1 |

[^117]Quantity of imports
Principal imports of articles wholly or mainly manufactured
continued

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Superphosphates | Th. tons | 14.4 | 15.4 | - | 30.7 | 73.3 | 134.1 | 60.9 | 70.7 |
| Potassium chloride |  | 89.2 | 119.0 | 77.1 | 87.6 | 110.1 | 144.3 | 213.8 | 165.6 |
| Drugs and medicines | £million | 1.7 | 1.8 | 1.7 | 1.3 | 1.1 | 0.8 | 25 | 3.3 |
| Dyes and dyestuffs (including extracts for tanning) | Th. tons | 53.8 | 75.5 | 926 | 68.7 | 71.3 | 67.6 | 72.5 | 68.5 |
| Essential oils, other than turpentine | " | 21 | 23 | 27 | 1.5 | 1.2 | 0.6 | 1.1 | 1.1 |
| Petroleum refined: |  |  |  |  |  |  |  |  |  |
| Kerosene | Mn. galls. | 206.4 | 208.0 | 2726 | 291.6 | 235.2 | 330.9 | 367.3 | 3421 |
| Motor and other spint |  | 1,474.8 | 1,390.5 | 1,098.5 | 1,435.1 | 1,278.3 | 1,689.1 | 2,921.9 | 2.151 .1 |
| Lubricating oill |  | 103.9 | 97.9 | 150.1 | 1224 | 135.6 | 105.4 | 139.1 | 75.5 |
| Gas oil |  | 157.9 | 181.4 | 204.1 | 2625 | 267.1 | 428.2 | 617.5 | 4820 |
| Fuel oil and diesel oil |  | 687.3 | 574.5 | 926.0 | 1,115.7 | 727.2 | 1,316.2 | 1,334.9 | 1,009.4 |
| Paraffin wax | Th. tons | 40.5 | 43.6 | 67.0 | 56.5 | 59.1 | 37.8 | 28.6 | 33.4 |
| Leather, undressed: |  |  |  |  |  |  |  |  |  |
| Cattle hides and calf hides! |  | 14.8 | 23.5 | 27.7 | 14.3 | 13.7 | 23.4 | 126 | 8.8 |
| Skin leather | , | 4.7 | 5.7 | 5.3 | 23 | 3.1 | 28 | 25 | 4.0 |
| Leather, dressed | " | 4.0 | 4.7 | 3.1 | 0.8 | 0.8 | 0.7 | 0.7 | 0.5 |
| Newsprint in rolls | " | 446.3 | 423.1 | 238.6 | 121.9 | 66.9 | 95.4 | 135.2 | 186.1 |
| Packing and wrapping paper | " | 2020 | 255.7 | 125.5 | 9.9 | 11.3 | 11.2 | 13.7 | 33.4 |
| Boards | " | 360.2 | 379.7 | 275.3 | 54.3 | 61.5 | 30.4 | 420 | 101.8 |
| Other paper | " | 62.2 | 70.2 | 38.8 | 7.4 | 6.2 | 6.5 | 9.3 | 18.0 |
| Motor vehides complete and chassis for motor vehides | Thousands | 10.6 | 6.6 | 10.0 | 25.5 | 0.3 | $-0.31$ | 0.1 | 0.1 |
| Tractors | " | 29 | 5.3 | 6.1 | 11.2 | 7.8 | 6.1 | 6.3 | 24 |
| Rubber tyres and tubes | Millions | 0.5 | 0.6 | 0.2 | 0.3 | 0.5 | 1.7 | 24 | 1.8 |
| Books, printed I | Th. tons | 16.1 | 128 | 4.3 | 26 | 1.9 | 22 | 23 | 26 |
| Starch, not for food | " | 2421 | 200.0 | 201.7 | 80.4 | 56.3 | 39.3 | 24.6 | 31.8 |
| Animals not for food |  |  |  |  |  |  |  |  |  |
| Cows and heifers for breeding | Thousands | 71.6 | 81.0 | 821 | 13.4 | 78.7 | 45.0 | 42.4 | 42.9 |
| Horses and ponies | " | 9.3 | 10.1 | 6.7 | 8.1 | 8.0 | 6.2 | 3.3 | 13.5 |

[^118]9. 2 Quantity of exports of the produce and manufactures of the United Kingdom

Principal articles exported

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food, drink and tobacco |  |  |  |  |  |  |  |  |  |
| Wheat, meal and flour | Th. tons | 106.3 | 80.8 | 14.1 | 5.8 | 25 | 4.0 | 4.6 | 26.9 |
| Beer | Th. bulk barrels | 281.3 | 284.0 | 266.8 | 225.6 | 94.8 | 107.0 | 77.6 | 130.4 |
| Spints, home made | Mn. proof gallons | 9.1 | 10.5 | 124 | 9.5 | 7.1 | 5.7 | 4.7 | 5.3 |
| Fish:Fresh or frozen | Th. tons | 53.8 | 29.6 | 1.3 |  |  |  | - | 0.1 |
| Cured, salted or canned |  | 165.0 | 71.3 | 23.0 | 0.9 | 4.0 | 0.2 |  | 10.1 |
| Sugar, refined, including candy |  | 362.1 | 314.3 | 16.9 | 44.4 | 25.7 | 3.7 | 8.3 | 79.9 |
| Cigarettes | Mn. lb. | 26.5 | 25.1 | 222 | 24.6 | 15.0 | 17.0 | 16.3 | 34.0 |
| Raw materials and articles mainly unmanufactured |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Coal | Mn.tons | 35.9 | 36.9 | 19.6 | 5.1 | 3.6 | 3.6 | 26 | 3.3 |
| Bunker coal! |  | 10.5 | 9.6 | 7.0 | 4.3 | 35 | 3.2 | 24 | 3.1 |
| Wool, raw, sheeps' and lambs': |  |  |  |  |  |  |  |  |  |
| British wool | Mn. lb. | 30.1 | 25.9 | 124 | 20.9 | 5.4 | 0.7 | 1.1 | 11.4 |
| Imported wool treated in United Kingdom |  | 123 | 8.0 | 28 | 0.2 |  |  |  | 29 |
| Wool waste |  | 16.8 | 13.1 | 5.1 | 3.6 | 1.5 | 0.2 | 0.2 | 1.0 |
| Artificial silk waste |  | 19.9 | 37.3 | 17.2 | 20.4 | 6.5 | 6.8 | 65 | 16.3 |
| Oils, vegetable, other than |  |  |  |  |  |  |  |  |  |
| essential | Th. tons | 75.0 | 36.6 | 11.7 | 3.9 | 0.9 | 0.3 | 0.2 | 4.0 |
| Tar and pitch |  | 504.3 | 463.5 | 398.0 | 320 | 77.7 | 820 | 79.0 | 1975 |
| Articles wholly or mainly manufactured |  |  |  |  |  |  |  |  |  |
| Cement |  | 760.1 | 690.1 | 441.5 | 3195 | 186.7 | 167.7 | 323.6 | 593.3 |
| Pig iron and ferro-alloys |  | 100.7 | 77.9 | 25.4 | 20.6 | 5.4 | 5.1 | 3.3 | 34.1 |
| Ingots and semi-finished steel |  | 22.1 | 10.7 | 10.5 | 0.5 | 1.3 | 24 | 0.8 | 22 |
| Finished steel and wrought iron |  | 1,338.3 | 1,138.5 | 8175 | 347.0 | 175.0 | 73.6 | 156.5 | 463.4 |
| Copper and copper manufactures |  | 324 | 28.2 | 20.4 | 20.9 | 9.7 | 5.7 | 5.1 | 19.4 |
| Brass and alloys of copper other than nickel |  | 21.6 | 20.1 | 129 | 9.2 | 8.4 | 6.0 | 5.7 | 13.1 |
| Machinery. |  |  |  |  |  |  |  |  |  |
| Agricultural machinery |  | 8.6 | 7.0 | 6.7 | 3.8 | 3.6 | 4.0 | 5.2 | 15.8 |
| Boilers and boiler house plant |  | 56.0 | 420 | 227 | 21.8 | 15.4 | 123 | 20.0 | 226 |
| Cranes, hoists, etc |  | 19.2 | 16.3 | 6.9 | 5.2 | 4.2 | 4.4 | 5.7 | 8.2 |
| Electrical machinery | - | 44.6 | 33.7 | 29.1 | 25.7 | 23.7 | 28.5 | 57.8 | 56.8 |
| Machine tools, metal-working and parts |  | 24.1 | 27.5 | 11.4 | 7.3 | 20.3 | 127 | 323 | 19.8 |
| Mining machinery | - | 25.6 | 27.1 | 18.9 | 10.7 | 5.4 | 4.4 | 4.3 | 5.2 |
| Prime movers | " | 28.6 | 224 | 16.1 | 9.5 | 65 | 6.9 | 7.0 | 115 |
| Pumps |  | 8.2 | 6.8 | 4.9 | 4.4 | 55 | 3.3 | 3.7 | 4.1 |
| Sewing machines and parts | " | 11.7 | 14.7 | 9.6 | 5.2 | 1.7 | 0.7 | 1.2 | 21 |
| Textile machinery | " | 70.8 | 47.5 | 34.1 | 27.4 | 19.2 | 13.0 | 14.3 | 16.8 |
| Other machinery and parts | " | 151.9 | 114.9 | 85.8 | 64.3 | 51.8 | 45.3 | 40.4 | 605 |
| Cotton yams and manufactures: |  |  |  |  |  |  |  |  |  |
| Cotton yams | $\mathrm{Mn} . \mathrm{lb}$. | 123.0 | 113.7 | 66.7 | 28.9 | 18.8 | 19.2 | 19.6 |  |
| Cotton woven piece goods | Mn. sq. yds. | 1,368.5 | 1,373.2 | 9528 | 764.6 | 467.5 | 359.1 | 415.6 | 423.9 |
| Finished thread for sewing etc | Mn. lb. | 13.5 | 14.3 | 14.6 | 13.6 | 14.2 | 13.3 | 120 | 13.8 |

## Woollen and worsted yarns and

| $\quad$ manufactures: | . | 325 | 33.8 | 28.2 | 16.2 | 11.7 | 8.2 | 5.0 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Wool tops | . | 27.8 | 26.3 | 14.4 | 11.4 | 9.4 | 7.9 | 7.6 |
| Woollen and worsted yams |  |  | 7.9 |  |  |  |  |  |
| Woollen and worsted woven tissue2 | Mn. sq. yds. | 90.4 | 93.3 | 82.1 | 86.2 | 73.0 | 44.2 | 34.2 |

[^119]Quantity of exports of the produce and manufactures of the United Kingdom

## Principal articles exported

continued

|  | Unit | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Articles wholly or mainly manufactured (continued) |  |  |  |  |  |  |  |  |  |
| Artificia silk |  |  |  |  |  |  |  |  |  |
| Yams Tissues | Mn.lb. Mn. sq. yds. | $\begin{array}{r} 8.0 \\ 60.7 \end{array}$ | $\begin{array}{r} 6.9 \\ 728 \end{array}$ | $\begin{aligned} & 15.0 \\ & 83.3 \end{aligned}$ | $\begin{aligned} & 20.2 \\ & 88.1 \end{aligned}$ | $\begin{array}{r} 16.3 \\ 114.3 \end{array}$ | $\begin{aligned} & 13.8 \\ & 75.0 \end{aligned}$ | $\begin{aligned} & 15.6 \\ & 90.2 \end{aligned}$ | $\begin{aligned} & 14.2 \\ & 93.4 \end{aligned}$ |
| Cordage and cordage manufactures of hemp, cotton, etc. | Th. tons | 21.4 | 20.1 | 15.0 | 9.2 | 6.2 | 14.7 | 8.7 | 11.5 |
| Linen and hemp manufactures: |  |  |  |  |  |  |  |  |  |
| Jute manufactures, other than cordage | Th. tons | 74.8 | 62.4 | 39.0 | 23.7 | 13.0 | 8.1 | 6.2 | 10.3 |
| Footwear, wholly or mainly of leather | Th. doz prs. | 374.0 | 335.1 | 263.8 | 454.5 | 181.6 | 89.5 | 82.3 | 218.7 |
| Chemical manufactures and products: Ammonium sulphate | Th. tons | 313.4 | 286.2 | 166.3 | 10.2 | 39.2 | 6.1 | 133.1 | 2523 |
| Copper sulphate |  | 30.9 | 31.8 | 34.4 | 31.3 | 24.8 | 35.5 | 20.3 | 44.3 |
| Disinfectants and insecticides |  | 18.9 | 20.4 | 23.6 | 19.1 | 15.9 | 21.6 | 15.4 | 23.7 |
| Sodium compounds |  | 356.5 | 450.4 | 479.0 | 441.1 | 470.7 | 413.6 | 345.3 | 4426 |
| Dyes and dyestuffs | " | 14.8 | 15.8 | 13.0 | 10.3 | 10.0 | 10.4 | 7.3 | 9.2 |
| Petroleum, refined: |  |  |  |  |  |  |  |  |  |
| Lubricating oil | Mn. galls. | 17.5 | 16.4 | 4.7 | 3.3 | 1.6 | 0.9 | 1.4 | 4.0 |
| Other sorts |  | 116.2 | 99.2 | 13.6 | 23 | 1.0 | 0.2 | 5.9 | 1.1 |
| Soap | Th. tons | 36.7 | 37.3 | 33.2 | 30.3 | 3.4 | 4.0 | 9.0 | 40.4 |
| Paper and board: |  |  |  |  |  |  |  |  |  |
| Printing paper, not coated All other paper and board | Th. tons | $\begin{aligned} & 94.7 \\ & 81.7 \end{aligned}$ | $\begin{aligned} & 70.5 \\ & 85.9 \end{aligned}$ | $\begin{array}{r} 40.4 \\ 108.0 \end{array}$ | $\begin{aligned} & 10.3 \\ & 621 \end{aligned}$ | $\begin{array}{r} 6.1 \\ 31.3 \end{array}$ | $\begin{array}{r} 4.3 \\ 23.4 \end{array}$ | $\begin{array}{r} 4.7 \\ 21.5 \end{array}$ | 8.3 26.9 |
| Railway equipment |  |  |  |  |  |  |  |  |  |
| Carriages, wagons, trucks and parts thereof | * | 56.5 | 27.4 | 9.1 | 11.0 | 6.1 | 7.8 | 8.5 | 11.8 |
| Road vehides: |  |  |  |  |  |  |  |  |  |
| Motor cars, new | Thousands | 44.1 | 43.2 | 20.7 | 3.8 | 0.1 | - | - | 20 |
| Commercial vehides, new. |  |  |  |  |  |  |  |  |  |
| Tractors |  | 7.0 | 4.8 | 28 | 0.3 | 0.1 | 0.5 | 1.8 | 5.5 |
| Others ${ }^{2}$ | - | 3.4 | 23 | 3.9 | 20 | 0.3 | 1.1 | 3.7 | 5.4 |
| Chassis for motor vehides with engines |  | 35.0 | 31.9 | 15.4 | 1.0 | - |  | 0.2 | 1.3 |
| Motor cycles and tri-cars |  | 19.8 | 18.9 | 14.4 | 5.2 | 0.8 | 0.5 | 1.7 | 4.0 |

[^120]

AIthough the war economy was run on the basis of physical planning rather than financial planning the state could not ignore financial matters. Given its increased expenditure on war activities and the adverse movements in the balance of payments the state had to ensure that it could finance both its own expenditure and current account deficit and the external debt.

Information on central government finance is presented in two batches of tables: tables 10.3-10.4 provide information
on revenue and expenditure by financial year (that is, 1939 / 40 represents I April 1939 to 31 March 1940) and tables II.7-II. 8 provide information on a calendar year basis (the sum of the total revenue from table II.6 and the total deficit on the current account in table 11.7 gives total expenditure). The rise in central government expenditure was dramatic: between 1938/39 and 1940/41 it increased from $£ 1$ billion to almost $£ 4$ billion and by 1944/5 was in excess of $£ 6$ billion; on a calendar year basis it increased from $£ 0.8$ billion in 1938 to a peak of $£ 5.6$ billion in 1943 (tables 10.4 and II.7-I I.8). This rise was almost wholly attributable to increases in expenditure on defence which had accounted for less than $£ 4$ in every $£ 10$ of ordinary expenditure in 1938 but accounted for more than $£ 9$ out of every $£ 10$ spent by 1944 (table 10.4). The rapid expansion of expenditure meant that in the early stages of the war the state had to rely on borrowing rather than taxation to finance it: between 1938 and 1940 tax revenue increased from $£ 0.7$ billion to $£ 1.2$ billion whilst borrowing (as measured by the deficit on the current account) exploded from $£ 0.1$ billion to $£ 2.1$ billion (tables II.7-1 I.8; see also table 10.3). Thereafter tax revenue increased more rapidly than borrowing although it did not exceed the latter until 1944. Thus, between 1939 and 1945 the burden of financing government expenditure was roughly shared between tax revenue and increases in the central government current account deficit (tables II.7-11.8).
| 0.1
Total central government expenditure


### 10.2 State borrowing



Income tax was throughout the war the most important source of tax revenue (accounting for over 40 per cent of the total): the standard rate of income tax doubled from 5 shillings in 1938 to ten shillings in 1942 (that is, from 25 per cent to fifty per cent) and the tax base itself was greatly widened through such measures as the Pay-As-You-Earn scheme (introduced in 1943) (Sayers 1956: 112-3; table 11.6). An important new source of tax revenue was the Excess Profits Tax which was an attempt to stop wartime profiteering by taxing profits in excess of peacetime levels; it was initially set at a rate of 60 per cent but was raised in 1940 to 100 per cent. At its peak in 1944 the Excess Profits Tax yielded 15 per cent of the total tax revenue (table II.7).

Government borrowing was dominated by borrowing at home and since the state wished to keep its wartime debt as illiquid as possible, it focused on accumulating long term debt rather than short term (or floating) debt; during the war the ratio of long term to short term debt was approximately two to one (table II.8). The state pursued a policy of 'forced savings' by using direct controls and financial inducements to mop up excess money in the economy and this served not only to provide funding for its expenditure but to also restrain inflationary pressures.
Direct controls were used to limit investment opportunities and to force the clearing banks to make available their idle balances whilst financial inducements included old and new instruments geared towards both the small investor (the National Savings Certificate and Defence Bonds) and to the large investor and firms (the National War Bonds, Savings Bonds and the Tax Reserve Certificate) (Sayers 1956: $163-$ 218; tables 10.3, 10.5 and 11.8 ).

The other serious financing problem facing the British war economy was that of the external debt. Total wartime current account debits amounted to $£ 16.9$ billion whilst credits came to only $£ 6.9$ billion leaving a deficit of $\$ 10$ billion to be financed (Sayers 1956: 499). It was partly financed though the disposal of overseas wealth: by selling overseas assets, accumulating external liabilities and running down gold and hard currency reserves (table 10.8). Britain pursued the policy of selling overseas assets vigorously (indeed, in the first year of the war the pressure on the British economy was so great that assets in North America were sold off cheaply) and by the end of the war $£$ I.I billion of overseas assets had been disposed of (table 10.8). Initially, gold and dollar reserves were also depleted rapidly: within eighteen months they were reduced by $£ 531$ million and driven to the point of exhaustion, although thereafter they recovered and between 1941 and the end of the war they increased by $£ 3.9$ million (Sayers 1956: 438-64; table 10.8).

The combined impact of selling both overseas assets and gold and dollar reserves did not match that of the accumulation of external liabilities: in June 1939 the total British overseas debt had stood at $£ 0.5$ billion but by June 1945 it had increased to $£ 3.4$ billion, of which $£ 2.7$ billion was held in the form of sterling balances (Sayers 1956: 439, 497). Sterling balances were credits of other countries which were held in blocked accounts in London and their wartime accumulation was the way Britain effectively paid for the large volume of wartime supplies from Sterling Area countries. While they helped to finance Britain's war effort their rapid accumulation (by countries such as India, Egypt and Sudan) left the country with a large postwar

burden, not least because interest and service charges would have to be paid on them thus depressing invisible earnings (Milward 1984: 68-9; Pollard 1983: 218-9).

Despite all these measures, however, the pressure on the external account was only relieved by the intervention of the USA which through the Lend-lease arrangements effectively gave Britain a grant for the duration of the war (Allen 1946). The total amount of Lend-lease aid by the USA to the whole of the British Empire came to $\$ 30$ billion, of which the British government received $\$ 27$ billion
( $£ 5$ billion); against this must be set the reciprocal aid that Britain provided to the USA which came to $\$ 5.7$ billion ( $£ 1.2$ billion) which thus yields a net figure of approximately $\$ 21$ billion (Allen 1946: 256-63; tables 10.910.10). Taking into account other aid from the USA and other countries net wartime grants financed 54 per cent of the $£ 10$ billion gap in the external account between total debits and credits, compared to 35 per cent accounted for by the accumulation of overseas debt and 12 per cent by the sale of overseas assets (Howlett 1994b: 18-2 I).

## |0.3 Central Government revenue (Exchequer receipts)

E million

| $1937 / 38$ | $1938 / 39$ | $1939 / 40$ | $1940 / 41$ | $1941 / 42$ | $1942 / 43$ | $1943 / 44$ | $1944 / 45$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Ordinary and self-balancing revenue
Total
Ordinary revenue: Total
Inland Revenue:
Income tax and surtax
Death
Stamp duties
National defence contribution and
excess profits tax

| 948.7 | $1,006.2$ | $1,132.2$ | $1,495.3$ | $2,174.6$ | $2,922.4$ | $3,149.2$ | $3,354.7$ |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 872.6 | 927.3 | $1,049.2$ | $1,408.9$ | 2,0741 | 2,8199 | $3,038.5$ | $3,238.1$ |

Customs and Excise:

Customs
Excise
Motor vehicle duties
Post Office (net receipt)
Post Office fund
Broadcast receiving licences
Miscellaneous ${ }^{2}$
Self-balancing revenue ${ }^{3}$
Other receipts, repayments, etc.

| Total | 267.6 | 190.2 | 808.9 | 2,518.2 | 2,748.1 | 2,852.5 | 2,797.5 | 2,866.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipts under various Acts: |  |  |  |  |  |  |  |  |
| Applicable to interest outside the permanent debt charge ${ }^{4}$ | - | 1.9 | 5.8 | 20.6 | 20.7 | 20.8 | 20.1 | 20.0 |
| Other ${ }^{5}$ | - | 10.0 | - | - | 20.0 |  | - |  |
| Money raised by the creation of debt: |  |  |  |  |  |  |  |  |
| For capital expnditure issues | 17.0 | 22.6 | 22.1 | 11.9 | 9.8 | 9.9 | 9.1 | 6.8 |
| For other issues (net) | 248.9 | 22.6 | 22.1 | 1,939.6 | 2,596.9 | 2,238.3 | 2,224.0 | 2,168.7 |
| Ways and Means advances (net) | - | 14.8 | 33.6 | 429.5 | 22.9 | 93.9 | 1.05.5 | 469.5 |
| Treasury deposits by banks (net) |  |  |  |  |  |  |  |  |
| Repayments in respect of issues under various Acts, etc. ${ }^{6}$ | 1.6 | 2.1 | 2.4 | 5.7 | 10.8 | 17.2 | 18.0 | 19.5 |

1. Included in Post Office self-balancing revenue
2. Including Crown lands and receipts from sundry loans. The figure for 1942/1943 includes $€ 2247$ million Canadian Government contribution.
3. Post Office.
4. Defence Loans Act, 1937, and Overseas Trade Guarantees Act, 1939.
5. Eire (Confirmation of Agreements) Act, 1938 and War Damage Act, 1941.
6. Land Settlement (Facilities) Acts, 1919 and 1921; Tithe Act, 1936; Overseas Trade

Guarantees Act, 1939; North Atlantic Shipping Act, 1934; Defence Loans Acts, 1937 and
1939. Net repayments of bullion advances are also included.

## | 0.4 Central Government expenditure (Exchequer issues)

|  | 1937/38 | 1938/39 | 1939/40 | 1940/41 | 1941/42 | 1942/43 | 1943/44 | 1944/45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ordinary and self-balancing expenditure |  |  |  |  |  |  |  |  |
| Total 9 | 919.9 | 1,018.9 | 1,408.2 | 3,970.7 | 4,876.3 | 5,739.9 | 5,909.3 | 6,179.5 |
| Ordinary expenditure:Total 8 | 843.8 | 940.0 | 1.325.1 | 3.884 .3 | 4,775.7 | 5,637.4 | $5,798.7$ | 6,062.9 |
| Consolidated Fund services 238 | 238.8 | 244.3 | 246.9 | 247.2 | 274.1 | 341.6 | 391.2 | 437.3 |
| Supply services:Total 6 | 605.0 | 695.7 | 1,078.3 | 3,637.1 | 4,501.6 | 5,295.8 | 5.407 .5 | 5,625.6 |
| Defence ${ }^{1}$ | 197.3 | 254.4 | 626.4 | $3,220.0$ | 4,085.0 | 4,840.0 | 4,950.0 | 5,125.0 |
| Civil votes:Total | 394.1 | 427.2 | 437.4 | 402.3 | 400.6 | 437.7 | 438.8 | 474.4 |
| Education and Broadcasting | 59.9 | 61.6 | 63.1 | 63.3 | 65.6 | 77.5 | 79.5 | 85.3 |
| Health, Labour and Insurance | 161.6 | 165.7 | 167.2 | 164.7 | 170.0 | 185.6 | 198.7 | 208.4 |
| Other | 172.6 | 199.9 | 207.1 | 174.3 | 165.0 | 174.6 | 160.6 | 180.7 |
| Customs and Excise | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.0 | 5.6 | 5.8 |
| Inland Revenue | 7.8 | 8.2 | 8.3 | 8.6 | 9.7 | 12.1 | 13.1 | 13.7 |
| Post Office services | - | - | - | - | - | - | - | 6.8 |
| Self-balancing expenditure ${ }^{2}$ | 76.1 | 79.0 | 83.1 | 86.4 | 100.6 | 102.5 | 110.6 | 116.6 |
| Other issues |  |  |  |  |  |  |  |  |
| Total 29 | 296.3 | 177.5 | 532.9 | 42.6 | 46.5 | 35.0 | 37.4 | 41.5 |
| Interest outside the permanent debt chargeIssues to meet capital expenditure | arge ${ }^{3}$ | 1.9 | 5.8 | 20.6 | 20.7 | 20.8 | 20.4 | 20.0 |
|  | 17.0 | 22.6 | 22.1 | 11.9 | 9.8 | 9.9 | 9.1 | 6.8 |
| Issues for the redemption of debt: |  |  |  |  |  |  |  |  |
| Ways and Means advances (net) | 10.4 | - | - | - | - | - | - |  |
| Sinking funds | - | - | 4.2 | - | 12.2 | 0.2 | 5.2 | 10.9 |
| Issues under various Acts |  |  |  |  |  |  |  |  |
| Defence Loans Acts, 1937 and 1939 | 64.9 | 128.1 | 491.8 | - | - | - | - | - |
| Other ${ }^{4}$ | 204.4 | 24.7 | 9.1 | 9.9 | 3.9 | 3.8 | 3.2 | 4.0 |
| Increase in Exchequer balances | -0.3 | 0.1 | -0.1 | 0.2 | -0.2 | 0.4 | -0.4 | - |

1. Including votes of credit from 1939/40

Source:Treasury
2. Post Office and, up to March 1942, broadcasting
3. Issues under the Defence Loans Act, 1937 and the Overseas Trade Guarantees Act, 1939.
4. Finance Act, 1908, Section 9; North Atlantic Shipping Act, 1934-Tithe Act, 1936;

Exchange Equalisation Account Act, 1937; Eire (Confirmation of Agreements) Act, 1938;
Anglo-Turkish (Armaments Credit) Agreement Act, 1938; Czecho-Slovakia (Financial Assistance) Act,
1939; Overseas Trade Guarantees Act, 1939. Bullion advances are also included.

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Advances from the Bank of <br> England |  |  |  |  |  |  |  |  |
| January |  |  |  |  |  |  |  |  |
| February | 1.8 | 0.2 | - | 12.4 | 3.6 | 13.1 | 5.9 |  |
| March | - | - | - | 10.1 | 8.3 | 10.6 | 12.5 | 0.7 |
| April | 1.6 | 1.2 | - | 11.1 | 7.9 | 31.5 | 22.9 | 7.3 |
| May | 2.0 | - | - | 6.9 | 15.8 | 3.9 | 20.5 | 4.8 |
| June | 8.7 | 7.1 | - | 12.4 | 0.6 | 15.9 | 18.4 | 13.3 |
| July | - | - | - | 22.4 | 14.1 | 15.9 | 26.3 |  |
| August | - | - | 4.1 | 4.6 | 5.4 | 4.3 | 4.6 | 4.0 |
| September | 1.0 | 1.0 | 18.6 | 2.5 | 1.6 | 6.8 | 11.9 | 5.6 |
| October | - | 11.9 | 20.4 | 12.8 | 7.1 | 12.1 | 14.4 |  |
| November | 1.8 | - | 10.8 | 20.5 | 29.1 | 13.5 | 10.7 | 4.7 |
| December |  | - | 19.3 | 30.2 | 22.9 | 18.4 | 14.8 | 4.6 |
|  |  |  |  |  | 38.0 | 43.8 | 28.5 | 10.8 |

## Advances from Government

| $\quad$ Departments |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| January | 34.2 | 38.7 | 53.8 | 108.7 | 179.9 | 222.7 | 379.8 | 543.3 |
| February | 34.0 | 38.6 | 49.0 | 165.4 | 193.6 | 228.5 | 324.9 | 541.6 |
| March | 31.9 | 39.9 | 58.6 | 161.8 | 212.9 | 273.5 | 386.1 | 596.7 |
| April | 30.7 | 39.9 | 49.2 | 155.8 | 241.1 | 239.3 | 395.1 | 572.8 |
| May | 39.4 | 43.8 | 48.0 | 137.7 | 244.3 | 237.1 | 463.4 | 560.1 |
| June | 42.5 | 43.9 | 46.2 | 160.3 | 164.5 | 261.1 | 427.4 | 577.5 |
| July | 41.9 | 44.4 | 50.0 | 168.8 | 166.3 | 286.3 | 463.6 | 533.5 |
| August | 44.0 | 46.3 | 61.4 | 190.2 | 200.1 | 330.1 | 447.8 | 569.4 |
| September | 47.5 | 48.8 | 81.0 | 226.7 | 227.3 | 294.0 | 427.8 | 605.4 |
| October | 45.1 | 49.2 | 87.4 | 23.9 | 228.5 | 302.3 | 483.3 | 625.6 |
| November | 44.7 | 56.8 | 78.8 | 202.0 | 259.8 | 369.9 | 515.0 | 640.0 |
| December | 47.1 | 56.6 | 85.9 | 167.0 | 186.0 | 394.3 | 586.2 | 570.2 |


| Treasury bills |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 908.2 | 963.0 | 1,468.3 | 2,184.1 | 2,560.5 | 2,789.0 | 3,117.6 | 3,801.7 |
| February | 827.6 | 878.8 | 1,436.1 | 2,209.7 | 2,535.6 | 2,812.8 | 3,107.6 | 3,751.0 |
| March | 808.6 | 866.5 | 1,434.8 | 2,224.3 | 2,554.6 | 2,800.5 | 3,122.4 | 3,705.5 |
| April | 826.9 | 902.8 | 1,376.1 | 2,224.6 | 2,648.1 | 2,843.1 | 3,192.5 | 3,650.7 |
| May | 846.8 | 942.7 | 1,413.3 | 2,269.7 | 2,729.3 | 2,913.2 | 3,436.2 | 3,633.1 |
| June | 880.5 | 1,004.2 | 1,573.9 | 2,339.6 | 2,629.2 | 3,020.0 | 3,517.3 | 3,743.3 |
| July | 872.0 | 1,058.7 | 1,700.3 | 2,425.2 | 2,646.2 | 3,081.1 | 3,560.4 | 3,980.3 |
| August | 859.7 | 1,083.1 | 1,809.7 | 2,473.2 | 2,655.2 | 3,061.4 | 3,605.1 | 3,984.7 |
| September | 872.5 | 1,150.9 | 1,889.3 | 2,547.7 | 2,688.3 | 3,038.6 | 3,673.7 | 4,021.3 |
| October | 905.8 | 1,240.2 | 1,950.0 | 2,549.5 | 2,709.7 | 3,055.0 | 3,718.9 | 4,020.7 |
| November | 924.6 | 1,312.4 | 2,046.0 | 2,555.1 | 2,751.4 | 3,075.8 | 3,760.9 | 4,036.5 |
| December | 976.6 | 1,437.9 | 2,135.6 | 2,540.0 | 2,809.3 | 3,079.4 | 3,793.7 | 4,171.5 |
| Treasury deposits by banks |  |  |  |  |  |  |  |  |
| January | - | - | - | 361.3 | 797.9 | 1,008.6 | 1,409.6 | 1.816 .8 |
| February | - |  |  | 356.4 | 704.4 | 988.3 | 1,367.4 | 1,775.9 |
| March | - | - |  | 396.1 | 597.6 | 953.9 | 1,425.8 | 1,817.1 |
| April | - | - | - | 468.5 | 480.9 | 1,035.1 | 1,405.6 | 1,952.4 |
| May | - | - | - | 525.9 | 517.1 | 1,020.0 | 1,437.6 | 2,048.9 |
| June | - |  | - | 508.3 | 569.0 | 941.3 | 1,375.2 | 2,075.0 |
| July | - | - | 25.0 | 517.6 | 647.1 | 959.9 | 1,404.4 | $2,135.0$ |
| August | - |  | 30.0 | 511.8 | 689.0 | 1,018.1 | 1,443.8 | 2,148.0 |
| September | - |  | 81.0 | 556.5 | 729.4 | 1,092.3 | 1,921.4 | 2,174.4 |
| October | - |  | 171.3 | 641.3 | 802.6 | 1,210.8 | 1,669.8 | 2,111.3 |
| November | - | - | 244.8 | 683.3 | 863.5 | 1,256.6 | 1,664.1 | 1,904.6 |
| December | - |  | 312.4 | 793.8 | 943.9 | 1,377.9 | 1,780.1 | 1,712.3 |

[^121]
### 10.6 Currency circulation and bank clearings

|  | Currency circulation |  |  |  |  | Bank clearings ${ }^{\prime}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notes and coin outstanding |  |  | Held by banks ${ }^{4}$ | Average estimaqted circulation with the public | Total | London Bankers' Clearing House | Provincial clearing houses |
|  | Total | Notes ${ }^{2}$ | Estimated coin ${ }^{3}$ |  |  |  |  |  |
| 1935 | 549 | 480.2 | 69 | 187.1 | 362 | 126.9 | 122.7 | 4.19 |
| 1936 | 582 | 511.7 | 70 | 188.4 | 394 | 136.4 | 131.9 | 4.53 |
| 1937 | 626 | 552.4 | 74 | 186.1 | 440 | 144.3 | 139.5 | 4.81 |
| 1938 | 635 | 558.3 | 77 | 189.3 | 446 | 133.1 | 129.0 | 4.10 |
| 1939 | 658 | 578.3 | 80 | 199.1 | 459 | 124.3 | 120.1 | 4.16 |
| 1940 | 731 | 644.5 | 86 | 206.2 | 525 | 133.6 | 129.1 | 4.54 |
| 1941 | 823 | 730.4 | 93 | 215.0 | 608 | 144.4 | 139.6 | 4.78 |
| 1942 | 1,004 | 902.7 | 101 | 234.9 | 769 | 163.3 | 158.5 | 4.82 |
| 1943 | 1,184 | 1,072.6 | 112 | 250.4 | 933 | 189.8 | 186.0 | 3.80 |
| 1944 | 1,364 | 1,244.0 | 120 | 259.0 | 1,105 | 207.8 | 204.7 | 3.08 |
| 1945 | 1,519 | 1,391.4 | 128 | 256.0 | 1,263 | 223.6 | 220.2 | 3.35 |

1. Averages of working days. Figures are not strictly comparable throughout, owing in particular to changes in the composition of the clearing while the clearing banks' emergency operations were in force from September 1939.
2. Averages of Wednesdays for Bank of England notes and averages of Saturdays for Scottish and Northern Irish bank notes.
3. Excluding coin other than gold coin in the Bank of England Issue Department.
4. Averages of Wednesdays for Bank of England reserve and London clearing banks' holdings of notes and coin and averages of Saturdays for Scottish and Northern Irish bank holdings of notes and coin. Ten London clearing banks in 1935 and subsequently eleven.

