## CSO <br> Input-output tables for the United Kingdom 1968

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## CENTRAL STATISTICAL OFFICE

## Input-output tables for the United Kingdom 1968



## Preface

This publication contains input-output tables for the United Kingdom in respect of the year 1968. They replace the preliminary input-output tables for 1968 published in the January 1971 issue of Economic Trends and in National Income and Expenditure 1971.

The layout of the tables and the methods used in constructing them follow the lines laid down in preparing and publishing the 1963 input-output tables.*

The volume is divided into three parts. The first, Chapters one to four, discusses in broad outline how the tables were constructed from basic data and how, once constructed, they were manipulated to reveal economic structure. Appendices A to D cover similar ground but in greater depth. The third part contains twenty input-output and related tables, each revealing 90 industry and commodity groups in domestic production. These tables are more numerous and more detailed than those published for 1963, where only 70 industry and commodity groups were distinguished.

The study was carried out at the Central Statistical Office by Dr M J Green assisted by Miss M F Osborn, Mr R T Baillie, Mr P J Coulson and Mr J C Cresswell under the direction of first Mr L S Berman and then Mr A A Sorrell. The help of the Business Statistics Office and other government departments is gratefully acknowledged.

## Central Statistical Office <br> Great George Street <br> LONDON SW1P $3 A Q$ <br> May 1973

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Due to rounding, in Tables $D$ to $N$ the sum of entries may differ slightly from the totals shown.

The following symbol and abbreviation are used throughout:
$-=$ nil or less than 0.5 of the final digit shown. n.e.s. $=$ not elsewhere specified.

## Chapter one. Introduction

## Historical background

Input-output tables are an accounting framework for assembling data on industry inputs and outputs which reveal the many interrelated transactions occurring in a modern economy. Input-output analysis is based upon such tables and is a theoretical and numerical method for studying economic structure. Both were originally developed in the United States by Leontief in the nineteen thirties (see [10]), and have since been applied widely. The construction of the 1935 and 1948 inputoutput tables by independent researchers ([2]; [11]), were early attempts to apply these methods to data for the United Kingdom.

The present volume contains a set of detailed inputoutput tables for the United Kingdom for 1968; it is the most disaggregated study of its type to be undertaken for the United Kingdom, although by no means the first set of official tables to be constructed. The Central Statistical Office published small United Kingdom inputoutput tables in early editions of the National Income and Expenditure Blue Book. The 1952 Blue Book included a table for 1948 in which the domestic economy was divided into 7 industries. In later editions further disaggregation took place and tables for 1950 and 1954 were published distinguishing 11 industry groups. Following the comprehensive 1954 Census of Production a substantial expansion occurred with the separate publication of the 1954 tables in 1961 [3] in which details were provided for 45 industries and commodities. Next came the tables for 1963, published at the beginning of 1970 [4] and distinguishing a total of 70 industries and commodities, 57 of which were a disaggregation of manufacturing industry.*

Once the 1963 tables were completed, work began on preparing preliminary 1968 tables using the provisional results of the 1968 Census of Production published at the end of 1969 and a procedure for updating 1963 based upon the RAS method [5]. The summary results were published in the January 1971 issue of Economic Trends [6] and in revised form in the 1971 National Income and Expenditure Blue Book. The present volume contains the definitive 1968 input-output tables based upon the full detail contained in the final results of the 1968 Census of Production; data is presented for 90 industry and commodity groups of which once again the majority - 75 -are within manufacturing industry.

## Basic concepts

Although the principles underlying the construction of input-output tables are straightforward there are a number of different ways in which they can be put into practice. The way adopted here follows closely that advocated by the United Nations (see A System of National Accounts [12]), in which a clear distinction is made between industries and commodities. United Kingdom census of production data lends itself readily to this approach.

The important feature of input-output accounting is that it provides a framework within which the complex of intra-industry transactions generated in a modern economy can be handled with relative ease. The central principle is that every transaction is both a sale and a purchase, the value at the point of the transaction being the same in both cases. To avoid recording such transactions twice, input-output tables employ a cellular array system, leading to sets of tables or, more technically, matrices, in which sales are represented in the rows of the tables and purchases in the columns. As each entry is in both a row and a column, it represents both aspects of each transaction leading to economy and clarity of presentation. These properties are shown to advantage in those tables which provide a detailed measure of the purchases of commodities by industries for the purpose of producing output-the so-called absorption matrices Table 2 or Table B which also show details of deliveries of commodities to final demand

[^0]that is, to current consumption (both public and private), investment (in fixed capital and in stocks), and exports.

Input-output tables add an extra dimension to the national accounts as traditionally understood. The latter are concerned with the value of goods and services entering into final demand and the equivalent amount of factor incomes generated in the process. Such a concern with the end product of economic activity means that the national accounts do not need to specify the purchases of commodities by industries since these form part of the intermediate process of supplying final demand. Input-output tables however present intermediate transactions and thereby embrace the flow of goods and services to final demand and the incomes generated, within a framework that records all transactions occurring within the economy. As a result inputoutput tables show the detailed input structures of each industry, whereas the national accounts can show only the value added, that is, the factor incomes generated by each industry.

It is important to note that the inputs into industry and commodity production shown in the tables are current account transactions. Capital account purchases are part of final demand; the analysis of each industry's purchase of capital goods is a separate exercise provided by Table $Q$ at the end of this volume.

The basic features of the input-output method are illustrated by Tables 1,2 and 3, given at the end of Chapter two, in which a simple disaggregation of the United Kingdom economy into 6 industry/commodity groups is set down. Table 1 shows the commodity composition of each industry's output. The allocation of the total output of a commodity is given by the rows in Table 2 which show the purchase of commodities by industries and final demand. The first six entries in the first six columns show the value of commodities purchased by each industry from other industries. The remaining rows show the purchase of primary inputs, that is, inputs that are not themselves the output of a specific domestic industry. Primary inputs are the payments to an industry's labour force-income from employment-and gross profits and other trading income, together constituting value added or net output, net indirect taxes, and purchases of imports. In Table 2, the seventh entry in each column covers the total purchases of imported goods by an industry; the individual commodity detail is set out in Table 3. Tables 1, 2 and 3 are aggregated versions of Tables A, B and C which distinguish 90 industries and commodities, and which are set out at the end of this volume.

## Uses of input-output tables

Input-output tables provide a comprehensive cross sectional view of the economy at a point in time, in terms of industry and commodity accounts. This makes them a useful device for answering certain questions about how the economy will respond to particular changes, both in detail and overall; questions, for example, such as: what are the repercussions for all industries in the economy of an increase in the output of a particular industry, or an increase in the price of an industry's output or an increase in final demand requirements, etc.? In addition it is possible to quantify the import content of exports, to break down each industry's output into its ultimate primary input components, and to show how final demand stimulates values added in the different industries. However, the accuracy with which these questions can be answered depends upon three things. First for a number of technical and administrative reasons it is not possible to prepare input-output tables until some time has elapsed following the year to which they refer. However this is by no means as great a disadvantage as might at first sight appear, since industrial structure evolves relatively slowly, and so the pattern of intermediate transactions observed for 1968 can for many purposes be used for analysing later years. Secondly it is necessary to assume that industries operate, within fairly wide limits, on the basis of constant returns to scale. Thirdly it is necessary to assume that each industry's output is homogeneous in terms of product mix and input requirements.
Input-output tables also make it possible to bring together detailed figures on output and incomes generated by industry with figures for expenditure on industry and commodity outputs. Consequently within such a framework much can be learnt about the problems of reconciling income, output and expenditure measures of gross domestic product; (see the discussion of this point in the April 1973 issue of Economic Trends [8]). In particular the commodity flow approach to estimating final demand used in input-output tables is a useful check on the alternative methods normally adopted
in compiling the national accounts for the United Kingdom. In the latter, for example, it is more usual to analyse consumers' expenditure by functional category and investment by purchasing industry. Reconciliations of these different approaches, for three categories of final demand, public and private consumption and fixed investment, are published in this present volume as Tables O, P, Q and R.

A different use for detailed input-output tables is as a basis for disaggregated forecasting exercises; this has been an important aspect of input-output work undertaken in recent years by both academics and government. Using well-established techniques, described at length, for example, in the series, A Programme for Growth [5], the flows presented in the tables, for the chosen base year, form the starting point for forecasts based on commodity and industry accounts. These forecasts make it possible to match the trends in supply and demand and so assist in the assessment of medium term economic prospects.

## Drawbacks in using the tables

As noted above the analysis of industrial structure based upon input-output tables presented in this volume assumes that industries exhibit constant returns to scale ; this means that all relationships derived from the tables
are 'average' rather than 'marginal' and are not always a good guide to the effects of short term movements in output or demand

In addition it has to be assumed that, for purposes of structural analysis, the allocations of industry and commodity supply are homogeneous in terms of output mix and input requirements.

It is, of course, possible to set aside the two simplifications, of linearity (constant returns to scale) and homogeneity, but only at the cost of expanding the size of the tables considerably or of introducing data assembly and analytical complexities of a high order.

The most important constraint in disaggregating the tables further is the availability of data. At the present point in time, further industry and commodity detail than is published here would, for many industries, involve a substantial increase in the degree of estimation, and a consequent loss of reliability. It remains to be seen whether, as more data becomes available, further disaggregation can be presented in future tables.

Nonetheless these tables are more detailed than those previously produced for the United Kingdom and the analysis of the structure of the economy revealed by them is adequate for many important purposes.

## Chapter two. The construction of the basic tables: Tables A to C

The previous chapter has already shown that the inputoutput system set out in this volume begins with three basic tables. The first shows the commodities made by industries; the second the commodities purchased by industries and by final demand; and the third the purchases of imported commodities. Three tables of this type-Tables 1, 2 and 3-aggregated to 6 industries and commodities are displayed at the end of this chapter. The discussion in Chapters three and four uses tables derived from this simple 6 industry/commodity system as an illustrative device. The details of its construction are described in the final section of this chapter.

The main purpose of this chapter is to expand upon the simple notions developed in Chapter one, to show how they apply to the larger 90 industry/commodity system to which the main tables refer, and to cover some other ancillary points such as valuation, relation to national accounts, etc.

## Some introductory points

The 90 industry/commodity counterparts of Tables 1 , 2 and 3 are Tables A, B and C set out at the end of this volume. These three tables describe in considerable detail the fundamental flows of goods and services within the economy. Table A is based on the same principle as Table 1 and for each of the 90 industries distinguished, displays the particular commodities produced in each of the 90 columns.

It is important that the definitions of industries and commodities be made clear at the outset. An industry is the aggregation of production establishments* and the major part of its sales comprise a defined range of goods and services that are regarded as characteristic of the industry and are called its principal product. In this study each principal product is called a commodity and so there are as many industries as there are commodities. Most production establishments also sell, as a subsidiary activity, products characteristic of other industries. In the tables presented in this volume, the figures relating to industries show the transactions-purchases and sales-relating to the total activities of each industry and so include the sales of principal and nonprincipal products. Figures relating to commodities analyse totals for particular principal products wherever they are produced. The classification of industries and the principal products that define them, are set out in the Standard Industrial Classification, 1968.

An inspection of Table A will show that the commodity and the industry nomenclature are the same. It follows that because of symmetrical ordering of industries and commodities the largest entry in each column is on the diagonal of the table. The remaining entries in the column show subsidiary production, that is, the output of products characteristic of other industries.

The make matrix-Table A-provides the output side of the domestic production picture. Table B-the absorption matrix-reveals the input side. It shows the commodities and services bought-in by industries, once again to 90 commodity detail, and the commodity composition of the categories of final demand. To obtain a complete picture of commodity supplies Table B must be supplemented by an analysis of the absorption of imports into the United Kingdom economy; this is given in the imports matrix-Table C. Together Table B and Table C provide a detailed analysis of the ultimate destination of the entire commodity supply available to the economy, whether it goes to intermediate production or final demand.

These concepts are straightforward in respect of industries producing or processing tangible commodities. Many industries however are engaged in distributing or transporting goods without processing them, and the treatment of these industries in Tables $\mathrm{A}, \mathrm{B}$ and C needs to be made clear.

[^1]In the case of the distributive trades (wholesaling, retailing, merchanting and dealing) the goods purchased for distribution are not, for input-output purposes, treated as an input into, or an output by, the distribution industry. Rather the output of this industry is the sum of the gross margins earned in handling the goods and so equals the sum of incomes generated plus the purchase of certain commodities used directly by dis-tribution-wrapping paper, fuels, etc.

Similar treatment is accorded to the transport industry, the principal products of which are the value of transport services provided and equal the sum of the incomes generated and the goods and services purchased to effect transportation, for example, different kinds of fuels and repairs to vehicles and ships, etc. The goods transported do not themselves appear in the input and output accounts of the transport industry or commodity. However, since input-output tables must take account of non-principal production, in the case of the transport industries it is necessary to specify the output of capital goods made by these industries for their own use, an activity termed 'own account' capital formation. Where relevant, this output is given as the output of the commodity Construction in the transport industry columns of Table A. Another industry which produces services and makes its own capital goods is Communication. In this case however the capital goods produced are treated as part of the principal product of the communication industry. This arises because of their specialist nature. They are distinguished in the absorption matrix - Table B-as a purchase of communication output by the fixed capital formation account.

Perhaps the most difficult industry to deal with is the heterogeneous grouping called Miscellaneous services. It is a collection of a large number of different activities-non-material services such as insurance, banking and finance; material services such as shoe repairing, laundries and hairdressers; the distribution and repairing activities of garages; hotels, catering and entertainment; professional and scientific services, etc. Lack of appropriate information about this part of the economy at present precludes greater disaggregation and even the figures provided here must be regarded as highly approximate, especially on the inputs side.

The list of industries/commodities is completed with a group that are unique in having no material inputs, so that their output is simply value added (total incomes generated). These industries are: Public administration and defence, health and education for which output is simply the sum of the wages and salaries, etc. paid in the relevant parts of the public sector; Domestic services, etc. the output of which is also the income from employment generated ; and Ownership of dwellings, the output of which is a rent transaction, imputed or actual.

The outputs of all these industries are purchased by final demand accounts only. Thus for Public administration and defence, health and education the output is sold to the account covering public authorities' current consumption ; the output of Domestic services, etc. is sold to personal consumers; and the output of Ownership of dwellings is sold to both private and public consumption. This treatment of Public administration and defence, health and education is necessary because most of the services that public authorities provide are not paid for through an open market transaction.

## Valuation of transactions

The two most important ways in which it is possible to value an industry's output are at sellers' or ex-works prices and at purchasers' prices. The differences between these two represent transport, distribution and service costs, which are added to the price of goods in the course of getting them from the production unit to the purchaser, either an industry or a final buyer.

It is the valuation at sellers' prices that is adopted in these tables. The purpose of valuing transactions in this way is to obtain a uniform valuation of sales along the rows of Table A and Table B. This is useful for comparison purposes and also ensures that total transport and distribution activity is not scattered across many individual transactions but is collected together in one account where it can be analysed.

However, using data from the Census of Production and other sources it is not always easy to value output at sellers' prices since many production units have their own transport fleets. Consequently the output from these units is often valued in census returns on a 'delivered' basis. Overall this tends to produce a hybrid measure of output, partly on an ex-works, partly on a delivered basis. To obtain a uniform valuation at sellers' prices the value of output of manufacturing industries
is reduced to the estimated extent of transport costs incurred in delivering goods produced. Final demand purchases are also valued at ex-works prices. Consequently consumers' expenditure on cars, for example, is shown partly as a purchase from the motor vehicles industry and partly as a purchase from miscellaneous services (the dealers' margin).* On a related point, which will be discussed in greater detail later, the individual entries in the imports matrix-Table C-are valued at c.i.f. prices. However, they enter Table B on an f.o.b. basis, which is consistent with the national accounts treatment. The difference between these two valuations amounts to payments for insurance and freight and various valuation and coverage adjustments.

## The three basic input-output tables

## (i) The make matrix-Table $A$

The make matrix shows the details of commodity production by 90 domestic industries; as stressed above the array of commodities produced are valued, as closely as possible, at ex-works prices.

One consequence of this is that the treatment accorded to industry's transport undertakings produces a number of small entries in the road transport commodity row. Thus the value of the goods produced by each industry is the total 'net selling value' as given in the relevant Census of Production report less the transportation costs involved in distributing the output.

Table $A$ is a disaggregated version of Table 1. By examining the extent to which the main diagonal dominates the row and column totals in the table it is possible to see which individual industries are specialised in the production of their principal products and whether the output of any one commodity is concentrated in a particular industry. This is done precisely in Table S The first column shows the output of the principal product by each industry expressed as a percentage of its total output. Such quotients might be termed the specialisation factors of each industry; the lower the entry the greater the extent to which a particular industry is engaged in non-principal production and the more its resources are diversified in the production of a range of commodities. The second column shows the value of principal product as a percentage of the total commodity output; this reveals the extent to which a commodity's production is concentrated in the industry of which it is the principal product.

The structure of the make matrix is of great importance in calculating derived input-output tables. These will be discussed in Chapters three and four. Important examples of non-principal production are the construction activities of the gas, electricity and water industries and the output of non-ferrous metals by the insulated wires and cables industry. One point to note is that the incidence and importance of non-principal production depends upon the degree of aggregation of the tables. As aggregation proceeds non-principal production usually diminishes in importance. This is because nonprincipal production often consists of goods similar to, although not the same as principal products.

The major sources of information for Table A are Tables 1,5 and 7 of the 1968 Census of Production reports. Various sources have been used for non-census industries. For agriculture, government departments provided the figures. For the transport and communication industries some useful data is published in the nationalised industry reports. For the distribution and miscellaneous services industries, less information is available and so relatively approximate methods must be used. Consequently the figures for the output of these industries are less accurate than those for other industries.

One or two further points should be noted. Many of the entries in the miscellaneous services row for each industry allow for losses or gains made on canteen operations as well as certain other activities, such as, for the motor vehicles industry, the value of work done on repairing vehicles, and also for research services undertaken by individual establishments for which a payment is received. In addition many manufacturing industries also carry out some distribution activities, for example, Other cereal products. Sales of production scrap and waste products, royalty receipts for patents held, etc. are difficult to classify. As these cannot readily be allocated to any particular commodity group, they

[^2]have been treated as principal products of the industries in which they arise.
(ii) The analysis of purchases from domestic supply by industry, the absorption matrixTable B

Perhaps the most interesting basic table in the inputoutput study is the absorption matrix giving the detailed analysis of the purchase of domestically produced commodities by industries and final demand. It has three distinct parts-the analysis of intermediate transactions, the commodity analysis of final demand, and the analysis of primary inputs bought by industries.

## The analysis of intermediate transactions

The analysis of purchases by industries is based largely upon information published in the 1968 Census of Production reports, in particular Table 10. The adjustments that must be made to the Table 10 data are as follows. The Census report tables provide data of materials and fuels purchased by establishments that employ more than 25 people; hence it is necessary to gross-up these purchases to allow for small firms. It is also necessary to allocate amounts recorded under wide-ranging or residual headings to the 90 commodities distinguished in the input-output tables by drawing upon additional and unpublished analyses of the main Census results. The relative importance of residual headings varies substantially from industry to industry. The residual is a very large percentage of total materials and fuels purchased for the construction industry ( 67 per cent.), but is quite small in certain of the engineering industries: (see Table T). Certain other payments by industries, for road and rail transport, for repairs and maintenance, etc. are covered by Tables 1, 11 and 12 of each Census report.

The material in Tables 1,10, 11 and 12 does not cover the purchase of a wide range of miscellaneous services. Purchases of services by industries are estimated partly from an inquiry linked to the Census of Productionthe Business Expenses and Receipts inquiry-and partly from the overall balancing and disposal of the available service industry output; (see the section below on primary inputs).

Purchases by the non-census industries are culled from a variety of sources; government departments (for agriculture, forestry and fishing), nationalised industry reports (certain transport industries, communication), the Census of Distribution, etc.

Once the total amounts of purchases recorded in the Census of Production have been analysed and allocated to the commodity headings and estimates made for the non-census industries, the details of total intermediate demand are revealed. The next step is to divide this data into purchases of domestically produced commodities and purchases of imports. The methods used are described in the section below dealing with the construction of Table C.

When the table for purchases of goods and services has been divided into a set of domestic purchases and a set of purchases of imported goods and services then the tables must be balanced to remove distribution, transport and service margins from the individual entries. This leads to a set of intermediate transactions at exworks or 'dockside' prices, which balances with figures for total commodity supply, valued on this basis and given in Table A and Table C. The purchases of the commodity Distribution by each industry, arise entirely from this attempt to balance the flow of goods and services, and to eliminate the effect of different valuations on demand and supply. This balancing process also leads to adjustments to the purchases of miscellaneous services and road and rail transport by each industry.

It would be wrong to give the impression that balancing commodity demand and supply is, in practice, as straightforward as this brief description might imply. Frequently adjustments to the figures have had to be made to ensure overall consistency. Indeed, it is one of the values of constructing input-output tables that by bringing together data from a variety of sources and trying to fit it into an all-embracing framework, deficiencies and errors are highlighted.

## The analysis of final demana

The commodity analyses of final demand are derived from a number of sources. That for consumers' expenditure is constructed partly from the detailed analysis which underlies the consumers' expenditure estimates in the National Income and Expenditure Blue Book,
partly from Family Expenditure Survey data, and partly from Census output detail. Knowledge of retail margins and taxes falling on consumers' expenditure comes from the Census of Distribution, Customs and Excise publications, and elsewhere. The co-ordination of this information leads to a detailed commodity analysis of consumers' expenditure at sellers' or ex-works prices. Table O reconciles this commodity analysis with the figures of consumers' expenditure given in the Blue Book which are based upon a functional classification of such expenditure.

The commodity analysis of public authorities' expenditure is based partly upon a detailed analysis undertaken for central government and described in the August 1971 issue of Economic Trends [7], and partly on some ad hoc information about local authority expenditure; (see Table P).

The commodity analysis of gross domestic fixed capital formation is based upon a detailed analysis of the outputs of capital goods by the capital goods producing industries. In addition some information is available on the commodity composition of investments undertaken by certain nationalised industries. These two sources also make it possible to construct a table linking investment analysed by commodity to investment analysed by industry; (see Table Q).

A commodity analysis of stockbuilding is also necessary because of the need to convert the commodity inputs part of the absorption matrix from a purchase to a usage basis. Consequently the materials and fuels held in stock by each industry in 1968 are disaggregated into individual commodities and allocated to the stocks column of final demand. The allocation to appropriate commodity headings of goods on hand for sale and work in progress held by each industry is also straightforward. These are considered to be the principal products of the industry where they are manufactured and so are allocated to the appropriate commodity row in the stocks column.

The detailed commodity analysis of exports is made by allocating each item in the Annual Statement of the Trade of the United Kingdom for the year 1968 to the appropriate commodity of the 90 industry/commodity system using a correlation table between trade account headings and Minimum List Headings equivalent to that used in constructing the imports matrix-Table C.

## Industry purchases of primary inputs

The final rows of the absorption matrix cover the purchase of primary inputs by industries. The firmly based components are the income from employment figures which appear in aggregated form elsewhere, for example, Table 17 in the 1972 Blue Book; the row for taxes on expenditure less subsidies; and the purchase of imports of goods and services by each industry; (see below). One of the more difficult tasks involved in constructing input-output tables is to obtain detailed figures for gross trading profits and other surpluses earned by the industries covered by the Census of Production. The starting point is Census net output, which broadly is defined for each industry as gross output less the total of bought-in materials and fuels, adjusted for stock changes and for transport on outward deliveries where this is applicable. The Census net output figures are therefore the total fund out of which are paid the following: wages and salaries; other costs, such as the hiring of plant and machinery, and payments for maintenance, the cost of operating road vehicles, rents, rates and taxes, advertising, otherselling expenses; and finally profits including depreciation provisions. It is in excess of the amount required to balance the inputoutput tables with national income profits and income from employment to the extent that it includes the other costs described above. The identification of payments for certain services by Census of Production industries derived from Tables 1, 11 and 12 of the Census reports and from the Business Expenses and Receipts inquiry, is by no means exhaustive and for this reason independent estimates of gross profits on a national income basis are obtained from the Blue Book for aggregates such as manufacturing industry. These totals make it possible to divide the residual, Census net output less income from employment less identified services, for each of the industries distinguished by the tables, into unidentified service payments and profits. This subdivision is done within manufacturing industry primarily on a pro rata basis, after allowance has been made for the earnings of public corporations and sole traders. However, it should be noted that unidentified services only account for 20 per cent of the residual defined above for the total of manufacturing industry and so
these simple methods are unlikely to distort substantially the pattern of profit earnings by industry on an establishment basis.

## Sales by final buyers

An input-output table must account for all transactions and to ensure that this is done is the purpose of the sales by final buyers row. There are many entries in this row, which will be discussed in the methodological appendix (Appendix A), but the majority of them relate to the sale and disposal of goods and services from final demand accounts, for example, cars sold by businesses to consumers, plant and machinery bought by scrap merchants or exported, payment to public authorities for various services provided. There is no column in the matrix corresponding to the sales by final buyers row, since the goods traded domestically are considered to be bought by the industries specified in the remainder of the table, and it is assumed that there is no specific industry that processes these discarded 'final goods' prior to their purchase or export.

## (iii) The imports matrix-Table C

In Table C, as for Table B, each column shows the commodity composition of imports as purchased by each one of the 90 industries and final demand.

The entries in the table are imports less re-exports and less returned goods and goods for process and repair.* The individual entries are valued on a c.i.f. basis, and the f.o.b. adjustments necessary to bring the total for imports into line with national accounts conventions are carried out in one step at the bottom of the table. These adjustments are payments for insurance and freight; and various coverage and valuation adjustments, for example, customs uplift, imports of second-hand capital goods, etc.

The row totals of Table C, giving totals of imports analysed by commodity, were derived from the Annual Statement of the Trade of the United Kingdom for the year 1968 by using a special correlation table relating the trade account headings to the Standard Industrial Classification, 1968. The imports table was then constructed in three stages. First the 1968 Census of Production reports were examined and those inputs specified as imports, or which clearly were imports, were allocated directly to particular intermediate purchases cells in the imports matrix. Secondly the overseas trade accounts were analysed in considerable detail and as a consequence certain imports allocated to industries or final demand categories. Such allocations are possible as many imports purchased by final and intermediate demand are readily identifiable from their description, for example, raw materials, consumers' goods and complete machinery with specific end uses. Following the completion of these two stages a number of residual items remained and the allocation of these to purchasing industries and final demand was effected on a pro rata basis at a level of detail which made it possible to allow for the lack of homogeneity in some of the 90 commodities as they relate to imports. The adjustments at the bottom of Table C, covering payments for freight, insurance and certain coverage and valuation adjustments given in United Kingdom Balance of Payments 1972 convert the industry and final demand purchases from a c.i.f. to an f.o.b. basis.

The purchase of service imports are made up by allowing for foreign freight and insurance payments, foreign port disbursements of United Kingdom shipping, government expenditure abroad, expenditure on foreign services by the communications industry, and by allocating residual payments for services to industries using the relevant simple indicators of economic activity.

## Relation of the input-output tables to the national accounts

Official United Kingdom input-output studies have always taken certain control totals from the national accounts and in particular figures for final expenditures and incomes in 1968 in this volume are equal to those in the National Income and Expenditure Blue Book for 1972. Thus it will be seen that the totals for consumers' expenditure, public authorities' expenditure, gross domestic fixed capital formation, stocks and exports are related to gross domestic product derived from the expenditure approach. On the inputs side, income from employment and gross profits and other trading income are related to gross domestic product derived from the income approach. Input-output tables link the expenditure and income components of gross domestic product

[^3]via the network of inter-industry transactions that the Census of Production and other data record. It is thus possible to read off from Table B in the inputoutput study the gross domestic product for 1968 , as follows:

## Final demand, etc.

Consumers' expenditure
Public authorities' current expenditure on goods and services
Fixed investment
Additions to stocks
Exports of goods and services
less Primary input adjustments to
final demand:
Imports of goods and services
Net taxes on expenditure
equals Gross domestic product
E million

Primary inputs
Income from employment
Gross profits and other trading income ${ }^{(1)}$

Gross domestic product
11470

## 36810

${ }^{(1)}$ Includes residual error

## Accuracy

To ensure that a large number of small transactions are not lost, figures are given in the majority of tables to the nearest $£ 100000$, that is, 0.1 of a $£$ million. However because of the inaccuracy of some of the data and of the balancing procedures used in constructing the tables it is unlikely that many of the estimates will be accurate to the last digit shown. Figures derived from the Census of Production reports, are almost certain to be more accurate than the estimated purchases and sales of commodities by the non-census industries. In addition some of the analyses of final demand are more approximate than might be wished; in general the commodity analysis of current expenditure is likely to be more accurate than that for capital expenditure.

Although the analyses of exports and of total supplies of imported commodities are reasonably accurate, the detailed import matrix is approximate in certain areas. As a consequence of this, and because Table C plus Table B equals the total commodity supply table, which is closely related to the original data in the Census of

Production, it must be stressed that the sum of Table B and Table $C$ is almost certainly more accurate than the separate tables, although the detail revealed by this separation is of great interest for its own sake.

## The illustrative numerical example

The last section of this chapter provides details of a set of input-output tables for 1968 that are aggregates of those given at the end of this volume. These tables and their derivations are used frequently in the remainder of this text, to illustrate in numerical terms the various points made. The basic tables in this system have already been introduced as Tables 1, 2 and 3 .

The calculations that underlie official input-output tables are now quite complex. In order therefore to provide a clear picture of the analytical framework used this set of simple aggregated tables has been con structed. Only 6 industries in domestic production are distinguished. Nonetheless by a judicious choice of aggregation it is possible to reveal all the features of the methodology used and the calculations performed for the detailed $90 \times 90$ system of industries and commodities are echoed as faithfully as possible in these small $6 \times 6$ tables.

The 6 industries and commodities appearing in the tables may be defined in terms of the following aggregation of the $90 \times 90$ tables, using as elements the Orders of the Standard Industrial Classification, 1968:

## Industries/commodities Orders of the Standard Industrial Classification, 1968

Agriculture, etc. and extraction I, II
Metal manufacture and metal
using industry/commodity VI to XII
Other manufacturing III to V ; XIII to XIX
Construction Gas, electricity and water Services

XXII to XXVII

As mentioned earlier in this chapter the three basic tables of this simple system are Table 1-the make matrix-which displays the commodities produced by each industry in the appropriate columns; Table 2the absorption matrix-which gives the input structure of each of the 6 industries and the commodity composition of final demand; and Table 3 which shows the range of imported commodities purchased by industries and final demand.

Table I Commodity analysis of domestic output (Make matrix)


Table 2 Commodity analysis of purchases from domestic production (Absorption matrix)

| Commodity sales | Agriculture, etc. and extraction | Metal | Other manufacturing | Construction | Gas, electricity and water | Services | Final demand |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ture and metal using industry |  |  |  |  | Consumption | Investment | Exports of goods and services |  |
| Agriculture, etc. and extraction | 491.5 | 49.7 | $1194 \cdot 2$ | $92 \cdot 0$ | $387 \cdot 6$ | 18.6 | 1158.9 | 19.7 | 128-4 | $3540 \cdot 6$ |
| Metal manufacture and metal using commodity | 162.9 | 5727.8 | 617.9 | 701.3 | 128.0 | $578 \cdot 6$ | 1751.9 | 2739.7 | 3325.5 | 15733.6 |
| Other manufacturing | 722.8 | 1034.0 | 4636.7 | $910 \cdot 7$ | 133.4 | $1359 \cdot 2$ | $6417 \cdot 3$ | 242.7 | $2430 \cdot 0$ | 17886.8 |
| Construction | 77.8 | 107.8 | 43.0 | 946.5 | 34.7 | $70 \cdot 1$ | 857.9 | 3922.5 | 31.1 | 6091.4 |
| Gas, electricity and water | 67.8 | 290.8 | 277.8 | 15.7 | 67.3 | 331.7 | 1142.6 | 35.9 | $\begin{array}{r}7.3 \\ \hline\end{array}$ | 2236.9 |
| Services | 255.9 | $1332 \cdot 2$ | 2326.3 | $334 \cdot 9$ | $204 \cdot 6$ | 2006.3 | 17158.0 | $775 \cdot 3$ | 2314.2 | 26707.7 |
| Imports of goods and services | 128.6 | 1308.2 | $3032 \cdot 1$ | $123 \cdot 3$ | 38.0 | 1124.3 | 2266.8 | $679 \cdot 2$ | $470 \cdot 5$ | 9171.0 |
| Sales by final buyers | 3.2 | 188.5 | 46.4 | 14.8 | $5 \cdot 9$ | 55.4 | -79.9 | $-352.0$ | 117.7 |  |
| Net taxes on expenditure | $-182.7$ | 167.6 | 332.4 | 238.2 | $85 \cdot 2$ | 939.5 | 4289.5 | 168.0 | -25.7 | 6012.0 36810.0 |
| Value added | 1843.0 | $5930 \cdot 6$ | $5935 \cdot 4$ | 2528.0 | 1282.0 | 19291.0 |  | - | - | 36810.0 |
| Total | 3570.8 | $16137 \cdot 2$ | $18442 \cdot 2$ | 5905.4 | 2366.7 | 25774.7 | 34963.0 | 8231.0 | 8799.0 | $124190 \cdot 0$ |

Table 3 Commodity analysis of imports (Imports matrix)
£ million

| Commodity imported | Agriculture, etc. and extraction | Metal | Other manufacturing | Construction | Gas, electricity and water | Services | Final demand |  | Goods for re-export | Returned goods and goods for process and repair | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ture and metal using industry |  |  |  |  | Consumption | Investment |  |  |  |
| Agriculture, etc. and extraction | 58.8 | $219 \cdot 6$ | 1246.1 | 1.4 | $12 \cdot 9$ | 5.0 | $370 \cdot 4$ | $12 \cdot 2$ | $47 \cdot 1$ | 1.4 | 1974.9 |
| Metal manufacture and metal using commodity | 11.7 53.7 | $850 \cdot 6$ 1058 | 50.4 1861.8 | $46 \cdot 2$ $75 \cdot 3$ | $4 \cdot 3$ 28.9 | $80 \cdot 6$ 86.9 | 337.5 1016.2 | 540.8 20.5 | 361.0 57.4 | 231.0 50.4 | 2514.1 3356.9 |
| Other manufacturing | 53.7 | 1058 | 1861.8 | $75 \cdot 3$ | 28.9 | 86.9 | 1016.2 | 20.5 | 57.4 | $50 \cdot 4$ | 3356.9 |
| Construction Gas, electricity and water | - | - | - | - | 1.7 | - | - | - | - | - | 1.7 |
| Services | - | - | - | - | - | $8 \cdot 2$ | $31 \cdot 6$ | - | $5 \cdot 0$ | 5.0 | 49.8 |
| Total imports of goods c.i.f. | 124-2 | 1176.0 | $3158 \cdot 3$ | 122.9 | 47.8 | $180 \cdot 7$ | $1755 \cdot 7$ | 573.5 | $470 \cdot 5$ | 287.8 | 7897.4 |
| Adjustments ( ncluding imports of services) | $4 \cdot 4$ | $132 \cdot 2$ | -126.2 | 0.4 | $-9.8$ | 943.6 | $511 \cdot 1$ | $105 \cdot 7$ | - | -287.8 | 1273.6 |
| Total imports of goods and services | 128.6 | $1308 \cdot 2$ | $3032 \cdot 1$ | 123.3 | 38.0 | 1124.3 | 2266.8 | $679 \cdot 2$ | $470 \cdot 5$ | - | 9171.0 |

Chapter three. Symmetrical accounts: Tables D and K

The input-output tables so far discussed show flows of commodities to and from industries and to final demand. However, to use these tables for studying economic structure in some depth it is necessary that the absorption matrix-Table 2 or Table B-be rendered symmetrical so that it shows either the purchases of industrial output by industries and final demand or the purchases of commodities by commodity production processes. Thus there are two types of symmetrical table that can be derived from the absorption matrix, an industry $\times$ industry table and a commodity $\times$ commodity table.