## |0.7 Prices and yields of British Government securities'

|  | Short dated ${ }^{2}$ |  | Medium dated ${ }^{2}$ |  | 31/2\% War Loan |  | 21/2\% Consols |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Price | Yield | Price | Yield | Price | Yield | Price | Yield |
| 1935 | 120.1 | 2.46 | 116.8 | 3.03 | 105.6 | 3.08 | 86.4 | 2.89 |
| 1936 | 118.1 | 2.45 | 117.0 | 2.99 | 106.0 | 3.03 | 85.1 | 2.94 |
| 1937 | 112.9 | 2.92 | 111.4 | 3.27 | 100.9 | 3.42 | 74.1 | 3.38 |
| 1938 | 112.2 | 2.73 | 111.4 | 3.27 | 100.9 | 3.42 | 74.1 | 3.38 |
| 1939 | 107.6 | 3.31 | 104.9 | 3.66 | 93.0 | 3.76 | 67.2 | 3.72 |
| 1940 | 108.0 | 2.81 | 110.7 | 3.26 | 99.3 | 3.52 | 73.5 | 3.40 |
| 1941 | 100.1 | 2.48 | 100.5 | 2.95 | 104.0 | 3.08 | 80.0 | 3.13 |
| 1942 | 100.5 | 2.33 | 101.2 | 2.89 | 104.8 | 2.96 | 82.6 | 3.03 |
| 1943 | 100.3 | 2.45 | 99.7 | 3.02 | 103.8 | 3.04 | 80.7 | 3.10 |
| 1944 | 100.6 | 2.37 | 99.6 | 3.02 | 103.3 | 3.05 | 79.6 | 3.14 |
| 1945 | 100.4 | 2.44 | 100.2 | 2.99 | 103.7 | 2.94 | 85.6 | 2.92 |

[^122]Source: Bank of England
£ million

|  | Total | $1939$ <br> September to December | 1940 | 1941 | 1942 | 1943 | 1944 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 4,198 | 212 | 811 | 820 | 674 | 689 | 663 | 329 |
| Realisation of external capital assets | 1,118 | 58 | 164 | 274 | 227 | 189 | 143 | 63 |
| Increase in external liabilities ${ }^{2}$ | 2,879 | 80 | 179 | 564 | 519 | 647 | 608 | 282 |
| Decrease or increase $(-)$ in gold and U.S. dollar reserves ${ }^{23}$ | 152 | 57 | 474 | -23 | -75 | -150 | -99 | -32 |
| Unallocated | 49 | 17 | -6 | 5 | 3 | 3 | 11 | 16 |

1. Comprising banking liabilities, less assets, and funds held in the United Kingdom as cover for

Source: Treasury overseas currencies, etc.
2. After deduction of outstanding liabilities to provide gold against sterling liabilities and of
liabilities to convert U.S.A. holdings of sterling into dollars on demand.
3. Gold valued at 172 s . 3d. per ounce fine and dollars at $£ \mathrm{I}=\$ 403$.

### 10.9 United States lend-lease aid to the British Empire

$\$$ million

|  | 1941 |  |  | 1943 | 1944 | 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | March | 1942 |  |  | January | July <br> to August |
|  |  | December |  |  |  |  |  |
|  |  |  |  |  |  | to June |  |
| Total aid to British Empire | 30,073 | 1,082 | 4,757 | 9,031 | 10,766 | 3,604 | 833 |
| Ships (sail-away) | 2,107 | 65 | 195 | 1,078 | 540 | 160 | 69 |
| Munitions destined for: |  |  |  |  |  |  |  |
| United Kingdom | 8,648 | 86 | 987 | 2,797 | 3,807 | 822 | 149 |
| Australia | 899 | 8 | 152 | 280 | 225 | 180 | 54 |
| New Zealand | 144 | - | 52 | 58 | 21 | 8 | 5 |
| South Africa | 194 | - | 40 | 88 | 55 | 10 | 1 |
| India | 1,422 | 8 | 230 | 371 | 555 | 227 | 31 |
| Colonies | 325 | 8 | 74 | 129 | 89 | 23 | 2 |
| Other war theatres | 3,902 | 76 | 610 | 1,205 | 1,349 | 493 | 169 |
| Other goods destined for: |  |  |  |  |  |  |  |
| United Kingdom | 7,442 | 576 | 1.404 | 1,782 | 2,405 | 1,094 | 181 |
| Australia | 483 | 6 | 83 | 165 | 167 | 52 | 10 |
| New Zealand | 95 | I | 17 | 35 | 28 | 11 | 3 |
| South Africa | 67 | - | 20 | 29 | 18 | - | - |
| India | 766 | 1 | 87 | 175 | 295 | 157 | 51 |
| Colonies | 235 | 2 | 20 | 32 | 75 | 97 | 9 |
| Services | 3,344 | 245 | 786 | 807 | 1,137 | 270 | 99 |

## 10. 10 United Kingdom reciprocal aid

|  | Total | To 30 June | Year ended 30 June |  | I July to I September 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1943 | 1944 | 1945 |  |
| Total reciprocal aid | 1,896.0 | . | . | .. | .. |
| Aid to United States: |  |  |  |  |  |
| Total | 1,201.2 | 229.7 | 420.9 | 481.6 | 69.0 |
| In United Kingdom: |  |  |  |  |  |
| Military stores | 189.6 | 46.3 | 61.6 | 74.1 | 7.6 |
| Petroleum | 213.6 | 5.4 | 58.9 | 135.1 | 14.2 |
| Food | 19.1 | 0.1 | 8.1 | 8.9 | 2.0 |
| Services | 297.5 | 41.9 | 108.3 | 128.8 | 18.5 |
| Construction | 218.9 | 92.0 | 100.9 | 19.6 | 6.4 |
| In United States: |  |  |  |  |  |
| Military stores | 25.2 | 17.6 | 5.6 | 1.5 | 0.5 |
| Food and materials | 65.2 | 2.3 | 19.4 | 37.1 | 6.4 |
| Miscellaneous and Services | 7.3 | 4.5 | 2.5 | 0.2 | 0.1 |
| In overseas theatres: |  |  |  |  |  |
| Military stores | 72.9 | 16.7 | 29.2 | 24.5 | $2.5{ }^{\prime}$ |
| Petroleum, India | 60.7 | 2.4 | 12.0 | 38.3 | $8.0{ }^{\prime}$ |
| Petroleum, other | 22.5 | - | 6.5 | 13.2 | 2.8 |
| Construction | 8.7 | 0.5 | 7.9 | 0.3 | - |
| Aid to U.S.S.R. | 312.0 | 187.7 | 93.3 | 27.0 | 4.0 |
| Aid to other countries | $382.8{ }^{2}$ | . | . | . | . |



Although economists such as Clark and Kuznets had done extensive work in the 1930s on the concept and measurement of national income the first time they were estimated and used by a sovereign state as part of its budgetary policy was in Britain in 1941. The wartime estimates of national income were primarily the result of the work of two economists, James Meade (who created the necessary double-entry framework for the accounts) and Richard Stone (who filled in many of the numbers) (Meade and Stone 1941; Stone 1951). Given that this was the first attempt to provide such comprehensive national income accounts for the state and given that the work was carried out in the midst of a war it is not surprising that the estimates were rudimentary.

Statistical information was crucial to the running of the British war economy, in terms of monitoring the strength of the armed forces and of labour supply available to industry, in assessing the shipping capacity that was available at any point in time, in providing the basis for departmental bids for centrally allocated materials from steel to hemp, and in helping the central allocators making informed decisions about those bids (Howlett 1993). Probably the most important and innovative statistical development in the war was, however, the development and use of national income statistics (Booth 1989: 67):

The April 194। budget which first utilised these national income estimates was also innovative in that it adopted some of the ideas of the economist John Maynard Keynes. He had argued that the traditional approach taken by the Treasury, which based government expenditure on 'what the taxpayer could bear' and whose main objective was achieving a balanced budget, was wrong (Keynes 1940). He said that in the war the state faced two problems: first, it had no choice but to greatly expand expenditure and therefore the old formula was redundant (relying on 'what the taxpayer could bear' would yield only half the

## | | . National income during the war


necessary expenditure); and second, there were immense potential inflationary pressures within the war economy and the state needed to take pre-emptive action against such latent destabilising forces. Thus, in devising its budgetary policy the state first needed to assess what the potential of the economy was, which involved the calculation of national income and its main components; then, it could calculate
 what level of taxation
and forced savings were necessary to dampen inflationary pressures within the economy, and which would also provide finance for government expenditure. The 1941 budget adopted this approach (utilising the work of Meade and Stone) and at the same time transformed the budget speech from a bland statement of government revenue and expenditure into the comprehensive survey of the economy that we are now used to. It also transformed budgetary policy from a merely reactive tool into a proactive one in that price and income stabilisation became explicit goals, albeit within a simplified framework in which trade and capital were both tightly controlled by the state (Sayers 1956: 108-10; Booth 1989: 68-9).

The wartime trends in nominal national income reveal rapid growth: national income increased by two-thirds between 1939 and 1945, with the most rapid period of growth occurring between 1939 and 1945 (table II.3). There was also a marked shift in the distribution of national expenditure as wartime commitments caused the government sector to expand rapidly: in 1938 the government sector had accounted for an eighth of total national expenditure, by 1940 its share was 42 per cent, in the following year it had reached half the total, and it
peaked at 52 per cent in 1943 (table II.3). The growth of the government sector was at the expense of consumption, whose share of national expenditure fell from 75 per cent in 1938 to 54 per cent in 1943 (expenditure on non-essential household goods, private motoring and clothing were affected most), and investment (there was substantial negative non-war capital formation throughout this period) (tables II.3 and II.9). Given the wartime inflation and the increased size of the working population the performance in real terms was less impressive: real Gross Domestic Product (GDP) at its wartime peak was 25 per cent higher than it had been in 1939 and real GDP per person employed was 15 per cent higher (which almost certainly still overstates the true position since the average hours worked per employee also increased sharply in the first half of the war), and both had fallen back to below their 1940 level by 1945 (Howlett 1994b: 4-7). However, compared to the other major combatant nations the wartime increase in real GDP was still impressive with only the powerhouse of the USA economy (whose real GDP increased by 65 per cent between 1939 and 1944) performing better (Howlett 1994b: 7-10).

National income, depreciation and expenditure

E million

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National income |  |  |  |  |  |  |  |  |
| Wages | 1,735 | 1,835 | 2,100 | 2,400 | 2,655 | 2,800 | 2,815 | 2,810 |
| Salaries | 1,110 | 1,150 | 1,220 | 1,350 | 1,390 | 1,450 | 1,515 | 1,580 |
| Pay and allowances of the Armed Forces | 78 | 124 | 386 | 621 | 805 | 999 | 1,175 | 1,223 |
| Professional earnings | 84 | 82 | 78 | 80 | 86 | 94 | 98 | 105 |
| Income from farming | 60 | 80 | 143 | 191 | 217 | 231 | 208 | 194 |
| Profits of other sole traders and partnerships | 440 | 460 | 490 | 545 | 580 | 585 | 610 | 690 |
| Trading profits of companies | 543 | 715 | 965 | 1,105 | 1,260 | 1,290 | 1,280 | 1,225 |
| Operating profits of public enterprises | 25 | 22 | 22 | 33 | 77 | 91 | 72 | 22 |
| Rent of land and buildings | 395 | 404 | 408 | 404 | 400 | 400 | 401 | 403 |
| Income arising in the United Kingdom | $4,470$ | $4,872$ | $5,812$ | $6,729$ | $7,470$ | $7,940$ | $8,174$ | $8,252$ |
| Net income from abroad | $168$ | $140$ | $140$ | $110$ | $70$ | $60$ | $50$ | 50 |
| National income | 4,638 | 5,012 | 5,952 | 6,839 | 7,540 | 8,000 | 8,224 | 8,302 |
| Provision for depreciation | 450 | 470 | 490 | 490 | 505 | 510 | 515 | 535 |
| National income and provision for depreciation | 5,088 | 5,482 | 6,442 | 7,329 | 8,045 | 8,5103 | 8,739 | 8,837 |
| National expenditure Consumption |  |  |  |  |  |  |  |  |
| Personal expenditure on consumers' <br> $\begin{array}{llllllll}4,304 & 4,422 & 4,661 & 4,933 & 5,210 & 5,291 & 5,562 & 6,027\end{array}$ |  |  |  |  |  |  |  |  |
| Public authorities' current expenditure on goods and services | 724 | 1,198 | 3,100 | 4,239 | 4,715 | 5,054 | 5,076 | 4,217 |
| Additions to assets: Gross domestic capital formation | 770 | (808) | (345) | (87) | (8) | (137) | (44) | (693) |
| Net lending abroad and purchase of assets and financial claims from |  |  |  |  |  |  |  |  |
| overseas | -70 | -250 | -804 | -816 | -663 | -680 | -659 | -875 |
| Gross national expenditure at market prices Subsidies | $\begin{array}{r} 5,728 \\ 37 \end{array}$ | 6,178 47 | $\begin{array}{r} 7,302 \\ 102 \end{array}$ | $\begin{array}{r} 8,443 \\ 176 \end{array}$ | 9,270 209 | $\begin{array}{r} 9,802 \\ 241 \end{array}$ | 10,023 258 | 10,062 302 |
| Less Indirect taxes | -677 | -743 | -962 | -1,290 | -1,434 | -1,533 | -1,542 | -1,527 |
| Gross national expenditure | 5,088 | 5,482 | 6,442 | 7.329 | 8,045 | 8,510 | 8,739 | 8,837 |

I. The figures given for this item are residuals, not direct estimates.

## | 1.4 <br> Revenue account of persons

| £ million |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Receipts |  |  |  |  |  |  |  |  |
| Wages | 1,735 | 1,835 | 2,100 | 2,400 | 2,655 | 2,800 | 2,815 | 2,810 |
| Salaries I,II0 | 1,150 | 1,220 | 1,350 | 1,390 | 1,450 | 1,555 | 1,580 |  |
| Pay and allowances of the Armed Forces | 78 | 124 | 386 | 621 | 805 | 999 | 1,175 | 1,223 |
| Mixed incomes | 584 | 622 | 76 | 816 | 883 | 910 | 916 | 989 |
| Rent, dividends and interest | 1,111 | 1,139 | 1,167 | 1,153 | 1,205 | 1,234 | 1,291 | 1,335 |
| Transfer incomes | 272 | 263 | 266 | 280 | 300 | 32 | 325 | 503 |
| Personal income | 4.890 | 5,133 | 5,850 | 6,620 | 7,238 | 7,718 | 8,068 | 8,440 |
| Payments |  |  |  |  |  |  |  |  |
| Expenditure on consumers' goods and services | 4,304 | 4,422 | 4,661 | 4,933 | 5,210 | 5,291 | 5,562 | 6,027 |
| Direct taxes: |  |  |  |  |  |  |  |  |
| On income | 364 | 382 | 565 | 730 | 875 | 1,108 | 1,254 | 1,301 |
| On capital | 78 | 77 | 79 | 163 | 160 | 151 | 156 | 158 |
| Additions to tax reserves |  | 30 | 63 | 192 | 146 | 71 | 21 | 34 |
| Net saving | 139 | 222 | 482 | 602 | 847 | 1,097 | 1,075 | 920 |
| Personal outlay and saving | 4,890 | 5,133 | 5,850 | 6,620 | 7,238 | 7.718 | 8,068 | 8,440 |

## | . 5 Revenue account of public authorities

$£$ million

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipts |  |  |  |  |  |  |  |  |
| Direct taxes: On income On capital | $\begin{array}{r} 441 \\ 78 \end{array}$ | $\begin{array}{r} 494 \\ 77 \end{array}$ | $\begin{array}{r} 688 \\ 79 \end{array}$ | $\begin{array}{r} 1,048 \\ 163 \end{array}$ | $\begin{array}{r} 1,338 \\ 160 \end{array}$ | $\begin{array}{r} 1,739 \\ 151 \end{array}$ | $\begin{array}{r} 1,937 \\ 156 \end{array}$ | $\begin{array}{r} 1,965 \\ 158 \end{array}$ |
| Indirect taxes | 677 | 743 | 962 | 1,290 | 1,434 | 1,533 | 1,542 | 1,527 |
| Miscellaneous income from property Less Debt interest | $\begin{array}{r} 54 \\ -291 \end{array}$ | $\begin{array}{r} 53 \\ -302 \end{array}$ | $\begin{array}{r} 49 \\ -314 \end{array}$ | $\begin{array}{r} 66 \\ -342 \end{array}$ | $\begin{array}{r} 113 \\ -397 \end{array}$ | $\begin{array}{r} 132 \\ -453 \end{array}$ | $\begin{gathered} 118 \\ -511 \end{gathered}$ | 70 -555 |
| Revenue | 959 | 1,065 | 1,464 | 2,225 | 2,648 | 3,102 | 3,242 | 3,165 |
| Payments <br> Expenditure on goods and services Subsidies Transfers to: Revenue account of persons Private capital account |  |  |  |  |  |  |  |  |
|  | 724 37 | 1,198 47 | 3,100 102 | 4,239 176 | 4,715 209 | 5.054 241 | $\begin{array}{r} 5,076 \\ 258 \end{array}$ | 4.217 302 |
|  | 272 | $\begin{array}{r} 263 \\ 12 \end{array}$ | $\begin{array}{r} 266 \\ 52 \end{array}$ | $\begin{aligned} & 280 \\ & 263 \end{aligned}$ | $\begin{aligned} & 300 \\ & 221 \end{aligned}$ | $\begin{aligned} & 325 \\ & 190 \end{aligned}$ | $\begin{aligned} & 356 \\ & 117 \end{aligned}$ | 503 170 |
| Surplus on current account | -81 | -455 | -2,056 | -2,733 | -2,797 | -2,708 | -2,565 | -2,027 |
| Current expenditure and surplus | 959 | 1,065 | 1,464 | 2,225 | 2,648 | 3,102 | 3,242 | 3,165 |

## | 1.6 <br> Combined capital account

| £ million |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Receipts |  |  |  |  |  |  |  |  |
| Net saving by: |  |  |  |  |  |  |  |  |
| Persons Companies | 139 170 | 222 175 | 482 175 | $\begin{aligned} & 602 \\ & 175 \end{aligned}$ | 847 215 | $\begin{array}{r} 1,097 \\ 235 \end{array}$ | $\begin{array}{r} 1,075 \\ 235 \end{array}$ | 920 245 |
| Public authorities | -81 | -455 | -2,056 | -2,733 | -2,797 | -2,708 | -2,565 | -2,027 |
| Additions to tax reserves by: |  |  |  |  |  |  |  |  |
| Persons Companies | $\begin{array}{r} 5 \\ 10 \end{array}$ | $\begin{array}{r} 30 \\ 104 \end{array}$ | $\begin{array}{r} 63 \\ 335 \end{array}$ | $\begin{aligned} & 199 \\ & 282 \end{aligned}$ | $\begin{aligned} & 146 \\ & 208 \end{aligned}$ | $\begin{aligned} & 71 \\ & 62 \end{aligned}$ | $\begin{array}{r} 21 \\ -13 \end{array}$ | 34 -59 |
| Provision for depreciation by: 360 |  |  |  |  |  |  |  |  |
| Enterprises <br> Public authorities | $\begin{array}{r} 360 \\ 90 \end{array}$ | $\begin{array}{r} 385 \\ 85 \end{array}$ | 410 80 | 415 75 | $\begin{array}{r} 425 \\ 80 \end{array}$ | $\begin{array}{r} 430 \\ 80 \end{array}$ | $\begin{array}{r} 435 \\ 80 \end{array}$ | 450 85 |
| Transfers from public authorities | 7 | 12 | 52 | 263 | 221 | 190 | 117 | 170 |
| Total sums set aside | 700 | 558 | -459 | -729 | -655 | -543 | -615 | -182 |
| Payments (870 (808) (137) (893) |  |  |  |  |  |  |  |  |
| Gross capital formation at home(l) | 770 | (808) | (345) | (87) | (8) | (137) | (44) | (693) |
| Net lending abroad and purchase of assets and financial claims from overseas | -70 | -250 | -804 | -816 | -663 | -680 | -659 | 875 |
| Gross capital formation at home and abroad | 700 | 558 | -459 | -729 | -655 | -543 | -615 | -182 |

[^123]
## | 1.7 <br> Central government revenue

£ million

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Direct taxes |  |  |  |  |  |  |  |  |
| Income tax and surtax | 371 | 410 | 551 | 741 | 921 | 1,184 | 1,353 | 1,426 |
| National defence contribution | 15 | 28 | 24 | 23 | 27 | 33 | 35 | 34 |
| Excess profits tax |  |  | 44 | 211 | 318 | 453 | 482 | 440 |
| Death duties | 78 | 77 | 79 | 88 | 94 | 97 | 107 | 119 |
| War damage premiums | . | - | - | 75 | 66 | 54 | 49 | 39 |
| Miscellaneous | - | - | 8 | 5 | - | -2 | -3 | -4 |
| Total | 464 | 515 | 706 | 1,143 | 1,426 | 1,819 | 2,023 | 2,054 |
| Indirect taxes |  |  |  |  |  |  |  |  |
| Customs and excise duties | 337 | 382 | 474 | 676 | 851 | 992 | 1,088 | 1,092 |
| Motor vehicle duties | 35 | 34 | 37 | 38 | 32 | 27 | 28 | 35 |
| Stamp duties | 21 | 19 | 14 | 14 | 16 | 17 | 17 | 23 |
| Post Office surplus | 11 | 8 | 19 | 25 | 31 | 36 | 39 | 37 |
| War risks insurance premiums | - | 14 | 124 | 239 | 199 | 152 | 58 | 14 |
| Miscellaneous | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 10 |
| Total | 412 | 465 | 676 | 1,000 | 1,137 | 1,233 | 1,239 | 1,211 |
| Total tax revenue | 876 | 980 | 1,382 | 2,143 | 2,563 | 3,052 | 3,262 | 3,265 |
| Income from property |  |  |  |  |  |  |  |  |
| Miscellaneous | 20 | 22 | 18 -242 | 33 | 79 -328 | 93 -386 | 80 -445 | 33 -492 |
| Less National Debt interest | -223 | -231 | -242 | -271 | -328 | -386 | -445 | -492 |
| Total revenue | 673 | 771 | 1,158 | 1,905 | 2,314 | 2,759 | 2,897 | 2,806 |

## ||. 8 The finance of the central government deficit on current account

| £ million |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Public borrowing at home |  |  |  |  |  |  |  |  |
| Small savings | 4 | 62 | 466 | 602 | 600 | 719 | 702 | 668 |
| Other public issues (net) | 73 | 10 | 567 | 1,031 | 1,047 | 1,059 | 896 | 1,176 |
| Floating debt | -179 |  |  | 903 | 476 | 1,017 | 1,081 | 557 |
| Tax reserve certificates | - |  | - | 17 | 453 | 177 | 113 | 41 |
| Total | $-102$ | 352 | 1,550 | 2,553 | 2,576 | 2,972 | 2,792 | 2,442 |
| Finance through government agencies |  |  |  |  |  |  |  |  |
| Extra-budgetary receipts, etc. | 254 | 185 | 598 | 217 | 210 | -100 | -60 | 298 |
| Less Sinking funds | -11 | -14 | -12 | -17 | -13 | -15 | -16 | -16 |
| Total | 243 | 171 | 586 | 200 | 197 | 115 | -76 | 314 |
| Gifts and loans from abroad |  |  |  |  |  |  |  |  |
| Canadian Government interest-free loan | - | - | - | - | 157 | -4 | $-13$ | -14 |
| Reconstruction Finance Corporation Loan | - | - | - | 87 | 4 | -7 | -11 | -10 |
| Credit granted by the United States Government as part of the Lend-Lease settlement | - | - | - | . | - | . | - | 161 |
| Total | - | - | - | 87 | 161 | -11 | -24 | 137 |
| Less Lending and net capital formation | -33 | -33 | -21 | $-18$ | -25 | - 20 | - 20 | -134 |
| Total deficit on current account | 108 | 490 | 2,115 | 2,882 | 2,909 | 2,826 | 2,672 | 2,131 |

## 11.9 <br> Personal expenditure on consumers' goods and services <br> (i) at current market prices

| Emillion |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| Food | 1,305 | 1,350 | 1,400 | 1,454 | 1,506 | 1.441 | 1,532 | 1,583 |
| Alcoholic beverages | 285 | 310 | 376 | 464 | 543 | 625 | 665 | 689 |
| Tobacco | 177 | 204 | 260 | 317 | 415 | 492 | 509 | 564 |
| Rent, rates and water charges | 491 | 510 | 519 | 515 | 509 | 511 | 516 | 534 |
| Fuel and light | 197 | 200 | 224 | 240 | 242 | 238 | 246 | 267 |
| Durable household goods | 234 | 223 | 212 | 197 | 174 | 141 | 127 | 172 |
| Other household goods | 54 | 56 | 59 | 57 | 53 | 52 | 55 | 56 |
| Clothing | 446 | 458 | 496 | 452 | 487 | 429 | 494 | 514 |
| Books, newspapers and magazines | 64 | 63 | 48 | 68 | 73 | 79 | 85 | 91 |
| Private motoring | 127 | 114 | 48 | 41 | 23 | 11 | 11 | 37 |
| Travel | 163 | 156 | 147 | 175 | 206 | 220 | 223 | 255 |
| Communication services | 29 | 29 | 32 | 37 | 39 | 48 | 54 | 52 |
| Entertainments | . 64 | 61 | 61 | 87 | 118 | 140 | 149 | 161 |
| Other services | 483 | 473 | 477 | 480 | 452 | 439 | 449 | 509 |
| Other goods | 177 | 181 | 187 | 189 | 184 | 190 | 201 | 229 |
| Income in kind of the armed forces | 17 | 29 | 81 | 135 | 146 | 185 | 206 | 204 |
| Less Foreign tourists' expenditure in the United Kingdom | -43 | -35 | $-10$ | -15 | -30 | -70 | -125 | -60 |
|  |  | 4,382 | 4,631 | 4,893 | 5,140 | 5,171 | 5,397 | 5,857 |
| Personal expenditure abroad | 34 | 40 | 30 | 40 | 70 | 120 | 165 | 170 |
| Total | 4,304 | 4,422 | 4,661 | 4,933 | 5,210 | 5,291 | 5,562 | 6,027 |

Source: Central Statistical Office
(ii) re-valued at 1938 prices

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food | 1,305 | 1,310 | 1,145 | 1,082 | 1,114 | 1,076 | 1,137 | 1,154 |
| Alcoholic beverages | 285 | 296 | 276 | 288 | 267 | 269 | 274 | 297 |
| Tobacco | 177 | 182 | 178 | 196 | 206 | 204 | 205 | 225 |
| Rent, rates and water charges | 491 | 504 | 508 | 502 | 497 | 498 | 503 | 506 |
| Fuel and light | 197 | 199 | 203 | 205 | 199 | 187 | 193 | 197 |
| Durable household goods | 234 | 219 | 164 | 115 | 81 | 67 | 60 | 82 |
| Other household goods | 54 | 55 | 52 | 48 | 42 | 40 | 40 | 40 |
| Clothing | 446 | 444 | 372 | 275 | 273 | 247 | 275 | 279 |
| Books, newspapers and magazines | 64 | 63 | 59 | 61 | 63 | 67 | 73 | 77 |
| Private motoring | 127 | 113 | 38 | 30 | 17 | 8 | 8 | 25 |
| Travel | 163 | 156 | 137 | 155 | 181 | 193 | 196 | 224 |
| Communication services | 29 | 29 | 27 | 27 | 31 | 37 | 42 | 40 |
| Entertainments | 64 | 61 | 53 | 75 | 87 | 89 | 90 | 94 |
| Other services | 483 | 467 | 432 | 411 | 373 | 350 | 343 | 369 |
| Other goods | 177 | 177 | 162 | 131 | 109 | 110 | 113 | 120 |
| Income in kind of the armed forces | 17 | 28 | 66 | 97 | 105 | 135 | 151 | 147 |
| Less Foreign tourists' expenditure in the United Kingdom | -43 | -34 | -8 | -11 | -21 | -48 | -84 | -39 |
| Personal expenditure in the United Kingdom | 4,270 | 4,269 | 3,864 | 3,687 | 3,624 | 3,529 | 3,619 | 3,837 |
| Personal expenditure abroad | 34 | 38 | 24 | 28 | 45 | 73 | 92 | 85 |
| Total | 4,304 | 4,307 | 3,888 | 3,715 | 3,669 | 3,602 | 3,711 | 3,922 |


evolved a series of measures, including food subsidies and rationing, to try and minimise the effects of these pressures.

The increased demand from the armed forces for men and, from the munitions industries, for labour, was the cause of the rise in wages: the increase in the weekly wages of all manual workers in all industries and services in the first year of the war ( 13.8 per cent) exceeded the total increase over the previous five years; over the whole period of the war wages rose by almost 50 per cent, although the increase was most rapid between 1939 and 1941, and after 1942 the annual increase in weekly wages never exceeded five per cent (Department of Employment and Productivity 1971:53). The pressure in the labour market can be further illustrated by conditions in the key industry of engineering where the minimum rates for skilled workers increased by 42-45 per cent from 1938 to 1945 whilst those for labourers increased by 57-60 per cent (Inman 1957: 341).

Changes in wage rates, however, do not tell the whole story of the wartime remuneration of manual workers because the war also brought many changes in work practices: more overtime was worked; working at
12. Average weekly earnings during wartime (at July of each year)


WAGES AND PRICES

### 2.2 The cost of living index


weekends became more common, as did night shift work; there was an extension of schemes based on payment-by results in some industries; and the composition of both the workforce (in terms of gender and of skill differentiation) and industrial structure changed. In the engineering and allied industries sector (which formed the core of the munitions industries), for example, the number of firms using a two shift pattern of work had increased from less than one sixth in January 1941 to a third in December 1942 and those using three shifts had increased from 2 per cent to six per cent; also, the general trend was for the proportion of workers being paid at skilled and unskilled rates to fall whilst those being paid at semi-skilled rates rose (overall in these industries the proportion of workers paid at semi-skilled rates increased from 31 per cent in June 1940 to 38 per cent by June 1943); and examples of the increased employment of women included marine engineering (where the proportion of women employed increased from 2 per cent in 1938 to 16 per cent in 1944), motor vehicles, cycle and aircraft manufacture and repair ( 10 per cent to 37 per cent), and electrical cables, apparatus, etc. ( 4 I per cent to 6 I per cent); finally, the percentage of all male wage-earners paid under a payment-by-results scheme increased from 18 per cent in 1938 to 24 per cent in 1947 (Inman 1957: 79-80, 424; Department of Employment and Productivity 1971: 157).

The impact of such changes is better captured by changes in average earnings rather than wages. Average weekly male earnings in industry displayed a similar, if more
pronounced, trend to wages: between 1938 and 1945 they increased by 76 per cent (from 69 shillings to 121 shillings) with the most rapid increases coming in the early years of the war (by July 1941 they had already increased by 44 per cent) (table 12.3). Female average earnings followed a different pattern with the most rapid rises occurring between 1941 and 1943, which reflected the later timing of female industrial mobilisation and subsequent tightening of the female labour supply (table 12.3). Although female average earnings increased more rapidly during the war than male average earnings, this did little to erode the wide gender differential and in 1945 the average male worker still earned twice as much as the average female worker; the situation is slightly better if the changes in average hours worked is taken into account because the average amount of hours worked per week by female workers increased less rapidly than that of male workers, and thus on the basis of average earnings per hour female eamings increased from 52 per cent of male earnings in 1938 to 60 per cent of male earnings in 1945 (table 12.3-12.4).

The cost of living index measures the cost of maintaining a fixed standard of living in working class families (in effect, the change in cost to such a family over time of buying a fixed basket of goods). Sharp rises in the cost of living index often lead to increased wage demands and can therefore offer a crude indicator of potential wage inflation pressure. Thus, the state could help to moderate wartime wage inflation by manipulating the cost of living index. This it did through the use of price controls and the subsidising

of key items in the cost of living index; rationing also helped to reduce wage pressure. The impact of the actions taken by the state were dramatic both on prices and on the cost of living index itself, with sharp rises in the period 1939-4। (of 18 per cent in the latter) followed by much more moderate increases between 1941 and 1945 (indeed the monthly cost of living index was virtually stable
between April 1941 and the end of the war) (Department of Employment and Productivity 1971: 170; tables 12.612.9). The explicit manipulation of the cost of living index by the state was an important reason why the tightening of the labour market in the second half of the war was matched, somewhat paradoxically, by falling rates of wage increases.