Industry $\times$ industry or commodity $\times$ commodity tables are what are normally meant by input-output tables in economic text books.

Industries are defined in these input-output tables as groups of establishments that produce a range of goods and services. Hence each industry embraces various production processes, each one producing a particular commodity or group of commodities. To construct commodity $\times$ commodity tables it is necessary to divide an industry's inputs into those relevant to each of its production processes and to collect these inputs together into production accounts for commodities. This involves adjusting the columns of the absorption matrix.

To construct industry $\times$ industry tables it is necessary to adjust the commodity purchases by each industry so that industries are shown as purchasing industry output rather than commodities. This involves adjusting the rows of the absorption matrix.

To undertake these adjustments it is necessary to make assumptions about the structure of production in each industry. The section below on technologies of production describes these assumptions in detail.

There are a number of reasons why it is desirable to produce both industry $\times$ industry and commodity $\times$ commodity flow tables.

For studying many types of regional problem, and in productivity studies, industry accounts are more appropriate than commodity accounts. One reason for this is that it is practical to assemble data on employment and fixed investment, etc. for industries, but not for commodity production processes. On the other hand it is often better to analyse supply and demand in terms of commodities rather than industries. It is also easier to make allowance for, and forecast the effects of, technical change and innovation in a framework based upon commodity $\times$ commodity tables rather than one based upon industry $\times$ industry tables.

Once a symmetrical account is calculated it becomes possible to examine in detail the manner in which the economy is inter-related, in particular, how different levels of final demand, as well as industry and commodity outputs, have direct and indirect effects on the rest of the economy.

## Technologies of production

To construct symmetrical accounts assumptions must be made about the structure of production and this requires the concept of 'technologies of production'. This concept can be most readily illustrated by an industry that in addition to its principal product also produces a markedly different commodity. Thus the gas, electricity and water industry produces some output of the commodity Construction in addition to the commodity Gas, electricity and water. This output appears in the construction row of the gas, electricity and water column of Table 1. The treatment to be adopted for this non-principal production depends on the answer to the following question:
'Are the inputs purchased by an industry the same for all the commodities it produces or are they specific to the commodities produced?'

If the former, then variations in the composition of the output of an industry's non-principal products will have no effect on the inputs purchased ; if the latter, a change in the output mix changes the input mix.

Taking the case of the gas, electricity and water industry the question becomes: 'Are the inputs necessary to produce $£ 122.0$ million of construction output given in Table 1 the same pro rata as those required to produce the principal product of that industry namely, $£ 2181.3$ million of gas, electricity and water commodity?' The answer is, of course, no. The construction activities undertaken by the industry (the laying of mains and cables, the building of depots and warehouses, etc.) require completely different inputs from those needed for the production of gas, electricity and water. The inputs into these construction activities are likely to be similar to those relevant to the output of the principal product of the construction industry. Consequently, ignoring the small amounts of the other manufacturing and services' commodities produced by this industry, the inputs into the gas, electricity and water industry are a weighted sum of those necessary to produce (a) the industry's principal product and (b) its output of construction. A natural corollary of this is that the inputs into the gas, electricity and water industry depend upon its output mix. The mix of outputs determines the overall input bill because the commodity inputs are a weighted sum of those relevant to the different types of output, the weights being defined by the proportions in which the industry concerned produces each particular type of output.

A situation where each industry purchases a distinct bill of goods for each of the commodities it produces leads to a 'commodity technology' system of production. Furthermore it is assumed that each commodity has a unique input structure which is the same in whatever industry the commodity is produced. Consequently there are only as many input structures as there are commodities, each input structure being defined as that necessary to produce each particular industry's principal product. To illustrate with an example, to calculate the inputs relevant to the production of the commodity Gas, electricity and water, it is necessary to subtract from the observed inputs into the gas, electricity and water industry those necessary for construction commodity and other non-principal products, the amounts to be removed being derived from those industries where construction commodity, etc., are the principal products.

If the answer to the question posed above for the gas, electricity and water industry is yes rather than no, the industry's inputs are independent of the mix of outputs produced. When this situation occurs industries are said to follow an 'industry technology' system. In an industry technology system the inputs into an industry's nonprincipal production are the same pro rata as the inputs used in the production of its principal product.

Either of these technology assumptions can be used to calculate both types of symmetrical account. That is, it is possible to calculate an industry $\times$ industry table and a commodity $\times$ commodity table using the commodity technology assumption, and also an industry $\times$ industry table and a commodity $\times$ commodity table using the industry technology assumption.

The commodity technology and the industry technology assumptions are two extremes and the analysis of data for the real world must allow some modifications of both these viewpoints. Once again the example of the gas, electricity and water industry illustrates how this can be done. While its output of the commodity Construction has an input structure similar to that of the orincipal product of the construction industry, the inputs for its other non-principal outputs are linked to those of the principal product of the gas industry (being various chemicals produced as by-products), and so the industry technology assumption is appropriate. Consequently a mixture of these two assumptions is required to analyse the output of the gas, electricity and water industry satisfactorily.

These industry and commodity technology schemes are not the only ways in which the structure of United Kingdom industry may be analysed. Other types of input and output structure may well exist, but the concepts of industry and commodity technology are widely applicable and so their approximate nature in some instances is not considered a substantial drawback to the methods used.

The use of technology assumptions to construct symmetrical accounts
Each of the two technology assumptions described above provides a basis for adjusting the rows and
columns of the absorption matrix to produce industry $\times$ industry or commodity $\times$ commodity tables．To under－ take these adjustments two tables of weights must be calculated，one for the commodity technology assump－ tion，one for the industry technology assumption．Each table can be used to disaggregate industry inputs and to assemble inputs into commodity production processes， or to assemble purchases of industry output from com－ modity purchases by industries．

The table of weights for the commodity technology assumption is called the product mix matrix．Since each industry＇s inputs are assumed to be a weighted average of the inputs used to produce each commodity made by the industry，the matrix is calculated by dividing each entry in a column in the make matrix－Table A－by the column total．For the 6 industry／commodity system introduced in Chapter two a product mix matrix is set out as Table 4 below．Each column of Table 4 provides the weights necessary for disaggregating industry inputs into those relevant to the commodities produced，and allows for the assembly of these inputs into those applic－ able to commodity production accounts．

The table of weights for the industry technology assump－ tion is called the market share matrix．In this case as each industry is assumed to produce each of its outputs with the same inputs，inputs into commodity produc－ tion are a weighted average of inputs into industry production．These weights are proportional to the con－ tribution of an industry to a commodity＇s output and so the market share matrix is calculated by dividing each entry in a row in the make matrix by the row total．For the 6 industry／commodity system a market share matrix is set out as Table 5.

The weights in Table 5 make it possible to assemble commodity inputs from given inputs into industries，or to assemble purchases of industry output from given commodity purchases．

To sum up ：with the product mix matrix it is possible to construct industry $\times$ industry or commodity $\times$ commodity tables from the absorption matrix，on the basis of the commodity technology assumption．With the market
share matrix it is possible to construct industry $\times$ industry or commodity $\times$ commodity tables from this absorption matrix on the basis of the industry technology assumption．

As already noted earlier in this chapter，to construct satisfactory symmetrical accounts it is best to use a mixture of these assumptions，that is，to treat some non－ principal production on an industry technology basis， some on a commodity technology basis．This mixed or hybrid approach has been used to calculate the 90 industry／commodity symmetrical accounts set out in Table D（industry $\times$ industry）and Table K（commodity $\times$ commodity）．Two symmetrical accounts using a simple hybrid technology system have also been calculated for the illustrative 6 industry／commodity system．The speci－ fication of this simple hybrid system is set out in Table 6. Those elements of production that have been treated on a commodity technology basis are marked with an asterisk；the remainder have been treated on an industry technology basis．

It can be seen that all construction commodity produced as a non－principal product has been treated on a com－ modity technology basis．This is because the arguments advanced earlier in this chapter concerning the treat－ ment of construction output by the gas，electricity and water industry can also be applied to the other indus－ tries where construction goods are made as a non－ principal product．It should be stressed however that the hybrid system set out in Table 6 is presented primarily to illustrate the methods used and not to provide the best evaluation of non－principal production in a 6 industry／commodity set of tables．

Once the hybrid system is specified the practical steps involved in calculating symmetrical accounts are as follows．The make matrix－Table 1－is divided，on the basis of Table 6，into a part covering non－principal pro－ duction to which the industry technology assumption is assigned，and a part covering non－principal production to which the commodity technology assumption is assigned．Each part is then expressed in coefficient form and used to adjust separately the rows or columns of Table 2 （depending on which type of symmetrical

Table 4 Commodity output per unit of industry gross output（Product mix matrix）

| Commodities | $\begin{aligned} & \text { © } \\ & \stackrel{ \pm}{7} \\ & \text { n } \\ & \stackrel{3}{5} \end{aligned}$ | Agriculture， etc．and extraction | Metal manufac－ ture and metal using industry | Other manufac－ turing | Construc－ tion | Gas， electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture，etc．and extraction |  | 0.988 | － | 0.001 | － | － |  |
| Metal manufacture and metal using commodity |  | － | 0.971 | 0.002 | 0.004 | － | － |
| Other manufacturing |  | 0.001 | 0.005 | 0.963 | 0.004 | 0.004 |  |
| Construction |  | 0.006 | 0.004 | 0.001 | 0.990 | 0.051 | 0.001 |
| Gas，electricity and water |  | 0.001 | 0.001 | 0.002 | － | 0.922 |  |
| Services |  | 0.004 | 0.019 | 0.031 | 0.002 | 0.023 | 0.999 |
| Total |  | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Table 5 Commodity output per unit of commodity supply（Market shares matrix）

| Commodities | Agriculture， etc．and extraction | Metal manufac－ ture and metal using industry | Other manufac－ turing | Construc－ tion | Gas， electricity and water | Services | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture，etc．and extraction | 0.997 | － | 0.003 | － | － | － | 1.000 |
| Metal manufacture and metal using commodity | － | 0996 | 0.003 | 0.001 | － | － | 1.000 |
| Other manufacturing | － | 0.005 | 0.993 | 0.001 | 0.001 | － | 1.000 |
| Construction | 0.004 | 0.010 | 0.002 | 0.960 | 0.020 | 0.004 | 1000 |
| Gas，electricity and water | 0.001 | 0.005 | 0.019 | 0 | 0.975 | 0.004 | 1.000 |
| Services | 0.001 | 0.012 | 0.021 | － | 0.002 | 0.964 | 1.000 |

Table 6 Make matrix indicating output to be treated according to the commodity technology assumption ${ }^{(1)}$
£ million

| Commodity sales | $\begin{aligned} & \vec{Z} \\ & \vdots ⿹ 勹 巳 y \end{aligned}$ | Agriculture， etc．and extraction |  | $\begin{aligned} & \text { Other } \\ & \text { manufac- } \\ & \text { turing } \end{aligned}$ | Construc－ tion | Gas， electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture，etc．and extraction |  | 3 527．9＊ | 1.4 | 11.2 | 1 |  |  |
| Metal manufacture and metal using commodity |  | － | 15 670．4． | 42.9 | $20 \cdot 3$ |  |  |
| Other manufacturing Construction |  | 41. | 86.9 | $17760{ }^{\circ}$ | 26．1． | 8.8 |  |
| Gas，electricity and water |  | $21.5 *$ 2.1 | 60.6 11.6 | $15.1 *$ 41.9 | $5847 .{ }^{*}$ | ${ }^{122.0}{ }^{\circ}$ | 25.1 ． |
| Services |  | 15.2 | 306.3 | 570.2 | 11.8 | 2181.3 54.6 | 25749.6 |

[^4]Table 7 Industry $\times$ industry flow matrix based on the hybrid technology assumption
$£$ million

|   <br> Industry sales $\begin{array}{r}\text { cois } \\ 0 \\ 0 \\ 0 \\ 0\end{array}$ | Agriculture, etc. and extraction | Metal manufacture and metal using industry | Other manufacturing | Construction | Gas, electricity and water | Services | Final demand |  |  | E. million |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | Total |
|  |  |  |  |  |  |  | Consumption | Investment | Exports of goods and services |  |
| Agriculture, etc, and extraction | (490.0) | 50.8 | 1192.6 | $92 \cdot 1$ | 386.4 |  |  |  |  |  |
| Metal manufacture and metal using industry Other manufacturing | 169.9 | ( 5748.7 ) | 668.9 | 709.6 | 386.4 131.5 | 20.3 609.8 | 1167.1 1985.9 | 41.7 2749.5 | 129.8 3363.4 | $3080 \cdot 8$ |
| Construction | 727.1 78.0 | 1077.3 | (4 668.2) | 914.7 | 139.8 | 1401.5 | $6773 \cdot 7$ | $2749 \cdot 5$ 265.9 | 3363.4 2474.0 | 10388.5 |
| Gas, electricity and water | 67.0 | 94.4 286.8 | $45 \cdot 3$ | (945.4) | $34 \cdot 6$ | $70 \cdot 3$ | 865.0 | $3747 \cdot 3$ | 25.1 | 13774.0 4960.0 |
| Services | 246.7 | 1284.4 | 277.9 2242.8 | 16.4 322.9 | (66.1) 197.3 | 328.2 | 1152.4 | 158.9 | 13.0 | 4960.0 2300.6 |
| Imports of goods and services | 128.6 |  |  |  |  |  | 165425 | $772 \cdot 6$ | 2231.2 | $23840 \cdot 4$ |
| Sales by final buyers | 128.6 3.2 | 1308.2 188.4 | 3032.1 46.6 | 123.3 14.8 | 38.0 5.8 | 1124.3 | 2266.8 | 679.2 | $470 \cdot 5$ | 9171.0 |
| Net taxes on expenditure | $-182.7$ | $167.6$ | $332 \cdot 4$ | 14.8 238.2 | 5.8 85.2 | $\begin{array}{r} 55 \cdot 5 \end{array}$ | -79.9 4289.5 | -352.1 | 117.7 | 91710 |
| Value added | 1843.0 | $5930.6$ | $5935 \cdot 4$ | 2528.0 | $\begin{array}{r} 85 \cdot 2 \\ 1282.0 \end{array}$ | $\begin{array}{r} 939.5 \\ 19291.0 \end{array}$ | 4289.5 | 168.0 | $-25.7$ | 6012.0 |
| Total | $3080 \cdot 8$ | 10388.5 | 13774 | $4960 \cdot 0$ | , |  |  |  | - | $36810 \cdot 0$ |
|  |  |  | 13774 | $4960 \cdot 0$ | $2300 \cdot 6$ | 23840.4 | 34963.0 | 8231.0 | 8799.0 | $110337 \cdot 3$ |

Table $8 \begin{aligned} & \text { Commodity } \times \text { commodity matrix in coefficient form, based upon the hybrid } \\ & \text { technology assumption }\end{aligned}$

| Commodity sales |  | Agriculture, etc. and extraction | Metal manufacture and metal using commodity | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction |  | 0138 |  |  |  |  |  |
| Metal manufacture and metal using commodity |  | 0.045 | $0.355$ | $0.035$ | $\begin{aligned} & 0.015 \\ & 0.119 \end{aligned}$ | $0.169$ |  |
| Other manufacturing |  | 0.203 | $0.064$ | $0.250$ | $0.154$ | $\begin{aligned} & 0.052 \\ & 0.055 \end{aligned}$ | $0.026$ |
| Construction |  | 0.021 | 0.006 | $0.003$ | $\begin{aligned} & 0.154 \\ & 0.160 \end{aligned}$ | $\begin{aligned} & 0.055 \\ & 0006 \end{aligned}$ | $\begin{aligned} & 0.057 \\ & 0.003 \end{aligned}$ |
| Gas, electricity and water |  | 0.019 | 0.018 | 0.015 | $\begin{aligned} & 0.160 \\ & 0.003 \end{aligned}$ | $\begin{aligned} & 0006 \\ & 0.029 \end{aligned}$ | $\begin{aligned} & 0.003 \\ & 0.013 \end{aligned}$ |
| Services |  | 0.072 | 0.083 | 0.126 | 0.057 | 0.029 0.089 | $\begin{aligned} & 0.013 \\ & 0.079 \end{aligned}$ |
| Imports of goods and services |  | 0.037 | 0.082 | 0164 |  |  |  |
| Other primary inputs |  | 0.465 | 0.389 | 0.343 | 0.021 0.471 | $\begin{aligned} & 0.019 \\ & 0.581 \end{aligned}$ | $\begin{aligned} & 0.047 \\ & 0.773 \end{aligned}$ |
| Total |  | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

account is required). The results of these separate adjustments are then summed. This final industry $\times$ industry table is set out in Table 7 and the final commodity $\times$ commodity table in Table 8.

The symmetrical tables-Table D and Table K -for the 90 industry/commodity system are calculated in a similar fashion but using a more complex hybrid technology system which is specified in detail in the second part of Appendix A.

A formal statement of all these operations is set out in Appendix C.

For Table 7 and Table $D$ this sequence of calculations has been modified in one important aspect. The major drawback to adjusting the absorption matrix by the weighting patterns described above is that all the output of non-principal products is assumed to supply both intermediate and final demand ; this is one aspect of the homogeneity assumption mentioned in Chapter one. In reality this is not the case. To take an example : the output of the commodity Construction, by the gas, electricity and water industry is not sold to both intermediate consumption and final demand since it is fixed investment. In the calculations as described this distinction has not been allowed for and so some of both intermediate and final demand for construction output will have fallen on to the gas, electricity and water industry. A more realistic calculation can be performed if the process of 'blocking' is used. This removes the construction output of the gas, electricity and water industry from the formal process of adjusting the absorption matrix and allocates it directly to final demand. In addition the construction activities of primary industries and the service industries have been treated in a similar fashion. This
procedure only concerns industry $\times$ industry tables and therefore Table 7 and Table D. Table 8 and Table K are not affected.

It can be seen that the industry $\times$ industry tables-Table 7 and Table D-are in flow form and that the individual row and column totals are equal apart from discrepancies due to rounding. These row and column totals are however net of duplication, that is, net of intraindustry transactions. This is necessary because in the United Kingdom's censuses of production the amount of intra-industry transactions depends, to a substantial extent, on the structure and coverage of reporting units within an industry. Changes in this structure between one period and another can be substantial and can lead to distortions in the figures. However these intraindustry transactions are presented in brackets.
Both Table 7 and Table D are complete in that they include figures for intermediate demand, final demand and primary inputs (otherwise the row and column totals would not be equal). Table 8 and Table K however are in coefficient form and so do not include figures for final demand which are not affected by the steps involved in constructing commodity $\times$ commodity tables. Also both Table 8 and Table K include intra-commodity transactions. Unfortunately it is not possible to include these transactions in the column and not in the total, as in Table 7 and Table D, without misleading the user of the tables. Their presentation in coefficient form and including the intra-commodity transactions follows the practice established in the 1963 input-output tables for the United Kingdom [4]. However the intra-commodity transactions have been excluded from the calculations set down as Table 9 and Table L, etc. and described in Chapter four.

# Chapter four. The study of economic structure: Tables $E$ to $\mathrm{J} ; \mathrm{L}$ to N and O to T 

The purpose of this chapter is to show how industry $\times$ industry and commodity $\times$ commodity tables can be used to study economic structure. One feature of this discussion will be to show that the output of each industry or commodity both depends upon, and helps to determine, the level of output of the supplying industries or commodities. As a first step in this procedure the 'inverse' of the industry $\times$ industry and commodity $\times$ commodity tables must be calculated. Taking as an example the symmetrical industry $\times$ industry table-Table 7coefficients are calculated by dividing each of the first six row entries in the first six columns of the table by each column sum to give Table 9, a $7 \times 6$ coefficient table. These coefficients express the input requirements for each unit of an industry's output in terms of the direct input from domestic supplying industries. Imports are, of course, treated as primary inputs. Each unit of output, however, requires further indirect output from other domestic supplying industries and these, in their turn, require further inputs supplied by other industries, including the industry first considered. As can be seen from Table 9, the metal manufacture and metal using industry requires inputs from all domestic industries. This however only considers the first round of the production process. The total amount of inputs required to produce the output of the metal manufacture and metal using industry is determined by both direct and indirect input relationships. For example, in Table 9, each unit of output of the metal manufacture and metal using industry requires 0.104 units of output from other manu-
facturing industry-which itself requires 0.049 units of output from the metal manufacture and metal using in dustry and 0.020 units of output from the gas, electricity and water industry, etc. The level of activity in any one industry thus has consequences which ripple through the entire economy (or the present quantitative reflection of it, the input-output tables). The calculation of the 'inverse' of the direct coefficient table measures these consequences.

The inverse of Table 9 is set out as Table 10. The inverse of the commodity $\times$ commodity table-Table 8-has also been calculated and is set out in Table 11. For the 90 industry/commodity system the inverses of Table D (the industry $\times$ industry table) and Table K (the commodity $\times$ commodity table) are set out as Table E and Table L respectively. (For ease of presentation all these entries have been scaled up by a factor of 1000). The formal details of the inversion calculation are discussed in Appendix C.

For the 6 industry/commodity system. Table 10 and Table 11 show the direct and indirect domestic output requirements of each industry or commodity group to produce each unit of output in 1968. In calculating and interpreting the inverses the assumptions of linearity and homogeneity discussed in Chapter one are important. The former means that the specification of direct and indirect effects will only apply to levels of output and input, or changes in levels of output and input, close to the values actually observed for 1968. This is because industries or commodity production processes are unlikely to exhibit linearity (or constant returns to scale) over a wide range of levels of output, including levels much greater or less than those observed for 1968. The second assumption means that the direct and indirect input requirements specified by the inverse tables will refer to an average unit (in terms of product mix) of each industry or commodity output.

To some extent these restrictive assumptions impair the usefulness of the input-output system as an analytical device but for the $90 \times 90$ disaggregation the problem of homogeneous valuation is not an acute one so the inverses-Table E and Table L-are still of great value.

Table 9 Direct domestic input requirements per unit of industry gross output

| Industries | Agriculture, etc. and extraction | Metal manufacture and metal using industry | Other mezufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction | 5 | 0.005 | 0.087 | 0.019 | 0168 | 0.001 |
| Metal manufacture and metal using industry | 0.055 | - | 0.049 | 0.143 | 0.057 | 0.025 |
| Other manufacturing | 0.236 | 0104 | - | $0 \cdot 184$ | 0.061 | 0.059 |
| Construction | 0.025 | 0.009 | 0.003 |  | 0.015 | 0.003 |
| Gas, electricity and water | 0.022 | 0.028 | 0.020 | 0.003 | 0 | 0.014 |
| Services | 0.080 | 0.124 | 0.163 | 0.065 | 0.086 |  |
| All primary inputs | 0.582 | 0.730 | 0.678 | 0.586 | 0.613 | 0.898 |
| Total | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Table 10 Total requirements per unit of final industrial output in terms of gross output

| Industries | Agriculture, etc. and extraction | Metal manufacture and metal using industry | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction | 1.030 |  |  |  |  |  |
| Metal manufacture and metal using industry | 0.079 | 1.015 | 0.096 0.063 | 0.041 0.161 | 0.181 0.080 | 0.010 0.031 |
| Other manufacturing | 0.267 | 0.123 | 1.043 | 0.220 | 0.124 | $0.037$ |
| Construction | 0.029 | 0.011 | 0.007 | 1.004 | 0.021 | $0.004$ |
| Gas, electricity and water | 0.032 | 0.033 | 0.028 | 0.015 | 1.011 | 0.016 |
| Services | 0.140 | 0.151 | 0.188 | 0.126 | 0.133 | 1.017 |

Table 11 Total requirements per unit of domestic commodity output in terms of gross output

| Commodities | Agriculture, etc. and extraction | Metal <br> manufacture and metal using commodity | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction |  |  |  |  |  |  |
| Metal manufacture and metal using commodity | 1.019 0.061 | 0.012 1.008 | 0.070 0.044 | 0.029 0.129 | 0.178 0.068 | 0.009 |
| Other manufacturing | 0.222 | 0.075 | 1.027 | 0.175 | 0.068 | 0.031 |
| Construction | 0.023 | 0.007 | 0.005 | 1.002 | 0.105 | 0.063 |
| Gas, electricity and water | 0.025 | 0.021 | 0.005 0.020 | 1.002 0.009 | 0.011 1.008 | 0.003 |
| Services | 0.110 | 0.096 | 0.140 | 0.092 | 0.122 | 0.015 1.013 |

Table 10 and Table 11 illustrate the interdependence of industrial production. From Table 11 it is possible to see, for example, what inputs are necessary to produce one unit of output of the metal manufacture and metal using commodity. Column 2 shows that the output of the agriculture, etc. and extraction commodity required is 0.012 units, of metal manufacture and metal using commodity 1.008 units and of other manufacturing commodity 0.075 units, etc. That the output of metal manufacture and metal using commodity is greater than unity, arises because other commodity production processes buy metal manufacture and metal using commodity as an input, in order to supply the latter with its total input requirements.

The columns of Table E and Table L can be used in a similar manner to express total direct and indirect effects.

Once an inverse is calculated it is possible to devise a number of related tables. This has been done for the inverses based upon the symmetrical industry $\times$ industry tables-Table 10 and Table E-but not for those based upon commodity $\times$ commodity inverses since these related tables are of greater interest if applied to industry accounts than when applied to commodity accounts. For the 90 industry system the derived tables run from Table F to Table J.

A fruitful way of presenting the interdependence of the economy is to express Table 10 in terms of net output (equals value added) ; this enables each industry's input requirements for final output to be seen in terms of the net output generated in the supplying industries. Each entry in Table 10 or Table E, shows the direct and indirect input requirements of the industry to which the column refers. Each entry is therefore total input, that is, the sum of the net output generated in the supplying industry, the domestic materials and imports purchased, and the taxes paid by it. It is possible to multiply each of
the rows by the proportion of net output to gross output for the industry to which the row refers, since on the homogeneity assumption this will be constant for each row. In addition it is possible to multiply the rows by the proportions of imports, taxes and sales by final buyers in gross output, all of which, on the basis of the homogeneity assumption, will be constant for any one row. If the latter three are accumulated into three separate rows then Table 12 and Table F result.

These tables show the proportions of primary input, both direct and indirect, required for a given level of final output and in what industry the net output is generated. However, in the final analysis the gross output of each industry is composed of the primary inputs generated in, or purchased by, itself and its supplying industries. Consequently once the above calculations have been completed the columns of Table 12 sum to unity (or in Table F, to 1000).

In the case of the metal manufacture and metal using industry, for example, Table 12 shows that for each unit of final output a substantial amount of value added is generated in the industry itself (about 58 per cent.) as well as in certain supplying industries, for example, Other manufacturing ( 5 per cent.) and Services ( 12 per cent.). In addition the table shows that 16 per cent. of output is a payment for imports after allowing for direct and indirect effects.

It is possible to summarise Table 12 and Table F and to show just the ultimate primary input content of industrial output rather than the industries in which value added is generated. This is done by totalling the columns of Table 12 and Table F to produce primary input aggregates. The results are set out in Table 13 and Table $G$. Each column of Table 13 refers to one of the 6 industries and each entry in the column to one of the categories of primary input distinguished by the 6 industry/commodity system.

Table 12 Total requirements per unit of final industrial output in terms of net output

| Industries | Agriculture, etc. and extraction | Metal manufacture and metal using industry | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction |  |  |  |  |  |  |
| Metal manufacture and metal using industry | 0.045 | 0.013 0.579 | 0.057 0.036 | 0.025 0.092 | 0.108 0.046 | 0.006 0.018 |
| Other manufacturing | 0.115 | 0.053 | 0.450 | 0.092 | 0.046 0.054 | 0.018 |
| Construction | 0.014 | 0.006 | 0.004 | 0.512 | 0.054 | 0.029 |
| Gas, electricity and water | 0.018 | 0.018 | 0.015 0.015 | 0.512 0.008 | 0.011 0.563 | $0.002$ |
| Services | 0.113 | 0.122 | 0.153 | $0 \cdot 101$ | $0.107$ | $\begin{aligned} & 0.009 \\ & 0.823 \end{aligned}$ |
| Imports of goods and services | 0.120 | 0.164 |  |  |  |  |
| Sales by final buyers | 0.004 | 0.164 0.019 | 0.251 0.005 | 0.101 0.007 | 0.069 0.005 | 0.068 0.003 |
| Net taxes on expenditure | -0.045 | 0.026 | 0.029 |  |  | 0.003 0.042 |
| Total | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Table 13 Industrial output in terms of primary input, in coefficient form

|  | Agriculture, etc. and extraction | Metal manufacture and metal using industry | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Imports of goods and services | 0.120 | 0.164 | 0.251 | 0.101 | 0.069 |  |
| Sales by final buyers | 0.004 | 0.019 | 0.005 | 0.007 | 0.005 | 0.003 |
| Net taxes on expenditure | -0.045 | 0.026 | 0.029 | 0.059 | 0.037 | -0.042 |
| Value added | 0.921 | 0.791 | 0.715 | 0.833 | 0.889 | 0.887 |
| Total | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Table 14 Industrial composition of final expenditure in terms of net output, in coefficient form

| Industries | Consumption | Investment | Exports of goods and services |
| :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction | 0.039 | 0.023 | 0.032 |
| Metal manufacture and metal using industry | 0.054 | 0.239 | 0.237 |
| Other manufacturing | 0.112 | 0.080 | 0.156 |
| Construction | 0.014 | 0.236 | 0.005 |
| Gas, electricity and water | 0.028 | 0.022 | 0.015 |
| Services | 0.436 | 0.172 | $0 \cdot 300$ |
| Imports of goods and services | 0.164 | 0.200 | 0.206 |
| Sales by final buyers | 0.002 | -0.033 | 0.023 |
| Net taxes on expenditure | 0.151 | 0.061 | 0.026 |
| Total | 1.000 | 1.000 | $1 \cdot 000$ |

As might be expected, industries differ substantially in their ultimate net output, imports, and taxes components. To take two examples from Table 13, it can be seen that the industry Other manufacturing has a high import component ( 25 per cent.), largely because it embraces food manufacturing and mineral oil refining, which are both heavily dependent on imports, whereas the services industries, Transport, Distribution, Miscellaneous services, etc. have a low import content ( 7 per cent.). Table G provides this detail for each of the 90 industries and for five categories of primary input.

There is another way in which Table 12 and Table F can be used. As each entry in a row shows the net output generated in that industry by each unit of output produced by the industry relating to the column, then the row entries can be weighted together to show the net output generated by industry output purchased by categories of final demand. This is done in Table 14 and Table H. Each entry shows the value added generated in the industry for the row by a unit amount of consumers' expenditure, or gross domestic fixed capital formation, etc. Figures in the lower part of each column account for purchases by final demand of imports (allowing for direct and indirect effects), and payment of taxes (also allowing for direct and indirect effects), etc.

Once Table 14 and Table H have been calculated it is possible to take the analysis one step further and show the ultimate primary input content of final demand which is set out in Table 15. This table shows the extent to which each category of final demand is linked with particular levels of primary input. A more detailed version of Table 15, in flow form, is set down as Table 16.

One feature of Table 13 and Table 14 and Table G and Table H not already discussed is exploited in Table I and Table J. Table G shows the total, that is, direct plus indirect, primary input content of industrial output; Table H shows the total direct and indirect net output content of final demand analysed by industry. For both these tables it is possible to display the direct and indirect effects separately. This division is provided in Table I and Table J.

For Table I and Table J the direct effects are drawn directly from Table D and the entries for indirect effects
are calculated by subtracting these direct effects from the totals given in Table G and Table H.

This completes the discussion of the derived tables based upon the inverses of the industry $\times$ industry tables -Table 10 and Table E. Two further tables, based upon symmetrical accounts are presented in the volume, but both are linked to the commodity $\times$ commodity tablesTable K and Table L. Referring to the $6 \times 6$ commodity $\times$ commodity tables it will be recalled that Table 8 and Table 11 were concerned with flows between domestic commodity production accounts. Detailed figures for imports were therefore excluded.

It is possible, however, to take Table 3 and adjust it, using appropriate technology of production assumptions and so calculate a table of imported commodities entering commodity production accounts. Using the hybrid technology assumptions underlying Table 8, such a table is set out as Table 17, and on the 90 commodity basis, using the assumptions underlying Table K , as Table M.

Analagous to Table 11 it is possible to calculate direct and indirect effects for imported goods as well as for domestic goods. Thus although Table 17 and Table M show the direct import requirements of United Kingdom domestic production, the output of any one commodity requires, besides direct imports, those imports used by the lines of production supplying it with domestically produced commodities, and so on. These indirect requirements are measured by the imports inverse set out as Table 18 and for the larger tables as Table N. Table 18 shows the direct and indirect import requirements for a unit of the commodity output to which each column refers. It is thus shown how the domestic production of a particular commodity affects the debit side of the balance of trade, via its direct and indirect import requirements. A formal statement of the calculations underlying Table 17 and Table 18 and Table M and Table N is set out in Appendix C .