### 12.3 Average weekly earnings in manufacturing and certain other industries

|  | All operatives |  | Men (aged 21 and over) |  |  | Youths and boys |  |  | Women (aged 18 and over |  |  | Girls |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Earnings | Percentage increase over 1938 | Earnings |  | Percentage increase over 1938 | Earning |  | Percentage increase over 1938 | Earnin |  | Percentage increase over 1938 | Earnings | Percentage increase over 1938 |
| 1938 October | $\begin{array}{rr} \text { s. } & d . \\ 53 & 3 \end{array}$ | - | $\begin{array}{r} 5 . \\ 69 \end{array}$ | $\begin{gathered} \text { d. } \end{gathered}$ | - | $\begin{gathered} 5 . \\ 26 \end{gathered}$ | d. | - | $32$ | $\begin{aligned} & \mathrm{d} \\ & 6 \end{aligned}$ | - | $\begin{array}{cc} s . & d . \\ 18 & 6 \end{array}$ | - |
| 1940 July | 692 | 30 | 89 | 0 | 29 | 35 | 1 | 35 | 38 | 11 | 20 | 224 | 21 |
| 1941 July | $75 \quad 10$ | 42 | 99 | 5 | 44 | 41 | 1 | 61 | 43 | 11 | 35 | 250 | 35 |
| 1942 January | $77 \quad 9$ | 46 | 102 | 0 | 48 | 42 | 6 | 63 | 47 | 6 | 46 | 2610 | 45 |
| July | $85 \quad 2$ | 60 | 111 | 5 | 61 | 46 | 2 | 77 | 54 | 2 | 67 | $30 \quad 3$ | 64 |
| 1943 January | 8711 | 65 | 113 | 9 | 65 | 45 | 1 | 73 | 58 | 6 | 80 | 32 1 | 73 |
| July | $93 \quad 7$ | 76 | 121 | 3 | 76 | 47 | 2 | 81 | 62 | 2 | 91 | 3310 | 83 |
| 1944 January | 957 | 79 | 123 | 8 | 79 | 4610 | 10 | 80 | 63 | 9 | 96 | $34 \quad 3$ | 85 |
| July | 968 | 82 | 124 | 4 | 80 | 47 | 4 | 81 | 64 | 3 | 98 | 3411 | 89 |
| 1945 January | $93 \quad 9$ | 76 | 119 | 3 | 73 | 44 | 1 | 69 | 63 | 2 | 94 | 338 | 82 |
| July | 961 | 80 | 121 | 4 | 76 | 45 | 6 | 74 | 63 | 2 | 94 | 35 I | 90 |

1. The figures represent the average earnings including bonus, overtime, etc., and before

Source: Ministry of Labour
deduction of income-tax or insurance contributions, in one week in the months indicated.
and National Service
Administrative and clerical workers and other salaried persons have been excluded.

## | 2.4

Average weekly hours worked'

|  | All operatives | Men <br> (aged 21 and over) | Youths and boys | Women <br> (aged 18 and over) | Girls |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1938 October | 46.5 | 47.7 | 46.2 | 43.5 | 44.6 |
| 1943 July | 50.0 | 52.9 | 48.0 | 45.9 | 45.1 |
| 1944 January $\quad$ July | 49.2 | 52.0 | 47.1 | 45.2 | 44.6 |
| 1945 January | 48.6 | 51.2 | 46.7 | 44.6 | 44.2 |
| $\quad$ July | 47.0 | 49.4 | 45.2 | 43.1 | 43.0 |

[^124]National Service

## 12.5

Average weekly earnings in certain industries ${ }^{1}$

|  | Chemicals, explosives, paints and oils | Metals, engineering and shipbuilding |  | Textiles |  | Clothing ${ }^{2}$ |  | Food, drink and tobacco |  | Building and contracting |  | Transport storage etc. ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men aged 21 and over | s. d. | s. | d. | 5. | d. | s. | d. | s. |  | 5. |  | s. |  |
| 1938 October | 693 | 75 | 0 | 57 | 3 | 64 | 3 | 65 | 0 | 66 | 0 | 70 | 0 |
| 1940 July | 87 9 | 102 | 5 | 75 | 10 | 71 | 10 | 76 | 4 | 84 | 11 | 85 | 2 |
| 1941 July | $98 \quad 5$ | 112 | 2 | 81 | 6 | 83 | 7 | $87^{\circ}$ | 4 | 97 | 1 | 92 | 2 |
| 1942 January | 1002 | 119 | 2 | 84 | 6 | 85 | 0 | 88 | 3 | 84 | 2 | 92 | 10 |
| July | 10711 | 128 | 1 | 90 | 5 | 91 | 4 | 93 | 1 | 102 | 0 | 99 | । |
| 1943 January | 1109 | 131 | 6 | 93 | 5 | 95 | 0 | 96 | 9 | 94 | 8 | 99 | 9 |
| July | 1163 | 138 | 3 | 96 | 11 | 98 | 9 | 101 | 8 | 108 | 4 | 104 | 2 |
| 1944 January | 1202 | 141 | 10 | 97 | 8 | 101 | 2 | 104 | 0 | 101 | 6 | 108 | 3 |
| July | 1205 | 139 | I | 101 | 10 | 105 | 3 | 106 | 6 | 107 | 11 | 114 | 3 |
| 1945 January | 1180 | 131 | 2 | 100 | 4 | 106 | 5 | 106 | 7 | 104 | 5 | 110 | 10 |
| July | $122 \quad 10$ | 133 | 0 | 104 | 7 | 110 | 8 | 110 | 4 | 111 | 4 | 114 | 10 |
| Women aged 18 and over |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1938 October | 328 | 33 | 4 | 31 | 9 | 32 | 9 | 32 | 11 |  |  | 34 | 11 |
| 1940 July | $37 \quad 3$ | 43 | 10 | 40 | 5 | 36 |  | 35 | 4 | . |  | 43 | 6 |
| 1941 July | 4411 | 48 | 1 | 42 | 0 | 41 | 2 | 40 | 3 | . |  | 59 | 6 |
| 1942 January | 482 | 53 | 7 | 43 | 4 | 41 | 2 | 41 | 6 | 46 |  | 60 | 7 |
| July | 565 | 60 | 7 | 48 | 5 | 47 | I | 45 | 11 | 51 | 8 | 67 | 5 |
| 1943 January | 614 | 66 | 5 | 50 | 3 | 48 | 4 | 47 | 11 | 52 | 5 | 67 | 2 |
| July | $63 \quad 7$ | 69 | 10 | 52 | 11 | 50 | 3 | 50 | 10 | 61 | 5 | 71 | 5 |
| 1944 January | 653 | 71 | 8 | 53 | 8 | 50 | 10 | 53 | 1 | 60 | 4 | 74 | 8 |
| July | 64 11 | 71 | 0 | 55 | 7 | 53 | 4 | 53 | 11 | 61 | 11 | 79 | । |
| 1945 January | 62 I | 70 | 4 | 53 | 9 | 53 | 0 | 54 | 8 | 59 | 6 | 78 | 7 |
| July | 6210 | 69 | । | 58 | 2 | 55 | 7 | 56 | 7 | 60 | 5 | 81 | 7 |

1. See footnotel to Table 12.3.

Source: Ministry of Labour and National Service
2. Including laundries and dry cleaning.
3. Excluding railways.

### 12.6 Wage rates and cost of living

|  | Index of weekly wage rates' | Working-class cost of living index |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | included in index | Food | Clothing | Fuel and light | Rent and rates |
|  | I September $1939=100$ | $\text { July } 1914$ $=100$ | I September $1939=100$ |  | ember 193 | $=100$ |  |
| 1935 | 91-92 | 143 | 92 | 91 | 90 | 93 | 97 |
| 1936 | 94 | 147 | 95 | 94 | 91 | 96 | 98 |
| 1937 | 97 | 154 | 99 | 101 | 97 | 98 | 98 |
| 1938 | 99-100 | 156 | 101 | 102 | 100 | 99 | 99 |
| 1939 | 101 | 158 | 102 | 102 | 103 | 101 | 100 |
| 1940 | 111-112 | 184 | 119 | 119 | 137 | 115 | 101 |
| 1941 | 121-122 | 199 | 128 | 122 | 177 | 125 | 101 |
| 1942 | 130 | 200 | 129 | 117 | 192 | 129 | 101 |
| 1943 | 135-136 | 199 | 128 | 120 | 169 | 134 | 101 |
| 1944 | 142-143 | 201 | 130 | 122 | 166 | 141 | 101 |
| 1945 | 149-150 | 203 | 131 | 123 | 167 | 149 | 102 |

[^125]
## |2.7 Agricultural price indices'

| England and Wales | $1936-1938=100$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| All products <br> Cereals and farm crops <br> Live stock and live stock products ${ }^{2}$ <br> Fruit,vegetables and glass house produce | $\begin{array}{r} 102 \\ 93 \\ 104 \\ 111 \end{array}$ | $\begin{array}{r} 103 \\ 99 \\ 106 \\ 941 \end{array}$ | $\begin{aligned} & 143 \\ & 138 \\ & 143 \\ & 153 \end{aligned}$ | $\begin{aligned} & 172 \\ & 169 \\ & 161 \\ & 239 \end{aligned}$ | $\begin{aligned} & 183 \\ & 199 \\ & 177 \\ & 198 \end{aligned}$ | $\begin{aligned} & 186 \\ & 195 \\ & 178 \\ & 215 \end{aligned}$ | $\begin{aligned} & 190 \\ & 192 \\ & 184 \\ & 215 \end{aligned}$ | $\begin{aligned} & 196 \\ & 198 \\ & 192 \\ & 204 \end{aligned}$ |
| Wheat ${ }^{3}$ Barley Oats | $\begin{array}{r} 100 \\ 90 \\ 99 \end{array}$ | $\begin{array}{r} 104 \\ 113 \\ 99 \end{array}$ | $\begin{aligned} & 128 \\ & 194 \\ & 189 \end{aligned}$ | $\begin{aligned} & 149 \\ & 270 \\ & 198 \end{aligned}$ | $\begin{aligned} & 164 \\ & 381 \\ & 204 \end{aligned}$ | $\begin{aligned} & 182 \\ & 293 \\ & 213 \end{aligned}$ | $\begin{aligned} & 195 \\ & 254 \\ & 221 \end{aligned}$ | $\begin{aligned} & 202 \\ & 242 \\ & 220 \end{aligned}$ |
| Potatoes ${ }^{4}$ <br> Sugar beet Hops | $\begin{array}{r} 79 \\ 109 \\ 100 \end{array}$ | $\begin{array}{r} 75 \\ 118 \\ 104 \end{array}$ | $\begin{array}{r} 98 \\ 154 \\ 133 \end{array}$ | $\begin{aligned} & 129 \\ & 161 \\ & 169 \end{aligned}$ | $\begin{aligned} & 134 \\ & 204 \\ & 198 \end{aligned}$ | $\begin{aligned} & 136 \\ & 201 \\ & 205 \end{aligned}$ | $\begin{aligned} & 137 \\ & 192 \\ & 227 \end{aligned}$ | $\begin{aligned} & 143 \\ & 211 \\ & 241 \end{aligned}$ |
| Fruit: <br> Total <br> Dessert and cooking apples <br> Pears <br> Plums <br> Cherries <br> Blackcurrants <br> Gooseberries <br> Strawberries <br> Raspberries | 126 128 111 153 123 125 129 109 123 | 82 83 87 63 90 91 89 98 96 | 140 162 166 90 136 151 156 135 149 | 249 229 623 253 445 150 92 210 86 | 192 222 300 138 205 129 207 159 111 | 191 229 344 152 205 138 185 165 121 | 200 228 314 150 211 195 220 156 130 | $\begin{aligned} & 183 \\ & 188 \\ & 302 \\ & 168 \\ & 173 \\ & 140 \\ & 198 \\ & 170 \\ & 130 \end{aligned}$ |
| Vegetables: <br> Total <br> Carrots <br> Onions <br> Cabbage <br> Cauliflower and broccoli <br> Brussels sprouts <br> Peas <br> Beans | $\begin{array}{r} 100 \\ 129 \\ 128 \\ 94 \\ 93 \\ 92 \\ 96 \\ 122 \end{array}$ | $\begin{array}{r} 101 \\ 121 \\ 169 \\ 100 \\ 101 \\ 93 \\ 102 \\ 92 \end{array}$ | $\begin{aligned} & 150 \\ & 197 \\ & 795 \\ & 142 \\ & 148 \\ & 149 \\ & 133 \\ & 107 \end{aligned}$ | $\begin{aligned} & 208 \\ & 159 \\ & 546 \\ & 219 \\ & 200 \\ & 195 \\ & 218 \\ & 197 \end{aligned}$ | 207 140 506 148 247 265 182 227 | $\begin{aligned} & 239 \\ & 162 \\ & 466 \\ & 225 \\ & 173 \\ & 170 \\ & 375 \\ & 368 \end{aligned}$ | $\begin{aligned} & 235 \\ & 204 \\ & 381 \\ & 207 \\ & 151 \\ & 183 \\ & 340 \\ & 444 \end{aligned}$ | $\begin{aligned} & 229 \\ & 208 \\ & 448 \\ & 225 \\ & 151 \\ & 172 \\ & 337 \\ & 274 \end{aligned}$ |
| Glasshouse produce ${ }^{5}$ | 101 | 101 | 194 | 303 | 190 | 195 | 187 | 182 |
| Hay. Clover Meadow | $\begin{aligned} & 93 \\ & 99 \end{aligned}$ | $\begin{aligned} & 108 \\ & 134 \end{aligned}$ | $\begin{aligned} & 151 \\ & 184 \end{aligned}$ | $\begin{aligned} & 193 \\ & 241 \end{aligned}$ | $\begin{aligned} & 225 \\ & 283 \end{aligned}$ | $\begin{aligned} & 229 \\ & 286 \end{aligned}$ | $\begin{aligned} & 230 \\ & 287 \end{aligned}$ | 230 289 |
| Fat cattle <br> Fat cows <br> Fat sheep <br> Fat ewes Fat lambs Bacon pigs Pork pigs Sows | $\begin{array}{r} 106 \\ 108 \\ 86 \\ 93 \\ 87 \\ 102 \\ 104 \\ 108 \end{array}$ | $\begin{array}{r} 108 \\ 113 \\ 95 \\ 97 \\ 95 \\ 106 \\ 108 \\ 118 \end{array}$ | 136 145 128 153 120 153 141 174 | 141 153 138 165 129 162 143 169 | $\begin{aligned} & 152 \\ & 152 \\ & 150 \\ & 165 \\ & 141 \\ & 187 \\ & 154 \\ & 169 \end{aligned}$ | $\begin{aligned} & 157 \\ & 148 \\ & 155 \\ & 165 \\ & 143 \\ & 189 \\ & 155 \\ & 169 \end{aligned}$ | $\begin{aligned} & 160 \\ & 161 \\ & 161 \\ & 165 \\ & 149 \\ & 188 \\ & 155 \\ & 169 \end{aligned}$ | $\begin{aligned} & 164 \\ & 166 \\ & 171 \\ & 173 \\ & 160 \\ & 195 \\ & 159 \\ & 169 \end{aligned}$ |
| Fowls Ducks | $\begin{aligned} & 105 \\ & 101 \end{aligned}$ | $\begin{aligned} & 107 \\ & 104 \end{aligned}$ | $\begin{aligned} & 138 \\ & 137 \end{aligned}$ | $\begin{aligned} & 170 \\ & 171 \end{aligned}$ | $\begin{aligned} & 185 \\ & 211 \end{aligned}$ | $\begin{aligned} & 185 \\ & 208 \end{aligned}$ | $\begin{aligned} & 173 \\ & 167 \end{aligned}$ | 185 201 |
| Eggs <br> Milk Butter Cheese | $\begin{aligned} & 104 \\ & 107 \\ & 106 \\ & 102 \end{aligned}$ | 106 107 108 101 | $\begin{aligned} & 162 \\ & 141 \\ & 122 \\ & 156 \end{aligned}$ | $\begin{aligned} & 194 \\ & 166 \\ & 122 \\ & 161 \end{aligned}$ | $\begin{aligned} & 212 \\ & 184 \\ & 122 \\ & 195 \end{aligned}$ | $\begin{aligned} & 207 \\ & 187 \\ & 127 \\ & 185 \end{aligned}$ | $\begin{aligned} & 207 \\ & 197 \\ & 125 \\ & 191 \end{aligned}$ | $\begin{aligned} & 212 \\ & 202 \\ & 127 \end{aligned}$ |
| Wool | 75 | 91 | 116 | 135 | 153 | 152 | 152 | 152 |

[^126]Source: Ministry of Agriculture

Stock and fertilizer price indices

England and Wales

|  | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock' |  |  |  |  |  |  |  |  |
| Dairy cows | 106 | 108 | 131 | 172 | 188 | 185 | 181 | 180 |
| Store cattle | 106 | 109 | 128 | 148 | 159 | 163 | 169 | 167 |
| Store sheep | 88 | 93 | 108 | 129 | 147 | 155 | 168 | 181 |
| Store pigs | 107 | 119 | 115 | 141 | 158 | 184 | 214 | 170 |
| Fertilizers |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |
| Sodium nitrate | 102 | 102 | 133 | 138 | 137 | 138 | 138 | 138 |
| Nitro-chalk" | 101 | 103 | 132 | 137 | 137 | 137 | 137 | 137 |
| Ammonium sulphate | 101 | 101 | 125 | 130 | 130 | 130 | 130 | 130 |
| Superphosphate | 102 | 102 | 128 | 133 | 133 | 133 | 133 | 133 |
| Basic slag | 101 | 102 | 145 | 153 | 149 | 150 | 151 | 151 |
| Ground rock phosphate | 100 | 99 | 105 | 110 | 117 | 117 | 117 | 117 |

1. Base $1936-1938=100$

Source: Ministry of Agriculture and Fisheries
2. Base $1937-1938=100$
3. Taking into account Exchequer payments.

## 12.9 <br> Wholesale prices (Annual averages)

|  |  |  |  | ial material | and manufactu |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | tobacco | Total (including fuel) | Basic materials' | Intermediate products' | Manufactured articles ${ }^{1}$ | materials ${ }^{2}$ |
| 1935 | 87.7 | 89.2 | 87.1 | 95.0 | 83.9 | 84.7 | 90.1 |
| 1936 | 93.0 | 94.2 | 92.4 | 106.5 | 89.3 | 87.6 | 92.9 |
| 1937 | 107.2 | 105.1 | 108.2 | 132.4 | 104.2 | 99.3 | 100.1 |
| 1938 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1939 | 101.4 | 100.0 | 101.9 | 107.4 | 101.9 | 99.3 | 100.7 |
| 1940 | 134.6 | 136.4 | 133.7 | 158.6 | 138.7 | 119.3 | 117.0 |
| 1941 | 150.5 | 150.2 | 150.6 | 179.5 | 158.0 | 132.3 | 133.9 |
| 1942 | 157.1 | 161.1 | 154.6 | 181.8 | 161.9 | 135.8 | 139.2 |
| 1943 | 160.4 | 164.4 | 158.3 | 187.2 | 163.9 | 138.2 | 143.8 |
| 1944 | 163.7 | 162.4 | 164.5 | 198.3 | 167.5 | 141.5 | 147.3 |
| 1945 | 166.7 | 162.5 | 168.8 | 202.2 | 173.0 | 143.5 | 151.4 |

[^127]
## BIBLIOGRAPHY

HSWW denotes that the title is part of the official History of the Second World War.

Place of publication is London unless otherwise stated.

Allen, R.G.D.1946. Mutual aid between the U.S. and the British Empire, 1941-45. Joumal of the Royal Statistical Society 109: 243-71.

Allen, G.C. 195 I. The concentration of production policy. In Chester 1951:168-76.

Behrens, C.B.A. 1955. Merchant shipping and the demands of war. HSWW.

Booth, A. 1989. British economic policy 1931-49: was there a Keynesian revolution? Hemel Hempstead.

Calder, A. 1969. The people's war.

Chester D.N. (ed.) 1951. Lessons of the British war economy. Cambridge.

Court, W.H.B. 195I. Coal. HSWW.

Department of Employment and Productivity. 1971. British labour statistics: historical abstract, 1886-1968.

Duncan Hall, H. 1955. North American Supplies. HSWW.

Duncan Hall, H. and Wrigley, C.C. 1956. Studies in overseas supplies. HSWW.

Feinstein, C.H. 1972. National income, expenditure and output of the United Kingdom, 1855-1965. Cambridge.

Ferguson, S. and Fitzgerald, H. 1954. Studies in the social services. HSWW.

Floud, R and McCloskey, D. (eds.) 1994. The economic history of Britain since 1700. Volume 3: 1939-1992. 2nd edn. Cambridge.

Ford, P. 1951. The allocation of timber. In Chester 1951: 144-53.

Hammond, R.J. I95I. Food. Volume I: the growth of policy. HSWW.

Hancock, W.K and Gowing, M.M. 1949. The British war economy. HSWW.

Hannah, L. 1979. Electricity before nationalisation.

Hargreaves, E.L. and Gowing, M.M. I952. Civil industry and trade. HSWW.

Harris, J. 1992. War and social history: Britain and the Home Front during the Second World War. Contemporary European History I: 17-35.

Harrison, M. 1988. Resource mobilization for World War II: the U.S.A., U.K., U.S.S.R, and Germany, 1938-1945. Economic History Review 41: I71-92.

Harrison, M. 1990. A volume index of the total munitions output of the United Kingdom, 1939-44. Economic History Review 43: 657-66.

Harrison, M. and Gatrell, P. 1993. The Russian and Soviet economies in two world wars: a comparative view. Economic History Review 46: 425-52.

Hornby, W. 1958. Factories and plant. HSWW.

House, F. H. 1965. Timber at war.

Howlett, P. 1993. New light through old windows: a new perspective on the British economy in the Second World War. Journal of Contemporary History 28: 361-79.

Howlett, P. 1994a. Resource allocation in wartime Britain: the case of steel, 1939-45. Journal of Contemporary History 29: 523-44.

Howlett, P. 1994b. The wartime economy, 1939-1945. In Floud and McCloskey 1994: 1-31.

Hurstfield, J. 1953. The Control of Raw Materials. HSWW.

Ince, G. 1946. The mobilization of manpower in Great Britain for the Second World War. Manchester School of Economic and Social Studies 14: 17-52

Inman, P. 1957. Labour in the munitions industries. HSWW.

Johnson, P. 1994. The welfare state. In Floud and McCloskey 1994: 284-317.

Keynes, J.M. 1940. How to pay for the war.

Kohan, C.M. 1952. Works and buildings. HSWW.

Meade, J.E. and Stone, R. 194I. The construction of tables of national income, expenditure, savings and investment. Economic Journal 51: 216-33.

Meiggs, R. 1949. Home timber production, 1939-1945.

Milward, A.S. 1977. War, economy and society. Harmondsworth.

Milward, A.S. 1984. The economic effects of the Two World Wars on Britain. 2nd edn. Houndmills.

Murray, K.A.H. 1955. Agriculture. HSWW.

Overy, RJ. 1988. Mobilization for total war in Germany 1939-4 I. English Historical Review 103:613-39.

Paynton-Smith, D.J. I97I. Oil: a study of war-time policy. HSWW.

Pollard, S. 1983. The development of the British economy. 3rd edn.

Postan, M.M. 1952. British war production. HSWW.

Reddaway, W.B. 1951. Rationing. In Chester 1951: 182-99.

Robinson, E.A.G. 1951. The overall allocation of resources. In Chester 1951: 34-57.

Savage, C.I. 1957. Inland transport. HSWW.

Sayers, R.S. 1956. Financial policy, 1939-1945. HSWW.

Smithies, E. 1982. Crime in wartime.

Stevenson, J. 1984. British society 1914-45.
Stone, R. 1951. The use and development of national income and expenditure estimates. In Chester 1951: 83101.

Supple, B. 1987. The history of the British coal industry, Volume 4: 1913-1946: the political economy of decline. Oxford.

Titmuss, R.M. 1950. Problems of social policy. HSWW.

Wiles, P. J.D. 1952. Pre-war and war-time controls. In Worswick and Ady 1952: 125-58.

Williams, H.T. 1954. Changes in the productivity of labour in British agriculture. Joumal of the Proceedings of the Agricultural Economics Society 10: 332-47.

Worswick, G.D.N. and Ady, P. H. (eds.). 1952. The British economy 1945-50. Oxford.

## DEFINITIONS AND NOTES

The purpose of this section is to supplement the footnotes given in each table and to make it possible to interpret the statistics more fully. The notes and definitions in this section are arranged in the same order as the tables. Certain definitions of general application throughout the Digest are also given in the Introductory Notes on page $v$.

## I. POPULATION AND VITAL STATISTICS

## POPULATION

I.3- For 1939 all figures for the population of the United
I. 5 Kingdom refer to the population actually in the country (resident population): they exclude members of the armed forces serving overseas and merchant seamen at sea. The number so excluded is estimated at about a quarter of a million at June 1939.

The figures for total population include from 1940 all members of the armed forces and merchant navy whether at home or overseas.

## VITAL STATISTICS

### 1.6 Births

Figures for England and Wales relate to births occurring during the year; those for Scotland and Northern Ireland relate to the number of births registered in each year.

Birth rates have been calculated as follows:-
(a) For 1939 by relating birth registrations (occurrences in the case of England and Wales) to the resident population, that is excluding members of the armed forces overseas and merchant seamen at sea.
(b) From 1940 by relating birth registrations (occurrences in the case of England and Wales) to the total population, including members of the armed forces overseas and merchant seamen at sea.

## I.7 Reproduction rates

Reproduction rates are an indication of the extent to which the female population of child-bearing age is being replaced by births. A rate of I represents
exact replacement. In the "gross" rate no allowance is made for the losses due to death before completion of the child-bearing period. The "effective" and "net" rates both make provision for such losses but while the "effective" rate used for England and Wales assumes a continued improvement in mortality, the "net" rate used for Scotland is based on the mortality experienced in the year of calculation.

## I. 8 Infantile mortality

For England and Wales the rates of deaths of infants under one year of age are based on live births occurring in the several periods to which the deaths in the age groups comprising the first year of life relate. For Scotland and Northern Ireland the rates are based on live births registered in the year in which the deaths took place.

### 1.9 Deaths

The figures relate to the number of deaths registered during the year, the normal time lag between occurrence and registration being a matter of days only.

The figures for male deaths refer to civilians only for England and Wales and Scotland from 3rd
September 1939 and for Northern Ireland from 1941.

The figures for female deaths refer to civilians only for England and Wales and Scotland from Ist June 1941 and for Northern Ireland from January 194|

## 2. SOCIAL CONDITIONS

## PUBLIC HEALTH

## 2.3, Deaths by cause and age

2.4 The figures are tabulated according to the Fifth Revision of the International List of Causes of Death from 1940 for England and Wales and Northern Ireland and from 1941 for Scotland. The figures for 1939 (and 1940 in the case of Scotland) are tabulated according to the Fourth Revision of the International List. The figures in brackets following each cause of death are the reference numbers to that particular cause in the Fifth Revision of the International List.

### 2.5 Notifications of infectious diseases

The figures for the years 1939 to 1943 for England and Wales incorporate such corrections as were reported on the weekly card returns and correspond with the numbers published in the quarterly and annual reports of the Registrar General. Those for 1944 and 1945 show the corrected number of notifications, incorporating revisions of diagnosis, either by the notifying medical practitioner or by the medical superintendent of the infections diseases hospital.

The term "formal notifications" as applied to cases of tuberculosis in England and Wales and Scotland covers new cases notified under the Public Health (Tuberculosis) Regulations, 1930. The figures exclude transfers between areas so far as they could be ascertained, duplicate notifications and a few cases brought to the notice of Medical Officers of Health otherwise than by formal notification under the regulations.

### 2.6 Venereal disease

The table shows the number of cases of venereal disease dealt with at civilian treatment centres in Great Britain and includes cases from the Services. The totals of all cases comprise cases under treatment or observation on Ist January of each year, cases removed from the register during any previous year which returned during the year in question for treatment of the same infection, new cases and cases dealt with for the first time during the year in question and known to have received treatment for the same infection or to have been under observation at other centres or Service hospitals.

In the number of new infections with syphilis are included cases of syphilis primary, secondary, latent in the first year of infection, all later stages and congenital. New infections with gonorroea include cases at first year of infection and at later stages.

## NATIONAL INSURANCE

## 2.7, National health insurance and pensions

2.9 The various enactments relating to national health insurance, widows', orphans' and old age contributory pensions and old age noncontributory pensions were consolidated in the National Health Insurance Act, 1936, the Widows', Orphans' and Old Age Pensions Act, 1936 and the Old Age Pensions Act, 1936 respectively. Similar legislation applies to Northern Ireland.

Persons insured for health and pensions comprised broadly the following classes:-
(a) Persons employed under contract of service by way of manual labour or (if non-manually employed) remunerated at a rate not exceeding $£ 250$ per annum up to 4th January 1942 and $£ 420$ thereafter. Seamen on foreign going British ships are included.

There are numerous exceptions in so far as national health insurance is concerned, the most numerous being civil servants, many employees of local authorities, railway companies and other statutory companies or undertakings, teachers covered by the Teachers Superannuation Acts, etc. Most of these excepted categories were, however, insured for pensions.
(b) Certain classes of persons not employed under contract of service, for example, outworkers, manual labour contractors, share fishermen and taxi drivers plying for hire with vehicles obtained under contract of bailment.
(c) Soldiers, sailors and airmen.
(d) Persons employed in certain classes of war occupation abroad.
(e) Voluntary contributors.

### 2.8 Unemployment insurance

Persons insured against unemployment under the Unemployment Insurance Acts were broadly the categories indicated at (a) and (d) on previous page for national health and pensions insurance with the following exclusions: (i) private domestic servants, (ii) female professional sick nurses and (iii) from 1942 persons engaged as a result of the war in employment for less than 30 hours a week

## JUSTICE AND CRIME

2.11- It is necessary to preface these tables with the
2.18 warning that differences exist in varying degree between the legal and judicial systems of England and Wales, Scotland and Northern Ireland which make it impossible to collate the statistics on a completely comparable basis. The differences between the systems of England and Wales and Scotland are the most pronounced.

## Classification of offences

In all the relevant tables in this section offences are analysed under three broad headings. For England and Wales and Northern Ireland these are:
(a) indictable offences,
(b) non-indictable offences, and
(c) offences against Defence Regulations;
for Scotland they are:
(a) crimes,
(b) miscellaneous offences, and
(c) offences against war legislation.

Generally speaking these groups are broadly comparable.

The first two groups represent a division of criminal offences according to the nature of the proceedings in which the accused persons are tried. Thus, the procedure at Courts of Assize and Quarter Sessions is by a "bill of indictment" as opposed to a summons, warrant or charge at summary courts; therefore all offences which in the ordinary course are tried at Assize or Quarter Sessions are called "indictable" offences. All common law offences and all offences created by statute are indictable unless there is some statutory provision which expressly provides for some other mode of disposal. Originally, indictable offences could be tried at Assize or Quarter Sessions only, but there are now many offences committed by adults which may be dealt with summarily with the consent of the person accused. Offences which are ordinarily within the jurisdiction of summary courts only are designated "non-indictable" offences; such offences are created by statutes which contain express provision for summary treatment.

The last mentioned group (offences against Defence Regulations or war legislation) is of course a temporary one which came into existence during the war years and which arose out of the emergency powers taken by the Government to prevent acts which might be prejudicial either to the country's security or to the prosecution of its war effort. The difference in nomenclature of this group as between England and Wales and Northern Ireland on the one hand and Scotland on the other, is that the Scottish figures, in addition to covering offences under the various regulations made under the Emergency Powers (Defence) Acts, 1939 and 1940 (Defence Regulations), include offences under the National Registration Act, 1939, War Charities Act, 1940 and Goods and Services (Price Control) Act, 1941 which are included under non-indictable offences in the case of England and Wales and Northern Ireland.

### 2.11- Finding of guilt and conviction

2.13 In the statistics for England and Wales the term "persons found guilty" covers not only persons convicted but also those found guilty without
conviction (mainly persons dealt with under the Probation of Offenders Act, 1907 by dismissal, binding over or placing on probation). In the statistics for Scotland, however, persons so dealt with are not included in the term "persons convicted or found guilty" since there is in Scotland neither finding of guilt nor conviction in such cases.

## Offences known to the police; persons proceeded against and found guilty

Offences known (or made known) to the police include offences reported to the police or otherwise coming to their knowledge within each year whether committed by the same or different persons and whether any apprehension took place within the same year or not.

A person proceeded against and charged at the same time with several offences appears as one person only. In selecting the offence for tabulation the principle is followed that a charge resulting in conviction has preference over any others, and where there are convictions on more than one charge the most serious offence (that is, the offence for which the heaviest sentence is awarded) is selected. Only cases disposed of within each year are included. Cases pending at the end of a year are included in the figures for the following year.

### 2.14- Juvenile delinquency

2.16 For England and Wales and Scotland "juveniles" are defined as children or young persons under the age of 17; for Northern Ireland, however, the age limit is under 16 years.

### 2.17 Prison population

The prison statistics for Scotland are not altogether comparable with those for England and Wales and Northern Ireland. The main difference is in respect of the inclusion of criminal lunatics and mental defectives in the statistics for Scotland. In England and Wales and Northern Ireland the institutions in which criminal lunatics and mental defectives are detained do not come under the control of the Prison Commission, though the prison statistics may include such persons if received as ordinary prisoners before removal to the appropriate institution either by order of a court or by certification.

### 2.18 Divorce proceedings

During the years 1937 to 1939 new legislation relating to divorce was introduced which had a marked effect on the number of petitions filed. In England and Wales the Matrimonial Causes Act,

1937 came into effect on Ist January 1938 and gave additional grounds for divorce. The Divorce (Scotland) Act, 1938 gave additional grounds for divorce and also lowered the period of desertion necessary as a ground for divorce from four to three years.