The main body of the tables is completed by six which are not concerned with symmetrical accounts or their derivatives. The first four are commodity analyses of the categories of final demand, more detailed than those provided in Table B. Each one is presented in such a way

Table 15 The ultimate primary input content of final demand, in coefficient form

|  | Consumption | Investment | Exports of goods and services |
| :---: | :---: | :---: | :---: |
| Imports of goods and services | $0 \cdot 164$ | 0.200 | 0.206 |
| Sales by final buyers | 0.002 | -0.033 | 0.023 |
| Net taxes on expenditure | $0 \cdot 151$ | 0.061 | 0.026 |
| Value added | 0.683 | 0.772 | 0.745 |
| Total | $1 \cdot 000$ | 1.000 | 1.000 |

Table 16 The ultimate primary input content of final demand, in flow form
f million

|  | Consumers' expenditure | Public authorities' expenditure | Gross domestic fixed capital formation | Stockbuilding | Exports of goods and services | Total final output |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Imports of goods and services | $4319 \cdot 0$ | 895.4 |  |  |  | 9171.0 |
| Sales by final buyers | 642.3 | $-588.2$ | -271.9 | $0.2$ | $217 \cdot 6$ |  |
| Net taxes on expenditure | 4732.0 | $486 \cdot 5$ | 551.5 | $4 \cdot 1$ | $237 \cdot 9$ | $6012 \cdot 0$ |
| Income from employment | $10517 \cdot 9$ | $6118 \cdot 3$ | $4500 \cdot 6$ | 24.4 | $4178 \cdot 8$ | 65340.0 |
| Gross profits and other trading income | $7033 \cdot 8$ | 806.0 | 1789.1 | $39 \cdot 3$ | 1801.8 | $11470 \cdot 0$ |
| Total | 27245.0 | 7718.0 | $8017 \cdot 0$ | 214.0 | 8799.0 | 51993.0 |

Table 17 Direct imported commodity requirements per unit of domestic output

| Commodity sales | $\begin{aligned} & \text { 艺 } \\ & \text { O } \\ & 0 \\ & \text { E } \\ & E \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Agriculture, etc. and extraction | Metal manufacture and metal using commodity | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction |  |  |  |  |  |  |  |
| Metal manufacture and metal using commodity |  | 0.003 | 0.053 | 0.067 0.003 | 0.008 | 0.007 0.002 | 0.002 0.004 |
| Other manufacturing |  | 0.015 | 0.007 | $0 \cdot 100$ | 0.013 | 0.013 | 0.006 |
| Gas, electricity and water |  |  |  |  | - | 0.0 |  |
| Services |  |  |  | - | - | 0.001 |  |
| Total c.i.f. |  |  |  |  |  |  |  |
| F.o.b. adjustment plus imports of services |  | $0.002$ | $\begin{aligned} & 0.074 \\ & 0.008 \end{aligned}$ | $\begin{array}{r} 0.170 \\ -0.006 \end{array}$ | 0.021 | 0.023 -0.004 | 0.012 0.035 |
| Total f.o.b. |  | 0.037 | 0.082 | $0 \cdot 164$ | 0.021 | 0.019 | 0.047 |

hat its link with the figures in Table B can be clearly seen.

The first-Table O -is an analysis of consumers expenditure both by commodity and by category of expenditure, that is, expenditure on food, durable goods, chemists goods, etc. It provides a link between the consumers' expenditure figures published in the Blue Book which are presented in terms of categories of expenditure, and the commodity analysis provided in Table B. The source of information for this table is mainly the data underlying the Blue Book estimates.

Table $P$ provides a commodity analysis of four cate gories of public authority consumption, namely, expenditure on defence, the health services, other central government expenditure and expenditure by local authorities. The sources of information used are de scribed in Appendix A. The data for local authorities are not as accurate as that for central government expenditure.

Table $Q$ and Table $R$ refer to fixed investment. Table $R$ is a commodity analysis of each type of asset, plant and machinery, buildings and works, and vehicles, ships and aircraft. Table Q is a detailed analysis of the purchase of plant and machinery by industry. The sources of information used to construct it are described in Economic Trends [7] and are summarised in Appendix A.

The commodity analyses of consumers' expenditure and of the purchase of plant and machinery by industry are not considered to be as firmly based as the data used in the preparation of the main tables. Therefore the figures in Table O and Table Q are given as whole numbers, although for balancing purposes the figures are shown to one decimal place elsewhere in the tables.

The two final tables-Table S and Table T-set out an analysis of the make matrix-Table A-and of the proportion of residual purchases recorded in the Census reports. Both of these tables are referred to in Chapters one and two.

Table 18 Total requirements of imported commodities per unit of domestic output

| Commodities | Agriculture, etc. and extraction | Metal manufacture and metal using commodity | Other manufacturing | Construction | Gas, electricity and water | Services |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture, etc. and extraction |  |  |  |  |  |  |
| Metal manufacture and metal using commodity | 0.008 | 0.020 0.054 | 0.071 0.006 | 0.015 0.016 | 0.018 0.007 | 0.007 |
| Other manufacturing | 0.040 | 0.016 | 0.106 |  | 0.007 0.028 | 0.006 0.013 |
| Gas, electricity and water | - | - | - |  | 0 | 0 |
| Services | - |  |  | - | 0.001 | - |

## Appendix A

## I. Sources and methods

The discussion below describes in detail how the basic input-output tables were constructed. To facilitate understanding of the methods used, the stages are, as far as possible, described in the order in which they occurred.

The major published sources of information were as follows:
(i) The reports of the 1968 Census of Production, and the results of the inquiry into Business Expenses and Receipts, 1968 published in Report No. 156 of the 1968 Census of Production, (B.E.R. inquiry).
(ii) Reports of the nationalised industries, for example, the British Railways Board's Annual Report and Accounts, the Post Office Report and Accounts, etc.
(iii) The report of the 1966 Census of Retail Distribution, and the results of the inquiry into the Wholesale Trades in 1965 published in the Board of Trade Journal for 26 July 1968.
(iv) The Annual Statement of the Trade of the United Kingdom for the year 1968 (the overseas trade accounts).
(v) National Income and Expenditure 1972 (the Blue Book).
(vi) United Kingdom Balance of Payments 1972 (the Pink Book).
(vii) The Department of Trade and Industry: Digest of United Kingdom Energy Statistics.
(viii) Department of the Environment (formerly Ministry of Transport): Road Passenger Survey for 1968.

In addition, detailed data underlying these published estimates was drawn upon, as well as some minor publications which, where necessary are mentioned in the text.

The first part of this section describes how this material was used to construct input and output accounts for the 90 industries and commodities of the input-output tables. Definitions of these industries and commodities in terms of the headings of the Standard Industrial Classification, 1968 are given in Appendix D.

The 90 industries may be divided into four groups:
(A) Industries where the input and output figures were based upon the detail given in the Census of Production reports; industries 3 to 84 inclusive.
(B) Industries or parts of industries where the input and output figures were based largely on the reports of the nationalised industries ; industry 85 , parts of industries 86 and 87 ; industry 88.
(C) Industries or parts of industries based on more fragmentary information including the use of material for years other than 1968 updated to 1968 ; parts of industries 86 and 87 ; industries 89 and 90 .
(D) Industries based upon data provided by Government departments ; industries 1 and 2.
The discussion is taken in the above order, category (A) being divided where necessary into the four sub-groups:
(a) Mining and quarrying industries.
(b) Manufacturing industries.
(c) Construction.
(d) Gas, electricity and water industries.

## Category (A)

The general framework adopted was as follows.
For all the Census industries gross output was defined as the sum of the six items:

Sales of goods and work done valued at ex-works or ex-quarry prices
plus The margin on merchanting and canteen operations
plus Additions to stocks of goods on hand for sale and work in progress
plus Royalty receipts
plus Value of transport work undertaken on delivering goods produced
less Stock appreciation of stocks of goods on hand for sale and work in progress.

All except two of these items can be obtained from Table 1 of each Census report. Royalty receipts were provided by the B.E.R. inquiry and stock appreciation was derived from the detailed Blue Book worksheets used to prepare the capital formation figures.

The principal product of each Census industry is given by the total in Table 5 of the Census report less the amount of the principal product made in other industries. These figures were grossed-up to allow for small firms. (The grossing-up factors are implied by the difference between the figures in Tables 1 and 4 of the reports). Non-principal products of each industry are given in Table 7.

The information in Tables 1,5 and 7 made it possible to construct the individual columns of the make matrix within the range of industries covered by the Census of Production. Tables 1 and 5 provided the diagonal entry and the basis for constructing the column total ; Table 7 gave the off-diagonal entries.

On the purchases side, figures for the purchase of materials and fuels by large firms, employing more than 25 people, are given in Table 10 of each Census report. It was necessary to allocate these purchases to the 90 commodities in the input-output system. This was done by dealing separately with the following three groups of headings in Table 10:
(i) Unambiguous headings which could be allocated to commodity headings on the 90 commodity system without difficulty. The majority of headings in most Census reports came into this category.
(ii) Ambiguous headings which had to be allocated, on the basis of given proportions, to particular headings. An example is the heading 'Components, parts and accessories, and semimanufactured goods not elsewhere specified' which occurs in the report for the Census industry 'Scientific and industrial instruments and systems.'
(iii) The residual heading in Table 10, 'All other purchases of materials for use in production', which was analysed by using information supplied by individual firms as to the large purchases included by them in the residual they recorded on their reporting forms. These so-called 'written-in headings' made it possible to analyse the residual to the appropriate level of commodity detail. The importance of this residual for each industry is shown in Table T.

Once this was completed, the figures were grossed-up to an all firms basis.

Besides intermediate transactions in materials and fuels and payments for replacement parts, the Census of Production also records transactions between industries for 'Work done on materials given out' ; 'Repairs to plant and machinery' ; 'Services rendered'; and 'Hire of plant and machinery'. Each of these items was treated in a similar fashion. The sales are specified in Tables 1 and 5 of the Census reports and purchases in Tables 1 and 12. A table was drawn up for each of the headings; sales were matched with purchases in an array, and these arrays were superimposed one by one on the figures for purchases of materials and fuels by each industry to give, for each input-output industry covered by a Census report, a complete commodity analysis of the payments and receipts recorded.

In addition payments for certain services are given in Tables 11 and 12 of the Census reports, for example, insurance of vehicles, postal and telephone charges, etc., and in the B.E.R. inquiry report, advertising costs, fees for professional services, etc. These were considered purchases of the commodity communication and of miscellaneous services by each industry.

The result of these steps was to provide for industries 3 to 84 , a column of purchases of goods and services in 90 commodity detail. It should be stressed that this data was not sufficient to provide a comprehensive set of inputs accounts. The further steps necessary to achieve this will be discussed later.

Certain industries do not conform precisely to the general scheme. Differences are described below.

## (a) Mining and quarrying

For the coal mining industry figures in the Census report for the financial year 1968/69 were combined with those for 1967/68 given in the Digest of United Kingdom Energy Statistics to provide figures for the calendar year 1968.

An allowance was made in the output of the industry for the sale of open cast coal (a principal product of the construction industry) and an offsetting purchase from the construction industry introduced on the input side. In addition the full value of miners' concessionary coal was allowed for.

## (b) Manufacturing

In the Census reports the outputs of certain industries are given inclusive of tax on output, for example, tobacco, alcoholic drink, certain chemical industries, and it was necessary to remove this tax before constructing input-output accounts for the relevant industries/commodities. This is because in the United Kingdom input-output system, taxes on industry outputs fall on the purchasing industries or the final demand account to which they are delivered. Only taxes on industry inputs appear in each column and these are not shown separately but are accumulated into one row 'Taxes on expenditure less subsidies'.

For many manufacturing industries the output of the principal product covers a number of items which are difficult to classify, such as steam and waste products, capital goods constructed by an industry for its own use, and scrap metal.

The sale of steam and waste products was treated as an intra-transaction, that is, the purchase being made by the same industry where it was produced. This is a necessary simplification but the amounts involved were small. Capital goods produced for own use were treated as principal product and sold to final demand. Industries that produced scrap metal were considered to sell this output to the metal manufacturing industries where large purchases of scrap metal are recorded in the Census. Few other manufacturing industries are shown as purchasing scrap metal and where amounts were recorded they were treated as a purchase from the metal manufacturing industries.

## (c) Construction

The value of output of the construction industry is the value of new work done and repairs and maintenance plus the value of sub-contract work, which is a considerable proportion of the total.* The analysis of purchases by the construction industry is more difficult to complete than that for manufacturing industry because no analysis of the substantial residual heading 'All other purchases of materials' is available since respondents to the Census reports were not asked to provide writtenin information of the type already discussed. For the construction industry residual purchases amounted to 67 per cent. of total purchases of materials and fuel for use in production in 1968.

In producing a comprehensive input account for the industry, three sources of information were used-(i) the relatively few purchases headings in Table 10 of the Census report for the construction industry; (ii) commodity flow information derived from a study of the outputs of those industries likely to supply the construction industry; and (iii) an analysis of the weights of price indices calculated by the Department of the Environment to measure price movements in the construction industry. In particular, items (ii) and (iii) made it possible to disaggregate the residual heading in Table 10 of the Census report.

## (d) Gas, electricity and water

Census figures for the gas and electricity industries for the year 1968/69 were combined with those in the Digest of United Kingdom Energy Statistics for the year 1967/68 to arrive at calendar year figures for 1968.

The principal products of all three industries include, in addition to gas, electricity and water supplied, figures for the construction of plant and machinery on own account, and work done for which a charge is made.

- This should not be taken to imply that the value of output in other industries is net of intra-industry transactions. Most industry outputs contain an element of duplication in this sense; for construction however the figure is particularly large.

The input figures are net of materials supplied to contractors for capital work. These are picked up in the construction industry's inputs.

## Category (B)

These industries are industry 85 (Rail transport), part of industries 86 and 87 (Road transport and Other transport respectively) and industry 88 (Communication), and their input and output accounts depend upon the reports of the nationalised industries and the passenger transport data published by the Department of the Environment.

The major part of their output is equal to revenue received. For the rail transport, other transport, and communication industries, the construction of capital goods by labour forces belonging to these industries is included in the overall figures of output. In the case of the transport industries these capital goods are considered to be the output of the commodity Construction, but in the case of Communication, the capital goods are treated as a principal product, because their commodity Composition is not precisely known.

The inputs for these industries were also drawn from the nationalised industries' reports, supplemented by some information provided by these public bodies in response to ad hoc enquiries.

## Category (C)

For these industries the figures were based upon very fragmentary information. The industries concerned are the parts of industries 86 and 87 not covered above (the private parts of the road transport, shipping and air transport industries), and industries 89 and 90 (Distributive trades and Miscellaneous services respectively).

The major part of industry 86 not covered by the nationalised industry reports is private road haulage. Data on inputs and outputs for this industry was assembled from a study of the road haulage industry undertaken in 1966 for the Ministry of Transport, now part of the Department of the Environment, and subsequently updated.

The part of industry 87 not covered by the reports of public corporations is heterogeneous. The output of the shipping industry can be identified from the detailed figures on shipping earnings given in the Balance of Payments Pink Book. The outputs of the other parts of the industry (private aviation, travel agents, etc.) were culled from the relevant Business Monitors published by the Department of Trade and Industry or inferred from figures on employment published in the Annual Abstract of Statistics. Inputs were more problematical. They were obtained partly from the basic data used in the preparation of the Pink Book and partly from the commodity flow approach, for example, the balancing of total demand and supply for such commodities as shipbuilding.

Industries 89 and 90 (Distributive trades and Miscellaneous services) are both very large, and in fact account for 11 and 23 per cent. respectively of the weights of the 1963 based index of real output. However estimating the detailed outputs and inputs for these industries is by no means straightforward.

The output of the distribution industry was obtained by up-dating to 1968 the gross margins figures in the 1965 Wholesale Trades inquiry and the 1966 Census of Distribution.

On the input side the distribution enquiries provided a little information about purchases, for example, the costs of running vehicles, payments for packaging materials, etc. Many of the other inputs recorded in the table were based on the commodity flow approach.

The most heterogeneous industry, Miscellaneous services, is perhaps the most difficult to bring within the input-output framework. Various sources of information were used to provide the estimates of output, including specialist surveys, for example, the Motor Trades in 1967; (see the Board of Trade Journal for 6 May 1970). In addition various reports published in the late nineteen sixties by the National Board for Prices and Incomes give some estimates of turnover for certain service industries.

The Prices and Incomes Board reports also provide some information about inputs but many of the final entries in the purchases column for Miscellaneous services result from the balancing of supply and demand which is described on page 20.

Category (D)
This category covers industry 1 (Agriculture) and industry 2 (Forestry and fishing).

For agriculture the entries for both output and inputs were based on information supplied by the Ministry of Agriculture, Fisheries and Food. This covers agricultural contractors, stud farms and occasional sales by noncommercial producers in addition to commercially significant agricultural holdings. Crop year figures for 1967/68 and 1968/69 were adjusted to an approximate calendar year basis for 1968.

For forestry some information was available from the Supply Estimates relating to the Forestry Commission and this was used to estimate both the output and the inputs of the industry. For fishing very little information was available and the estimates are very approximate. The value of fish landed is published in the Annual Abstract of Statistics and this was used as the basis for the estimate of output.

The above discussion has covered the construction of input and output figures for the 90 industries distinguished in the tables. This includes the construction of Table A and the majority of entries in the first 90 columns of Table B and Table C together, that is, industry purchases whether from domestic production or imports. These combined figures form a total intermediate supply table, the entries being at purchasers' prices, that is, sellers' prices plus distribution margins plus taxes on expenditure less subsidies on output.

Four further major topics remain for consideration. These are:
(i) The estimation of the detailed commodity composition of final demand.
(ii) The construction of Table C-the imports matrix.
(iii) The procedure used to balance each of the first 90 rows of the total supply table leading to its sub-division into Table B and Table C and the completion of the rows for the commodities, Distribution, Transport and Miscellaneous services. The latter step is part of the estimation of purchases at ex-works or 'dockside' prices.
(iv) The completion of industry input accounts by estimating payments by industries for primary inputs.

## (i) The commodity analyses of final demand

(a) Consumers' expenditure

The detailed commodity analysis of consumers' expenditure in column 93 of Table B and column 92 of Table C was derived from a commodity analysis at purchasers' prices of the functional headings of consumers' expenditure published in the Blue Book. The allocation to 90 commodity detail was clear for items such as consumers' expenditure on books, newspapers and magazines, rail travel, and communication services. For some other items, for example, expenditure on fuel and light, and running costs of motor vehicles, extra detail was obtained from the basic data used in the preparation of the Blue Book estimates. For the national accounts, however, the estimates of consumers' expenditure on manufactured goods are based mainly on sales by retail outlets, and here the results of the Family Expenditure Survey, together with details of output recorded in the Census reports were used to indicate the appropriate commodity analysis of durable goods, chemists' goods, etc.

The total for each commodity row at purchasers' prices was then adjusted to the required ex-works or 'dockside' prices.

This involved firstly the deduction of distributors' margins which were estimated mainly from data published in the 1965 Wholesale Trades inquiry and the 1966 Census of Distribution reports, updated to 1968 by using information on changes in distributors' margins published in Effects of the Selective Employment Tax First Report (HMSO 1970).

In addition the transport costs of distributing certain food, for example, bread and milk, were derived from the Census of Production.

The next adjustment was to deduct the taxes on expenditure net of subsidies relating to each commodity total. The main taxes were Customs and Excise duty on alcoholic drink, tobacco and hydrocarbon oils, and purchase tax on durable goods.

When these adjustments were made the resulting column was total commodity supply at ex-works or
'dockside' prices entering consumers' expenditure and formed the first final demand column of the total supply table.

The details of this analysis are set out in Table 0 which also gives the corresponding commodity analysis of imports and therefore the demand on domestic supply. The division of total commodity supply into imports and domestic output is covered in the discussion of the construction of the imports matrix.

## (b) Public authorities' current expenditure on goods and services

The analysis of public authorities' current expenditure on goods and services was carried out separately for central government and local authorities.

The detailed commodity analysis of central government consumption was based on the special enquiry undertaken for the years 1968/69 and 1969/70 described in the August 1971 issue of Economic Trends [7]. Figures for the calendar year 1968 for the three functional headings, Military defence, National health service and Other central government expenditure were derived from the results of this enquiry but with certain qualifications.

The central government, as a consumer, purchases items from a number of trading bodies and industrial enterprises that are included in the Census of Production. For input-output purposes inputs into these trading bodies and industrial establishments are considered a part of intermediate transactions and their completed output is sold to the central government.

The original central government commodity analysis, discussed in the article in Economic Trends, adopts this treatment for central government trading bodies, for example, Royal Ordnance Factories, the Stationery Office, etc. but not for certain other industrial establishments, for example, naval dockyards, building and civil engineering establishments and for input-output purposes the original figures were adjusted to ensure consistency of treatment. Consequently the central government is shown as purchasing the output of central government industrial establishments, that is, the commodities Shipbuilding and Construction.

The second component of public authorities' consumption is current expenditure by local authorities. The commodity analysis here was based on an analysis of expenditure under particular headings, such as expenditure on the police, public health, education, etc. Each category of expenditure was allocated between suitable commodities using information from Local Government Financial Statistics and similar publications, and the detail of the weighting patterns used for the price indices for the estimates of local authorities' expenditure in the national accounts. This analysis is considered to be less reliable than that for the central government.

Both the central government and local authorities' figures obtained by these methods were at purchasers' prices and were adjusted to ex-works or 'dockside' prices by the deduction of distributors' margins and net taxes on expenditure, where these were applicable.

The first four columns of Table P show the total commodity supply entering expenditure on Military defence, the National Health Service, Other central government expenditure and Local authorities' expenditure adjusted to exclude distributors' margins and net taxes on expenditure. The totals of these items give the second final demand column in the total supply table. In Table $P$ the adjustment for imports is shown in column 5 so that the derivation of the totals for Table B and Table C is clear.

## (c) Gross domestic fixed capital formation

The commodity analysis of gross domestic fixed capital formation in plant and machinery-part of Table Rwas based largely upon a detailed analysis of the output of capital goods produced by the engineering and allied industries in conjunction with an examination of the headings in the overseas trade accounts. At the same time, since the headings in the Census of Production reports and the overseas trade accounts were very detailed it was possible to construct an analysis of investment by commodity and by purchasing industry. This is set out in Table Q . The row totals in the table give the components of total commodity supply entering gross domestic fixed capital formation in plant and machinery. However, the range of commodities specified in Table Q is wider than that covered by the output of the engineering and allied industries. Some plant and machinery is made by industries on their own account,
and this is recorded as a principal product. As Tables O and R show, the gas, electricity and water and communication industries, as well as some industries within manufacturing itself, produce considerable amounts of this output.

Various commodities classified to investment in plant and machinery, even though they are output from the engineering and allied industries, are not capital goods in the strict sense, for example, metal office furniture. In addition certain other commodities enter the account to ensure balance. These cover wooden office furniture and other miscellaneous timber structures, payments for construction work on installing plant and machinery and small amounts for taxes and distribution margins, etc. Individual industry purchases of these are not known and so the purchases in Table Q are completed by a single row of figures covering all these items. Allowances were also made for the timing adjustments to the totals of investment in plant and machinery in 1968, as set out in Table 56 of the 1972 Blue Book.

To the figures for plant and machinery were added the commodity analysis of investment in buildings and works set out in Table R. Investment in new buildings and works is dominated by the construction commodity but the total also includes part of the output of the commodity Shop and office fittings, as well as some capital formation on own account.

A commodity analysis of investment in vehicles, ships and aircraft completed the commodity account for gross domestic fixed capital formation; (see Table R)

## (d) Investment in stocks-first stage

The commodity analysis of investment in stocks was undertaken in two stages. First the output of goods on hand for sale and work in progress was assigned to the correct rows in the stocks column of the total supply table. Secondly stock changes in materials and fuels for each industry were analysed by commodity (for the treatment of this item see the end of this section of the Appendix).

Both goods on hand for sale and work in progress are deemed to be principal products of the industries where they arise and allocation to the equivalent cell in the stocks column was therefore straightforward. Stocks of goods on hand for sale held by distributors were allocated on the basis of information about the type of distributors holding these stocks.

## (e) Exports of goods and services

The commodity analysis of exports of goods was constructed using a correlation between the detailed headings in the Annual statement of the Trade of the United Kingdom for the year 1968 and the Minimum List Headings of the Standard Industrial Classification, 1968. This correlation makes it possible to allocate each good recorded in the overseas trade accounts to the Minimum List Heading of which it is the principal product. Thus the total for exports of goods for 1968 can be analysed in terms of the 90 commodity headings of the input-output system. To complete the picture, positive adjustments were made for under-recording, for exports conveyed by parcel post and for those services which are the principal products of industries other than the industry Miscellaneous services, for example, contractors fees, which are a principal product of the construction industry.

## (f) Margins, etc, on final demand purchases

Once the commodity analysis of each category of final demand at purchasers' prices was complete, adjustments were made to revalue them at ex-works or 'dockside prices'. This required removing transport, distribution and service margins and net taxes on expenditure from the figures at purchasers' prices and allocating them to alternative rows in the column. The major part of distributors' margins was transferred to the distribution row but some goods are distributed by establishments classified to 'Miscellaneous services', for example, garages, public houses, etc. and about 15 per cent. of total distribution margins was considered a purchase from the miscellaneous services industry. Certain transport costs are incurred directly by final demand, for example, for food and these were allocated largely to the road transport row. Finally net taxes deducted, comprising items such as Customs and Excise duties, purchase tax, etc., were transferred to the taxes on expenditure less subsidies row.

## (ii) The imports matrix-Table $C$

The first step in constructing the imports matrix was to allocate the items listed in the Annual Statement of the

Trade of the United Kingdom for the year 1968 to the Minimum List Headings of the Standard Industrial Classification, 1968 using a similar correlation to that used for the analysis of exports discussed above Adjustments were made for goods for re-export and returned goods and goods for process and repair. This gave, for each commodity row in Table C, the total supply of imported goods available to all purchasers.

Next, each item included in each total was allocated either to final demand or intermediate demand. As a rule the allocations were relatively easy since the items entering final demand were either capital goods or goods for private or public consumption, most of which could be identified from their descriptions in the overseas trade accounts. This applied particularly to capital goods although where headings covered both machinery and parts it was necessary to make an arbitrary sub-division in order to allocate the machinery element to final demand. This was done by examining the domestic output of the corresponding machinery and parts.

Thus the total of imported goods entering final demand was built up for each commodity row together with the total of intermediate supply.

To allocate total intermediate supply some information was available for certain industries from Table 10 of the appropriate Census of Production reports, where major purchases of imported goods are recorded separately from purchases of domestically produced goods. This applied particularly to the food industries, etc. where some recorded purchases obviously related to imported goods, for example, tobacco and rice. The sum of these identified items for each row deducted from total intermediate supply, left a residual to be allocated to purchasing industries by more mechanical methods. The approach usually adopted was to allocate purchases of imported goods pro rata to the total purchases of the commodity concerned as specified by the total supply table. In this way Table C was completed. The sum of the entries in each column gave the total purchases by each industry of imported goods valued on the c.i.f. basis recorded in the overseas trade accounts, that is, including costs of carriage, insurance and freight. To be consistent with the balance of payments and national accounts where imports of goods are treated on the free on board (f.o.b.) basis, the costs of carriage, insurance and freight were deducted from the industry totals in Table C. The values to be deducted, which were available from the balance of payments accounts data, were allocated between industries and the final demand accounts in proportion to their purchases of various types of imports. That part of freight on imports arising from the activity of domestic industries was allocated to the other transport row in Table B, and so included in each industry's purchases of home production of these services. The foreign freight and insurance element was transferred to the imports of services row in Table C.

A number of other coverage and valuation adjustments were made to the figures in Table C in order to arrive at the total imports of goods and services as shown in the balance of payments and national accounts. The amounts involved were available from the balance of payments accounts and their allocation was mainly straightforward. They particularly affect the imports of capital goods.

## (iii) Distribution and service margins on intermediate purchases-the balancing of Tables A, B and C

Following the construction of the total commodity flow table and the imports matrix, it is possible to balance total purchases with total supply, that is, domestic production plus imports, for each commodity row, and then to arrive at the entries for domestic production shown in Table B.

In the commodity flow table, purchases by the final demand accounts were calculated at sellers' prices; (see item (i) (f) above). These items were subtracted from total supply at sellers' prices (the row totals of Table A plus Table C) to give the supply available to intermediate demand at sellers' prices. However the original purchases by industries in the total supply table were calculated at purchasers' prices and the difference between intermediate demand on this basis, and intermediate supply at sellers' and 'dockside' prices, for each row was a measure of distribution margins and transport costs. The values of distribution margins (where they were implicit) were small, usually less than 10 per cent, but transport costs for heavy goods such as mining and quarrying products and building materials were somewhat higher. All of these costs were allocated between industries in proportion to purchases, deducted from them, and the relevant
amounts transferred to the rail and road transport rows, the distribution row and, in the case of some mineral oil refining products, to the miscellaneous services row.

Analysing total commodity supply in this way ensured that the rows had a homogeneous valuation. In addition the entries transferred to the rail and road transport and distribution rows, together with the corresponding entries in the final demand accounts, completed the balance of supply and demand for these commodities. The total demand on the miscellaneous services industry was, however, still incomplete at this stage. Certain payments for services are not covered in the B.E.R. inquiry, or by the Census of Production reports, or implied as part of the distributors' margins on mineral oil refining products. The estimation of these unidentified payments is described in the section on gross profits and other trading income; (see page 22).

The next stage in balancing the tables, following the adjustments for distribution and service margins and transport costs, was to subtract the entries in the imports matrix, and also the estimates of protective duties falling on imported goods, purchase tax and tax on hydrocarbon oils where applicable.These adjustments completed the balance of domestic demand and supply at sellers' prices. The figures of tax deducted were transferred to the taxes on expenditure less subsidies row.

Except for the final balance of the miscellaneous services row, this procedure gave the entries in Table B for the purchases of commodities by industries and by final demand at sellers' prices. To complete the matrix these entries had to be supplemented by the purchases of primary inputs by industries. These primary inputs are sales by final buyers; the taxes on expenditure less subsidies not already counted; income from employment; and gross profits and other trading income.
(iv) The estimation of primary inputs other than imports.

## (a) Sales by final buyers

The concept underlying the row 'sales by final buyers' was discussed in Chapter two. The entries in the row cover purchases and sales between the final demand accounts and sales by them to industry. Examples of such transactions are the sale of scrapped capital goods to the metal industries, the transfer of second-hand goods between the sectors of final demand, the provision of services by public authorities for which a charge is made.

Thus the entry for consumers' expenditure includes payment for second-hand cars bought from the business sector, contributions by parents to the cost of school meals, prescription and other National Health Service charges, payments to local authorities for services connected with education and welfare, and for the use of car parks, libraries, etc. Receipts for the export of works of art are also included.

The large negative item for public authorities covers the sale of services already identified in consumers' expenditure, the sale of surplus goods for export, the sale of scrapped goods to the metal industries, and a residual item for surplus goods and services sold to industry, which is distributed between industries in relation to their gross output.

The entry for gross fixed capital formation covers the sale of second-hand cars identified in consumers' expenditure, the sale of second-hand ships and aircraft abroad and the transfer of scrapped goods to the metal industries.

The entry for exports is made up of the counterparts of the relevant items included above.

It should be noted there is no column corresponding to the sales by final buyers row. The row is a convenient way of collecting together transactions in existing goods and other sales and purchases between final demand accounts and intermediate industry. It might be possible in principle to introduce into the column an industry which processed discarded or second-hand goods, etc. This in fact was not done, and the discarded goods released from the final demand accounts were considered to be bought without further processing.

## (b) Taxes on expenditure less subsidies

The total of the row for taxes on expenditure less subsidies is equal to the adjustment to factor cost in the national accounts. The details by type of tax and by
type of subsidy are published in the central government and local authority current accounts in the Blue Book.

In United Kingdom input-output analysis taxes on expenditure are deemed to fall on purchasers and not on producers. Therefore the taxes shown as being paid by industries are linked to their inputs and not to their output. Thus although in the Census of Production, Customs and Excise duties on alcoholic drink and tobacco are recorded as being paid by manufacturers, for the input-output tables these duties have been deducted from output and attributed to the purchasers of the output, mainly final buyers.

The entries in the taxes row cover two categories of tax.
First, those taxes which are paid as part of purchasers' prices, for example, most Customs and Excise duties and purchase tax. Most of the duty on alcoholic drink and tobacco was attributed to consumers' expenditure, although small amounts were allocated to miscellaneous services to cover the purchase of drink and tobacco as part of business expenditure. Hydrocarbon oil duty was allocated between all purchasers in relation to their purchases of petrol and related products and similarly protective duties were allocated between purchasers, by type of import. Almost all purchase tax falls on consumers' expenditure, although small amounts must be attributed to public authorities' expenditure, capital formation, and intermediate purchases.

A small proportion of the taxes on consumers' expenditure arises from expenditure by foreigners in the United Kingdom and was reallocated to exports. In each column all the above taxes were deducted from the purchases of commodities and transferred to the net taxes row.

The second group of taxes are those which cannot be specifically attributed to any inputs purchased, for example, selective employment tax, local authority rates and motor vehicle licence duties, etc. Selective employment tax was allocated between industries in accordance with numbers employed but small amounts were attributed to consumers' expenditure for the employment of domestic servants, and to public authorities. For local authority rates, payments by the Census industries are recorded in the Census reports; payments by final buyers can be identified from national accounts sources and the residual item, payments by non-census industries, was distributed in accordance with rateable values. Some information on the incidence of motor vehicle licence duties was also available from the Census of Production reports and the final demand accounts. This was supplemented by data from the Ministry of Transport's survey of road goods transport for 1968. Of the remaining taxes, stamp duties were allocated to consumers' expenditure and capital formation in accordance with national accounts data, and the residual attributed to miscellaneous services; television contractors' duty was also allocated to miscellaneous services; the tax on betting and gaming was deemed to fall on consumers' expenditure, together with the miscellaneous taxes item which covers small duties, for example, tithe annuities, dog and gun licences, fines, etc.

The taxes falling on exports include a large negative item for export rebates.