The Matrimonial Causes Act (Northern Ireland), 1939 came into operation on Ist October 1939 and instituted a judicial for a legislative system of divorce. Before this Act the High Court of Justice in Northern Ireland had power to grant a decree of divorce a mensa et thoro, but such a decree did not dissolve the marriage and amounted only to what is known elsewhere as a judicial separation.

## HOUSING AND BUILDING

### 2.20 Construction activity

This table shows the estimated value of work (both new work and repairs and maintenance) carried out by firms registered in the twelve main trades of the building and civil engineering industries; namely, general builders, building and civil engineering contractors, civil engineering contractors, plumbers, joiners and carpenters, painters, roofers, plasterers, glaziers, demolition contractors, scaffolding specialists and miscellaneous. Firms in these twelve trades consisting solely of working principals and therefore employing no operatives are excluded; a working principal is an owner, partner or director who also works as a craftsman or labourer.

The table also excludes building and civil engineering work carried out by the following:-
(a) Firms in the seven specialist trades, namely:constructional engineers, reinforced concrete specialists, heating and ventilating engineers, electrical contractors, asphalt and tar spraying contractors, flooring contractors and plant hire firms.
(b) Building operatives employed directly by local authorities, Government departments, public utility and transport undertakings and by private firms outside the building and civil engineering industries.
(c) Prisoner-of-war labour.

The work done by the agencies excluded was, in 1946, about 40 per cent of the total output of building and civil engineering work. This percentage is not known for earlier years.

The figures for mining include the cost of raising opencast coal, since such work was undertaken by firms in the building and civil engineering industries. The item "all other work" includes all housing work other than new construction and war damage
repairs and all work on shops, commercial premises, farm buildings, etc.

## 3. MANPOWER

### 3.3 Distribution of total manpower

The figures represent estimates of the total number of males aged 14-64 and females aged 14-59 gainfully employed, whether employers, employees or persons working on their own account, together with those who had not yet taken up employment since leaving HM Forces and insured persons registered as unemployed. Indoor private domestic servants are excluded. Women in part-time paid employment are included, two part-time workers being counted as equivalent to one full-time worker. The figures exclude prisoners-of-war but include such other foreign workers as had entered individually into civilian employment.

The heading "National Government Service" covers all employees of the Government except those employees in dockyards, royal ordnance factories, etc. who are included in their appropriate industry classifications. It also includes British employees of NAAFI.

## ARMED FORCES

The figures in Tables 3.3-3.9 relate to men and women who served in the armed forces and auxiliary services of the United Kingdom, British subjects usually domiciled in Great Britain and Northern Ireland. Certain of the tables, annotated accordingly, include British subjects and other persons domiciled elsewhere who individually enlisted and served in the armed forces and auxiliary services of the United Kingdom.

All the tables exclude men and women who served in units and contingents of His Majesty's forces other than those of the United Kingdom or in Allied units and contingents under British or Allied command.

### 3.4 Strength

The term "strength" includes only those actually serving, that is, it excludes men whose service had been deferred, men or Reserve, men released to industry and, except where otherwise stated, men reported prisoners-of-war or missing. It excludes women whose service had been deferred and except in 1941, the ATS Unemployed List.

Men on T. 124 agreements were merchant seamen serving with the Royal Navy under special agreements.

The nursing services include Queen Alexandra's Royal Naval Nursing Service, Queen Alexandra's Imperial Military Nursing Service, Territorial Army Nursing Service, Princess Mary's Royal Air Force Nursing Service and members of Voluntary Aid Detachments serving with the armed forces.

## 3.6, Casualties

3.8 Casualties are given by date of notification and not be date of occurrence. The strength figures for the Army include a number of casualties which had not been reported at the dates to which the figures relate.

Casualties include the following categories:-
(a) Killed. Deaths from enemy action and injury are included, but not deaths from natural causes or (except in the case of the Royal Air Force) suicides. The figures for the Royal Navy, however, include deaths from diseases attributable to war service.
(b) Wounded. Non-battle injuries sustained on war service are included, but absence from duty due to sickness is excluded. The Army exclude all non-battle injuries and the Royal Air Force include injuries occurring during training.
(c) Missing.
(d) Prisoners-of-war and internees. The figures for prisoners in Europe were based on official notifications received from Germany and Italy. The figures for prisoners in Japanese hands were based partly on official notifications and partly on information received from the prisoners themselves.

In Table 3.6 the number of casualties represents those notified during the period less the missing who subsequently rejoined their units and repatriated prisoners. In Table 3.8 these two categories are included and the figures for prisoners-of-war also include internees. Men reported missing but subsequently reported killed, wounded or prisoners-of-war have been transferred from "missing" to the other category.

The figures relate to the gross number of casualties and not to the number of men who became casualties. A man who was reported missing, wounded or prisoner-of-war more than once has been counted as a casualty on each occasion so reported.

### 3.7 Releases

Men and women released for a temporary period are excluded, but those released locally abroad or repatriated from the United Kingdom are included.

The scheme of release from the forces after the end of hostilities of men and women called up under the National Service Acts provided for release in the following classes:-
(a) Class $A$ in which release was based on age and length of service.
(b) Class B in which out-of-turn release was offered to men and women for employment in certain occupations essential to the reconstruction programme.
(c) Class $C$ in which release was granted for an indefinite period on compassionate grounds.

Releases are counted from the date of dispersal and not from the date of completion of the period of paid leave.

## CIVILIAN EMPLOYMENT

### 3.12 Agriculture

The table shows the number of workers (excluding occupiers and their wives, domestic servants and children still at school) employed on the day of the census on agricultural holdings of more than one acre in Great Britain.

Regular workers absent through sickness or holidays and working partners of the occupier are included.

Casual labour includes contract work, that is, labour supplied by County War Agricultural Executive Committees, contractors, etc., and all regular part-time agricultural workers, including those temporarily away through sickness or holidays.

The figures for the Women's Land Army relate to those in full-time employment in agriculture, horticulture and timber work

### 3.13- Manufacturing industries

3.24 The mid-year figures are based on the numbers of insured workers in each industry as estimated from the annual exchange of unemployment insurance books, less those registered as unemployed, together with one-half of the number of part-time female workers. The subsequent quarterly figures are obtained by application of the percentage changes in the numbers employed derived from the returns rendered by employers under various Orders made between 1940 and 1943, the last of the series being the Undertakings (Records and Information and Inspection of Premises) Order, 1943. The figures thus exclude employees over insurable age ( 65 for men and 60 for women), the
relatively small number of non-manual workers whose earnings were above the salary limit for unemployment insurance, the employers themselves (proprietors, directors, partners, etc.) and persons working on their own account. Earlier figures have been adjusted to include an allowance for the extension of the salary limit for unemployment insurance from $£ 250$ to $£ 420$ per annum which came into force in September 1940 and to exclude women aged 60-64 who ceased to be insurable in July 1940.

The allocation between orders for Supply departments (Admiralty, Ministry of Supply and Ministry of Aircraft Production), home market and export has been made on the basis of figures supplied by employers in the employment returns referred to above. Employment on orders for Supply departments relates only to munitions and other equipment and stores for the use of the armed forces. Merchant shipbuilding and repairs is included in home market.

It should be noted that the figures shown for particular industries do not necessarily include the whole of the employment in the manufacture of the finished product; for example, part of the employment in the manufacture of aircraft parts and equipment is included in the general engineering, electrical engineering, scientific instruments, etc., industries.

### 3.25 Railway staff

The table shows all staff employed during the week of the census in March of each year by the railway companies of Great Britain (excluding the Manchester Ship Canal where staff fluctuated between I,500 and I,600 during the period), the London PassengerTransport Board and the Railway Clearing House. The figures represent the numbers receiving salaries or wages for the full week combined with the equivalent number of full-time workers where employees were paid for less than the complete week

### 3.26, Civil Service

3.27 The tables include both established and unestablished staff irrespective of their industrial classification. Staff in Northern Ireland, other than reserved and agency services, is excluded. Two part-time workers are counted as one whole-time worker. The figures are taken from returns made quarterly to the Treasury by all Government departments.

The table of non-industrial civil servants relates to clerical, executive and administrative staffs, their
professional and technical counterparts and Post Office manipulative grades (postmen, telephonists, etc.).

In the case of industrial staff, in so far as they are employed in establishments which carry on work similar to that performed by employees of private firms (for example, engineering, building, etc.), they are also included in the tables for the particular industries concerned.

### 3.28 Government building programme

The table shows the labour employed on that part of the building programme subject to direct Government control. The figures cover male operatives aged 16 and over employed on the following types of work:-
(a) direct, authorised and assisted work of a Government department;
(b) licensed work;
(c) repair of houses made uninhabitable by war damage; salvage operations and war debris clearance; and first aid repairs carried out by the Special Repair Service.
"Direct" work is work on Government-owned property. "Assisted" work is work for which the Government granted financial assistance.
"Authorised" work is work of construction or alteration for local authorities and public utility undertakings which required to be authorised by the appropriate government department. Repair and maintenance work for such authorities and undertakings and items of new work under $£ 100$ in value were exempted from authorisation.

Work for private firms, private institutions and individuals required to be licensed with the exception of items of work of a value below $£ 100$ and, until the end of 1941, all works of demolition, repair, decoration and maintenance.
The exemption limit of $£ 100$ for authorised and licensed work was reduced to $£ 10$ in the London Civil Defence Region in October 1944 and in certain other districts of the Home Counties in February 1945.

### 3.29 Government training centres and emergency training establishments

The table relates to the number of civilians trained or in training at Government training centres (excluding coal-mining training centres) and emergency training establishments. The latter utilised for training purposes all facilities available at technical colleges and industrial establishments not being used in operations essential to the war effort. The figures for completed training include all
persons who completed the course in Government training centres together with terminations after passing the placing test in emergency training establishments. Trainees were required especially under schemes conducted by industrial establishments to undergo a placing test before completion of the course of training. These courses were of fixed duration, varying with the type of training required, but normally of eight weeks' duration.

## 4. AGRICULTURE AND FOOD

## AGRICULTURE

### 4.3. Area of crops and grass

4.4 The statistics of area are obtained from returns made by all occupiers of more than one acre of agricultural land in Great Britain. In Northern Ireland returns are required from all occupiers of one quarter of an acre or more of agricultural land. The areas shown exclude woodlands, buildings, roads, yards, ponds, etc.

The figures of specific crops relate to those which were actually in the ground on the date of the June census, or for which the land was being prepared at that date. Any catch crops grown for livestock feed or for ploughing-in in the period between the harvest and the sowing of the next season's main crop are not shown in the acreage returns. The case is similar for vegetable crops.

The number of acres under each crop was reported to the nearest quarter-acre. Any crops not specified in the return or grown in patches of less than one quarter of an acre are shown under the heading "Other crops".

The permanent grass acreage relates only to that grassland which was not under rotation.

## 4.5, Crops and grass harvested

4.6 The estimates of the quantity harvested were for the most part obtained by combining the areas returned in June with estimates of yields made by technical officers employed by the Departments of Agriculture.

## 4.7, Livestock

4.8 The tables show the number of cattle, sheep, pigs and poultry as returned by all occupiers of more than one acre of agricultural land in Great Britain and one quarter of an acre or more in Northern Ireland.

FOOD

### 4.1I Movement off farms

## Wheat, barley and oats:

The series for wheat, barley and oats show as nearly as possible the sales of the home crops of these cereals as food. Thus no account is taken of farm sales specifically for animal feed, although small quantities were diverted for this purpose. The wheat figures show receipts by flour mills; the barley figures show receipts by brewers, maltsters, flakers, roasters, distillers, pot barley manufacturers, the Ministry of Food and (for a short period of 1943 and 1944 when flour was diluted) flour millers; the figures for oats are receipts by oatmeal millers (including a small quantity in 1943 for flour dilution), flakers and maltsters, and the Ministry of Food.

## Potatoes:

The series shows the quantity of ware potatoes (excluding chat and seed) sold directly for food (including exports) and also for processing. The figures include the quantity of surplus ware potatoes fed direct to livestock under the Ministry of Food scheme or under special licences. Allowance has been made for human consumption on farms but production on allotments and gardens is excluded.

## Sugar:

The production of refined and raw sugar (in terms of refined) from home-grown sugar beet. In 1939 the average relates to "the campaign year" -
October, 1939 to January, 1940.

### 4.12 Animals purchased for slaughter

The figures relate to the number of animals purchased by the Ministry of Food from farms in Great Britain including fat animals imported from Eire and Northern Ireland for slaughter in Great Britain. Pigs fattened by pig clubs or other domestic producers and killed under licence are excluded.
4.13 Milk sales through the marketing scheme

The figures cover sales through the marketing scheme, for liquid consumption and for the manufacture of milk products including farm cheese. The quantity consumed by farm households and used on farms for butter production or calf rearing is excluded.

### 4.14 Processed food: Production

Wheat and oat milling
The series under the heading "Flour milling" show the quantity of home-produced and imported wheat milled and the resulting output of flour and offals. The latter two series include also the small
quantity of oats and barley used for the dilution of flour in 1943 and 1944. The figures for oats show the quantity used by oatmeal millers, flakers and maltsters.

Seed crushing and vegetable oil consumption: The five series show the quantity of oilseeds and nuts processed by crushing, expelling and extraction, the resulting production of crude oil and oilcake or meal and the consumption of the oil. The consumption figures include the crude oils used as such for soap and other industrial purposes, and the crude oil equivalent of the refined oils used for the manufacture of margarine and cooking fats and other food uses. Exports are included both in total disposals and in disposals for food. Castor meal, cocoa-cake and meal, which are unsuitable for animal feed, are excluded from the oilcake and meal figures.

## Whale, herring and seal oil:

Consumption is calculated on the same basis as that of vegetable oils.

## Meat:

Up to and including March 1940 the production of carcase meat and offal has been calculated from the estimated number of animals slaughtered. From April 1940 onwards the figures relate to sales by the wholesale meat supply associations and to meat and offal produced by pig clubs and other domestic producers. Meat from imported fat stock and fresh meat from Eire are included throughout.

## Bacon and ham:

The figures relate to the output of curing factories from both home-killed and imported carcases. Bacon cured for pig clubs or other domestic producers is included.

## Butter:

The figures relate to the output of home creameries. The production of butter on farms is excluded.

## Cheese:

The series shows all graded cheese purchased by the Ministry of Food from creameries or farms.
Processed cheese is excluded as being a remanufacture of graded cheese.

### 4.15 Food and animal feeding-stuffs: Consumption

The consumption figures relate to deliveries from stocks held or controlled by the Ministry of Food
taking into account changes in stocks of wholesalers and manufacturing users. They should not be confused with retail purchases. In addition to deliveries to home food distributors, for civilians and for the Services, the figures include deliveries to manufacturers of products other than food and to exporters. Whenever these items are quantitatively important deliveries "for food" are shown separately. Where foods are used in the manufacture of other goods (for example, sugar in the manufacture of jam, biscuits, sweets) the quantities used for this purpose are included in the food column. The following points should be noted.

## Rice:

The series gives total disposals which in addition to issues of whole rice, including issues of broken rice to manufacturers for brewing and for the production of ground rice, inedible starch, etc., and losses in recleaning as well as milling and drying losses.

## Starch:

The series includes the quantity issued to industrial users as well as that issued to glucose and other food manufacturers.

## Fresh, frozen and cured fish (landed weight):

Total disposals are the landed weight of fresh and frozen fish supplied to wholesalers, certain retailers and institutions, the Services, manufacturers of oil and fish meal and exporters, together with the quantity of cured fish issued to wholesalers, manufacturers and exporters. The condemned fish and offal which are included are taken by fishmeal manufacturers for the production of fertilizers and animal feed.

The figures for disposals for food in the United Kingdom give the landed weight of fresh and frozen fish and net weight of home-cured fish, but exclude quantities supplied to exporters and fish taken by fishmeal manufacturers.

## Eggs in shell:

The figures show the consumption of imported and commercially-produced eggs plus an estimate of the number of eggs obtained by domestic poultry keepers.

## Potatoes:

Total disposals exclude seed and chat potatoes, stock-feed outside Ministry schemes and waste on farms. Disposals for food in the United Kingdom further exclude stock-feed under Ministry schemes and exports, and relate to the distribution of

## DEFINITIONS AND NOTES

potatoes intended for human consumption. No allowance is made for waste in distribution or for feed to domestic animals.

## Barley:

The figures for brewing and food show the quantity used by brewers, maltsters, flakers, roasters, distillers and pot barley manufacturers.

## Maize:

Total disposals relate to the quantity used by manufacturers for production of edible starch, glucose and cereal breakfast foods, maize issued for pigeons and maize and maize meal used as feed.

## Oilcake and meal:

This series covers sales of high, medium, and low protein oilcake by oilseed crushers to dealers together with the quantity processed by provender millers and compounders. Low protein oilcake, such as coconut cake and palm kernel cake, was issued as part of the "cereal" feeding-stuffs ration.

## Milling offals:

The figures relate to sales by flour millers to dealers, together with the quantity processed by provender millers and compounders.

## Conversion factors for items in the food tables

Flour:
Changes in the rate of extraction of flour from wheat:-

At 3rd September 1939
From 26th October 193973
From 28th April 1941 75
From 23rd March 194285
From Ist October $1944 \quad 82$ 1/2
From 31st December 1944 to
23rd February 1946
80

## Oilseeds:

Crude oil equivalent:-
Cottonseed
17
Groundnuts decorticated 46
Groundnuts undecorticated 31
Copra 63
Palm kernels 47
Linseed 33
Rapeseed 38
Sunflower seed 26
Castor seed 44
4.16 Arrival of lend-lease foodstuffs

The figures given in this table cover arrivals of lendlease food supplies originating in the United States of America only. Arrivals from other countries are shown in the small table at the foot of page 72 .

## 5. FUEL AND POWER

## COAL

5.3- Production, consumption and stocks
5.5 The series showing weekly averages for individual months are based on weekly or monthly returns. The weekly averages for each year are based on returns for the calendar year where available.

## Saleable mined coal:

Production figures show the tonnage of coal raised and weighed at the pithead at coal mines in Great Britain, after deducting the weight lost in the elimination of stones and dirt by screening and washing. Miners' free and concessionary coal and all coal (of whatever quality) used for colliery purposes is included.

## Opencast coal:

Coal obtained by opencast working of deposits near the surface.

### 5.4 Inland consumption

Public utility undertakings:
Gasworks include both statutory and non-statutory undertakings as well as gasworks of railway and transport undertakings.

Electricity undertakings comprise public supply and transport power stations.

Consumption of coal by railways is the amount used by the main line railways and the London Passenger Transport Board for locomotives, in workshops and stations and for marine purposes. It should be noted that coal consumed by the railways for the generation of electricity is included under "Electricity" and that for the production of gas under "Gasworks".

## Coke ovens:

The series relates to coal carbonised by coke oven plants.

## Industrial consumers:

The figures include only coal consumption of undertakings with an annual consumption of 100 tons or more of coal and coke.

## Miners' coal:

Coal supplied by the collieries free of charge or at specially reduced prices to miners and their dependants, officials, clerks, etc., employed at the mines, miners' welfare bodies and other authorised persons and institutions.

## Merchants' disposals:

The figures relate to the distribution of house coal, anthracite and boiler fuel by merchants to premises not separately programmed for their supplies and to other merchants for resale. In addition to private residences these premises include shops, offices, hotels, cinemas, institutions and the like and the smaller industrial consumers of solid fuel. House coal sold landsale by colliery undertakings acting as merchants is included.

## Collieries:

The amount of coal, irrespective of quality, consumed at collieries for all purposes, including engine fuel.

## Miscellaneous:

Water works, Service departments, shipments to Northern Ireland, industrial undertakings with an annual consumption of less than 100 tons, coastwise bunkers and non-industrial undertakings (that is, hospitals, schools, hotels, offices, shops, local authorities, Government buildings, etc., whose supplies are programmed and are not included in "merchants' disposals").

### 5.5 Distributed stocks

Distributed stocks relate to the amount of coal held by industrial consumers with an annual consumption of more than 100 tons of coal and coke, public utilities, railways, coke ovens, Government dumps (that is, coal held in Government stocking sites) and miscellaneous consumers and by merchants for domestic consumption. Stocks held in Northern Ireland are excluded.

### 5.6 Mined coal: Productivity

The figures before 1943 for the average number of shifts worked and possible and for the absenteeism percentage are based on returns collected by the Joint Accountants to the industry, in which the number of wage-earners differed from those obtained from the Ministry's own returns shown in the first column of the table. Average output per manshift before 1943 has not been calculated from these figures but from the annual statutory returns of the Ministry.

## Wage-earners on colliery books:

This series includes all wage-earners, male and female, engaged in raising or handling coal or other minerals obtained with coal. Clerical and administrative staff are excluded.

## Shifts worked:

The average number of shifts worked per wage-
earner per week is the total number of manshifts worked in the period divided by the number of wage-earners on colliery books at the end of each week in the period.

## Shifts possible:

Shifts possible are the sum of shifts worked and shifts lost through absenteeism of the workers. Shifts lost owing to recognised holidays, disputes, accidents, repairs, breakdown of machinery, etc., at the mines are not included.

## Absenteeism percentage:

The absenteeism percentage is the total number of shifts lost through absenteeism multiplied by 100 and divided by the total number of shifts possible.

## Output per manshift:

The average output in tons per manshift worked is the output of saleable coal divided by the total number of manshifts worked, at the coal face and overall.

## COKE

5.7 produced at coke ovens consists of furnace coke and foundry coke. Production at gasworks includes coke used at these undertakings in the manufacture of water gas, in some cases that used for heating retorts and all other purposes.

Total inland consumption includes coke consumed at gasworks, blast furnaces and other industrial undertakings, by railways, non-industrial establishments and Service departments, disposals by merchants to domestic premises and shipments to Northern Ireland.

Total stocks relate to the amount held at producers' works, blast furnaces and other industrial undertakings, by railways, non-industrial establishments and Service departments and at merchants' yards. Stocks held in Northern Ireland are excluded.

## GAS AND ELECTRICITY

### 5.9 Gas

Total gas available is the sum of gas produced at all authorised and non-statutory gas undertakings in Great Britain (excluding from the year 1943 that produced at works of railway and transport authorities) together with the amount bought from coke oven plants by gasworks for resale. Gas produced by coke ovens for the iron and steel industry and sold direct to other industries for consumption for other purposes is not included.

### 5.1I Electricity

The figures relate to authorised undertakings and railway and transport power stations only. Electricity generated by industrial establishments for their own use is not included.

## PETROLEUM

The annual totals given in this series of tables and the weekly averages derived from them include certain revisions which have not been made to the monthly figures. The monthly figures in Tables 5.I3 to 5.16 are for four or five week periods; in Tables 5.17 to 5.19 they are for calendar months. The figures given for deliveries into consumption represent deliveries by the bulk petroleum distributors and not actual consumption.

### 5.13- Petroleum products

5.17 Motor spirit:

Motor spirit includes distillation benzines used for industrial processes.

## Lubricating oils

Lubricating oils include medicinal paraffin and mineral jelly.

## Bitumen

Bitumen refers only to asphaltic bitumen refined by the distillation of asphaltic base crudes.

## Process oils

Products intended for use as raw materials in refineries.

## Approximate conversion factors

|  | Imperial gallons <br> per long ton |
| :--- | :---: |
| Aviation spirit | 310 |
| Motor spirit | 300 |
| White spirit | 284 |
| Kerosine (paraffin) | 276 |
| Gas oil (including fuel for diesel- |  |
| engined road vehicles) | 264 |
| Diesel oil | 250 |
| Fuel oils (imports) | 235 |
| Lubricating oils: White oils | 255 |
|  | 245 |
| Crude and process oils | 250 |

### 5.13 Arrivals of tanker-borne petroleum products and crude and process oils

The term "arrivals of tanker-borne petroleum products" covers liquid petroleum products carried in bulk in tankers; surplus bunkers removed from vessels of all descriptions; packed lubricants,
whether carried as deck cargo or forehold cargo in tankers or in other vessels. It excludes paraffin wax, grease and natural bitumen. The figures for "refined petroleum products" refer to the quantities loaded at the port of shipment and are subject to a deduction of one-half per cent. for ocean leakage. Owing to differences in definition these figures which were provided by the Petroleum Board may differ, particularly in short-term periods, from the figures given in the Accounts relating to the Trade and Navigation of the United Kingdom.
5.15 Production from indigenous materials of petroleum products and substitutes
Indigenous production covers products obtained from refining shale oil and indigenous crude petroleum. It includes receipts by the bulk petroleum distributors from hydrogenation, low temperature carbonisation, tar distillation and benzole recovery plants. The figures under bitumen refer to the quantity of creosote used as a fluxing agent. The series quoted refer only to the output distributed by the Petroleum Board.

The figures for aviation and motor spirit include production of white spirit and kerosine.

Home production of fuel oil comprises mainly tar oils.

### 5.17 Deliveries into civilian consumption of motor spirit

This analysis of deliveries into consumption is based on coupon issues and does not take into account the use of coupons for purposes for which they were not intended. Consumption includes quantities delivered against coupons exchanged for Service department requisitions (private cars) and indents (public service and goods vehicles).
Consumption by the armed Forces is excluded.

## Private cars and motor cycles

Deliveries for cars taxed on horse-power and for motor cycles, including private hire cars and invalid carriages, but excluding cars and cycles operated by Government departments, local authorities and the police services.

## Commercial vehicles

This heading includes deliveries for consumption by goods vehicles, buses, coaches, taxis, Government departments, local authorities, the police services, vehicles distributing petroleum products, etc.

## Industrial uses

Deliveries for unlicensed vehicles, ambulances
(other than those owned by local authorities), vehicles operating on trade plates, plant, machinery and watercraft used for industrial purposes, lighting plants and motor spirit used for industrial processes.

## Agricultural uses

Deliveries for farmers' vans, lorries and tractors not operating under carriers' licences or permits, agricultural engines ( 5 s. class) and agricultural stationary engines.

### 5.18 Deliveries into consumption of fuel for diesel-engined road vehicles

This table is based on the total deliveries into consumption of gas oil on which duty is paid for use in diesel-engined road vehicles and on figures of coupon issues to consumer groups. The figures include quantities delivered against coupons exchanged for Service department indents.

### 5.19 Deliveries into consumption of gas, diesel and fuel oil <br> Bunkers

Including deliveries to certain coastal vessels which are linked with concerns operating ocean-going vessels.

## Burning

Deliveries of oil for central-heating, steam raising and industrial furnaces.

## Power

Deliveries of oil for stationary and mobile engines and for bunkers for fishing and coastal vessels excluding those linked with concerns operating ocean-going vessels.

## Manufacture

Deliveries mainly for gas works and grease blending plants.

## 6. RAW MATERIALS

### 6.3 Iron ore and manganese ore Iron ore

The ferrous content of home iron ore is about 30 per cent, compared with 55-60 per cent for imported iron ore.

Production figures for 1940-45 include small quantities of manganese ore.

Consumption figures relate to the consumption of raw and calcined ore as charged, except in the case of the figures for home iron ore in 1937 and 1938
which relate to raw ore and the raw equivalent of calcined ore. The 1937 and 1938 consumption figures for both home and imported ore include manganese ore, but exclude consumption in steel works. Consumption of imported ore in blast furnaces includes consumption in sinter plant.

Stocks of imported iron ore include ore in ships discharging and in transit to works.

## Manganese ore

Stocks are the quantities held at works and in transit in the United Kingdom.

### 6.4 Pig iron

This comprises haematite, basic, foundry and forge pig iron, direct iron castings and blast furnace ferroalloys.

Consumption includes refined and cylinder pig iron consumed in refined iron works.

Total stocks include stocks at wrought iron and refined iron works and in Ministry of Supply stockyards.

Where cumulative adjustments have had to be made to annual figures for production and consumption, these may not correspond exactly with the monthly figures.

### 6.5 Iron and steel scrap and steel ingots and castings

## Iron and steel scrap

Consumption figures relate to the quantity of steel and cast iron scrap (including scrap arising in own works) consumed in the production of steel ingots and castings, excluding the scrap consumed in blast furnaces.

Stocks are the quantities held at steel works and steel foundries.

Receipts of "bought" scrap are receipts of scrap bought in the home market. Figures before 1940 are estimated.

## Steel ingots and castings

From July 1943 alloy steel figures relate to steel, other than high speed steel, containing a minimum of 0.4 per cent of chrome or nickel, 0.1 per cent of molybdenum, tungsten or vanadium, or 10.0 per cent of manganese. Before July 1943 the minimum proportions of these elements in alloy steel were 0.5 per cent, 0.25 per cent or 12.0 per cent. respectively.

## DEFINITIONS AND NOTES

Where cumulative adjustments have had to be made to annual figures for production and consumption, these may not correspond exactly with the monthly figures.

### 6.6 Semi-finished and finished iron and steel

 Billets, blooms and slabsFigures relate only to material for the production of heavy and light rolled products. From 1941 alloy steel is excluded.

## Heavy rails and sleepers

Rails over 36 lb . per yard (perfects and defectives) and sleepers, fishplates and soleplates for use with them.

## Heavy and medium plates

Boiler plate $3 / 16$ inch thick and over; other plates $3 / 16$ inch thick and over; medium plates and sheets under $3 / 16$ inch thick, down to and including 3 mm . thick.

## Other heavy steel products

Angles, tees and sections over 4 united inches; channels over 3-inch web; girders, joists and beams 3 -inch web and over; rounds, squares and hexagons 3-inch and over, and flats over 5-inch wide; shell steel (ingots, billets and bars for shells, shot and bombs).

## Light rolled products

Rails under 36 lb . per yard, and accessories; steel arches and accessories; angles, tees and sections 4 united inches and under; channels 3 -inch web and under; joists and " $H$ " bars under 3 -inch web; wire rods; ferro-concrete bars and other bars, rounds, squares, hexagons, etc., under 3 -inch and flats 5 inch wide and under; hot rolled hoop and strip.

## Cold rolled strip

Under 18 -inch wide.

## Sheets

Under 3 mm . thick, coated and uncoated, but excluding tin, terne and blackplate.

## Tin, terne and blackplate

Includes tinned sheets and uncoated tinplate base.

## Steel castings

Net weight of fettled castings produced, machined as necessary to ensure soundness.

## Steel forgings

Net forged weight of drop forgings and other type forgings.

## Tyres, wheel and axles

Tyres, rolled rings, straight axles, solid wheels, disc wheel centres and assembled wheels and axles.

## Stocks of steel

Ingots, semi-finished and finished steel held at producers' works, in British Iron and Steel Corporation stockyards and in transit in the United Kingdom. Consumers' stock are excluded.

### 6.7 Chrome ore and ferro-alloys

## Chrome ore

Stocks are the quantities held by consumers, importers and the Ministry of Supply. Stocks in transit are excluded except in 1940.

## Tungsten, molybdenum and vanadium

Production and consumption figures relate to the non-ferrous metal content of ferro-alloy and other finished products. Stock figures relate to the nonferrous metal content of stocks of the ferro-alloys and of the ore (allowing for losses in refining) held by producers, consumers, merchants and the Ministry of Supply.

Ferro-chrome, silico-mangnese, ferro-mangnese, ferro-silicon, calcium silicide
Stocks are the quantities held at consumers' works, in British Iron and Steel Corporation stockyards and in transit in the United Kingdom. Figures for stocks and consumption of ferro-silicon exclude special grade used for aeronautical purposes.

### 6.8 Non-ferrous metals

Stocks
Except where otherwise stated, figures for stocks of copper, zinc, lead, nickel, tin, bauxite, cryolite, alumina and magnesite relate to quantities held by the Government and by consumers and include stocks in transit in the United Kingdom. Stocks of magnesium and magnesium alloys are Government stocks only and include stocks not taken on charge.

## Refined copper

Production figures relate to production on toll contracts from imported blister, including scrap refined on private account from 1943.

## Virgin copper

Unwrought copper (electrolytic, fire refined and blister).

## Zinc concentrates

Consumption figures from 1942 include consumption other than for zinc production.

## Virgin zinc

Unwrought zinc, excluding re-melted zinc. Some secondary material is included in the production figures for the years 1935 to 1939.

## Refined nickel

Includes ferro-nickel.

## Refined lead

English refined lead is included from 1942. Reexports on toll transactions are included in total disposals and also in home consumption where fabrication had taken place before re-export.

Production figures for 1935 to 1942 relate to production from imported and domestic ores and concentrates; for 1943 to 1945 they relate to lead reclaimed from secondary and scrap material, and lead refined from domestic ores.

## Virgin tin

Figures for production from 1942, and for total disposals throughout, include residues refined on toll and re-exported.

## Bauxite

Expressed in terms of high grade bauxite.

## Magnesium and magnesium alloys

Production includes scrap recovery. Consumption figures relate to despatches to consumers.

Magnesite (calcined and dead burnt)
Production figures refer to metal extracted from sea water.

### 6.9 Aluminium

## Virgin aluminium

Consumption figures include the aluminium content of virgin alloys. Stocks are total stocks, including consumers' stocks and stocks in transit, and they include the virgin aluminium content of all alloys.

## Secondary aluminium

Production includes production from crashed aircraft. Consumption figures relate to releases by the Light Metals Control. Stocks are total stocks, including consumers' stocks and stocks in transit.

### 6.10 Softwood and hardwood

Sleepers and crossings of all kinds are excluded, except in figures for production before 1942.

Softwood excludes pitwood, boxboards, pulpwood and poles. Hardwood excludes pitwood, logs for veneer production and staves.

Production of softwood and hardwood is the estimated output, based on deliveries from sawmills, of timber sawn from home-grown logs. In the figures for production after 1941 and in all
figures for consumption of home-grown timber an allowance of 10 per cent. (softwood) and 5 per cent. (hardwood) has been made for conversion to square-edged material.

Consumption of home-grown softwood and hardwood is calculated from production and changes in stocks; that of imported, from the Timber Control's records of arrivals at ports to their account and changes in stocks.

Stocks of home-grown softwood and hardwood are the quantities held by the Home Timber Production Department, by merchants, by consumers (including railways) and in National stock. Ineffective stocks, estimated from July 1941 at 12,000 standards (softwood) and 1.25 million cubic feet (hardwood), are excluded.