The incidence of subsidies is as wide as the incidence of taxes. Subsidies may be categorised as follows: housing subsidies receivable by the consumers' expenditure account; certain subsidies payable to industries, for example, those to the agriculture and food industries, and to the nationalised transport and other transport and communication industries; employment premiums receivable by the full range of manufacturing industries; assistance to the coal industry; and other small items which fall largely on manufacturing industry.

## (c) Income from employment

The analysis of income from employment is consistent with the broad industrial analysis of wages and salaries and employers' contributions published in Table 17 of the 1972 Blue Book.

For the Census of Production industries the estimates of income from employment were derived from the wages and salaries recorded in Table 1 of the Census reports, adjusted for miscellaneous receipts, such as income in kind and directors fees, and for employers' contributions to national insurance and other pension funds, which were allocated between industries using
numbers employed and the average contributions per head given in the Labour Costs Survey 1968. For the non-census industries, the national accounts estimates were used, based mainly on numbers employed and average earnings.

## (d) Gross profits and other trading income

The figures for gross profits and other trading income are the most difficult to estimate in the 90 industry detail required. The entries in the row relate to factor incomes except income from employment, that is, the income of sole traders plus gross trading profits of companies plus the trading surpluses of public corporations and public authorities' trading bodies plus income from rent (relevant to the industries Agriculture and Miscellaneous services). Table 17 of the 1972 Blue Book gives a broad industrial analysis of gross profits and other trading income and some extra detail was available for industries other than manufacturing. The Blue Book figures are before allowing for stock appreciation and to be consistent with the figures for gross output which exclude stock appreciation, the input-output estimates of profits were calculated after allowing for this item. Estimates of stock appreciation were based on the industrial analysis available from national accounts data.

To allocate total gross profits and other trading incomes between industries the following method was used. For each industry the sum of identified inputs, that is, payments for materials and fuels, identified payments for services, sales by final buyers, net taxes on expenditure and income from employment, was subtracted from total gross output. This gave a residual item representing gross profits and other trading income plus unidentified payments for services.

For each industry outside manufacturing the estimate of profits from national accounts sources was deducted from the residual item and the remaining amount representing unidentified payments for services was transferred to the miscellaneous services row. The amounts transferred were small.

For profits in manufacturing industry a single total is available from national accounts sources and it was assumed that the distribution of profits between the industries would follow the pattern of the residual item described above. Then, as for non-manufacturing industries, the estimate of gross profits and other trading income was deducted from the residual item for each industry and the remainder transferred to the miscellaneous services row.

This procedure implied a constant relationship between trading income and unidentified payments for services throughout manufacturing industry. Although this relationship will only be approximately true for many industries in manufacturing, the total amount of the residual item relating to unidentified payments for services was only 20 per cent. so that even if the balance between gross profits, etc. and unidentified services were substantially different in certain industries, the pattern of profit earnings between industries would not change substantially.

## Investment in stocks-second stage

To complete the input-output analysis and to reconcile the final demand figures with the national accounts estimates, the second stage in the estimation of the figures of stocks was carried out; (see item (i)(d) on page 20). This was to make adjustments for the changes in stocks of materials and fuel held by industry. The change was positive or negative indicating either an increase in stocks and a consequent decrease in materials used, or a decrease in stocks and an increase in materials used. National accounts sources provided totals for the industries outside manufacturing and for broad groups within manufacturing. These were allocated between the component industries in relation to the stocks of materials and fuel held recorded in the Census of Production reports. The assumption was made that industries would stock those materials and fuel of which they purchase substantial amounts. Thus the total for each industry was allocated between its major purchases. Where the purchase included both domestic production and imports, the stocks adjustment was divided in the same proportion between the entries in Table B and Table C. In each case the amount of the adjustment was transferred to the entry in the stocks column for that
commodity, so completing the commodity analysis of stocks. The columns were balanced by making compensating entries in the miscellaneous services row.

These adjustments completed the balance of the miscellaneous services row and with it the balancing of Tables A, B and C.

## II. The specification of technologies of production

The following paragraphs provide a listing of those items of non-principal production to which the commodity technology assumption were assigned in calculating symmetrical industry and commodity accounts. The list refers to Table A.

As a rule the output of construction goods, margins made on distribution activities and payments received for miscellaneous services rendered, when produced as non-principal products were treated on the commodity technology basis. Other non-principal products treated similarly were as follows:

Mining and quarrying industries (3 to 5 ) ; the manufacture of building materials.

Food, drink and tobacco industries (6 to 14); the manufacture of certain packaging materials including wooden crates, cans and metal boxes, etc.

Coal and petroleum products and chemical industries (15 to 25 ) ; production of various engineering goods, other textiles, and mining and quarrying products.

Metal manufacturing industries (26 to 29) ; output of mining and quarrying products, all engineering goods and miscellaneous manufactures (including rubber goods, plastic products, electricity generated, etc.) with the exception of gas production.

Engineering industries ( 30 to 45 ) ; the output of chemicals and, (with the exception of instrument engineering) various items of miscellaneous manufactures (other than metal manufactures), of which examples are building materials, timber manufactures, rubber products and plastic goods, etc.; in addition the output of mechanical engineering goods by the electronics and telecommunications industry.

Shipbuilding industry (46) ; all non principal production with exception of the output of industrial engines and metal manufacturing.

Vehicles industries (47 to 50) ; most non-principal production of the aerospace industry and the output of chemicals, and various miscellaneous manufactures, by the motor vehicle and other vehicles industries.

Other metal goods industries ( 51 to 56 ) ; the output of chemicals and miscellaneous manufactures ranging from textiles to other manufacturing.

Textiles, leather and clothing industries (57 to 67) ; the output of chemicals (except in man-made fibres) metal goods, rubber and plastic goods (except in leather clothing and footwear) ; in addition in the cotton, etc. spinning and weaving industry the commodity technology assumption has been allocated to the output of woollen and worsted goods and hosiery and knitted goods.

Building materials industries (68 to 71); all nonprincipal production (mining and quarrying products, chemicals, engineering and metal goods, etc.) except other building materials.

Timber and furniture industries ( 72 to 73 ) ; chemical and metal goods, rubber and plastic goods (except in furniture and bedding, etc.).

Paper, packaging and printing industries (74 to 77) : metal and engineering products, various textile goods.

Rubber, plastic goods and other manufacturing industries (78 to 80) ; for the first two industries all goods produced except chemicals, paper, rubber and plastic goods.

Construction industry (81); all goods except other building materials and mining and quarrying products.

Gas industry (82) ; none.

## Appendix B

## The petroleum and natural gas industry

 (MLH 104)The petroleum and natural gas industry is included, in the main tables, in the industry group 'Other mining and quarrying' but because of its rapid growth in output in
recent years its main features are summarised in the attached tables.

The format adopted is similar to that which underlies the absorption matrix-Table B. The row gives details of the disposition of commodity output and the column disaggregates industry inputs. Owing to disclosure problems the latter is very summary in content; the material in the row is perhaps of greater interest. Note that for this industry/commodity the commodity output total equals the industry output total; consequently the industry does not produce non-principal products, nor is its principal product made in other Census industries.

The data has been drawn from Report 6 of the 1968 Census of Production, the Digest of United Kingdom Energy Statistics and the Gas Council Report and Accounts for 1967/68 and 1968/69.

Table 19 The petroleum and natural gas industry (MLH 104)

|  |  |  |  |  | million |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Purc | hasing indus |  | Final demand |  |
|  | Petroleum and natural gas | Mineral oil refining | Gas | Capital formation | Tota output |
| Commodity inputs: <br> Petroleum and natural gas | - | $2 \cdot 2$ | 13.5 | 0.6 | 16.3 |
| Other materials and fuels | 2.9 |  |  |  | 163 |
| Value added | 13.4 |  |  |  |  |
| Total input | 16.3 |  |  |  |  |

Appendix C

Mathematical statement of the steps used in constructing the 1968 United Kingdom inputoutput tables

The purpose of this appendix is to describe the basic mathematical structure of the United Kingdom input-
output system. Starting from the usual national accounting framework, all the relationships and properties discussed in Chapters three and four are formalised in terms of matrix algebra.

Throughout this section, matrices are denoted by capital letters and vectors by lower case letters. A prime is used to denote transposition and a circumflex over a vector denotes a vector transformed into a diagonal matrix. Use is also made of the unit vector denoted by $i$.

The starting point is a schematic representation of the income, expenditure, commodity and industry accounts that form the basic building blocks of the national accounts system. The format adopted is based upon that used in the official United Nations national accounts volume [12] and elsewhere in the literature.

| Sellers | Industries | Commodities | Final demand |
| :---: | :---: | :---: | :---: |
| Industries |  | M |  |
| Commodities | $X$ |  | - |
| Primary inputs | $y^{\prime}$ |  | $\underline{f}$ |
| Total | $g^{\prime}$ | $q^{\prime}$ |  |

The interpretation of this diagram is as follows.
In the rows, three accounts are revealed, industries, commodities and primary inputs. Each row must be considered as providing the degree of disaggregation considered desirable. The entries in each row show the sales from the account given by the row to the account specified by the column in which the entry is situated. Consequently if disaggregation is required these entries are matrices or vectors. (The principle adopted is therefore precisely that used in input-output tables; the above diagram draws together all the basic tables based upon this principle.) Thus in row 1 sales from the industry account to the commodity account are given in detail by the matrix $M$; the row totals of this matrix give the industry outputs-vector $g$. (Note that in this diagram matrix $M$ is the transpose of that set out in Table 1 or Table A-it has industries in the rows and commodities in the columns rather than vice versa.) The column totals of $M$ give the total amounts purchased by the commodity accounts-commodity outputs $q^{\prime}$. The second row shows to which account these commodity supplies are sold; to industries (the intermediate transactions matrix, $X$, part of the absorption matrix) and the final demand account as vector $f$. Industry inputs are completed by the purchases of primary inputs vector $y^{\prime}$ (which includes imports). Note that there is a direct allocation of primary inputs to final demand-scalar $z$.

The table is asymmetric since the primary input account sells its services to industries but makes no purchases, and the final demand account purchases commodities but makes no sales. This statement ignores one component of the tables described in Chapters one to four and Appendix A, namely, sales by final buyers. In reality the final demand accounts will dispose of goods and these transactions are located for 1968 in the sales by final buyers row. These sales of finished goods have been omitted from the present discussion for ease of exposition but they can in principle be accommodated.

This diagrammatic treatment of input-output and the national accounts could be expanded to allow for several categories of primary inputs and final demand so that the vectors and scalar $f, y^{\prime}$ and $z$ became rectangular matrices. However for present purposes this is not necessary.

To summarise, the meaning of the symbols introduced so far are
$M$ is the transposed Make matrix showing the outputs of commodities produced by industries; a typical element $m_{/ j}$ is the amount of commodity $j$ produced by industry $i$.
$X \quad$ is the Absorption matrix showing the purchases of domestically produced commodities by industries; the typical element $x_{i j}$ is the amount of domestically produced commodity $i$ purchased by industry $j$.
$f$ is a vector of final demands for output of commodities
$\boldsymbol{y} \quad$ is a vector of primary inputs purchased by industries
$g \quad$ is a vector of industrial outputs
$\boldsymbol{q} \quad$ is a vector of commodity outputs
$z \quad$ is (in this case) a scalar of primary inputs purchased by final demand.

Matrices $M$ and $X$ are both in flow form and it is possible to turn them into arrays of coefficients in a variety of ways. In addition it is now desirable to introduce into the discussion matrices describing flows between commodity accounts on the one hand and between industry accounts on the other (rather than $X$ which refers only to commodity purchases by industries) and the associated coefficient matrices.

Thus consider the following definitions set out in the natural order of the symbols used.

A is a commodity $\times$ commodity coefficient matrix; each element $a_{i j}$ specifies the amount of commodity $i$ used in the production of one unit of commodity $j$. Hence each column of $A$ describes commodity inputs for a unit level of activity of the commodity production account to which the column refers. Consequently the vector of commodity outputs entering intermediate demand is $A q$ and as the commodities entering final demand are $f$ then $q$ must satisfy

$$
q=A q+f
$$

$B$ is the intermediate transactions part of the absorption matrix in coefficient form; that is, each entry of the matrix $X$ is divided by the relevant industry output. Consequently a typical element $b_{i j}$ is the requirements of commodity $i$ per unit of output of industry $j$; thus

$$
B=X \hat{g}^{-1}
$$

Consider now the make matrix.

C
is the product mix matrix; each element $c_{i j}$ is defined as the proportion of commodity $i$ produced by industry $j$ per unit level of industry $j$ output, i.e.

$$
C=M^{\prime} \hat{g}^{-1}
$$

$D \quad$ is the market share matrix, each element $d_{i j}$ is defined as the proportion of commodity $j$ output produced by industry $i$ per unit level of commodity $j$ output, i.e.

```
D=M 的-1
```

Returning to the intermediate transaction matrix
$E \quad$ is the industry $\times$ industry coefficient matrix; a typical element $e_{/ /}$specifies the purchases of industry i's output used in the production of one unit of output by industry $j$. Matrix $E$ satisfies a relationship similar to that satisfied by matrix $A$. This takes the form that total industry output $g$ equals industry output for intermediate demand Eg plus industry output entering final demand.
(This order of symbols and definitions is similar to that used in the United Nations publication [12].)

From the above definitions and from the proceeding schematic representation of the national accounts
system the following relationships may be assembled.

$$
\begin{align*}
& \boldsymbol{q}=X i+f  \tag{1}\\
& q=M^{\prime} i
\end{align*}
$$

$$
\begin{equation*}
g=M i \tag{3}
\end{equation*}
$$

where the unit vector $i$ has the effect of summation.
By arranging previous equations matrices $B, C$ and $D$ satisfy the equations

$$
\begin{align*}
X & =B \hat{g}  \tag{4}\\
M^{\prime} & =C \hat{g}  \tag{5}\\
M & =D \hat{q} \tag{6}
\end{align*}
$$

From equation (4) $X i=B g$ and substituting for $X i$ in equation (1) :

$$
\begin{equation*}
q=B g+f \tag{7}
\end{equation*}
$$

This equation is a formal description of that part of the absorption matrix-Table B-describing the allocation of domestic output.

## Calculation of the commodity $\times$ commodity and industry $\times$ industry matrices

As described at length in Chapters three and four the problem in constructing symmetrical accounts is to obtain matrices $A$ and $E$ from $B$ and $M ; B$ being the only input coefficient matrix that is actually observed. Equation (7) is the key to this task but in order to facilitate matters a substitution must be made for $g$ in terms of the vector $q$. This implies that a functional relationship is assumed between commodity and industry outputs.

One way to achieve this is to make use of equations (2) and (5). Thus

$$
\begin{gathered}
M^{\prime} i=C \hat{g} i \text { (equation (5)), } \\
\text { but } M^{\prime} i=q \text { (equation (2)) } \\
\text { so that } g=C^{-1} q
\end{gathered}
$$

Substituting this expression for $g$ in equation (7), then

$$
\begin{equation*}
q=B C^{-1} q+f \tag{8}
\end{equation*}
$$

However as the definition of $A$ requires that $q=A q+f$ then a solution to the problem 'What is $A$ in terms of known matrices' is

$$
\begin{equation*}
A=B C^{-1} \text { so that } A C=B \tag{9}
\end{equation*}
$$

Equation (9) defines the commodity $\times$ commodity coefficient table on the basis of the commodity technology assumption the latter being introduced via the equation

$$
\begin{equation*}
M^{\prime}=C \hat{g} \tag{5}
\end{equation*}
$$

which specifies the structure of output $\left(M^{\prime}\right)$ as being determined by a fixed range of commodities produced per unit of industry output ( $C$ ) times the level of industry outputs ( $\hat{g}$ ). Equation (9) in the form $A C=B$ also shows that in the commodity technology assumption commodities have the same input structure in whichever industry they are made.

Equation (5) can also lead to an industry $\times$ industry table on the basis of a commodity technology assumption by substituting $q=C g$ in equation (7) and rearranging so that

$$
\begin{equation*}
g=C^{-1} B g+C^{-1} f \tag{10}
\end{equation*}
$$

On the industry technology assumption $C^{-1} f$ is industry output entering final demand. As the definition of $E$ requires that $g=E g+C^{-1} f$ then a solution for $E$ is;

$$
\begin{equation*}
E=C^{-1} B \text { or } C E=B \tag{11}
\end{equation*}
$$

Equation (11) defines the industry $\times$ industry matrix on the basis of the commodity technology assumption.

Call the solutions for $A$ and $E$ from (9) and (11) $A_{c}$ and $E_{c}$ respectively.

Alternatively it is possible to use equations (3) and (6) to obtain

$$
\begin{gathered}
M i=D \hat{q} i \\
\text { As } M i=g \\
\text { then } g=D q
\end{gathered}
$$

The substitution of this alternative specification of the structure of output into equation (7) realises $A$ and $E$ under an industry technology assumption. Thus

$$
\begin{equation*}
q=B D q+f \tag{12}
\end{equation*}
$$

so that another solution to the equation $q=A q+f$ is

$$
\begin{equation*}
A=B D \tag{13}
\end{equation*}
$$

the commodity $\times$ commodity coefficient matrix on an industry technology assumption; call this matrix $A_{I}$. Note the structure of production that underlies equation
(13) namely that each industry produces a range of commodities with the same input mix.

From equation (7)

$$
\begin{equation*}
E_{I}=D B . \tag{14}
\end{equation*}
$$

Equations (9), (11), (13) and (14) give the four extreme variants discussed in Chapters three and four.