Stocks of imported softwood and hardwood are National stocks (including stocks awaiting discharge), importers', merchants' and consumers' (including railways') stocks and stocks of recovered timber. Imported hardwood stocks exclude ineffective stocks of hardwood, which until August 1941 amounted to 4 million cubic feet and from September 1941 to 2 million cubic feet.

Stocks in the hands of firms whose normal stocks are less than 20 standards (softwood) or 1,000 cubic feet (hardwood) are excluded.

### 6.1I Pitwood and plywood

## Pitwood

All mining timber specially prepared for use underground in mines for propping or shoring or as pit sleepers. It is shown in Gothenburg standards (equivalent to 180 piled cubic feet) calculated in the case of round pitwood in accordance with the Gothenburg scale, and in the case of other mining timber on an equivalent basis.

Round pitwood comprises pitprops, including sawn and quartered props, round bars and long pitwood. Sawn pitwood comprises other sawn mining timber.

The figures for production show the quantities despatched by the trade and by the Home Timber Production Department.

Consumption is calculated from deliveries to mines adjusted for changes in stocks at mines. Stocks are National stocks (including stocks in transit and piling) and colliery stocks (including, from 1943, stocks held underground).

## Constructional plywood

All rectangular boards, including block board, etc., of standard construction, excluding plywood of special shape or construction or of technical specification.

Production figures show the quantity of homeproduced plywood taken into National stock.

Consumption is calculated from deliveries from National stock adjusted by changes in private stocks.

Stocks are National stocks, including stocks awaiting discharge. Merchants' and certain consumers' stocks are included up to June 1943.

## Technical plywood

Plywood produced for special requirements of the Service departments.

### 6.12 Hides, skins and finished leather

## Cattle hides

Production figures show deliveries to tanners of native raw hides. Stocks consist of native hides and imported wet, wet salted, dry and dry salted cattle and buffalo hides held by tanners and dressers. Stocks in transit in the United Kingdom are included.

## Kips and calfskins

Production figures show deliveries to tanners of native raw kips and calfskins.
Stocks consist of native and imported kips and calfskins held by tanners and dressers.

## Goatskins

Stock figures relate to imported goatskins held by tanners and dressers.

## Sheepskins

Production figures show the quantity of native sheep and lamb pelts fellmongered, including deliveries of woolled skins to dressers for dressing with the wool on.

Stocks consist of native and imported sheep and lamb pelts and woolled skins for dressing with the wool on held by tanners and dressers and in Government reserve.

## Rough tanned hides and kips

East Indian kips, calfskins and buffalo hides, including quantities in transit in the United Kingdom, held by tanners and dressers, factors and merchants.
Rough tanned goat and sheepskins

Imported rough tanned goat and sheepskins, including quantities in transit in the United Kingdom, held by tanners and dressers, factors and merchants.

Heavy leathers (leathers sold by weight)
Sole leather bends and offal, hide mechanical and textile leathers.

Consumption figures for heavy leathers represent deliveries by producers; for sole leather they also include imports and are adjusted for changes in certain stocks.

Stocks of heavy leathers comprise sole leather bends, offal and cut stock held by tanners, boot manufacturers, factors, merchants, sole cutters and heel builders and hide mechanical and textile leathers held by tanners, factors and merchants. Stocks in transit in the United Kingdom and any stocks in Government reserve are included.

Light leathers (leathers sold by area)
Upper and lining leather, gloving leather, chamois, upholstery, case, clothing, hat, bookbinding and other light leathers.

The consumption figures represent deliveries by producers; for upper and lining leather they also include imports and are adjusted for changes in certain stocks.
Stocks are the quantities held by producers, boot manufacturers, factors and merchants. Stocks in transit in the United Kingdom are included.

### 6.13 Rubber

## Waste rubber

Crumb rubber is included in 1942.

Production is the collection of waste rubber from all sources including manufacturing scrap and domestic collections and the arrival of battlefield scrap at authorised dumps in the United Kingdom. From July 1944 the figures relate to collections at Ministry of Supply dumps only.

Consumption is the processing of waste into reclaimed rubber. From July 1944 the figures relate to issues from Ministry of Supply dumps only.

Stocks are the quantities held at Ministry of Supply dumps and, before July 1944, by cable strippers, licensed merchants, reclaimers, rubber manufacturers, and at Service dumps.

## Reclaimed rubber

Natural, synthetic and, in the monthly figures for 1943, crumb rubber.

Production figures give production by reclaimers and, up to July 1944, by rubber manufacturers.

Consumption includes direct usage of waste rubber until July 1944. From that date figures are estimated and cover reclaimed rubber only.

Stocks are the quantities held by reclaimers, rubber manufacturers and the Ministry of Supply.
Government lend-lease stocks are excluded in the figure for the end of 1941.

## Natural rubber

Includes latex (except in the monthly figures for 1942) but excludes balata and gutta percha.

Consumption includes exports except in the monthly figures for 1942.

Stocks are the quantities held by H.M.Government, by manufacturers and, before January 1942, by importers and dealers in London and Liverpool. Stocks in transit are included from January 1942.

## Synthetic rubber

G-R-S type, neoprene, butyl, N-type, and miscellaneous synthetic rubbers. "Thiokol" and "Novoplas" are excluded from July 1944.
Consumption figures include exports.

Stocks are the quantities held by H.M. Government and by rubber manufacturers.

### 6.14 Chemicals

## Industrial alcohol

Ethyl alcohol expressed as 68 O.P. spint.

Consumption shows deliveries to consumers including methylators.

Stocks are quantities held on behalf of the Government and by producers.

## Industrial methylated spirit

Consumption shows deliveries to consumers.

## Methanol

Consumption shows deliveries to consumers.
Stocks are quantities held on behalf of the Government and by producers and consumers.

## Urea

Consumption shows deliveries to consumers.

## Nitric acid

Production in acid works, including Government acid plants.

Stocks are the quantities at acid works and Government plants.

## Pyrites

Imported and home-produced pyrites for the manufacture of sulphuric acid.

Production figures relate to arrivals of homeproduced material at acid works.

Stocks comprise the Government reserve and material at acid works, including Government acid plants. Stocks in transit in the United Kingdom are included from June 1943.

Sulphur (for acid)
Production figures relate to arrivals of homeproduced material at acid works.

Stocks comprise the Government reserve and material at acid works, including Government acid plants. Stocks in transit in the United Kingdom are included from 1943.

## Sulphur (regular)

Production figures relate to recovered sulphur. Stocks comprise the Government reserve and material at consumers' works and include manufactured forms. Stocks in transit in the United Kingdom are excluded.

## Spent oxide and anhydrite

The figures relate only to material for use and consumed in the manufacture of sulphuric acid. Production figures show arrivals of home-produced material at acid works.

Stocks are the quantities at acid works.

## Sulphuric acid

As 100 per cent acid. From 1941 acid made at Government factories is included.

Stocks are the quantities at acid works and Government plants.

## Calcium carbide

Consumption figures relate to despatches from works.

### 6.15 Fertilizers, ammonia and molasses

Nitrogenous fertilizers (nitrogen content) Production figures relate to ammonium sulphate, "Nitro-chalk" and concentrated compound fertilizers.

Consumption and stock figures relate to ammonium sulphate, "Nitro-chalk," concentrated compound fertilizers, Chile nitrates of soda and potash, Trail ammonium phosphate, ammonium nitrate, nitrate of lime and cyanamide.

Non-agricultural uses are excluded except in the series for total disposals which includes exports of ammonium sulphate for all purposes.

Superphosphate ( $\mathrm{P}_{2} \mathrm{O}_{5}$ content)
Consumption figures relate to deliveries by manufacturers and from Government stores to merchants and farmers for direct application, and quantities used in ordinary compound fertilizers.

Stocks are the quantities held by manufacturers and by dry mixers. From February 1945 imported material is included.

Ground basic slag ( $\mathrm{P}_{2} \mathrm{O}_{5}$ content)
Production figures relate to slag ground in the United Kingdom from home-produced raw slag.

Consumption relates to deliveries of home-ground material to merchants and farmers for direct application.

Stocks are the quantities held by manufacturers.
Ground phosphate ( $\mathrm{P}_{2} \mathrm{O}_{5}$ content)
Production relates to phosphate ground in the United Kingdom from imported phosphate rock

Consumption relates to phosphate ground in the United Kingdom delivered by grinders for direct application or for mixing in compound fertilizers.

Stocks are home-produced material held by manufacturers and compounders.

All other phosphatic fertilizers ( $\mathrm{P}_{2} \mathrm{O}_{5}$ content) Production figures relate to organic fertilizers, treated phosphate rock and concentrated compound fertilizers.

## Consumption figures include in addition

 ammonium phosphate, triple superphosphate and, in 1943 and 1944 only, calcium metaphos. They relate to quantities delivered to merchants andfarmers for direct application or used by compounders.

Stocks comprise treated phosphate rock, concentrated compound fertilizers and, in the figures for 1942 to 1945, triple superphosphate. The figures relate to home-produced and imported material held by superphosphate manufacturers and dry mixers.

Potash ( $\mathrm{K}_{2} \mathrm{O}$ content)
Agricultural potash only.
Consumption figures relate to quantities delivered in ordinary or concentrated compound fertilizers or for direct application.

Stocks are the quantities held by merchants and compounders.

Compound fertilizers (excluding concentrated compound fertilizers)
Total weight of product.
Consumption relates to deliveries by all compounders to merchants and farmers.

Stocks are the quantities held by compounders.

## Phosphate rock

Consumption figures show the quantity used in the manufacture of fertilizers or for other industrial purposes.

Stocks are the quantities held for use in fertilizers by the Government, superphosphate makers and grinders, and quantities held by manufacturers for other industrial purposes

## Ammonia

The figures exclude ammonia produced in byproduct factories and converted directly into sulphate of ammonia.

Consumption figures show deliveries by producers to consumers and for export.

Stocks are the producers' stocks at works, including stocks in Government factories. Consumers' stocks are included in the figure for 1942.

## Molasses

The figures are expressed in terms of blackstrap containing 52 per cent sugars.

Production is the production from sugar cane and sugar beet of molasses handled by the Government.

Consumption figures give deliveries for distilling; for cattle feed including silage, sweetened pulp and straw ration; and for tanning, solvents, yeast, coremaking, citric and lactic acid, and Ministry of Food requirements.

Stocks are those held in depots and refineries and by consumers. The figure for 1945 includes the molasses equivalent of sugar awaiting conversion to high test molasses.

### 6.16 Plastics and materials for plastics

Home consumption covers consumption in producers' own factories and deliveries to consumers (including Government consumers).

## 6.I7 Paper and papermaking materials

"Paper" means paper or board; "mills" means paper mills or board mills.

Papermaking materials other than woodpulp
Consumption figures relate to consumption by mills.

Stock figures of pulpwood, straw for papermaking, and esparto show the quantities held at mills. The stock figures for rags, waste ropes, etc., and waste paper are prepared from returns made by mills and merchants; they cover all mills and the principal merchants.

## Paper equivalent

The paper equivalent figures show the approximate amount of paper which it is estimated can be produced from the papermaking materials other than woodpulp shown as consumed or in stock The approximate paper equivalents are: pulpwood $371 / 2$ per cent, straw 43 per cent, rags, etc., $66^{2 / 3}$ per cent, waste paper 80 per cent, esparto 42 per cent.

## Pulpwood

Imported pulpwood and home-grown timber, including wood waste and chippings.

## Woodpulp for papermaking

This comprises chemical sulphite pulp (bleached, partly bleached, bleachable, easy bleaching, strong and bamboo), chemical sulphate pulp (bleached, partly bleached, bleachable, easy bleaching, knotter and screenings, and kraft); and mechanical pulp (wet and dry mechanical pulp) in terms of air dry weight used or held by papermakers and manufacturers of cellulose wadding.

## Industrial woodpulp

The woodpulp held or used by manufacturers of rayon and transparent cellulose film.

## Newsprint

Consumption figures for 1939 give the quantities of newsprint used by publishers of newspapers and periodicals; subsequent figures also include quantities licensed for other purposes, exports and re-exports.

Stock figures show the quantity of newsprint held at mills and by publishers of newspapers and periodicals.

Building boards and other paper and board Building boards comprise insulation board, laminated wallboard and hardboard.

Consumption is derived by adding together the paper imported and the home-produced paper invoiced out by mills, and adjusting at the end of every four months for any reduction or increase in the stocks of paper held by manufacturers, merchants and large consumers.

Stocks are the quantities held by papermakers, paper merchants, bag makers, box makers, wallboard merchants, converters, manufacturing stationers and consumers. The returns made by bag makers, box makers, papermakers, and wallboard merchants are believed to cover all engaged in the trade. The principal converters who are omitted are periodical publishers and printers, although certain printers are included in the other categories where, for example, they operate also as merchants. The returns obtained from manufacturing stationers cover all those who are likely to hold considerable stocks, but the returns obtained from consumers relate only to a miscellaneous selection of large firms. National stocks of building boards are included in the figures for 1945 .

### 6.18 Raw cotton, cotton waste and cotton

 linters
## Raw cotton

The home consumption figures show the quantities used by (a) cotton spinning mills for cotton spinning, and (b) other consumers for spinning in mixture with cotton waste, wool, and asbestos and for the manufacture of surgical dressings, upholstery, rayon and, until March 1943, explosives.

Stocks are the quantities held by merchants until Ist April 1941 when such stocks were

## DEFINITIONS AND NOTES

requisitioned by the Cotton Control. The estimated weight of raw cotton unloading at ports and in transit in the United Kingdom is included.

## Cotton waste

Cleaning waste is included from January 1941.
Production figures relate to merchants' receipts of cotton waste from spinning, doubling, weaving and hosiery mills in the United Kingdom.

Home consumption figures show the amount of cotton waste used mainly in waste, woollen and cotton spinning and in the manufacture of surgical dressings, upholstery, cleaning waste and, until August 1943, explosives. Consumption in purification factories, for which the figures are Control deliveries to such factories up to the end of June 1941 and thereafter actual consumption, is included.

Stocks are the quantities held by the Cotton Control, merchants and commercial users (including stocks at purification factories).

## Cotton linters

Home consumption figures show the use of imported first and second cut linters, United Kingdom and salvage linters, mainly in the manufacture of rayon, plastics, paper, bedding, surgical dressings, insulation material and explosives.
Stocks are those held by the Cotton Control, merchants, oilcake manufacturers and consumers.

### 6.19 Cotton yarn

## Cotton yarn

Production figures give the total conditioned weight of single cotton yarn, whether sold or used in single or doubled form. They include yarn spun for sale, yarn used for further manufacturing processes in the same firm, and yarn spun on commission. They exclude yarn spun from waste, and spun rayon and mixture yarns.

Deliveries are the total weight of yarn delivered by cotton spinners or used by them for further processing against orders approved by the Cotton Control under the Cotton Allocation Scheme. Cotton waste yarn and cotton and spun rayon mixture yarn are included. Yarn for industrial uses is that used in certain manufactures (for example surgical dressings, hosiery, tyres and narrow fabrics), whether for home consumption or export, and for certain essential home services. Yarn for
the export trade is yarn exported as yarn, thread, piece goods or made-up goods.

Consumption by weavers of cotton yam is the amount of cotton and cotton waste yarns used in the manufacture of cotton fabrics and cotton and rayon mixture fabrics.

## Cotton waste yarns

Production figures relate to yarns wholly of cotton waste.

## Spindles running

Average of the number of single yarn spindles running during each week of the period on cotton only up to October 1941, and thereafter on cotton, spun rayon and mixture yarns. Figures are given as mule equivalents. Spindles running on waste yarns are excluded.

### 6.20 Rayon, rayon yarn and woven fabrics

 RayonProduction figures from 1941 give the quantity of rayon and other synthetic fibres produced in the United Kingdom on a delivered weight basis.
Before 1941 the figures are excise figures less an estimated allowance for waste.

## Spun rayon and mixture yarns

Production figures cover yarns of spun rayon, cotton and rayon mixtures, cotton and wool mixtures, and waste yarns other than those of cotton waste and raw cotton.

## Woven cotton fabrics

Production is the output of grey and colouredwoven cotton cloth made for sale or on commission on looms of not less than 23-inch reed space. The figures cover jacquard cloths and cloth for made-up cotton goods, including towels, quilts, bed-coverings, surgical bandages and dressings and tyre cord and fabric. They exclude hosiery, lace net and machinery belting and other cotton smallwares. The figures represent the linear yardage of cloth in the grey state before undergoing finishing processes.

## Woven rayon and mixture fabrics

Production is the output of fabrics made wholly from continuous filament or spun rayon, from nylon (after August 1944) and from mixtures of rayon, nylon and cotton yarn. Weaving is on looms of not less than 23 -inch reed space. The fabrics included are those containing not less than 85 per cent by weight of cotton, rayon or nylon yarn. The
figures represent the linear yardage of cloth in the grey state before undergoing finishing processes.

## Rayon yarn

Consumption figures give the consumption by weavers of yarns made of continuous filament, spun rayon (long or short staple) and other synthetic fibres (such as nylon) in the manufacture of rayon and mixture fabrics.

## Looms running

Until December 1943 the average of the number of looms (of not less than 23 -inch reed space) running on cotton, rayon, nylon and mixture fabrics during each week of the period. From January 1944 the figure given is the number of looms running on the last full working day of the month. The annual figures for 1944 and 1945 are monthly averages.

### 6.21 Wool and silk

## Raw wool

Production figures show the intake of United Kingdom fleece and skin wool. From 1937 to 1940 the figures are estimated. From 1941 they give the actual weight of wool taken up by the Ministry of Supply, the Board of Trade or the Ministry of Agriculture and Fisheries.

Home consumption is the estimated clean weight consumed in combing, woollen spinning and felt making.

Stock figures show the estimated clean weight of raw wool in Government ownership or held by the UKIDominion Wool Disposals, Ltd. (Joint Organisation), merchants, top-makers, spinners and manufacturers. Stocks held by farmers are excluded.

## Worsted yarn

From 1942 the figures show the wool content of manufacturers' deliveries. The figure for 1937 relates to the production (total weight) of yarn wholly or mainly of wool, including admixtures amounting to about 5 inches wide.

Woven wool fabrics (excluding blankets)
Production figures relate to deliveries except in 1937. All lengths are expressed as the equivalent length of cloth 54 per cent.

## Blankets

Production figures relate to deliveries computed on the basis of I blanket = $2^{1} / 2$ linear yards and $4 \cot$ blankets $=\mathrm{I}$ full size blanket.

## Raw silk

Consumption figures from 1941 give the total amount of raw silk, undischarged weight, put into process. Figures for 1937 and 1938 show deliveries to mills.

Stocks are those held in the United Kingdom by consumers and by the Control, including stocks in transit but excluding material in process.

## Silk noils

Production is by waste silk spinners. From March 1942 production from cartridge bag cuttings is also included.

Consumption shows quantity put into process.

Stocks are held by waste silk spinners, by noil spinners, and by the Government. From February 1942 garnetted material is included in Government stocks.

### 6.22 Jute, flax and hemps

## Raw jute

The home consumption figures show the quantity of raw jute used in jute yarn spinning.

Stocks are those held by the Control, spinners and dealers.

## Imported jute goods

The home consumption figures relate to deliveries by merchants against disposal licences issued by the Control; consumption by large consumers who buy direct from the Control; quantities sold by the Control to departments; and imported rove and other yarn sold by the Control to weavers, carpet manufacturers and other users. Home-produced goods from Control stocks are included from March 1942 to March 1945.

Stocks cover imported jute goods held by the Control, merchant distributors and consumers purchasing direct from the Control, and, from March 1942 to March 1945, home-produced goods taken into Control stock.

## Flax

From April 1944, production includes imports from Eire.

Home consumption figures show the amount of flax spread for spinning by flax spinners and sales to the paper and other trades. Hemp and hemp tow used by flax spinners are included in the figures for 1940 and 1941.

Stocks are the quantities held by the Flax Control and by spinners. Hemp and hemp tow used by flax spinners are included in the figures for 1940 and 1941.

## Soft hemps

True hemp comprises Italian, Central European (including Turkish) and Chilean hemp. The figures for consumption and stocks in 1940 and 1941 exclude some portion of true hemp taken over by the Flax Control and used by flax spinners.

Stocks of soft hemps are the quantities held by the Control and by spinners and papermakers, excluding stocks in transit in the United Kingdom.

## Hard hemps

Sisal, manila, phormium tenax and other varieties.
Home consumption is the amount of hemp used by spinners, papermakers and bedding manufacturers.

Stocks are the quantities held by the Control and by spinners, papermakers and bedding manufacturers, excluding stocks in transit in the United Kingdom.

## 7. PRODUCTION

## SHIPBUILDING

7.3- Figures of completions refer to vessels which have
7.8 completed their trials and been handed over to their owners.

## Standard displacement

The standard displacement of a surface vessel is the displacement of the vessel complete, fully manned, engined and equipped ready for sea, including all armament and ammunition, equipment, outfit, provisions and fresh water for crew, miscellaneous stores and implements of every description that are intended to be carried in war, but without fuel or reserve feed water on board.

The standard displacement of a submarine is the surface displacement of the vessel complete (exclusive of the water in non-watertight structure) fully manned, engined and equipped ready for sea, including all armament and ammunition, equipment, outfit, provisions for crew, miscellaneous stores and implements of every description that are intended to be carried in war, but without fuel, lubricating oil, fresh water or ballast water of any kind on board,

## Deep displacement

Deep displacement of surface vessels is the same as standard displacement except that it includes fuel and reserve feed water.

## Light displacement

Light displacement is the displacement of the ship complete with ammunition, but excluding oil, water, petrol, provisions, canteen stores, naval stores, officers' slops, navigation stores and paymasters' slops.

## War load displacement

For landing craft, war load is the light displacement plus the full weight of armoured fighting vehicles, mechanical transport, troops, permissible ammunition, stores, fuel and crew.

## Gross tonnage

Gross tonnage is the total volume of all the enclosed spaces of a vessel above the inner bottom. The unit of measurement is a ton of 100 cubic feet.

### 7.4 Naval vessels: Ocean and coastal convoy

 etc.Minelayers
This series comprises fast minelayers, controlled minelayers, minelaying lighters and coastal minelayers.
Minesweepers, trawlers and boom defence vessels
These include fleet minesweepers; minesweeping, anti-submarine, and minesweeping anti-submarine trawlers; boom, gate and net vessels.

## Mosquito craft

This series comprises steam gun boats, motor torpedo boats, motor anti-submarine boats, motor launches and motor minesweepers.

## Landing craft

Types included are tank, flak, gun, mechanized, assault, support, personnel and infantry landing craft.

## MUNITIONS

7.9- This section gives a summary of United Kingdom
7.21 production of the more important munitions and warlike stores during the rearmament period immediately preceding the outbreak of war and during the war itself. The munitions section and the separate sections giving the production of military aircraft and naval vessels taken together cover the major groups of war production for the
armed forces. There are important connections between this and the other two sections, for example, this section includes the production of guns for aircraft and naval vessels. A large part of the munitions tables relates to production administered by the Ministry of Supply, which was responsible not only for Army requirements but also for some production for the requirements of the Royal Navy and the Royal Air Force. The most important items of production of this type included in these tables are small arms ammunition, explosives and the filling of shells and bombs. Except for this production the other two Supply departments remained responsible for their major munitions requirements. Of the production shown in the munitions tables, the Admiralty was responsible for the production of all naval guns (Table 7.11), the Oerlikon gun (Table 7.12), naval propellant production (included in Table 7.17) and for most types of empty components for naval ammunition (Table 7.16); the Ministry of Aircraft Production was responsible for the production of aircraft guns including the Hispano-Suiza (Table 7.12) and to a varying extent for the supply of empty bomb components (Table 7.16).

The choice of items shown in the tables has necessarily been limited, although for certain groups the coverage of the figures is more complete than for others. For example, armoured fighting vehicles, artillery, light guns and small arms ammunition are comprehensively covered since these items lend themselves more readily to generic grouping than do certain others such as engineer stores, signal equipment and artillery instruments. The difficulty of dealing with groups of this latter type where only a limited selection of items has been included is overcome to some extent for Ministry of Supply production by prefacing the munitions tables with an index of munitions production (Table 7.9) from which the general trend of production in each main group can be readily seen. Some important groups are omitted entirely, both from these tables and from the index of production - for example, medical stores, clothing and general equipment and stores.

The statistics given in these tables come from two main sources. Those covering the period of the war and a small number of pre-war figures are extracted from the departmental records of the Admiralty and the Ministry of Supply (including the records of aircraft munitions production now in the possession of the Ministry of Supply). Most of the pre-war figures on the other hand come from Deficiency Progress Reports submitted to the

Committee on Imperial Defence by Service departments during the rearmament period.

With one exception the tables cover new production only in the United Kingdom. The figures therefore exclude repairs, reconditioning, conversions and supplies from overseas. An exception is made for armoured fighting vehicles; overseas supplies of these vehicles were of exceptional importance and such supplies are shown alongside United Kingdom production in Table 7.18. Production of spare parts is excluded from all the tables.

The basis of enumeration in these tables is generally "deliveries passed inspection" and, for naval guns after January 1942 "acceptances after proof". For the few items where the basis is "deliveries ex factory" this is shown in the footnotes to the tables. The production figures relate to periods of three months (not necessarily ending on the last day of a calendar quarter) or to periods of 13 weeks ending near the end of the calendar quarter. The effect of these small variations in the time series is slight.

A double line drawn horizontally across a column indicates that the production of the particular item of equipment ceased in the preceding quarter.

The various abbreviations used in the column headings are listed and explained at the beginning of the Digest.

### 7.9 Index of Ministry of Supply munitions production

The index relates to Ministry of Supply production, that is, predominantly but not entirely to Army equipment. The major items in each of the groups shown in this table were included but the coverage varied with the different groups of stores. Owing to the very large number of spares produced and the lack of information regarding them, it was not found possible to make any allowance for spares in the index. From various estimates which were made, however, it is evident that the omission of spares from the index brings it appreciably lower towards the end of the war than it would otherwise have been.

The basis of the weighting system employed was fixed value. This was first calculated with prices ruling at October 1939, but a revision was made in mid-1942 as price changes had by that time appreciably affected the weighting. The revision was carried back to March 1941, the index being
adjusted to produce a smooth join with the earlier figures.

As the index is based on fixed prices it relates to changes in deliveries and not to changes in expenditure. Any distortion due to differences in time between payments and deliveries is thus excluded.

The index is not adjusted for holidays.

### 7.10 Artillery equipment, instruments and tank and anti-tank guns

Deliveries of experimental or pilot models are not in general included in the figures.

The figures for light anti-aircraft equipment relate to the 40 mm . Bofors only. Up to the outbreak of war all supplies of this equipment were imported.

Only new production is included in this table and the figures therefore exclude the extensive programme of conversion which was in force immediately preceding and during the early stages of the war. The scale of this programme can be seen from the following figures:-

Equipment
Field 18 pdr. to
25 pdr:
A.A. 3 -in. 20 cwt.

431
Number
Pre-war War
611829
8
1937 to Jun. 1941
(guns only)
60 pdr. to $4.5-\mathrm{in} . \quad 1 \quad 641939$ to Dec. 1940

### 7.11 Naval guns

The distinction between "short" and "long" range guns under anti-aircraft is broadly the same as that between "light" and "heavy" in Table 7.10. Short range guns comprise the 2 pdr . and 40 mm . Bofors. Long range covers all larger calibres.

### 7.12 Armoured fighting vehicles

This is the only table in the section to include supplies from sources other than the United Kingdom. The term "overseas" covers the United States of America, Canada, South Africa, Australia and New Zealand. Supplies of tanks were from the United States of America and Canada only. The term "supplies" includes deliveries not only to the United Kingdom, but also to United Kingdom, Dominion and Colonial forces in any theatre of war irrespective of whether the forces were under War Office control or not. The figures include 2,375 Canadian tanks retained in Canada and about

15,500 armoured carriers and cars retained in Canada and Australia for home defence.

The weight shown for tanks is the weight "in action", that is, including armament and allowance for ammunition, wireless and other equipment and crew.

### 7.13 Wheeled vehicles

The figures in this table cover production for the Service departments only. Total production of motor vehicles in the United Kingdom is given in Table 7.31.

The vehicles in this analysis, which are broadly designated as mechanical transport, include all mechanical wheeled vehicles except vehicles classified as fighting vehicles, that is, except armoured cars, scout cars and armoured command vehicles.

The classification used is based on broad general groupings. The various lorries and trucks are not all conventional load-carriers; a considerable number are vehicles with special bodies and fittings for special loads as well as for numerous technical purposes. It may, however, be useful to aggregate production in terms of load-carrying capacity and for this purpose heavy tractors should be regarded as equivalent to 6 -ton lorries and light tractors and ambulances to 1-3-ton lorries; heavy cars are vehicles of 16 h.p. and upwards, while light cars and vans are below $16 \mathrm{h.p}$. It should be noted, however, that the load classification of Service vehicles in the main is not the same as for civil vehicles - for example, a Service 3 -ton vehicle is the equivalent of a commercial 5 -ton vehicle.

### 7.20 Signal equipment

This table gives a limited but representative selection of signal equipment. Radar equipment is excluded.

### 7.21 Engineer stores

Production of engineer stores covered a wide range of field, bridging and civil engineering equipment and amenity items, for example, refrigeration and air-conditioning equipment. The items included in this table are confined mainly to bridging equipment and are not a representative selection of engineer stores.

## AIRCRAFT

7.23 Production of aircraft by structure weight The structure weight of an aircraft is the empty weight of the fuselage, wings, undercarriage, engine nacelles and flying controls. Engines, propellers,
turrets, guns, electrical equipment and radio sets are excluded.

### 7.24 Index of aircraft production

Neither structure weight nor unadjusted manhours taken separately were found to be a satisfactory basis for an index of aircraft production. Accordingly, this index is based on manhours standardised by reference to structure weight for the three main groups of aircraft produced, namely, heavy, medium and fighter bombers; other operational aircraft; and trainers.

### 7.25 Aircraft awaiting repair and repaired

The aircraft repair figures relate to repairs carried out by the Civilian Repair Organisation only and exclude repairs by squadrons.

### 7.26 Engines: Production, imports and repairs

The figures for imports relate to engines imported for the Royal Air Force and Royal Navy. They exclude engines returned to the United Kingdom for repair and re-export.

Repairs are those carried out by the Civilian Repair Organisation and exclude repairs by squadrons.

### 7.27, Arrivals of aircraft from North America

7.28 The term "arrivals" covers aircraft despatched both by air and by sea and imported for the Royal Air Force and Royal Navy.

## MANUFACTURED GOODS

7.29 Deliveries of machine tools, small tools, welding sets and electric motors Machine tools
For definition see the Control of Machine Tools (No. I 2) Order 1942. The table excludes, except from the 1935 figures, metal-working and woodworking tools of value less than $£ 50$. The value figures exclude replacement parts.

## Metal-working machine tools

The following types are included: automatics, borers, broaches, drills, gear-cutters, grinders, lappers and honers, capstans and turrets, lathes, millers, planers, presses, saws, shapers, shears, sheet metal working, slotters, screw, thread and miscellaneous metal-working machine tools.

## Wood-working machine tools

The following types are included: saws of all types (except hand saws), drills, grinders and sharpeners, gluers, lathes, morticing and tenoning machines, dove-tailing machines, planes and moulds, routers,
sanders, veneering machines and miscellaneous wood-working machine tools

## Engineers' small tools

These include cutting tools, chucks, jigs and fixtures, press tools and gauges.

## Welding sets

The value figures exclude replacement parts.

### 7.31 Locomotives and motor vehicles

 LocomotivesThe figures show the number of steam locomotives produced by railway workshops and by private makers and include production for the Services.

Main line types comprise passenger tender, passenger tank, freight tender (including mixed traffic), freight tank, Garratts and other steam types.

Industrial locomotives include shunters for docks.

### 7.32 Woven cloth, household textiles, hosiery and footwear

Supplies for home civilian use include retained imports where these are distinguished in the Trade and Navigation Accounts, supplies for N.A.A.F.I and for local authorities, hospitals, etc., but exclude supplies for Government orders and for export. For 1935 the figures are based on the Census of Production, adjusted for retained imports and exports.

## Woven wool cloth

Supplies are the deliveries by manufacturers of tissues containing 15 per cent and over of wool fibre, excluding hair fabric used for interlining and similar purposes. Cloth for uniforms for Civil Defence, transport purposes or hospitals, etc. is not included if specially issued by the Wool Control.

## Woven non-wool cloth

Supplies are the deliveries by manufacturers and merchant converters registered under the Apparel and Textiles Order. Cloth for handkerchiefs and babies' napkins is included.

## Wool hand-knitting yarn

All hand-knitting yarn, including yarn of Service shades and mending yarn, produced on wool machinery.

## Blankets

The figures relate to supplies of full-size and cot blankets, and are based on manufacturers' deliveries.

## Towels

"Other" towels include roller towels, tea towels, glass cloths, etc.

## Hosiery

Garments made up from warp knitted fabric are excluded. The figures for children's garments cover all children under 14 and thus include infants' wear. The pre-war figures quoted are estimates for 1937.

## Footwear

Total production for all uses is the output by manufacturers during the period. Production for home civilian use is the quantity of footwear transferred to warehouse stock by all manufacturers of leather footwear, excluding production for export or for which leather is procured under permit from the Director of Service Footwear; thus footwear for the Home Guard, Civil Defence and Women's Land Army is excluded. All rubber boots and shoes and canvas shoes with rubber soles are excluded, but other rubber-soled footwear is included under the appropriate heading. Children's footwear includes that for infants.

### 7.33 Pottery, hollow-ware and brushes

Production figures relate to manufacturers' sales. Supplies for home civilian use include retained imports where these are distinguished in the Trade and Navigation Accounts, supplies for N.A.A.F.I and for local authorities, hospitals, etc., but exclude supplies for Government orders and for export. Pottery
Small plates are those of 8-inch diameter or less, large plates are over 8 -inch diameter.

Coffee-pots are included from March 1943 only.

Until February 1943 the figures for cooking-ware relate to pie and baking dishes only.

## 8. TRANSPORT

## MERCHANT SHIPPING

## Gross tonnage

The total volume of all the enclosed spaces of a vessel above the inner bottom. The unit of measurement is a ton of 100 cubic feet.

## Deadweight tonnage

The number of tons ( $2,240 \mathrm{lb}$.) of cargo, stores, bunkers, equipment, etc., that a vessel carries when floating at her summerload draught.

## Net tonnage

Net tonnage is the gross tonnage less certain deductions on account of crew space, engine room, water ballast and other spaces not used for passengers or cargo.

## 8.3- Merchant shipping under British control

8.5 Foreign vessels

Bareboat charter transfers to the charterer, the responsibility for manning, upkeep and other functions normally assumed by the owner.

## 8.II Shipping movement at United Kingdom ports: Entrances and clearances in the foreign trade

Foreign trade
Trading vessels engaged in voyages direct from any port abroad (including the Channel Islands and Eire) to a port in the United Kingdom (including the Isle of Man) or vice versa. Vessels calling at more than one United Kingdom port in the course of a single voyage are recorded as entered or cleared at one port only.

The figures exclude naval vessels or vessels with naval crews requisitioned or chartered for naval or military transport services, but vessels on Government service with mercantile crews are included. Other exclusions are pleasure yachts sailed privately, tugs engaged on the coasts of the United Kingdom, vessels entering ports for shelter through stress of weather and British fishing vessels.

Vessels with cargo
Vessels loading or unloading cargo, even though principally engaged in carrying passengers. Cargo consists of merchandise (other than Government stores, ships' stores or bunkers), bullion, specie or mail.

## Vessels in ballast

Vessels other than those defined above under vessels "with cargo". The figures include vessels unloading or loading only Government stores, that is, goods consigned direct to Allied or
Commonwealth forces in this country or reshipment of such goods; goods shipped by a United Kingdom Government department for the use of United Kingdom forces abroad or reimports of such goods and imports of captured enemy military equipment.

### 8.12 Arrivals of shipping at United Kingdom ports

Vessels calling during the course of a single voyage at more than one port are recorded as arrived and
departed at each port. The extent of the duplication, so far as inward movement is affected, can be seen by comparing the figures for foreign trade arrivals in this table with those for entrances in Table 8.1I.

The terms "cargo" and "ballast" are defined as for Table 8.1 I.

## RAILTRANSPORT

### 8.16 Repair and availability of rolling stock

## Locomotives

Steam, electric, petrol, oil and oil electric locomotives but excluding rail-motors. Figures do not necessarily show the number owned by the railway companies as account has been taken of loans made to and by the railway companies, the Service departments, the Ministry of Supply, etc.

## Passenger-carrying vehicles

Rail motor vehicles and steam and electric coaches. Account has been taken of loans made to and by the railway companies, the Service departments, the Ministry of Supply, etc.

## Trucks and wagons

Most of the privately-owned wagons in Great Britain were requisitioned in September 1939, with the exception of tank wagons, certain specially constructed wagons and wagons set aside for special traffic such as tarred road materials, cement, salt, etc.

### 8.17 Passenger and goods traffic

Passenger journeys
The figures of passenger journeys show the number of journeys originating on the railway system of Great Britain, including through booked passenger journeys commenced by road and completed by rail:

Children for whom tickets are issued are treated as adults, but infants in arms are excluded. Return tickets are counted as two journeys and the number of journeys by season ticket holders are on the basis of 600 journeys per annum. Government department traffic (for example, naval, military, etc.), tickets under bulk travel arrangements and other reduced fare traffic are included.

Estimated passenger miles
Figures relate to main line companies only and are estimated.

Goods, mineral and livestock traffic
The figures show the tonnage of revenue-earning
traffic conveyed by trains on the railway system. Cross-channel traffic invoiced to interior stations is treated as originating at the port of entry.

Free-hauled traffic, which includes servicing materials for the railways conveyed without charge on revenue-earning trains, and traffic conveyed on ballast trains or departmental trains is excluded.

Estimated net ton-miles
The product of the load conveyed and the miles travelled including free-hauled traffic.

### 8.18 Operating statistics

Loaded train-miles
The distance run by all types of revenue-earning trains calculated on the actual distance worked to the nearest mile. Coaching trains are trains made up entirely of coaching vehicles for the conveyance of passengers and other traffic scheduled as passenger train traffic, such as parcels, mails, etc. Freight trains are those composed of wagons, trucks, etc., used for the conveyance of goods traffic at freight train charges. The mileage of trains consisting of both coaching and freight vehicles and scheduled as "mixed" has been divided equally between coaching and freight.

Loaded wagon-miles
The mileage of loaded wagons including those loaded with free-hauled traffic worked on revenueearning trains. Each vehicle is counted irrespective of its capacity or its load. The distances correspond to those for train-miles but no mileage is included for the distances covered by wagons when being shunted.

### 9.19 Traffic receipts

From Ist September 1939, under the Railway Control Agreement, the receipts of the controlled undertakings (the four main line railway companies, London Passenger Transport Board, their joint lines and certain minor railways) were pooled and clearances between undertakings were not made. These figures represent, therefore, the originating receipts of the major portion of the Pool.

On I Ith June 1939 railway passenger fares in the London area, including those on the London Passenger Transport Board, were increased by 5 per cent to the level of fares outside London; on Ist May 1940 railway passenger fares (except season tickets and workmen's fares) and freight rates were increased by 10 per cent; on Ist December 1940 this percentage was raised to $16^{2 / 3}$. On the London Passenger Transport Board increases in railway passenger fares above 5d.
became effective from Ist May 1940 and increases in certain other railway and road transport fares became effective from 3rd July 1940 and Ist December.

## Passenger receipts

Passenger receipts are the receipts from passenger fares of all kinds. Charges for platform tickets, seat reservations, left luggage, etc., which are classed as miscellaneous receipts are excluded.

Parcels, mails, etc.
Include receipts from the conveyance of small parcels and other merchandise by passenger train as well as mail and parcel post.

## Merchandise

This class includes all freight train traffic except coal and coke and minerals and other commodities carried in bulk.

## Minerals

This class covers traffic in Classes I to 6 of the general railway classification, that is, minerals and other heavy freight carried in bulk, for example, bricks, iron ore, lime, limestone, pig-iron, road stone and stone in the rough.

Coal and coke
Includes coal, coke, patent fuels, slack smudge, cannel and coal cinders for fuel.

## ROAD TRANSPORT

8.20, Vehicles with licences current and new 8.21 registrations

These figures are compiled from information received by the Ministry of Transport from all licensing authorities in Great Britain which administer the relevant sections of the Roads Act, 1920. The statistics are thus a by-product of administration and the classes shown correspond in the main to taxation classes. The figures include all vehicles which pay tax and certain vehicles which are exempt from the payment of tax. Most of the latter carry a form of licence known as a "nil" licence.

Exempt vehicles are of three kinds: (a) vehicles which are designed and used for certain particular purposes; (b) those which make little or no use of public roads; and (c) vehicles owned by Government authorities.

Vehicles in the first class (such as ambulances, invalid vehicles, road construction vehicles and fire
service vehicles) are registered when they are first brought into use and pay no tax but they do carry a "nil" licence. They therefore appear in the statistics of licences current. During the war, fire service vehicles were temporarily transferred to the National Fire Service and operated under O.H.M.S. certificates instead of "nil" licences, and during this period they disappeared from the statistics.

Of vehicles in the second class, those which are never used on the public roads (for example farm or works tractors used solely on the farm or site) are not required to bear a licence or to be registered, and are therefore outside the statistics altogether. Vehicles which make no use of roads repairable at the public expense, or make little use, that is, they travel not more than six miles per week while passing between different parts of the owners' lands, are registered but carry no licence. Therefore, they are not included in the statistics of licences current.

Vehicles belonging to the armed forces are not registered and carry O.H.M.S certificates. Hence they are not included in either table.

Agricultural tractors may fall into the 5 s. or $£ 12$ class according to the uses to which they are put by the owner. The 5 s . agricultural tractor class includes locomotive ploughing engines and other agricultural engines and covers those which are used on roads only for hauling their own equipment, farming implements and the like, or for hauling agricultural produce or requisites provided that the owner is engaged in agriculture and the vehicle is used primarily for work on the land. It also includes some trench diggers, excavators and mobile cranes which are used on roads only for proceeding to and from working sites. Mowing machines are also included. The $£ 12$ and over class includes tractors, agricultural tractors and engines (other than vehicles subject to a duty of 5 s .) which are registered in the name of a person engaged in agriculture and which are used on the roads solely for the haulage of the produce of and requisites for his own agricultural land.

Agricultural vans and lorries are goods vehicles registered in the name of a person engaged in agriculture and used on roads solely for the conveyance of the produce of and requisites for his agricultural land.

## 9. EXTERNALTRADE

9.3- The tables covering external trade have been
9.10 compiled from information published in the Annual Statements of Trade of the United Kingdom and from the monthly Accounts relating to the Trade and Navigation of the United Kingdom.

## Quantities and values

Both quantities and values are based on the declarations of importers and exporters, or their agents, which may be verified by Customs officials. The value of the imports represents the open market value as defined by Section 10 of the Finance Act, 1935. Briefly stated, this value is the price which the goods would fetch on sale in the open market at the time of import if the goods were delivered to the buyers at the port or place of importation, freight, insurance, commission and all other costs, charges and expenses incidental to the making of the contract of sale and the delivery of the goods at that port or place (except any duties of Customs and purchase tax) having been paid by the seller. The value of the exports represents the cost of the goods to the purchaser abroad, including packing, inland and coastal transport in the United Kingdom, dock dues, loading charges and all other costs, profits, charges and expenses (for example, insurance and commission) accruing up to the point where the goods are deposited on board the exporting vessel or aircraft or at the land boundary of Northern Ireland, and is known as the "free on board" value.

## Imports and exports Military stores

Stores owned by the Government of this country shipped for the use of United Kingdom forces abroad are excluded from the export figures. Similarly, military stores carried in Government vessels and captured enemy equipment imported by Government departments are excluded.

Stores and equipment imported direct by Commonwealth and allied forces and auxiliary bodies based in the United Kingdom are excluded. Imports by a United Kingdom Government department (unless carried in Government vessels) even though transferred subsequently to such forces within the United Kingdom are however included in the figures.

Stores for N.A.A.FI., the Y.M.C.A. and other similar organisations are included.

## Munitions

The figures for 1942 to 1945 exclude imports, exports and re-exports of "munitions", that is, aircraft and other vehicles and parts (except rubber tyres and tubes), arms, ammunition and military and naval stores. From 1938 to 1941 such goods are included under the appropriate headings of the Trade Accounts except that certain warlike stores imported for Government use are included under a comprehensive heading for Government stores (Class III, Group U (Miscellaneous articles wholly or mainly manufactured)).
Relief and rehabilitation, lend-lease and mutual aid Exports of goods for relief and rehabilitation of liberated countries in Europe are included in the figures whether exported by U.N.R.R.A., by a United Kingdom Government department or on behalf of the country concerned.

Goods imported under lend-lease and mutual aid arrangements are included throughout under the appropriate headings; those imported by U.N.R.RA. for its official use are excluded.

Parcels for prisoners of war and the armed forces
Parcels despatched to prisoners of war are excluded from the export figures.

Parcels despatched to United Kingdom or allied forces abroad are included as exports under the heading of "parcel post" except where they contain tobacco or other goods exported on drawback when they are included under the appropriate export heading.

Parcels from North America to United States and Canadian forces in this country are excluded. All other parcels are included as imports, those containing goods liable to import duty being recorded under the appropriate headings and not under parcel post.

## Miscellaneous exclusions

Bullion and specie, ships' stores and bunkers and ballast of no commercial value are excluded from both exports and imports. In addition, exports exclude personal and household effects taken by passengers for private use and articles exported solely for temporary exhibition in galleries and museums abroad. Imports exclude fresh fish and shell fish of British taking landed from British ships, gifts for members of the forces and for approved war charities, etc.

## 10. PUBLIC FINANCE

### 10.4 Floating debt

Advances from the Bank of England
Ways and Means advances.

## Advances from Government departments

Certain loans made to the Treasury by Public Departments, principally by the Paymaster-General and the National Debt Commissioners, out of accruing receipts.

## Treasury bills

The total value of bills held by the market, by Public Departments and the Issue Department of the Bank of England.

## Treasury deposits by banks

Loans to the Treasury by the banks for periods of six months.

### 10.5 Currency circulation and bank clearings

 Currency circulationThe series showing the estimated circulation of notes and coin with the public relates to the total note issues of the Bank of England, the Scottish banks and the Northem Irish Banks, plus the estimated total of imperial silver, cupro-nickel, bronze and nickel-brass coin in circulation, less notes and coin held by the Bank of England (Banking Department), by the Scottish and Northern Irish Banks (as published in the London and Belfast Gazettes) and by the London Clearing Banks.

## Bank clearings

The clearings reported by the London Bankers' Clearing House represent the total of bankers' effects (cheques, drafts, bills, interest warrants, etc.) passed through the clearing houses for collection from the banks.

Before the war the clearing house in London published its figures under three regions - Town, Metropolitan and Country - which covered broadly the City of London, the London suburbs and the rest of England and Wales (apart from the purely local provincial clearings) respectively. This classification ceased when the clearing banks' emerging operations came into force in September 1939.

During the war years the figures include the large volume of transactions settled between the head offices, and branches of the same banks but not cheques cashed over the counter. A partial return
to pre-war methods, which excluded these transactions, began in October 1945.

Provincial clearings represent similar collections at the 12 clearing houses operating in the provinces.

### 10.6 External disinvestment

This summary table estimates, over the period from the outbreak of war in Europe to 30th June 1945, the effect of the war upon the United Kingdom in terms of capital loss in the overseas financial position. This loss took the form of the realisation of investments, the incurring of debts in the form of sterling liabilities, etc., and the running down of gold and dollar reserves. The sum of these represents the loss of overseas wealth which the United Kingdom suffered in order to meet overseas military expenditure and the cost of essential services and supplies from abroad.

## 10.7, Lend-lease and reciprocal aid

10.8 The material contained in the two tables dealing with lend-lease and reciprocal aid has been extracted from a paper "Mutual Aid between the US and the British Empire, 1941-45" read before the Royal Statistical Society by Professor R.G.D Allen on 29 th May 1946. A brief description of the nature of the material used and of its source is given below. Fuller information can, however, be obtained from Professor Allen's paper (Joumal of the Royal Statistical Society, Vol. CIX, Part III, 1946, pp. 243-277).

United States lend-lease aid to the British Empire The figures relate to goods transferred and services rendered under lend-lease as recorded by the Foreign Economic Administration (F.E.A.) and published in the Reports to Congress on lend-lease operations made quarterly by the President. Certain major revisions were made on the cumulative returns after June 1945. Aid to the British Empire shown in this table agrees with the revised F.E.A. figures cumulatively to 30 th June 1945 and to 31 st August 1945. The analysis by period to mid-1945 is obtained from differences in F.E.A. cumulative figures on the unrevised basis, except for adjustments in services and in industrial products (metals and machinery) arising from the revision. The analysis by periods must therefore be accepted with caution.

The classification adopted is as follows:
(a) Munitions: aircraft, ordnance, combat and motor vehicles and related equipment; small water-craft and naval equipment; signal engineer, quartermaster, medical, chemical warfare and other military stores.
(b) Ships (sail-away): naval and merchant vessels delivered under their own power.
(c) Other goods: agricultural products, raw materials, petroleum and manufactures.
(d) Services: ship repair, freights, ships' stores and other shipping services; ferrying of aircraft; training of personnel; storage and transportation; materials and charges for construction of bases; miscellaneous expenses.

Since Canada did not receive lend-lease aid, goods exported by the United States to Canada for the eventual use of the United Kingdom are included in the United Kingdom figures. Lend-lease aid has been shown as valued by the United States in dollars and reciprocal aid (in Table 10.10) as valued by the United Kingdom in $£$ sterling. Any direct comparison raises the difficult problem of the appropriate relation between the dollar and the $£$ sterling. The official rate of exchange has no relevance to the problem. What is required is either an evaluation of what lend-lease aid to the British Empire would have cost if the goods had been produced and the services rendered in British countries, or an evaluation of what reciprocal aid to the United States would have cost at the United States prices used in the accounting of United States lend-lease aid. For munitions and military stores (excluding food) an item by item comparison of unit costs in the United States and United Kingdom indicates that an appropriate average of conversion is around $\$ 7$ to $£ \mathrm{l}$. For other goods and for services only a fragmentary comparison of the United States and United Kingdom prices used in mutual aid valuations is possible. The appropriate conversion rate, however, would seem to be not far from the official rate of exchange, that is about $\$ 4.03$ to $£$ l.

## United Kingdom reciprocal aid

The figures have been derived from the White Papers on Mutual Aid (Cmd. 6483, 1943 and Cmd. 6570,1944 ) and cumulative data subsequently compiled by the Treasury. Figures of petroleum provided in India are from United States Army records supplied to the F.E.A.

The classification follows closely that for United States lend-lease in the previous table. Military stores include all munitions and other stores for direct use by foreign forces with the exception of petroleum and food. Services are mainly transportation but also include building maintenance. The construction figure represents the cost to the Service departments of the
construction of military installations and includes the whole cost of the Mulberry Harbour.

Aid to the United States in the United Kingdom comprises all transfers of goods and services to United States forces in the United Kingdom, but shipping services and petroleum tankers are on a world-wide basis. Aid in the United States includes both goods transferred in the United States as food and materials exported from the United Kingdom and the colonies to United States. Aid in overseas theatres includes transfers and construction in the colonies as well as in various theatres of war.

## II. NATIONAL INCOME

Tables 11.3-11.9 have been prepared as far as possible on the same basis as those contained in "National Income and Expenditure of the United Kingdom 1946 to 1949" (Cmd. 7933, 1950). The correspondence, nevertheless, is not exact. While continuity has been preserved for the war years 1939-1945 there remains in certain points of detail an unavoidable break between the figures for this period and the figures for 1938 and for the postwar period. This applies chiefly to the accounts of public authorities.

It must be strongly emphasised, moreover, that the estimates given here are not based on exact knowledge, but are derived from information collected by government departments and private organisations for needs other than the estimation of national income. In some cases the information is very incomplete. No direct estimates of personal saving or of capital formation have been possible. Personal saving has been obtained by subtracting personal expenditure from personal income, and gross capital formation by subtracting all other components of national expenditure from the total of national income and depreciation.

For detailed definitions of terms reference should be made to Cmd. 7933. For items where the title is not self-explanatory, or to which special qualifications apply, brief notes are added below.

## I I.3 National income, depreciation and expenditure

The first part of this table presents estimates of the incomes received, in cash and in kind, by factors of production in producing the current output of goods and services of all kinds. The incomes are reckoned before tax, but after the amounts
allowed for maintenance and depreciation in the calculation, for tax purposes, of net rent and profit. The total of these amounts together with the provision for maintenance by public authorities is given separately in this table.

Wages cover only the earnings of manual workers while salaries cover the earnings of administrative, professional, technical, clerical and office staff, including the earnings of shop assistants, commercial travellers, nurses and members of the police force and National Fire Service. In principle untaxed allowances of salary-earners and company directors' fees are also included in salaries.

## Income from farming

This item represents the reward of the manual and managerial labour of farmers and their wives and the return on their capital. The estimates, still subject to revision, were originally calculated for crop years June to May. The figure given in the table for the calendar year 1938 includes fivetwelfths of the income gained in the crop year 1937-38 and seven-twelfths of that for 1938-39; and similarly for other years. For example, the increase shown between 1938 and 1939 reflects in fact the higher profits reaped in the beginning of 1940.

## Professional earnings

This item includes the earnings of doctors, dentists, lawyers, artists, journalists and other professional persons. It excludes the profits of brokers, auctioneers, estate agents and of other businesses where the profits made depend on the making of contracts on behalf of others or in the giving of commercial advice relating to contracts.

## Profits of other sole traders and partnerships

This item includes the profits of all unincorporated enterprises other than those shown separately in income from farming and professional earnings.

## Trading profits of companies

This item covers the trading profits of companies and mutual societies other than the profits included in "net income from abroad", together with the surpluses, before deduction of interest or dividends on sales, of co-operative societies and public boards.

## Operating profits of public enterprises

The trading profits of local authorities before charging interest on, or amortisation of, debt plus the profit under the Railway Agreement less the loss incurred by the Exchequer in 1945 as a result
of illicit trading operations abroad by members of the armed forces and other government employees. The definition of this item differs from that in Cmd. 7933 by the exclusion of the trading profits of the Board of Trade and Ministry of Supply and of the interest carried as a national charge in the commercial accounts of government trading branches.

## Rent of land and buildings

This item represents the net rental value on a Schedule A basis of lands and personal and business property, together with excess rents assessed under Schedule D.

## Net income from abroad

This item is made up of the profits remitted home by British companies operating abroad (other than oil, shipping and insurance companies, all of whose profits are included above) plus interest and dividends received from abroad less profits remitted abroad and interest and dividends paid (after deduction of tax) to non-residents.

## National expenditure

The second part of Table II.3 presents estimates of expenditure by residents of the United Kingdom on goods and services. The expenditure is recorded at market prices. From this expenditure is derived not only the incomes of the factors of production that produced the current output of goods and services, but also (i) the amounts to be provided for the maintenance, repair and replacement of the capital equipment used by the factors of production as part of the process of current output and (ii) the indirect taxes on outlay collected from producers by public authorities less subsidies paid to producers.

Gross national expenditure at market prices includes the amounts in both (i) and (ii). Gross national expenditure at factor cost excludes the amount in (ii) and is equal to national income plus depreciation.

## Personal expenditure on consumers' goods and services

This item is described in the notes to Table 11.9.

## Public authorities' current expenditure on goods and services

The term "public authorities" covers the central government, together with all extra-budgetary funds (in particular the Unemployment Fund and various national health insurance and pensions funds), and local authorities.

Only direct expenditure on goods and service is included, except that the provision made for maintenance is treated as a current cost and therefore as part of gross national expenditure. This provision is measured, in the case of the central government, by the amount actually spent on the maintenance of roads and buildings and, in the case of local authorities, by the amounts spent on maintenance of highways and bridges plus loan repayments and payments to sinking funds on ratefund account, these being treated as the equivalent of depreciation allowances. Loan repayments or payments to sinking funds by the central government are excluded. Transfer payments (e.g., social security payments or subsidies) are also excluded, together with any transfers between one public authority and another. Expenditure refunded to the government or recovered by direct sales has also been excluded.

Capital expenditure by public authorities is included in the total of gross capital formation given separately below when it has been possible to distinguish it. But the separation is by no means complete. For example, it has not been possible to take full account of changes in government-owned stocks. All defence expenditure has been treated as current.

This item thus attempts to measure the value of the work currently performed on government account and the Exchequers' cash issues have been adjusted as far as possible for changes in department's cash balances and in the Government's liabilities to industry.

It is not, however, a consistent measure of the value of resources at the disposal of public authorities since lend-lease assistance has been excluded throughout with the one exception that the 1945 figure includes an amount of $£ 161$ million ( $\$ 650$ million) to cover the final settlement with the Government of the United States.

## Gross domestic capital formation

This item is composed of gross expenditure, both public and private, on fixed capital and its upkeep (i.e., new additions, replacements and repairs) plus the increase in value of stocks and work in progress. It has been impossible to estimate this item directly for the war years and the figures given here have been obtained as a residual. They are therefore dependent on the accuracy of the estimates of each of the other items of national income and expenditure. Moreover, as explained above, part of capital formation may be included in
public authorities' expenditure. The figures given here should therefore be treated with great reserve.

## Net lending abroad and purchase of assets and financial claims from overseas

This item is an estimate of the net change in the external assets of the United Kingdom. It is equal to the surplus (or deficit) of the balance of payments on current account, i.e., to the difference between the country's current receipts from abroad and its current payments to foreigners. Lend-lease has entered into this item in only one year: the 1945 figure includes the liability of $£ 161$ million to the Government of the United States mentioned above.

## II.4 Revenue account of persons

Personal income is made up of (i) incomes from employment for pay or gain (i.e., the first six items of Table II.3); (ii) receipts by persons (treating charities, life insurance funds and other non-profitmaking bodies, as persons) of net rent, dividends and interest paid by companies and public enterprises, debt interest paid by public authorities and income from abroad; and (iii) transfer incomes - social security benefits, war gratuities, etc. In all cases the income is reckoned before deduction of tax or insurance contributions.

Net saving is the amount left out of personal income after deducting current expenditure on consumers' goods and services, the tax liable on current income (whether paid currently or in the future) and taxes paid on capital (e.g., death duties).

## II.5 Revenue account of public authorities

This table summarises the income and expenditure of public authorities after eliminating transfers between one public authority and another, such as Exchequer grants to local authorities and Exchequer contributions to insurance funds.

## Miscellaneous income from property

This is made up of the profits of public enterprises and receipts of dividends, interest and rent (including national debt interest paid to the Unemployment Fund and national health insurance funds and debt interest paid by local authorities to the central government). Total national debt interest plus the total interest on local authorities' debt is treated as negative income from property.

## I 1.6 Combined capital account

This table shows the sources from which gross capital formation was financed. Transfers from
public authorities (the same as transfers to capital accounts shown in Table I I.5) consist of payments in respect of war damage claims and capital grants to local authorities

## II.7 Central government revenue

Tax revenue represents the net receipts by the Board of Inland Revenue and H.M. Customs and Excise as distinct from payments into the Exchequer

## II.8 The finance of the central government deficit on current account Small savings

The increase in investments from the net deposits in the Post Office and Trustee Savings Banks together with receipts less repayments of National Saving Certificates and Defence Bonds.

## Other public issues (net)

Receipts less redemptions, but excluding purchase of government securities by public departments.

## Floating debt

Treasury bills, treasury deposit receipts and Ways and Means advances.

## Lending and net capital formation

Includes loans to local authorities, Post Office loan expenditure, and Road Fund expenditure on improvement and new construction of roads.

## II.9 Personal expenditure on consumers' goods and services

The totals shown in the table relate to expenditure out of personal income, i.e., the income of individuals and of charities and other non-profitmaking bodies. The estimates for the different groups of expenditure include purchases by visitors to the United Kingdom and exclude purchases abroad by British troops and tourists. Rough adjustments for these factors are made at the end of the table.

Expenditure on consumers' goods and services by business firms and public authorities is as far as possible excluded except in certain cases where the object purchased is resold to persons as part of a composite product or service. Thus personal expenditure on meals in restaurants and hotels is spread over several categories. The cost to the establishment of the food used appears in the item "Food"; the rent of the building in the item "Rent, rates and water charges"; the chinaware and
cooking utensils in the item "Durable household goods", and the allowance for the purely service and managerial element of expenditure in the item "Other services".

The figures represent the expenditure of consumers in the above sense on goods and services of all kinds whether these are provided out of new production or from stock Secondhand goods are not included but an allowance is made for the costs, including profit, of handling and reconditioning them. For private motor vehicles this allowance is made in the item "Private motoring"; for other goods it is included in "Other services".

The figures in the second part of the table have been obtained by revaluing at the appropriate 1938 prices the quantities bought in any year of as many individual items as possible within each group of goods and services. The resulting products have then been added to arrive at a total for each group.

As it has been impossible either to allow for restrictions on consumers' choice due to rationing or to take full account of changes in quality, the resulting series must not be regarded as giving a reliable measure of changes in the standard of living.

Definitions of the miscellaneous categories of expenditure are given below.

## Durable household goods

Furniture, soft furnishings, floor coverings, musical instruments, radio sets, pottery, glassware, electrical goods and all hardware.

## Other household goods

Matches, soap, candles and miscellaneous cleaning materials.

## Other services

Medical services not provided under national health insurance, domestic service, undertaking, laundry, hairdressing, hotel and restaurant services, repairs and other miscellaneous services not included elsewhere.

## Other goods

Stationery, fancy goods, bicycles, sports and travel goods, chemists' wares and other miscellaneous goods not included elsewhere.

## 12. WAGES AND PRICES

## 12.3, Average weekly earnings and hours worked

12.5 in manufacturing and certain other industries
The figures relate to all wage earners other than office staff, shop assistants and outworkers; managers, commercial travellers, clerks, typists and salaried persons generally are excluded.

The industries covered are those for which separate figures are given together with mining and quarrying (excluding coal mining), treatment of nonmetalliferous mine and quarry products, leather, fur, etc., woodworking, paper, printing, stationery, etc., miscellaneous manufacturing industries, Government industrial establishments, local authorities' non-trading services, gas, electricity and water supply services. The figures are based on returns from employers showing for a particular week in the month indicated, the number of wage earners actually at work, their aggregate earnings and the total number of manhours worked. The returns received at each enquiry covered five to six million workers, but in calculating the general averages and those for each of the groups of industries shown separately the averages for the individual industries have been "weighted" on the basis of the total number of wage-eamers employed in each industry. In the case of women two part-time workers were, from July 1942 counted as one full-time worker.

The percentage increases in average earnings since October 1938 represent the combined effect of a number of factors, including (a) increases in rates of wages; (b) increases or decreases in the number of hours worked and in the proportion of hours paid for at overtime, week-end and night shift, etc., rates; (c) extensions of systems of payment by results in some industries, and increased output by the workers affected; (d) changes in the proportions of men, boys, women and girls employed in different occupations and (e) changes in the proportions of workers employed in different industries.

### 12.6 Wage rates and cost of living Weekly wage rates

The figures are based on wage records in 69 industries, which include most of the principal industries and a proportion of the smaller industries. The principal industries or services which are not covered are the distributive trades, domestic service, the catering trades, National Government service and entertainment, sports, etc.

The series shows the estimated percentage increase in all industries since the beginning of September 1939. Estimates are made monthly by the Ministry of Labour and National Service of the average percentage increase in rates of wages, for a full week's work, in industries, occupations and localities in which changes in the general levels of wage rates are regulated by collective agreements between organisations of employers and work people, arbitration awards or statutory orders. The percentages of increase since September 1939 vary considerably in different cases and in combining these percentages into a general average the Ministry of Labour has taken account of the approximate total pre-war wages bill in the various industries. The figures do not, however, take account of the effects on the general level of wages of the changes which have occurred since 1939 in the proportions of work people employed in different industries, nor of increases in wage rates granted by employers to individual workers. In the absence of comprehensive information as to the rates of wages actually paid by employers generally to their work people, the average percentages shown should not be regarded as more than rough approximations.

## Working-class cost-of-living index

The figures are derived from the changes since Ist September 1939 shown by the Ministry of labour cost-of-living index. This index measured the average percentage increase in the cost of maintaining unchanged the standard of living prevailing in working-class families before August 1914. The percentage changes since July 1914 in the prices of the various commodities and services included in the index were combined by means of weights representing the estimated relative expenditure on these commodities and services by working-class families at that date. The 1914 weights for each of the main expenditure groups were: Food $7 \frac{1}{2}$, rent (including rates) 2 , clothing $11 / 2$, fuel and light 1 , other items included in the index $1 / 2$.

### 12.7 Agricultural price indices

The prices used were the controlled prices or, where the product was uncontrolled, quotations made weekly by the Ministry's market reporters; Government payments such as acreage payments are taken into account. Thus so far as is possible the prices used are those relating to the point of first sale by the producer. In the case of fruit, vegetables and glasshouse produce, however, the prices are, for the most part, based not on prices
realised by growers but on the prices realised by primary and secondary wholesalers at certain representative urban markets. Exceptional prices at the beginning and end of the season are excluded.

The index number for all products is the weighted arithmetic mean of the percentage price changes of 24 main items compared with prices in the base years.

The weight assigned to each commodity is proportional to the average value of the output of the five most recent crop years, re-valued at the prices of the base period 1927-29. Thus for the year 1945 the weights will be derived from the average quantities of output during the crop years 1939/40 to 1943/44 re-valued at the prices for 1927-29. As the system of moving weights involves a change in the weights used from year to year the following table allows a comparison to be made between weights in 1938 and 1945.

## Moving weights used in the index of agricultural prices

| Total | 200 | 200 |
| :--- | ---: | ---: |
| Wheat | 6 | 12 |
| Barley | 4 | 7 |
| Oats | 2 | 1 |
| Potatoes | 10 | 14 |
| Hay | 4 | 2 |
| Fat cattle | 18 | 16 |
| Fat cows | 7 | 6 |
| Fat sheep | 7 | 6 |
| Fat ewes | 3 | 3 |
| Pork pigs | 8 | 5 |
| Bacon pigs | 11 | 7 |
| Fat sows | 3 | 2 |
| Milk | 46 | 53 |
| Butter | 3 | 1 |
| Cheese | 1 | - |
| Poultry (fowls and ducks, and, in |  |  |
| annual index, geese) | 5 | 4 |
| Eggs | 18 | 12 |
| Sugar | 7 | 8 |
| Hops | 2 | 2 |
| Fat lambs | 6 | 5 |
| Wool | 4 | 4 |
| Fruit | 10 | 12 |
| Vegetables | 12 | 14 |
| Glasshouse produce | 3 | 4 |

Both the wheat and potato indices include an allowance for acreage payments; for wheat the addition is based on the estimated quantity sold, for potatoes on the estimated total production. The indices for potatoes include only prices for January to June and September to December, and are based on the average of these months in the base years.

Index numbers calculated on the base 1927$29=100$ have been multiplied by appropriate factors to convert them to the base $1936-38=100$.

### 12.8 Stock and fertilizer prices indices

Prices for certain breeds quoted by the Ministry's market reporters are used in calculating the price indices for dairy cows, store cattle, store sheep and store pigs.

The index of fertilizer prices is calculated from quotations for basic slag, sulphate of ammonia, ground rock phosphate, nitrate of soda, nitro-chalk and superphosphate.

Weights used in the calculation for this index are as follows:-

| Total | 100 |
| :--- | ---: |
| Ground rock phosphate | 5 |
| Nitrate of soda | 6 |
| Nitro-chalk | 8 |
| Sulphate of ammonia | 33 |
| Superphosphate | 36 |
| Basic slag | 12 |

The method used is similar to that for agricultural prices but the weights applied to the different commodities are fixed and are proportional to the estimated average annual consumption of these materials in the calendar years 1937 and 1938.

### 12.9 Wholesale prices

The index is computed as a geometric average of 200 price changes. The number of varieties of each commodity chosen is as nearly as possible the same proportion of 200 as the value of the imports and production of the commodity (including any further stages of manufacture not separately represented in the index) is of the total for all articles in 1930. In a few cases (for example, other chemicals) in order to improve the representation, prices of several items are averaged to form a single series with a weight of one.

Thus while the index is computed as a simple average, a system of weighting is in reality achieved.

As far as possible, duplication between the various trades comprised within a group has been eliminated as has also the duplication between groups resulting from the inclusion in one group of a commodity which clearly forms a dominant material in another group. In this way the overweighting of certain commodities has been avoided. Thus coal, which is largely used in industry as a fuel or a raw material is to that extent already embodied in industrial output, and accordingly only receives representation in the index number in relation to its importance for other purposes including the production of gas and electricity for non-industrial uses.

The index is divided into two major groups, food and tobacco ( 68 items) and industrial materials and manufactures including fuel ( 132 items). Excluding fuel, the items in the latter are regrouped to form index numbers of basic materials ( 33 items), intermediate products ( 38 items) and manufactured articles (48 items). The latter relates to goods which are mainly manufactured rather than goods which are complete and ready for consumption for which it is difficult to get satisfactory price quotations. A further index number for building materials is also compiled; in this, the weight assigned to each commodity is based on its importance as a building material.

The price quotations used are for the most part weekly. For dutiable goods they include the appropriate amount of duty and for subsidised goods, the lower price (after deduction of the subsidy) is used. The weekly quotations are combined into monthly averages so that the index numbers relate to the average for the month. Annual indices are obtained by taking the geometric mean of the monthly indices.

Notes

## Notes

## Figures indicate Table numbers

## A

Abrasives
exports, 9.6
retained imports, 9.5

## Absenteeism:

in coal mines, 5.6
Acrylic sheet:
production, consumption and stocks, 6.16
Ages, of population, I.4, I. 5
Agriculture:
employment, 3.3, 3.12
crops:
acreage, 4.3, 4.4
harvested, 4.5, 4.6
yield, 4.7, 4.8
grassland, acreage, 4.3, 4.4
machinery.
exports, 9.12
imports, 9.11
in use, 4.12
production, 7.30
prices, 12.7, 12.8

## Aircraft:

arrivals overseas, 7.28
arrivals in United Kingdom, 7.27
index of production, 7.24
production, 7.22, 7.23
repairs, 7.25
Aircraft carriers:
production, 7.3
Aircraft engines:
imports, 7.26
production, 7.26
repairs, 7.26
Aircraft production:
employment, 3.17
Airfields:
construction, 2.20
Airfield track:
production, 7.12
Air raid damage:
repairs, 2.20
Air Raid Precautions services: numbers employed, 3.10

Alcohol, industrial:
production, consumption and stocks, 6.14
Alcoholic beverages:
expenditure on, 11.8
Alumina:
production, consumption and stocks, 6.8
Aluminium:
imports, 9.11
production, consumption and stocks, 6.9

## Ambulances:

 production, 7.19
## America:

trade with, 9.7, 9.8
Ammonia:
production, consumption and stocks, 6.15
Ammonium sulphate:
exports, 9.12
prices, 12.8

## Ammunition:

index of production, 7.9
production, 7.15-7.17

## Anhydrite:

production, consumption and stocks, 6.14
Animal feeding-stuffs:
consumption, 4.17
imports, 8.14, 9.9
losses at sea, 4.20
retained imports, 9.5
Anthracene:
production, 5.8
Anthracite:
consumption, 5.4
stocks, 5.5
Anti-aircraft:
ammunition, 7.15
guns and equipment, 7.10, 7.11, 7.13
Apparel:
exports, 9.6
imports, 9.11
retained imports, 9.5
Approved societies, 2.7
Argentine Republic:
trade with, 9.7, 9.8

## Armed forces:

age distribution, 3.5
casualties, 3.6, 3.8
ex-members unemployed, 3.3
intake and outflow, 3.6
pay and allowances, 11.2, 11.3
releases, 3.6, 3.7
strength, 3.3, 3.4

Armoured cars:
production and arrivals, 7.18
Armoured fighting vehicles:
index of production, 7.9
production and arrivals, 7.18

Army:
casualties, 3.8
prisoners of war, 3.8
strength, 3.4
Artillery and artillery equipment:
production, 7.10, 7.15
Australia:
trade with, $9.7,9.8$

Auxiliary Territorial Service:
casualties, 3.8
prisoners of war, 3.8
strength, 3.4
Aviation spinit:
arrivals, 5.13
deliveries into consumption, 5.16
production, 5.14, 5.15

## B

Bacon:
consumption, 4.17
lend-lease arrivals, 4.19
production, 4.16
supplies per head of population, 4.18
Bailey bridge panels:
production, 7.21
Bank advances, 10.5
Bank clearings, 10.6
Banking, 10.6, 10.7
Barley:
acreage, 4.3, 4.4
consumption, 4.17
harvested, 4.5, 4.6
imports, 9.9
movement off farms, 4.13
prices, 12.7
yield per acre, 4.7, 4.8
Basic slag:
prices, 12.8

Basic slag, ground:
production, consumption and stocks, 6.15

## Battleships:

production, 7.3
Bauxite:
imports, 9.10
production, consumption and stocks, 6.8
Beer:
exports, 9.12
Belgium:
trade with, 9.7, 9.8
Betting offences, 2.11-2.14, 2.16
Beverages:
exports, 9.6
retained imports, 9.5
Birth rates, I. 6
Births:
illegitimate, 1.6
legitimate, 1.6
live, 1.6
still, 1.6
Biscuits:
consumption, 4.17
production, 4.16
Bitumen:
deliveries into consumption, 5.16
produciton, 5.14, 5.15
Blankets:
home supplies, 7.32
Boats:
assault, reconnaissance and storm: production, 7.21

Bomber aircraft:
arrivals overseas, 7.28
arrivals in United Kingdom, 7.27
production, 7.22, 7.23
Bombs, aircraft:
production, 7.16
Bomb throwers:
production, 7.13
Books:
expenditure on, 11.8
imports, 9.11
Borstal institutions, 2.17
Brazil:
trade with, 9.7, 9.8
Bridging equipment, military: production, 7.21

## Bronchitis

deaths from, 23.24

Brustes
producton and home supplies. 7.33
Builing industry:
werage weekly eamings 12.5
construction activico 220
employment 3.3
houses buit: 2.19
Buiding programe. Govermment: numbers employed. 328

Bullion:
advances 103. 10.4
Burmaz trade with, $97,9.8$

Butter: consumption, 4.17 imports 99 prices 127 procuction, 4.16 supplies per head of population. 4.18

## C

Calcum cartide production, consumption and stods. 6.14

Calcum slicide
consumption and stodks, 67
Camps, military:
construction, 220
Canadar
trade with, 9.7, 9.8
Canal trafic. 8.22
Capital account combined, 11.5
Capital formation, 11.2, 11.5
Cargo liners
production, 7.6
Casein plastic materials
production, consumption and stodks, 6.16

## Casuaties

ovilian, 23, 24
military, 3.6. 3.8

## Cattle

exports. 9.6
imports. 9.9.9.11
population 4.9, 4.10
prices. 127, 128
purchased for slaughter, 4.14
retained imports, 9.5

Celluioidt
production, consumption and stodes, 6.16
Celluiose acetate
production, consumption and stodk, 6.16
Cement
exports 9.12
Central govemment
deficit. 11.7
revenue. 11.6
Cereals
acreage, 42,43
consumption, 4.17
exports, 9.6, 9.12
harvested. 45, 4.6
imports 9.9
lend-lease amvals, 4.19
losses at sea 420
movement off farms. 4.13
prices 127
production, 4.16
retained imports, 9.5
supplies per head of population, 4.18
yield per acre, 4.7, 4.8
Ceylon:
trade with, 9.7. 9.8
Cheese:
consumption, 4.17
imports 9.9
lend-lease arrivals 4.19
prices. 12.17
production, 4.5
supplies per head of population, 4.18
Chemical industry:
average weekly eamings, 125
employment, $33,3.13,3.20$
Chemicals:
exports, 9.6
production, consumption and stocks, 6.14
retained imports. 9.5
Chocolate and sugar confectionery:
consumption, 4.17
production, 4.16
Chrome ore: consumption and stocks, 6.7

Civil Defence:
construction activity, 2.20
Civil Defence Services:
numbers employed, 3.3, 3.10
Civil engineering:
construction activity, 2.20
Civl Service:
industrial staff, 3.26
non-industrial staff, 3.27

Clearing banks, 10.6
Clothing (see also "Apparel"):
expenditure on, 11.8
Clothing industry:
average weekly earnings, 12.5
employment, 3.3, 3.20
Coal:
coasting trade, 8.23
consumption, 5.3, 5.4
exports, 9.6, 9.12
mined production, 5.3
opencast production, 5.3
stocks, 5.3, 5.5
Coal-mining:
absenteeism, 5.6
employment, 3.3, 5.6
productivity, 5.6
shifts worked, 5.6
wage earners, 5.6
Coal tar products:
production, 5.8
Coasting trade:
shipping movement, 8.12, 8.23
vessels employed, 8.6

## Cocoa:

consumption, 4.17
exports, 9.6
imports, 9.9
production, 4.16
retained imports, 9.5
supplies per head of population, 4.8

## Coke:

exports, 9.6
production, consumption and stocks, 5.7
Coke ovens:
coal consumption, 5.4
coal stocks, 5.5
production and stocks of coke, 5.7
Confectionery:
consumption, 4.17
production, 4.16
Consolidated Fund Services, 10.4
Consols, price and yield, 10.7
Construction activity, 2.20
Consumers' goods and services:
personal expenditure on, $11.2,11.3,11.8$
Contributory pensions, 2.9
Convictions, criminal, 2.11-2.17
Copper:
exports, 9.12
imports, 9.11
production, consumption and stocks, 6.8

## Corvettes:

production, 7.4
Cost of living index, 12.6
Cotton:
imports, 9.10
production, consumption and stocks, 6.18
retained imports, 9.5
spinning and weaving:
employment, 3.19
Cotton goods:
exports, 9.12
retained imports, 9.11
Cotton yarn:
exports, 9.6, 9.12
production, deliveries and consumption, 6.19
retained imports, 9.5, 9.1I
spindles running, 6.19
Creosote:
production, 5.8
Creosote oil:
production, 5.8
Cresylic acid:
production, 5.8
Cresylic powders and resins:
production, consumption and stocks, 6.16
Criminal offences:
juvenile offenders, 2.14-2.16
persons guilty of, 2.11-2.16
Crops:
acreage, 4.3, 4.4
harvested, 4.5, 4.6
prices, 12.7
yield per acre, 4.7, 4.8
Crude oil:
arrivals, 5.13
production of petroleum products, 5.14
Cruisers:
production, 7.3
Cryolite:
consumption and stocks, 6.8
imports, 9.10
Currency circulation, 10.6
Customs and Excise:
Central government revenue, 11.6
Exchequer issues, 10.4
Exchequer receipts, 10.3
Cutlery:
exports, 9.6
retained imports, 9.5

## D

Diary produce:
consumption, 4.17
exports, 9.6
imports, 8.14, 9.9
lend-lease arrivals, 4.19
losses at sea, 4.20
prices, 12.7
production, 4.16
retained imports, 9.5
supplies per head of population, 4.18
Death duties:
Central government revenue, 11.6
Exchequer receipts, 10.3
Death:
by age and sex, 1.9
by cause, 2.3. 2.4

## Debt:

floating, 10.4, 11.7
money raised by creation of, 10.3
Defence Regulations:
offences against, 2.11-2.14, 2.16
Defence services:
armed forces, 3.4-3.8
expenditure on, 10.4
Defence works:
construction, 2.20
Denmark
trade with, 9.7, 9.8
Depth charges:
production, 7.16
Derv fuel:
deliveries into consumption, 5.18, 5.19
Destroyers:
production, 7.3
Diesel oil:
arrivals, 5.13
deliveries into consumption, 5.16, 5.19
imports, 9.11
production, 5.14, 5.15
Diphtheria:
deaths from, 2.3, 2.4
notifications, 2.5
Disablement benefit, 2.7
Diseases:
infectious, 2.5
venereal, 2.6
Disinvestment, external, 10.8
Dissolution of marriage, 2.18
Distributive trades:
employment, 3.3
Divorce proceedings, 2.18

Drugs:
exports, 9.6
imports, 9.11
retained imports, 9.10
Drunkenness, 2.11-2.13
Dutch Indies, East and West:
trade with, 9.7, 9.8
Dyes:
exports, 9.6, 9.12
imports, 9.11
retained imports, 9.5
Dysentery, notifications, 2.5

## E

Earnings, average weekly, 12.3, 12.5
Education:
Government expenditure on, 10.4
Eggs:
consumption, 4.17
imports, 9.9
lend-lease arrivals, 4.19
prices, 12.7
supplies per head of population, 4.18
Egypt:
trade with, 9.7, 9.8
Eire:
trade with, 8.13, 9.7, 9.8
Electrical goods:
employment, 3.16
exports, 9.6
imports, 9.11
retained imports, 9.5
Electricity:
production, 5.11
sales, 5.12
Employment:
agriculture, 3.3, 3.12
aircraft manufacture, 3.17
armed forces, 3.3
building, 3.3, 3.28
chemicals, 3.3, 3.13, 3.14
Civil Defence, 3.3, 3.10
Civil Service, 3.26, 3.27
clothing, 3.3, 3.20
coal-mining, 3.3, 5.6
distributive trades, 3.3
engineering, $3.3,3.13,3.16,3.17$
explosives, 3.3, 3.13, 3.14
Fire Service, 3.3, 3.10
food, drink and tobacco, 3.3
fumiture, 3.21
glass, 3.3, 3.24
leather, 3.3, 3.23
metals, 3.3, 3.13, 3.17, 3.18
mining and quarrying, 3.3
National and Local Government, 3.3
paints and oils, 3.3, 3.14

## INDEX

Employment (continued)
paper and printing, 3.22
police service, 3.3
pottery, 3.3, 3.24
public utilities, 3.3
rubber, 3.23
scientific instruments, 3.17
shipbuilding, 3.13, 3.15
textiles, 3.3, 3.19
transport, 3.3, 3.25
vehicles, 3.3, 3.17
woodworking, 3.3, 3.21
Engineering industry:
average weekly earnings, 12.5
coal consumption, 5.4
coal stocks, 5.5
employment, 3.3, 3.13, 3.16, 3.17
Engineer stores, military:
production, 7.21
Engines, aircraft:
imports, 7.26
production, 7.26
repairs,7.26
Entertainment: expenditure on, 11.8

Esparto:
consumption and stocks, 6.17
Excess profits tax, $10.3,11.6$
Exchequer:
issues, 10.4
receipts, 10.3

## Excise:

Exchequer receipts, 10.3
Expenditure:
national, 11.2
personal, II.3, 11.8
Expenditure on goods and services:
personal, 11.2, 11.3, 11.8
public authorities, II.2, II.4
Explosives:
production, 7.16, 7.17
Explosives industry:
average weekly earnings, 12.5
employment, 3.3, 3.13, 3.14
Exports:
food, drink and tobacco, 9.6, 9.12
raw materials, 9.6, 9.12
manufactured goods, 9.6, 9.12
destination, 9.8
quantity, 9.12
value, 9.4, 9.6
volume,9.4
External disinvestment, 10.8
External trade, 9,4-9.12

## F

Factories:
construction, 2.20

Fats:
consumption, 4.17
imports, 8.14, 9.9
lend-lease arrivals, 4.19
losses at sea, 4.20
production, 4.16
supplies per head of population, 4.18
Feeding-stuffs:
consumption, 4.17
imports, 8.14, 9.9
losses at sea, 4.20
retained imports, 9.5
Ferro-alloys:
exports, 9.12
imports, 9.11
production, consumption and stocks, 6.7
Ferro-chrome
production, consumption and stocks, 6.7
Ferro-manganese:
production, consumption and stocks, 6.7
Ferro-silicon:
production, consumption and stocks, 6.7
Fertilizers:
imports, 8.15
losses at sea, 6.23
prices, 12.8
production, consumption and stocks, 6.15
Fighter aircraft:
arrivals overseas, 7.28
arrivals in United Kingdom, 7.27
production, 7.22, 7.23
Finland:
trade with, $9.7,9.8$

Fire Service, National:
employment, 3.3, 3.10
Fish:
canned:
consumption, 4.17
exports, 9.12
imports, 9.9
lend-lease arrivals, 4.19
production, 4.16
supplies per head of population, 4.18
fresh:
consumption, 4.17
exports, 9.12
imports, 9.9
supplies per head of population, 4.18
Flame throwers:
production, 7.13

Flax:
acreage, 4.4
harvested, 4.6
imports, 9.10
production, consumption and stocks, 6.22
yield per acre, 4.8
Flax for fibre:
acreage, 4.3
harvested, 4.5
yield per acre, 4.7
Floating debt, 10.5, 11.7
Flour:
consumption, 4.17
exports, 9.6, 9.12
imports, 9.9
lend-lease arrivals, 4.19
production, 4.16
retained imports, 9.5
supplies per head of population, 4.18
Fodder crops:
acreage, 4.3
harvested, 4.5, 4.6
yield per acre, 4.7, 4.8
Food:
average weekly earnings, 12.5
consumption, 4.17
expenditure on, 11.8
exports, 9.6, 9.12
imports, 8.14, 9.9
lend-lease arrivals, 4.19
losses at sea, 4.20
production of processed, 4.16
retained imports, 9.4, 9.5
supplies per head of population, 4.18
Food Ministry:
import programmes, $8.13,8.14$
Footwear:
exports, 9.6, 9.12
home supplies, 7.32
imports, 9.11
Foreign trade:
exports and imports, 9.4-9.12
shipping movement, $8.11,8.12$
France:
trade with, 9.7. 9.8
Frigates:
production, 7.4
Fruit:
acreage, 4.3, 4.4
consumption, 4.17
harvested, 4.5, 4.6
imports, 8.14, 9.9
lend-lease arrivals, 4.19
losses at sea, 4.20
prices, 12.7
production, 4.16
retained imports, 9.5
supplies per head of population, 4.18

Fuel and light:
expenditure on, 11.8
Fuel and power, 5.3-5.19
Fuel oil:
arrivals, 5.13
deliveries into consumption, 5.16, 5.19
imports, 9.11
production, 5.14, 5.15
Furniture industry,
employment, 3.21

## G

Gas:
materials used, 5.9
production, 5.9
sales, 5.10
Gas oil:
arrivals, 5.13
deliveries into consumption, 5.16, 5.19
imports, 9.11
production, 5.14, 5.15
Germany:
trade with, 9.7, 9.8
Glass:
exports, 9.6
retained imports, 9.5
Glass manufacture:
employment, 3.24
Gonormoea, 2.6
Goods receipts, railway, 8.19
Goods traffic, railway, 8.17
Government:
expenditure, 10.5
revenue, $10.4,11.6$
securities, 10.7
Government service:
employment:
National and Local Government, 3.3
Civil Service, 3.26, 3.27

Grain:
exports, 9.6
imports, 8.14
losses at sea, 4.20
retained imports, 9.5
Grassland, acreage, 4.3, 4.4
Grenades:
production, 7.15
Ground basic slag:
production, consumption and stocks, 6.15

INDEX
Ground rock phosphate:
prices, 12.8
production, consumption and stocks, 6.15

## Guns:

index of production, 7.9
production:
aircraft, 7.12
anti-aircraft, 7.11
anti-tank, 7.10, 7.13
light, 7.12
machine, 7.11, 7.12, 7.14
naval, 7.11
tank, 7.10, 7.14

H

Hardwood:
imports, 9.10
production, consumption and stocks, 6.10
Harvester-threshers:
in use, 4.12
production, 7.30
Hay.
acreage, 4.3, 4.4
harvested, 4.5, 4.6
prices, 12.7
yield per acre, 4.7, 4.8
Health:
Government expenditure on, 10.4
public health, 2.3-2.6
Hematite:
production, 6.4
Hemp industry:
employment, 3.19
Hemps:
disposals, consumption and stocks, 6.22
imports, 9.10
Hides:
exports, 9.6
imports, 9.10
losses at sea, 6.23
production and stocks, 6.12
retained imports, 9.5
High explosives:
production, 7.16, 7.17
Hollow-ware:
production and home supplies, 7.33
Home Guard:
strength, 3.9
Homicide, 2.12
Hops:
acreage, 4.3
harvested, 4.5
prices, 12.7
yield per acre, 4.7

## Horses:

grazed on agricultural land, 4.1I
Hosiery:
home supplies, 7.32
imports, 9.11

Hosiery industry:
employment, 3.19
Hours of work
average in industry, 12.4
Housebreaking offences, 2.12
Household textiles:
home supplies, 7.32
Houses:
built by:
Government Departments, 2.19
local authorities, 2.19
private enterprise, 2.19
permanent, 2.19
temporary, 2.19
war-destroyed rebuilt, 2.19
Housing:
Government expenditure on, 10.4
Government programme, numbers employed, 3.28

## I

Imports:
food, drink and tobacco, 9.5, 9.9
raw materials, 9.5, 9.10
manufactured goods, 9.5, 9.11
source, 9.7
quantity, 9.9-9.1।
retained, 9.5
value, 9.4, 9.5, 9.7
volume, 9.4
tanker imports, 8.13
under Departmental programmes, 8.13-8.15
Income:
national, I 1.2
personal, II. 3
Income tax:
Central government revenue, 11.6
Exchequer receipts, 10.3

Index of:
agricultural prices, 12.7, 12.8
aircraft production, 7.24
cost of living, 12.6
external trade, 9.4
fertilizer prices, 12.8
munitions production, 7.9
weekly wages, 12.6
wholesale prices, 12.9
India:
trade with, 9.7, 9.8
Indictable offences, 2.11, 2.13, 2.14

Industrial alcohol:
production, consumption and stocks, 6.14
Industrial methylated spirit:
production, consumption and stocks, 6,14
Industrial stoppages, 3.30
Infantile mortality, I. 8
Infectious diseases:
deaths from, 2.3, 2.4
notifications, 2.5

Influenza:
deaths from, 2.3. 2.4
Inglis bridges:
production, 7.21
Inland Revenue:
Exchequer issues, 10.4
Exchequer receipts, 10.3
Insurance:
national, 2.7-2.9
national health, 2.7
unemployment, 2.8
Iron and steel:
coal consumption, 5.4
coal stocks, 5.5
employment, 3.18
exports, 9.6, 9.12
imports, 8.15, 9.10, 9.11
losses at sea, 6.23
production, 6.5, 6.6
retained imports, 9.5
stocks, 6.5
Iron castings: production, 6.6

Iron founding:
employment, 3.17
Iron ore:
arrivals, 6.3
imports, 8.15, 9.10
losses at sea, 6.23
production, consumption and stocks, 6.3 retained imports, 9.5

## J

Jam:
consumption, 4.17
production, 4.16
supplies per head of population, 4.18
Jute:
disposals, consumption and stocks, 6.22
retained imports, 9.10
Jute industry:
employment, 3.19
Juvenile delinquency, 2.14-2.16

## K

Kerosene:
arrivals, 5.13
deliveries into consumption, 5.16
imports, 9.11
production, 5.14
Kettles:
production and home supplies, 7.33
Knitting yarn:
home supplies, 7.32

L

Landing craft: production, 7.4

Larceny, 2.11, 2.13, 2.14, 2.16
Latex:
consumption and stocks, 6.13
Lead:
imports, 9.11
production, consumption and stocks, 6.8
Leather:
exports, 9.6
imports, 9.11
production, consumption and stocks, 6.12
retained imports, 9.5
Leather manufacture: employment, 3.3, 3.23

Lend-lease:
aid to the British Empire, I 0.9
arrivals of foodstuffs, 4.19
Lighting (blackout) offences, 2.11-2.14, 2.16
Livestock
exports, 9.6
imports, 9.9, 9.11
population, 4.9, 4.10
prices, 12.7, 12.8
purchased for slaughter, 4.14
retained imports, 9.5
Locomotives:
availability, 8.16
production, 7.31
repair, 8.16
London Bankers' clearing houses, 10.6
Looting, 2.11, 2.13, 2.14, 2.16
Losses at sea:
feeding-stuffs, 4.20
food, 4.20
merchant vessels, 8.10
raw materials, 6.23

## Lubricating oils:

arrivals, 5.13
deliveries into consumption, 5.16 production, 5.14, 5.15

## M

Machinery, agricultural:
in use, 4.12
production, 7.30
exports, 9.6, 9.12
imports, 9.11
retained imports, 9.5
Machine carbines and guns:
production, 7.14

Machine tools:
deliveries, 7.29
exports, 9.12
imports, 9.11
Magnesite:
imports, 9.10
production, consumption and stocks, 6.8

## Magnesium:

imports, 9.11
production, consumption and stocks, 6.8

Maize:
consumption, 4.17
imports, 9.9
lend-lease arrivals, 4.19
Malaya:
trade with, 9.7. 9.8
Manganese ore:
consumption and stocks, 6.3
imports, 9.10
Manila:
consumption and stocks, 6.22
Manslaughter, 2.11, 2.13
Manufactured goods:
exports, 9.4, 9.6, 9.12
imports, 9.11
production, 7.29-7.33
retained imports, 9.4, 9.5
Manufacturing industries:
employment, 3.3
weekly earnings, $12.3,12.5$
Margarine:
consumption, 4.17
production, 4.16
supplies per head of population, 4.18
Marriages, I. 10
Maternity benefit, 2.7
Measles:
deaths from, 2.3, 2.4

Meat:
canned:
consumption, 4.17
lend-lease arrivals, 4.19
production, 4.16
supplies per head of population, 4.18
exports, 9.6
fresh:
consumption, 4.17
lend-lease arrivals, 4.19
supplies per head of population, 4.18
imports, 8.14, 9.9
losses at sea, 4.20
production of home killed, 4.16
retained imports, 9.5
Mechanical transport, military.
production, 7.19
Merchant navy:
casualties, 3.8
Merchant vessels:
production, 7.5, 7.6
under British control, 8.3-8.6
under British flag:
employment, 8.6
gains and losses, 8.7-8.9
losses from enemy action, 8.10
number of vessels, 8.3
tonnage, 8.4, 8.5

Metal industries:
average weekly earnings, 12.5
coal consumption, 5.4
coal stocks, 5.5
employment, 3.3, 3.13, 3.17
Methanol:
production, consumption and stocks, 6.14

Methylated spint, industrial:
production, consumption and stocks, 6.14
Military aircraft:
production, 7.22-7.24
Military pensions, 2.10
Milk:
consumption, 4.15
prices, 12.7
products:
consumption, 4.17
lend-lease arrivals, 4.19
production, 4.16
supplies per head of population, 4.18
Milking machines:
in use, 4.12
production, 7.30

## Mine detectors

production, 7.20
Minelayers:
production, 7.4
Mines:
production:
army, 7.15
naval, 7.16
Mines and quarries:
construction activity, 2.20
employment, 3.3
Minesweeping vessels: production, 7.4

Mining machinery: exports, 9.12

## Molasses:

 production, consumption and stocks, 6.15Molybdenum:
production, consumption and stocks, 6.7
Monitors: production, 7.3

## Mortars:

 production, 7.13Motor cycles:
exports, 9.12 production, $7.19,7.31$

Motors, electric: deliveries, 7.29

Motor spirit: arrivals, 5.13 deliveries into consumption, 5.16, 5.17

$$
\text { imports, } 9.11
$$

production, 5.14, 5.15
Motor vehicles:
duties, 10.3, 11.6
exports, 9.12
imports, 9.11
licences, current, 8.20
new registrations, 8.21
production, 7.31
Moulding powders:
production, consumption and stocks, 6.16
"Mulberry" harbour, 7.21
Munitions:
imports, 8.13
production, 7.9-7.21
Murder, 2.11-2.13

## N

Napthalene:
production, 5.8
National defence contribution, $10.3,11.6$
National Fire Service: employment, 3.3, 3.10

National health insurance:
accumulated funds, 2.7
benefits, 2.7
contributions, 2.7
receipts and expenditure, 2.7
National income, II.2-11.8
National insurance, 2.7-2.9
Naval aircraft:
arrivals overseas, 7.28
arrivals in United Kingdom, 7.27
production, 7.22, 7.23
repairs, 7.25
Naval guns:
production, 7.11
Naval vessels:
production, 7.13, 7.14
Netherlands:
trade with, 9.7, 9.8
Newsprint:
imports, 9.11
production, consumption and stocks, 6.17
New Zealand: trade with, 9.7, 9.8

Nickel:
imports, 9.11
production, consumption and stocks, 6.8
Nigeria:
trade with, 9.7, 9.8
Nitric acid:
production, consumption and stocks, 6.14
"Nitro-chalk":
prices, 12.8
Nitrogenous fertilizers:
production, consumption and stocks, 6.15
Non-ferrous metals:
employment, 3.17
exports, 9.6
imports, 8.15
losses at sea, 6.23
production, consumption and stocks, 6.8 retained imports, 9.5

## Northern Rhodesia

trade with, 9.7, 9.8

Notes in circulation, 10.6

Notification of infectious diseases, 2.5

Nursing services (military):
releases, 3.7
strength, 3.4

Oat milling, 4.16

Oats
acreage, 4.3, 4.4
harvested, 4.5, 4.6
movement off farms, 4.13
prices, 12.7
yield per acre, 4.7. 4.8

Offences, criminal, 2.11-2.16

Oil:
Crude oil:
arrivals, 5.13
production of petroleum products from, 5.14
Diesel oil:
arrivals, 5.13
deliveries into consumption, 5.16,5.19
production, 5.14, 5.15
Fuel oil:
arrivals, 5.13
deliveries into consumption, $5.16,5.19$
production, $5.14,5.15$
Gas oil:
arrivals, 5.13
deliveries into consumption, 5.16, 5.19
production, 5.14, 5.15
Lubricating Oil:
arrivals, 5.13
deliveries into consumption, 5.16
production, 5.14, 5.15
Process oil:
arrivals, 5.13

Oils and fats:
exports, 9.6
imports, 8.14, 9.9, 9.10
lend-lease arrivals, 4.19
losses at sea, 4.20
retained imports, 9.5
supplies per head of population, 4.18

Oilseeds:
imports, 8.14

Old age pensions, 2.9

Opencast coal:
production and stocks, 5.3

## P

Paints and oils:
average weekly earnings, 12.5
employment, 3.3, 3.14

Paper and paper-making materials:
exports, 9.6, 9.12
imports, 8.15, 9.1।
losses at sea, 6.23
production, consumption and stocks, 6.17
retained imports, 9.5

Paper and printing industries:
employment, 3.22

Passenger receipts, railway, 8.17, 8.19

Passenger traffic, railway, 8,17

Penel servitude, 2.17

Pensions:
old age, 2.9
war, 2.10
widows and orphans, 2.9
Personal income and expenditure, 11.3, 11.8

Petroleum:
arrivals, 5.13
exports, 9.12
imports, 9.10, 9.11
products:
arrivals of tanker-borne, 5.13
deliveries into consumption, 5.16
production, 5.14, 5.15
substitutes:
production, 5.15

Phenol:
production, 5.8

Phenolic powders and resins:
production, consumption and stocks, 6.16

Phosphate, ground rock
prices, 12.8
production, consumption and stocks, 6.15
Phosphatic fertilizers:
production, consumption and stocks, 6.15
Pig iron:
employment, 3.18
exports, 9.12
imports, 9.11
production, consumption and stocks, 6.4

Pigs:
on agricultural holdings, 4.9, 4.10
prices, 12.7, 12.8

Pistols, revolver:
production, 7.14
Pitch:
production, 5.8
Pitwood:
production, consumption and stocks, 6.11
Plastics:
production, consumption and stocks, 6.16

Ploughs:
in use, 4.12
production, 7.30
Plywood:
production, consumption and stocks, 6.11

Pneumonia:
deaths from, 2.3, 2.4
notifications, 2.5
Police force:
auxiliary, 3.11
regular, 3.11
strength, 3.3, 3.11
Polyvinyl chloride: production, consumption and stocks, 6.16

Pontoons: production, 7.21

Population (see also "Vital statistics"):
age distribution, I.4, I.5
mid-year estimates, 1.3
sex distribution, I.3-1.5
working, 3.3
Post Office:
Exchequer issues, 10.4
Exchequer receipts, 10.3
Potash:
consumption and stocks, 6.15
Potatoes:
acreage, 4.3, 4.4
consumption, 4.17
harvested, 4.5, 4.6
movement off farms, 4.13
prices, 12.7
supplies per head of population, 4.18
yield per acre, 4.7, 4.8
Pottery.
exports, 9.6
retained imports, 9.5

Pottery domestic:
production and home supplies, 7.33

Pottery manufacture:
employment, 3.24
Poultry:
on agricultural holdings, 4.9, 4.10
prices, 12.7
Predictors:
production, 7.10
Prices:
agricultural, 12.7, 12.8
fertilizer, 12.8
wholesale, 12.9

Prisoners of war, 3.8
Prisons:
population, 2.17
reception, 2.17
Projectors:
production, 7.13, 7.15
Propellants:
production:
anti-tank, 7.13
rocket, 7.13
searchlight, 7.10
Public authorities:
revenue account, II. 4
Public finance, 10.3-10.10
Public health, 2.3-2.6
Public utilities:
coal consumption, 5.4
coal stocks, 5.5
construction activity, 2.20
employment, 3.3
Pulpwood:
consumption and stocks, 6.17
Pulses:
imports, 8.14
lend-lease arrivals, 4.19
losses at sea, 4.20
Pyridine bases:
production, 5.8
Pyrites:
production, consumption and stocks, 6.14

## R

## Radar:

index of production, 7.9

Rail transport, 8.14-8.19
Railways:
coal consumption, 5.4
coal stocks, 5.5
goods traffic, 8.17
numbers employed, 3.25
operating statistics, 8.18
passenger traffic, 8.17
rolling stock:
availability, 8.16
exports, 9.12
repair, 8.16
traffic receipts, 8.17, 8.19

Rates:
expenditure on, 11.8

Raw materials:
exports, 9.6, 9.12
imports, 8.15, 9.10
losses at sea, 6.23
production, consumption and stocks, 6.3-6.22
retained imports, 9.4, 9.5
Rayon:
employment, 3.19
looms running, 6.20
production and consumption, 6.20

Reciprocal aid, 10.10
Refrigerated cargo liners:
production, 7.6
Registration of motor vehicles, 8.20, 8.2
Rent:
expenditure on, 11.8
Reproduction rates, I. 7
Resins, synthetic:
production, consumption and stocks, 6.16

Retained imports:
food, drink and tobacco, 9.5
raw materials, 9.5
manufactured goods, 9.5
quantity, 9.9-9.11
value, 9.4, 9.5
volume, 9.4
Revenue:
Central government, I I.6
personal, II. 3
public authorities, II. 4

Rhodesia:
trade with, 9.7, 9.8

Rice:
consumption, 4.17
imports, 9.9
lend-lease arrivals, 4.19
supplies per head of population, 4.18
Rifles:
production, 7.14
Roads:
construction and maintenance, 2.20
Road tar:
production, 5.8
Road transport, 8.20, 8.2।

Rocket ammunition:
production, 7.17
Rockets:
production, 7.13
Royal Air Force:
casualties, 3.8
prisoners of war, 3.8
strength, 3.4

Royal Navy:
casualties, 3.8
prisoners of war, 3.8
strength, 3.4
Royal Observer Corps:
strength, 3.9
Rubber:
imports, 9.10
production, consumption and stocks, 6.13
retained imports, 9.5
Rubber manufacture:
employment, 3.23

## S

Saucepans:
production and home supplies, 7.33

## Saving:

personal, II.3, II. 5
public authorities, I I.4, II.5
Scarlet fever:
deaths from, 2.3. 2.4
notifications, 2.5

Scientific instruments:
employment, 3.17

Scrap, iron and steel: receipts, consumption and stocks, 6.5

Searchlight equipment:
production, 7.10

Seed crushing, 4.16

Sheep:
on agricultural holdings, 4.9, 4.10
prices, 12.7, 12.8
purchased for slaughter, 4.14
Sheets:
home supplies, 7.32
Shells:
production, 7.16
Shelters, public:
construction activity, 2.20
Shipbuilding:
average weekly earnings, 12.5
employment, 3.13, 3.15
production:
merchant vessels, 7.5, 7.6
naval vessels, 7.3, 7.4
repairs, 7.7, 7.8
Shipping, movement in United Kingdom:
coasting trade, 8.12, 8.23
foreign trade, 8.11, 8.12
Ship repaining:
employment, 3.15
vessels repaired, 7.8
vessels undergoing or awaiting repair, 7.7
Sickness benefit, 2.7
Signal equipment, military. production, 7.20

Silico-manganese:
consumption and stocks, 6.7
Silk industry:
employment, 3.19
Silk noils:
production, consumption and stocks, 6.21
Silk, raw:
consumption and stocks, 6.21
imports, 9.10
retained imports, 9.5
Sinking Fund:
Exchequer issues, 10.4
Sisal fibre:
consumption and stocks, 6.22
Sloops:
production, 7.4
Small arms:
index of production, 7.9
production, 7.14
Small arms ammunition:
index of production, 7.9
production, 7.í7
Smallpox, notifications, 2.5

Small tools:
deliveries, 7.29
Sodium nitrate:
prices, 12.8
Softwood:
imports, 9.10
production, consumption and stocks, 6.10
South Africa, Union of:
trade with, 9.7, 9.8
Soviet Union:
trade with, 9.7, 9.8
Soya beans:
lend-lease arrivals, 4.19
Spent oxide:
production, consumption and stocks, 6.14
Spirit, aviation:
arrivals, 5.13
deliveries into consumption, 5.16
production, 5.14, 5.15
Spirit, motor:
arrivals, 5.13
deliveries into consumption, 5.16, 5.17
production, 5.14, 5.15
Spirit, white:
arrivals, 5.13
deliveries into consumption, 5.16
production, 5.14
Stamp duties, $10.3,11.6$
Steel:
deliveries and production, 6.6
employment, 3.18
exports, 9.6, 9.12
finished, 6.6
imports, 8.15, 9.11
ingots and castings, 6.5
losses at sea, 6.23
retained imports, 9.5
scrap, 6.5
semi-finished, 6.6
stocks, 6.6
Straw:
for paper-making:
consumption and stocks, 6.17
harvested, 4.5, 4.6
yield per acre, 4.7, 4.8
Submarines:
production, 7.3
Subsidies, 11.2, 11.4
Sugar:
consumption, 4.17
exports, 9.12
imports, 8.14, 9.9
lend-lease arrivals, 4.19
losses at sea, 4.20
movement off farms, 4.13
supplies per head of population, 4.18

## INDEX

Sugar beet:
acreage, 4.3
harvested, 4.5
movement off farms, 4.13
prices, 12.4
yield per acre, 4.7
Sulphur:
imports, 9.10
production, consumption and stocks, 6.14

Sulphuric acid
imports, 8.15
losses at sea, 6.23
production, consumption and stocks, 6.14
Superphosphates
imports, 9.11
prices, 12.8
production, consumption and stocks, 6.15
Supply Ministry:
import programmes, 8.13, 8.15
Supply services:
Central govemment expenditure on, I 0.4
Surtax, 10.3, 11.6
Sweden:
trade with, 9.7, 9.8
Syphilis, 2.6

## T

Tankers:
production, 7.5
repairs, 7.8
under British flag: gains and losses, 8.7, 8.9
undergoing or awaiting repair, 7.7
Tanks:
production and arrivals, 7.18
Taxation:
direct, II.3, 11.4, II. 6
indirect, II.4, II.6
Tea:
consumption, 4.17
losses at sea, 4.20
retained imports, 9.9
supplies per head of population, 4.18
Telephones:
military production, 7.20
Teleprinters:
military production, 7.20
Textile industry:
average weekly earnings, 12.5
employment, 3.3, 3.19

Textiles:
exports, 9.4, 9.6, 9.12
household supplies, 7.32
imports, 8.15, 9.10, 9.1।
losses at sea, 6.23
production, consumption and stocks, 6. |8-6.21
raw materials, 6.21
retained imports, 9.5
Timber:
imports, 8.15, 9.10
isses at sea, 6.23
production, consumption and stocks, 6.10, 6.11
retained imports, 9.5
Tin:
production, consumption and stocks, 6.8
Tobacco:
expenditure on, 11.8
exports, 9.6, 9.12
imports, 9.9
retained imports, 9.4, 9.5
Tools:
deliveries, 7.29
exports, 9.12
imports, 9.11

Torpedoes:
production, 7.16
Towels:
home supplies, 7.32
Tracked vehicles, military. production and arrivals, 7.18

Tractors:
agricultural:
in use, 4.12
licences current, 8.20
new registrations, 8.21
production, 7.30
military:
production, 7.19
Trade:
external:
principal exports and imports, 9.9-9.12
value, 9.4, 9.5
volume, 9.4
with other countries, 9.7, 9.8
Traffic receipts:
London Passenger Transport Board, 8.19
railway, 8.17 8.19
Training centres, Government: numbers training, 3.29

Training establishments, Emergency. numbers training, 3.29

Transport ferries (L.S.T.): production, 7.4

## Transport services:

average weekly earnings, 12.5
employment, 3.3, 3.25
Travel:
expenditure on, 11.8
Treasury:
bills, 10.5
deposits, $10.3,10.5$
Tuberculosis:
deaths from, 2.3, 2.4
notifications, 2.5
Tugs, military:
production, 7.21
Tungsten:
imports, 9.10
production, consumption and stocks, 6.7
Typhoid fever:
notifications, 2.5

## U

Unemployment:
numbers insured against, 2.8
numbers registered as unemployed, 3.3
Unemployment Arrears Fund, 2.9
Unemployment insurance, 2.8
Union of South Africa:
trade with, 9.7, 9.8
United States of America:
trade with, 9.7. 9.8
Urea:
production, consumption and stocks, 6.14
Ureal powders and resins: production, consumption and stocks, 6.16

## V

Vanadium:
production, consumption and stocks, 6.7
Vegetables:
acreage, 4.3
consumption, 4.17
harvested, 4.5, 4.6
imports, 8.14, 9.9
lend-lease arrivals of canned, 4.19
prices, 12.8
production of canned, 4.16
retained imports, 9.5
supplies per head of population, 4.18
Vehicle manufacture:
employment, 3.3, 3.17

Vehicles, armoured fighting:
index of production, 7.9
production, 7.18
Vehicles, motor:
duties, 10.3, 11.6
exports, 9.12
imports, 9.11
licences current, 8.20
new registrations, 8.21
production, 7.31
Vehicles, wheeled (military):
index of production, 7.9
production, 7.19
Venereal diseases, 2.6
Violence:
deaths by, 2.3, 2.4
Vital statistics:
birth rates, I. 6
births:
illegitimate, I.6
legitimate, 1.6
live, I. 6
still, 1.6
death rates, infant, 1.8
deaths:
by age and sex, 1.9
by cause, 2.3. 2.4
divorces, 2.18
infantile mortality, I. 8
marriages, 1.10
reproduction rates, 1.7

## W

Wages:
average weekly earnings, 12.3, 12.5
weekly index, 12.6
Wagons, railway:
availability, 8.16
repair, 8.16
War damage premiums, II.6
War legislation:
offences against, 2.12, 2.15
War Loan, prices and yields, 10.7
War pensions, 2.10
War risks insurance premiums, I 1.6
Waste paper:
consumption and stocks, 6.17
Ways and Means advances, 10.3. 10.4
Welding sets:
deliveries, 7.29

INDEX

Wheat:
acreage, 4.3, 4.4
exports, 9.12
harvested, 4.5, 4.6
imports, 9.9
losses at sea, 4.20
movement off farms, 4.13
prices, 12.4
yield per acre, 4.7. 4.8
Wheeled vehicles (military)
index of production, 7.9
production, 7.19

White spirit:
arrivals, 5.13
deliveries into consumption, 5.16
production, 5.14

Wholesale prices, 12.9
Whooping cough:
deaths from, 2.3, 2.4
Widows' and orphans' pensions: beneficiaries, 2.9
numbers insured, 2.9

Wire and wire netting manufacture: employment, 3.18

Wireless sets:
military production, 7.20
Women's Auxiliary Air Force: casualties, 3.8
strength, 3.4
Women's Auxiliary Services:
age distribution, 3.5
casualties, 3.8
intake and outflow, 3.6
prisoners of war, 3.8
releases, 3.6, 3.7
strength, 3.4

Women's Royal Naval Service:
casualties, 3.8
strength, 3.4

## Woodpulp:

consumption and stocks, 6.17

Woodworking industry: employment, 3.3, 3.21

Woollen and worsted industry:
employment, 3.19
Wool, raw:
exports, 9.6, 9.12
imports, 9.10
prices, 12.7
production, consumption and stocks, 6.21
retained imports, 9.5

Wool tops:
exports, 9.12
production, 6.21
Worsted yarn:
exports, 9.6, 9.12
production, 6.21
Woven cotton and rayon fabrics:
home supplies, 7.32
production, 6.20

Woven wool fabrics:
home supplies, 7.32
production, 6.21
Wrought iron:
production, 6.6
$Y$

Yarn, cotton:
exports, 9.6, 9.12
production, allocation and consumption, 6.19
retained imports, 9.5, 9.11
spindles running, 6.19

Yarn, knitting:
home supplies, 7.32

Yarn, rayon:
looms running, 6.20
production and consumption, 6.20
Yarn, worsted:
exports, 9.6, 9.12
production, 6.21

## Z

Zinc:
imports, 9.11
production, consumption and stocks, 6.8
s a Lecturer at the London School of Economics. He received his 1 Cambridge University, for his thesis on the allocation of scarce state in the Second World War, and has subsequently written omic aspect of the wartime economy. He is currently working on e long term impact of the Second World War on the British lopment of internal labour markets with the expansion of railways in

Brown C.B.E. D.F.C. has provided the foreword to this publication. om Magdalen College Oxford, he spent four years from 1941 as a rrce. In 1946 he joined the Foreign Service, and from 1949 until 1 $70<$ ne was me second Secretary at the British Embassy in Paris. He later joined the Prime Minister, the Right Honourable Winston Churchill, as his Private Secretary, and was to remain in this position until the statesman's death in 1965. Anthony Montague Brown now lives in retirement in Berkshire. His autobiography "Long Sunset: Memoirs" will be published in May 1995.

## 由HMSO

HMSO publications are available from:
HMSO Publications Centre
(Mail, fax and telephone orders only)
PO Box 276, London SW8 5DT
Telephone orders 0171-8739090
General enquires 0171-873 0011
(queuing system in operation for both numbers)
Fax orders 0171-873 8200

## HMSO Bookshops

49 High Holborn, London WCIV 6HB
(counter service only)
0171-873 0011 Fax 0171-873 1326
68-69 Bull Street, Birmingham B4 6AD
0121-236 9696 Fax 0121-236 9699
33 Wine Street, Bristol BSI 2BQ
01179264306 Fax 01179294515
9-21 Princess Street, Manchester M60 8AS
0161-834 7201 Fax 0161-833 0634
16 Arthur Street, Belfast BTI 4GD
01232238451 Fax 01232235401
71 Lothian Road, Edinburgh EH3 9AZ
0131-228 4181 Fax 0131-229 2734

## HMSO's Accredited Agents

(see Yellow Pages)


[^0]:    The views expressed by the two authors are their personal views and not necessarily those of the Central Statistical Office.

[^1]:    I. See footnote I to Table I.3.

[^2]:    1. Civilians only for England and Wales and Scotland from 3 September 1939 and for Northern Ireland from 1941
[^3]:    See footnotes on page 15.

[^4]:    See footnotes on page 18.

[^5]:    1. The figures in brackets following each cause of death are the reference numbers to that particular cause in the Fifth Revision of the International List.
    2. Including a small number of unstated age.
[^6]:    1. Formal notifications of new cases only.
    2. Cases of acute infectious tuberculosis only.
[^7]:    I. Over 65 years of age

[^8]:    1. This figure relates to the war years when such contributions were in abeyance.
[^9]:    1. At the last Friday in March in each year.
    2. Men aged 65 and over; women aged 65 and over up to 30 June 1940 and 60 and over thereafter:
[^10]:    1. Wives of disabled officers or men, children living with parents, and orphans.
[^11]:    Including offences against Defence Regulations
    Including offences in connection with bankruptcy.
    Excluding offences against Defence Regulations.
    4. Including gaming offences under the Vagrancy Acts.
    5. Excluding gaming offences under the Vagrancy Acts

[^12]:    1. Including offences against war legislation.
    2. Including offences in connection with bankruptcy.
    3. Including embezzlement.
    4. Excluding offences against war legislation.
    5. Including cases of "furious and reckless driving".
[^13]:    1. Including offences against Defence Regulations.
    2. Including offences in connection with bankrupto.
    3. Excluding offences against Defence Regulations.
    4. Including gaming offences under the Vagrancy Acts.
    5. Excluding gaming offences under the Vagrancy Acts.
[^14]:    1. Young persons under 17 years of age.
[^15]:    I. Young persons under 16 years of age.

[^16]:    1. Output of firms in the twelve main trades of the building and civil engineering

    Source: Ministry of Works industries, excluding the output of firms consisting solely of working principals.

[^17]:    1. The differences between the total figures given in this table and in Table 3.3 are explained as follows. The figures for the Royal Navy in this table exclude Royal Marine Police, merchant seamen on T.I 24 agreements, and prisoners-of-war; those for the Army include personnel locally enlisted abroad; and those for the Women's Auxiliary Services exclude the Nursing Services.
[^18]:    - Excluding releases for a temporary period, but including those released locally abroad or repatriated from the United Kingdom.

[^19]:    - Figures before 1942 are estimated.

[^20]:    I. Excluding iron and steel manufacture and the tinplate, tube and wire industries.
    2. Males under 65 and females under 60 , but excluding non-manual workers earning over $£ 420$ per annum. Part-time female workers are included, two being counted

[^21]:    1. See footnote 2 to Table 3.13 .
[^22]:    I. See footnote 2 to Table 3.13.

[^23]:    1. See footnote 2 to Table 3.13. The industries included are those shown in detail in Table 3.17.

    Source: Ministry of Labour and
    National Service

[^24]:    See footnote 2 to Table 3.13

[^25]:    I. See footnote 2 to Table 3.13 .

[^26]:    See footrote 2 to Table 3.13 .

[^27]:    I. See footnote 2 to Table 3.13

[^28]:    1. Including part-time workers, two part-time workers being counted as one whole-time worker. Excluding staff in Northern Ireland other than reserved and agency services.
    2. Including some staff which in 1939 were employed by the War Office or Air Ministry.
    3. Between April 1940 and April 1941, home-grown timber production work was transferred from the Forestry Commission to the Ministry of Supply.
[^29]:    1. Established and unestablished, excluding staff in Northern Ireland other than reserved and agency services. In arriving at the totals two part-time workers are counted as one whole-time worker.
[^30]:    1. Aged 16 and over
    2. Labour employed on licensed work sponsored by War Office, Air Ministry, Ministry of Aircraft Production and Ministry of Transport is included under" Civil Departments" before January 1943.
    3. Including repair of houses made uninhabitable by war damage; salvage operations and war debris clearance; and first aid repairs carried out by the Special Repair Service.
[^31]:    1. Excluding coal mining training centres.
    2. Women were admitted to Government training centres in January 1941.
[^32]:    1. Excluding rough grazings.
[^33]:    1. Excluding rough grazings.
[^34]:    Source: Ministry of Agriculture, Northern Ireland

[^35]:    1. Included with "other cattle".
[^36]:    1. Owned by farmers, contractors, the agricultural executive committees and the Department of Agriculture for Scotland.
    2. Including combined seed and fertilizer drills.
    3. Estimated numbers in use at harvest
[^37]:    1. Receipts by flour millers.
    2. For human consumption, processing and stock feeding under Ministry schemes.
    3. Production of refined sugar from home-grown sugar beet.
    4. Year ended January 1940.

    - Average of five weeks.

[^38]:    1. Great Britain only. Fat cattle, sheep and lambs sent from Eire and Northern Ireland are included. Detailed records begin in January 1940; earlier figures are estimated.
    2. Including cow-heifers.
    3. Excluding pigs fattened by self suppliers.
    4. The number of pigs other than baconers slaughtered in 1939 was 3,011 thousand
    (weekly average, 57.9).

    * Average of five weeks.

[^39]:    I. Figures for 1939 relate to the calendar year except where otherwise: stated. From 1940 onwards figures are for periods of 52 weeks ( 53 weeks in 1943) except for condensed milk and milk powder:
    2. Year ended 31 July.
    3. Including small quantities produced from barley, rye and oats.
    4. Including castor cake which is unfit for animal feed.
    5. As crude oil.
    6. Including production from fat cattle and fresh meat and offal imported from Eire.
    7. Including meat and offal produced by pig clubs, etc.
    8. Excluding farmhouse butter:
    9. Including farmhouse cheese.
    10. Year ended January 1940.
    11. Year ended 30 June.

[^40]:    1. Figures relate to periods of 52 weeks ( 53 weeks in 1943) except for fresh, frozen and cured fish, condensed and powdered milk and cocoa beans, the figures for which are for calendar years.
    2. Excluding seed and chat potatoes.
[^41]:    See footnotes on page 82

[^42]:    . Figures refer to 52 -week years except for 1943 , when there were 53 weeks.
    2. In addition there were the following arrivals from other countries:-(thousand tons)

[^43]:    3 to 30 September 1945. There were no arrivals in the fourth quarter of 1945

[^44]:    1. Great Britain.
[^45]:    See footnotes on page 92

[^46]:    1. Great Britain.
    2. Undertakings with an annual consumption of $I 00$ tons or more of coal and or coke.
    3. Including coal held by Service departments.
    4. From November 1941 coal held in wagons at the sidings of the gas, water and electricity undertakings and in barges alongside power stations is included. At the end of November the stocks in these categories were estimated to be 50,000 tons for gas and 55,000 tons for electricity.
[^47]:    1. Great Bntain.
[^48]:    See footnotes on page 96

[^49]:    1. Great Bntain.
    2. Including shipments to Northern Ireland.
    3. Calculated from figures for calendar months. Quantities of coke breeze are included.

    * Average of five weeks.

[^50]:    1. Authorised electricity undertakings only.
[^51]:    2. The figures, which are estirnates only, are based on representative samples of the returns made to the Electricity Commissioners.
[^52]:    * Average of five weeks.

[^53]:    I. The monthly figures are not revised to take account of inter-product transfers, blending, etc., and are therefore not fully comparable with the annual figures.
    2. Including the quantity of fuel oil consumed by refineries from their own production.

    - Average of five weeks.

[^54]:    1. Including white spirit and kerosine.
    2. Mainly tar oils.

    * Average of five weeks.

[^55]:    I. Including industrial spirit. The analysis of deliveries by consumer categories is
    based on total coupon issues. No adjustments have been made for non-use or misuse of coupons.
    2. During the period June 1942 to May 1945, the figures in this column relate to supplementary rations for domestic purposes only. The higher figures for June to October 1942 reflect the completion of the consumption of the last basic ration issue.
    3. Based on calendar months.

[^56]:    1. The analysis of deliveries by consumer categories is based on total coupon issues.
    2. Based on calendar months.
[^57]:    Fuel for diesel-engined road vehicles.

[^58]:    1. Raw and calcined ore as charged, except in the case of the figures of home iron ore in 1937
[^59]:    1. Including production of blast fumace ferro-alloys and other qualities of pig iron.
    2. Including refined pig iron consumed in iron foundries.
    3. Including stocks at wrought iron and refined iron works and Ministry of Supply stockyards.
    4. Production and consumption figures relate to calendar years for 1937, 1938 and 1939, to
    a period of 53 weeks for 1942 and to periods of 52 weeks for the remaining years.

    - Average of five weeks.

[^60]:    I At steel works and foundries.

[^61]:    I. Production and consumption figures relate to calendar years for 1935 to 1939 inclusive,
    to a period of 53 weeks for 1942 and to periods of 52 weeks for the remaining years.
    Figures for stocks are for the end of the period in all cases.
    2. From 1941 , excluding alloy steel.
    3. Including material for further conversion.
    4. Estimated.
    5. Total United Kingdom production less deliveries to other steel firms for further conversion.
    6. Ingots, semi-finished and finished steel. Excluding stocks held by consumers.

[^62]:    1. Figures for chrome ore relate to calendar years. For all other items figures relate to a calendar year in 1941 and to periods of 52 weeks in subseqeunt years.
    2. In addition 7.5 thousand tons were exported in 1945.
    3. Includiing stocks in transit.
    4. Non-ferrous metal content of ferro-alloy and other finished products.
    5. In addition 1,040 tons were exported in 1945.
[^63]:    1. From 1943, including scrap refined on private account.
    2. From 1942 , including consumption other than for zinc production.
    3. Some secondary material is included in the years 1935 to 1939.
    4. English refined lead is included in consumption figures from 1942 and in stocks figures throughout.
    5. From 1935 to 1940, excluding consumers' stocks. The figure for 1941 is estimated.
    6. In terms of high grade bauxite.
    7. Including scrap recovery
    8. Government stocks only.
    9. These figures refer to magnesia extracted from sea-water:
[^64]:    1. Including production from crashed aircraft
    2. Including the aluminium content of virgin alloys.
    3. Including virgin aluminium content of all alloys.
[^65]:    See footnotes on page 128

[^66]:    See footnote on page 130 .

[^67]:    I. Wet
    2. Wet, dry and dry salted cattle and buffalo hides.
    3. Kips and calfskins are included in the figures for "cattle hides".
    4. Leathers sold by weight.
    5. Leathers sold by area.

[^68]:    1. Crumb is included in waste rubber in 1942. In 1943 it is included in the monthly figures for reclaimed rubber but not in the annual figures. Thereafter it is excluded from the table.
    2. Monthly figures for 1942 exclude latex and exports.
    3. Excluding "Novoplas" and "Thiokol" from July 1944 onwards.
    4. Waste rubber collected.
    5. Processed into reclaimed rubber.
    6. Until June 1994, including direct usage of waste rubber:
    7. Up to and including May 1942 computed from figures relating to calendar months.
    8. Excluding Government lend-lease stocks.
    9. From July 1944 the figures relate only to Government waste depots.

    Average of five weeks.

[^69]:    I. Ethyl alcohol as 68 O.P. spirit.
    2. Excluding material used for purposes other than for the manufacture of sulphuric acid.
    3. Arrivals of hom-produced materials at acid works.
    4. Recovered sulphur.
    5. As 100 per cent. acid. Including from 194 lacid made at Government factories.

[^70]:    1. Years ended 30 June, except for phosphate rock, ammonia and molasses.
    2. For agricultural uses only except in the figures for total disposals which include exports of ammonium sulphate for all purposes.
    3. Agricultural potash.
    4. Total weight of product. Excluding concentrated compound fertilizers. The nitrogen,
    $\mathrm{P}_{2} \mathrm{O}_{5}$ and for consumption, $\mathrm{K}_{2} \mathrm{O}$ content are included under appropriate headings above.
    5. Estimated.
    6. For agricultural and industrial purposes,
    7. Excluding ammonia produced in by-product factories and converted directly into ammonium sulphate.
    8. Including consumers' stocks.
    9. In terms of blackstrap containing 52 per cent, sugars,
    10. Year ended 30 September.
[^71]:    1. Excluding consumers' stocks.

    Source: Board of Trade
    2. Sheet, rod, tube and other forms.

[^72]:    1. 53 weeks for newsprint in 1944 and for other materials in 1945.
    2. Including manufacture of cellulose wadding.
    3. For the manufacture of rayon and of transparent cellulose film.
[^73]:    1. From January 1941 including cleaning waste.
[^74]:    1. Excluding staple fibre, mixed and waste yarns
[^75]:    See footnotes on page 144.

[^76]:    1. Series for wool tops relate to period of 52 weeks.
[^77]:    1. Raw jute figures for 1942 and 1944 are for periods of 53 weeks and those for other years for periods of 52 weeks.
    2. Including home produced goods from Control stocks.
    3. Including from April 1944 imports from Eire.
    4. Including exports of Indian hemp amounting to 5.33 thousand tons.
[^78]:    I. Before October 1941 the coverage was not complete and the figures given are partly estimated.

[^79]:    1. Vessels completed in the United Kingdom, including ships built for Dominion

    Govemments but excluding ships built for other Governments.
    2. Year ended 31 March 1937.

[^80]:    1. Excluding troopships, hospital ships, naval and commissioned vessels, Royal Fleet
    auxiliaries and vessels undergoing conversion to or from naval or military purposes.
[^81]:    1. Figures for two weeks have been omitted as unreliable on account of disorganisation following air raids.

    * Average of five weeks.

[^82]:    1. Ministry of Supply production in the United Kingdom only.
[^83]:    1. The figures for artillery equipments relate to mountings.
    2. Excluding A.A./C.A. dual purpose equipments.
    3. Including A.A./C.A. dual purpose equipments.
    4. Excluding A.F.V. machine guns.
    5. Year ended 31 March.
    6. In addition there was an extensive reconditioning and conversion programme in operation immediately before the outbreak of war.
[^84]:    I. Excluding 20 mm . guns.
    2. Year ended 31 March.

[^85]:    I. Year ended 3I March.

[^86]:    1. Year ended 31 March
[^87]:    1. All services
    2. 7.92 mm . Besa, 15 mm . Besa and 303 -in. and 5 -in Vickers.
    3. Year ended 31 March.
[^88]:    1. Despatches ex factory. Before September 1939 figures are for unfilled arnmunition.

    2 Year ended 31 March.
    3. In addition 58 thousand rounds were produced in 1942 and 139 thousand in 1943 for which no quarterly figures are available.
    4. In addition 349 thousand rounds were produced during the years 1941 to 1943 which cannot be allocated to individual years.

[^89]:    1. Factory output from December 1941
[^90]:    1. All Services.
    2. Deliveries ex factory.
    3. Including motor rockets aircraft.
    4. Including 7.92 mm . and 9 mm .
    5. Excluding small quantities of aluminium powder produced before October 1943 and a small quantity of picric acid produced in 1941.
    6. Year ended 31 March.
[^91]:    I. Including special purpose tanks and self-propelled artillery on tank chassis.
    2. Weight in action.
    3. Year ended 31 March.

[^92]:    I. For 1939, War Office only; for 1940, War Office and Air Ministry; from January 1941, all Services.
    Deliveries of wheeled vehicles to the War Office under the Rearmament Programme
    amounted to 34,918 during the period April 1936 to August 1939.

[^93]:    1. ForWar Office only
    2. April 1936 to August 1939
[^94]:    1. Assault, reconnaissance and storm boats and motor tugs.
[^95]:    1. Arrivals on pre-war contracts are excluded. Between September 1939 and February 1940 214 such aircraft despatched from the United States arrived in the United Kingdom.
    These were general reconnaissance aircraft and trainers.
[^96]:    Total for II months converted to yearly rate.
    Total for 5 months converted to yearly rate.
    3. Including cot size.
    4. Approximate figures for 1937.
    5. Stockings only.
    6. Including women's and maids' socks.
    7. Excluding rubber footwear.

[^97]:    1. Coffee pots included from March 1943 only,
[^98]:    1. Vessels under the British flag and those under foreign flags on time-charter to the United Kingdom.

    Source: Ministry of Transport
    2. For the earlier months of the war the information about foreign flag vessels
    on time-charter is incomplete.

[^99]:    See footnotes to Table 8.3

[^100]:    1. Recorded by date of notification.
    2. 3 September 1939 to 30 September 1945.
    3. From 3 September.
[^101]:    1. Recorded by date of notification. For this reason the figures for war losses differ from those given in Table 8.10 which are analysed by date of occurrence.
    2. Including prizes, transfers of flag, etc.
    3. Including overdue and presumed lost.
    4. Including transfers of flag, etc.
    5. 3 September 1939 to 30 September 1945
    6. From 3 September.
[^102]:    See footnotes on page 191.

[^103]:    1. See footnote I to Table 8.13 .
    2. Excluding unrefined whale oil.
    3. See footnote 5 to Table 8.I3.
[^104]:    See footnote I to Table 8.13.

[^105]:    1. The figures for 1937 and 1938 are not completely comparable with those for the period

    1942 to 1945 owing to differences in the method of recording locomotives
    undergoing boiler washing, etc.
    2. Including rail motors.
    3. Excluding privately owned (not requisitioned),
    4. July 1937.

[^106]:    I. Main line companies.
    2. All passenger travel (including Service travel) except workmen's and season tickets.
    3. September 1938 to August 1939 inclusive.
    4. Excluding freehauled traffic.

[^107]:    1. Fifty-two weeks ended 25 December:
[^108]:    1. Including road services of the London Passenger Transport Board
    2. Including parcels and other merchandise by passenger train, mails and parcels post
[^109]:    I. For the years 1937 and 1937, licences current at any time during the September quarter.

    Source: Ministry of Transport
    Other years relate to 31 August.
    2. From 1940 excluding vehicles exempt from duty operating under defence permits.
    3. Including showmen's tractors.

[^110]:    1. Before 1939 figures are for years ended 30 September:
    2. Before 1942 details of exempt vehicles by types are not available.

    From 1942 Government owned vehicles are included with other exempt vehicles under the appropriate headings. From 1940 vehicles operating under defence permits are excluded.
    3. Including pedestrian controlled delivery vans.
    4. Including showmen's tractors.

[^111]:    1. Great Britain
    2. Total for six months January-June.
[^112]:    I. The total includes a small quantity of coal carried in liners.

[^113]:    1. In addition the following cargoes were delivered but cannot be analysed by area of discharge:

    Source: Ministry of Transport January 1942, 30.7 thousand tons; January 1944, II.5 thousand tons.

[^114]:    1. The figures for 1942 to 1945 exclude imports, exports and re-exports of munitions.

    2 Quantities revalued at 1938 prices and expressed as a percentage of the value of imports or exports in 1938.

[^115]:    . Including protectorates, mandated territories and territories under condominium

[^116]:    I. Retained imports

[^117]:    I. Retained imports

[^118]:    1. Retained imports.
    2. And other printed matter for reading purposes (other than music), manuscripts and typescripts.
    3. Re-exports exceeded imports.
[^119]:    1. Coal shipped for the use of steamers, etc, engaged in the foreign trade (including fishing vessels)

    This item is not an "export" and the value is accordingly excluded from the total of exports
    shown in Tables 9.4. 9.6 and 9.8.
    2. Excluding "tissues wholly of mohair, alpaca and cashmere", "damasks, tapestries, brocades and the like",
    "wool and mohair plushes and other pile fabrics" and "flannels and delaines".

[^120]:    I. Excluding "pile fabrics", "damasks, tapestries, brocades and the like", "ribbons" and "lace and lace net of all kinds".
    2. Including industrial trucks.

[^121]:    Source: Treasury

[^122]:    1. Averages of working days, allowing for accrued interest. In calculating the yields for shortdated and medium-dated securities redemption is assumed at the later date if price is below par and at the earlier date if price is above par. For $31 / 2 \%$ War Loan a flat yield is taken if price is below par and redemption is assumed in 1952 if price is above par. For $2 \frac{1}{2} \%$ Consols a flat yield is taken throughout. Income tax is neglected in calculating the yields.
    2. Representative securities changed from time to time, namely: Short-dated: 5\% Conversion Loan 1944-64 in 1935 to 1940; $21 / 2 \%$ National War Bonds $1945-47$ in 1941 and 1942; $2 \frac{1}{2}$ \% National War Bonds 1949-5I in 1943 and 1944: $21 / 2 \%$ National War Bonds 1952-54 in 1945 . Medium-dated: $4 \%$ Funding Loan 1960-90 in 1935 to 1940; 3\% War Loan 1955-59 in 1941 and 1942; 3\% Savings Bonds 1960-70 in 1943 to 1945 .
[^123]:    I. The figures given for this item are residuals, not direct estimates

[^124]:    1. The figures include overtime, but exclude time lost, and correspond with those for
    average earnings in Table 12.3.
[^125]:    1. The estimates cover most of the principal industries and a proportion of the smaller industries.
[^126]:    1. Taking account of Exchequer payments but excluding subsidy on the 1938 crops of barley and oats under
    the Agriculture Act, 1937, and the Agricultural Development Act, 1939.
    Excluding dairy cows and store stock
    2. Including acreage payments based on estimated quantities sold (1943 and subsequent crops).
    3. Including acreage payments based on estimated total production (1941 and subsequent crops).
    4. Tomatoes, cucumbers and grapes.
[^127]:    1. The greater rise in the basic materials index is essentially due to its containing various items such as paper-making materials, which rose very greatly in price and forwhich there were no corresponding quotations available under intermediate products or manufactured articles; similarly the index for intermediate products is raised above that for manufactured articles mainly because it includes timber.
    2. Selected items included in the indices for industrial materials and manufactures.