However these two technology assumptions are extremes and it is considered more realistic to use a hybrid technology system which is a blend of them. The hybrid system divides the Make matrix into two parts; $M_{1}$ which gives the commodities produced by a commodity technology and $M_{2}$ which gives those commodities produced by an industry technology.
Consequently $\quad M=M_{1}+M_{2}$
similarly for commodity and industry outputs

$$
\begin{align*}
& q=q_{1}+q_{2}  \tag{16}\\
& g=g_{1}+g_{2} \tag{17}
\end{align*}
$$

Introducing a specific commodity technology structure

$$
\begin{equation*}
g_{1}=M_{1} i=C_{1}^{-1} q_{1} \tag{18}
\end{equation*}
$$

so that each unit of industry output produced according to the commodity technology assumption has a fixed commodity mix. Equation (18) covers subsidiary production in an industry; that is, production not linked technically to its main production processes.

One way of proceeding next is to assume that the commodities produced according to an industry technology assumption, which as noted in Chapters three and four will be by products of a main industrial process, have the following output structures.

$$
\begin{equation*}
M_{2}=D_{2} \hat{q} . \tag{19}
\end{equation*}
$$

The assumption underlying this equation is that the range of by-products produced according to an industry technology are assumed to have a total market share that is a constant proportion of total commodity output. (To put it more intuitively, that the balance between subsidiary production and by production does not vary as commodity output varies.)

Since $g_{2}=M_{2} i$ it follows from equation (19) that:

$$
\begin{equation*}
g_{2}=D_{2} q \tag{20}
\end{equation*}
$$

Substituting for $g_{1}$ and $g_{2}$ into equation (17)

$$
\begin{equation*}
g=C_{1}^{-1} q_{1}+D_{2} q \tag{21}
\end{equation*}
$$

It is now necessary to express $q_{1}$ in terms of $q$.
Since $M_{2}=D_{2} \hat{q}$ it follows that $M_{2}^{\prime}=\hat{q} D_{2}^{\prime}$
and since $q_{2}=M_{2}{ }^{\prime} i=\hat{q} D_{2}{ }^{\prime} i$

$$
\begin{equation*}
q_{2}=\left(\widehat{D_{2}^{\prime} i}\right) q \tag{22}
\end{equation*}
$$

From (16) $q_{1}=q-q_{2}$ and substituting for $q_{2}$ from equation (22), equation (21) becomes:

$$
\begin{align*}
& \quad g=C_{1}^{-1}\left[q-\left(\widehat{D_{2}^{\prime}}\right) q\right]+D_{2} q \\
& \text { Writing } \quad R=C_{1}^{-1}\left[/-\left(\widehat{D_{2}^{\prime}} i\right)\right]+D_{2}
\end{align*}
$$

then

$$
\begin{equation*}
g=R q \tag{24}
\end{equation*}
$$

which is a relationship linking commodity output to industry output. Note that $R$ has the effect of weighting together $C_{1}$ and $D_{2}$. It is only one of several ways to specify hybrid technologies; further variants are given in the United Nations publication already mentioned [12] and in papers by Gigantes [9] and Armstrong [1].
As equation (7) is:

$$
q=B g+f
$$

then from equation (24) :

$$
\begin{equation*}
q=B R q+f \tag{25}
\end{equation*}
$$

The matrix $B R$ is the commodity $\times$ commodity matrix $A$ calculated under a hybrid technology assumption called henceforth $A_{H}$;
$\begin{array}{lc}\text { thus } & A_{H}=B R \\ \text { and so } & q=A_{H} q+f\end{array}$
Equation (23) specifies precisely the procedure used for calculating the 90 commodity $\times$ commodity Table L. This procedure is also applicable to the primary inputs vector $y$; so that $y^{\prime}(\hat{g})^{-1} R$ is a commodity analysis of primary inputs in coefficient form, and to the imports matrix (see below).

An exactly analogous treatment is available for industry output and for the industry $\times$ industry matrix $E$.

From equation (24) : $\quad q=R^{-1} g$
and substituting for $q$ in equation (25) :
$g=R B g+R f$.
Thus the industry $\times$ industry matrix $E$, based on a hybrid technology assumption is:

$$
\begin{equation*}
E_{H}=R B \tag{27}
\end{equation*}
$$

which is the system used to calculate Table D.

## Calculation and interpretation of the 'inverses'

The elements $a_{i j}$ of the general matrix $A$ are technological coefficients representing the flow of commodity $i$ into the production of commodity $j$. For any particular commodity $i$, with output $q_{i}$ and final demand $f_{i}$, then

$$
\begin{equation*}
q_{i}=\sum_{j=1}^{n} a_{i j} q_{j}+f_{i} \quad i=1 \ldots n \tag{28}
\end{equation*}
$$

which is a detailed statement of the more familiar equation $q=A q+f$. Equation (28) shows that the output of commodity $i$ depends linearly on the output of every other commodity within the economy and on the final (or exogenous) demand for that commodity.

Given equation (28) it is interesting to consider the commodity outputs necessary to meet the set of fina demands $f$. Assuming that the inverse of $(I-A)$ exists, equation (28) in the form $q=A q+f$ can be solved for $q$ to give:

$$
\begin{equation*}
q=(I-A)^{-1} f \tag{29}
\end{equation*}
$$

Denoting the elements of $(I-A)^{-1}$ by $\gamma_{i j}$, equation (29) can be written as:

$$
\begin{equation*}
q_{i}=\sum_{j=1}^{n} \gamma_{i j} f_{j} \quad i=1,2, \ldots n \tag{30}
\end{equation*}
$$

Equation (30) shows that the output of each commodity needed to satisfy final demand depends linearly on these final demands.

If $0 \leqslant a_{i j}<1$ for all $i, j$ and $\sum_{i=1}^{n} a_{i j}<1$ for all $j$, then it is possible to express $(I-A)^{-1}$ in a convergent power series

$$
(I-A)^{-1}=I+A+A^{2}+\ldots
$$

Since

$$
\operatorname{Lim}_{k \rightarrow \infty}\left[A^{k}\right]=0, \text { where } 0 \text { is the null matrix. }
$$

Then equation (29) can be expanded so that:

$$
\begin{gather*}
q=\left(I+A+A^{2}+\ldots\right) f \\
q=f+A f+A^{2} f+\ldots \tag{31}
\end{gather*}
$$

Equation (31) has an interesting interpretation. It shows that total commodity output $q$ consists in the first instance of final demand $f$. However for $f$ to be produced an additional quantity $A f$, of each commodity is required, this additional amount being used in intermediate production to meet final demand $f$. Furthermore in order to produce $A f$, an additional quantity $A^{2} f$ must be produced which in turn requires $A^{3} f$, etc. Hence the total required commodity output is represented by equation (31).

There is an analogous treatment for total industrial requirements. Thus

$$
g=(I-E)^{-1} f^{*}
$$

where $f^{*}$ is an industrial analysis of final demand, and invoking the same arguments as used in the derivation of equation (31)

$$
\begin{equation*}
g=\left(I+E+E^{2}+\ldots\right) f^{*} \tag{32}
\end{equation*}
$$

Equation (32) represents the total industrial output required to satisfy final demand $f^{*}$.

Final demand $f$ or $f^{*}$ can be disaggregated (in a similar fashion to primary inputs) without affecting the validity of equation (31) or (32) ; for convenience these results have been derived for a total aggregate final demand vector

The inversions of $\left(I-E_{H}\right)$ and ( $/-A_{H}$ ) appear in the 90 industry/commodity system as Table E and Table N respectively.

## The treatment of imports

All that has gone before has referred to domestic production, but now it is important to introduce the imports
matrix $Y, Y$ gives the values of purchases of imported commodities by industries-namely the industry trans actions part of Table C. For this section a distinction is made between domestically produced and imported commodities, and matrices are given the superscript $D$ or / depending on which category they refer to.

It therefore is possible to rewrite equation (26) as:

$$
\begin{equation*}
q=A_{H}^{D} q+f \tag{33}
\end{equation*}
$$

where $A_{H}^{D}=B R$.
Using the same hybrid technology assumption as before so that $R$ remains unchanged, then the commodity $x$ commodity imports matrix based upon a hybrid technology assumption is given by

$$
\begin{equation*}
A_{H}^{I}=B^{I} R \tag{34}
\end{equation*}
$$

where $B^{I}=Y(\hat{g})^{-1}$, so that $A_{H}^{I}$ is analogous to $A_{H}^{D}$.
The matrix $A_{H}^{I}$ appears in flow form as Table M in the main body of the tables.

To account for direct and indirect effects as they affect imported commodities, it is necessary to define a vector $p$ of commodity imports and a matrix $P$ which gives the amount of imports purchased by domestic commodity production accounts.

Then

$$
p=P i+f^{I}
$$

where $f^{I}$ is a vector of final demand for imported commodities.

Assuming that $P=A_{H}^{I} \hat{q}$, namely that the absorption of imported commodities is a function of commodity output then

$$
\begin{equation*}
p=A_{H}^{I} q+f^{I} . \tag{35}
\end{equation*}
$$

Total intermediate commodity requirements are thus

$$
\left[A_{H}^{D}+A_{H}^{I}\right] q .
$$

From equation (33) where $q=\left(1-A_{H}^{D}\right)^{-1} f$ and substituting for $q$ in equation (35) then

$$
\begin{equation*}
p=A_{H}^{I}\left(I-A_{H}^{D}\right)^{-1} f+f^{I} . \tag{36}
\end{equation*}
$$

Equation (36) states that the level of commodity imports is determined by direct final demand requirements $f^{I}$ plus imports purchased by industries to provide domestic final demand $f$, after allowing for direct and indirect effects, through the matrix $A_{H}^{I}\left(I-A_{H}^{D}\right)^{-1}$. This appears as Table N in the main body of the tables.

## The algebra of the subsidiary industry $\times$ industry tables

This algebra underlying Tables $\mathrm{F}, \mathrm{G}$ and H is presented below in summary form.

Consider the hybrid technology industry $\times$ industry matrix $E_{H}$. The vector of primary inputs $y$ may be written as

$$
g^{\prime}-i^{\prime}\left(E_{H} \hat{g}\right)
$$

or as primary input per unit of industry output $y^{\prime} \hat{g}^{-1}$

$$
y \hat{g}^{-1}=i^{\prime}-i^{\prime} . E_{H}=i^{\prime}\left(I-E_{H}\right) .
$$

If each row of the inverse matrix $\left(I-E_{H}\right)^{-1}$ is multiplied by the correct ratio of primary input to gross output then the resulting product is

$$
\widehat{\left(i^{\prime}-i^{\prime} E_{H}\right)}\left(I-E_{H}\right)^{-1}
$$

which when summed columnwise is

$$
i^{\prime}\left(I-E_{H}\right)\left(I-E_{H}\right)^{-1}=i^{\prime}
$$

that is, the unit vector. This equation reveals the summation property of Table F. Note that Table F contains a partial column-wise summation of primary inputs in that imports, net taxes and sales by final buyers are accumulated in three rows at the lower end of the table.

Table G continues this column-wise summation process so that all primary inputs distinguished are accumulated into specific rows.

Table H allows for the possibility of performing the above calculation in terms of specific deliveries to final demand accounts rather than for a given set of notional unit levels of output. Thus, given a specific final demand vector $f$, then each column of Table H is a vector having the general form

$$
\left[\left(\widehat{i^{\prime}-i^{\prime} E_{H}}\right)\right]\left(1-E_{H}\right)^{-1} f .
$$

## Classification of industry/commodity groups

The table below gives details of the composition and coverage of the industry/commodity groups shown in the detailed tables. Each group is defined in terms of the Standard Industrial Classification, 1968. The cor responding 1968 Census of Production report numbers are also shown.

| Industry/commodity group |  | Standard Industrial Classification, 1968 Minimum List Heading | 1968 Census of Production report number |
| :---: | :---: | :---: | :---: |
|  | Agriculture | 001 | - |
| 2 | Forestry and fishing | 002, 003 |  |
| 3 | Coal mining | 101 | 2 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 102, 103 | 3, 4 |
| 5 | Other mining and quarrying | 104, 109 | 5, 6 |
| 6 | Grain milling | 211 | 7 |
| 7 | Other cereal foodstuffs | 212, 213, 219 | 8, 9, 15 |
| 8 | Sugar | 216 | 12 |
| 9 | Cocoa, chocolate and sugar confectionery | 217 | 13 |
| 10 | Oils and fats | 221 | 16 |
| 11 | Other food | 214, 215, 218, 229 | 10, 11, 14, 17, 18 |
| 12 | Soft drinks | 232, | 20 11, 4 , 17, 18 |
| 13 | Alcoholic drink | 231, 239 | 19, 21, 22 |
| 14 | Tobacco | 240 | 23.2 |
| 15 | Coke ovens and manufactured fuel | 261 | 24 |
| 16 | Mineral oil refining, lubricating oils and greases | 262, 263 | 25, 26 |
| 17 | General chemicals | 271 | 27, 28, 29 |
| 18 | Pharmaceutical chemicals and preparations | 272 | 30 |
| 19 20 | Toilet preparations Paint | 273 274 | 31 32 |
| 2122 | Soap and detergents <br> Synthetic resins, plastic materials and synthetic rubber | 275276 | 33 |
|  |  |  |  |
| 23 | Dyestuffs and pigments | 277 | 35 |
| 24 | Fertilizers | 278 | 36 |
| 25 | Other chemical industries | 279 | 37, 38, 39, 40, 41, 42, 43 |
| 27 | Iron castings, etc. | 313 | 46 |
| 27 | Other iron and steel | 311, 312 | 44, 45 |
| 28 29 | Aluminium and aluminium alloys | 321 | 47 |
| $\begin{aligned} & 29 \\ & 30 \end{aligned}$ | Other non-ferrous metals Agricultural machinery | 322, 323 | 48, 49 |
| 323334353637383940 | Machine tools <br> Pumps, valves and compressors <br> Industrial engines <br> Textile machinery <br> Construction and mechanical handling equipment <br> Office machinery <br> Other non-electrical machinery <br> Industrial plant and steel work <br> Other mechanical engineering <br> Instrument engineering |  |  |
|  |  | 332 | 51 |
|  |  | 333 | 52 |
|  |  | 334 | 53 |
|  |  | 335 | 54 |
|  |  | 336, 337 | 55, 56 |
|  |  | 338 339 |  |
|  |  | 341 |  |
|  |  | 342, 349 |  |
|  |  | 351, 352, 353, 354 | $67,68,69,70$ |
| 41424344454647484950 | Electrical machinery <br> Insulated wires and cables <br> Electronics and telecommunications <br> Domestic electrical appliances <br> Other electrical goods <br> Shipbuilding and marine engineering <br> Wheeled tractors <br> Motor vehicles <br> Aerospace equipment <br> Other vehicles | 361 | 71 |
|  |  | 362 , | 72 |
|  |  | 363, 364, 365, 366, 367 | 73, 74, 75, 76, 77 |
|  |  | 368 | 78 |
|  |  | 369 | 79 |
|  |  | 380 | 88 |
|  |  | 381 | 82 |
|  |  | 383 | 84 |
|  |  | 382, 384, 385 | 83, 85, 86 |
| $\begin{aligned} & 51 \\ & 52 \\ & 53 \\ & 54 \\ & 55 \\ & 56 \\ & 57 \\ & 58 \\ & 59 \\ & 60 \end{aligned}$ | Engineers' small tools <br> Cutlery and jewellery <br> Bolts, nuts, screws, etc. <br> Wire and wire manufactures <br> Cans and metal boxes <br> Other metal goods <br> Production of man-made fibres <br> Cotton, etc. spinning and weaving <br> Woollen and worsted <br> Hosiery and knitted goods |  |  |
|  |  | 392, 396 | 89, 93 |
|  |  | 393 | 90 |
|  |  | 394 | 91 |
|  |  | 391,399 |  |
|  |  | 411, | ${ }_{98}^{88,94,95,96,97}$ |
|  |  | 412,413 |  |
|  |  | 414 | 99, 100 |
|  |  | 417 | 104 |
| $\begin{aligned} & 61 \\ & 62 \\ & 63 \\ & 64 \\ & 65 \\ & 66 \\ & 67 \\ & 68 \\ & 69 \\ & 70 \end{aligned}$ | Carpets <br> Household textiles and handkerchiefs <br> Textile finishing <br> Other textiles <br> Leather, leather goods and fur <br> Clothing <br> Footwear <br> Bricks, fireclay and refractory goods <br> Pottery and glass <br> Cement |  |  |
|  |  | 422/1 | 106 108 |
|  |  | 423 | 110 |
|  |  | 415, 416, 418, 421, 422/2, 429 | 102, 103, 105, 107, 109, 111, 112 |
|  |  | $431,432,433$ | 113, 114, 115 |
|  |  | 4450 | 116, 117, 118, 119, 120, 121, 122, 123 |
|  |  | 461 |  |
|  |  | 462, 463 | ${ }_{126}^{125} 127$ |
|  |  | 464 | 128 |
| 71 <br> 72 <br> 73 <br> 74 <br> 75 <br> 76 <br> 77 <br> 78 <br> 79 <br> 80 | Other building materials, etc. <br> Furniture and bedding, etc. <br> Timber and miscellaneous wood manufactures <br> Paper and board <br> Packaging products of paper, board, etc. <br> Other paper and board products <br> Printing and publishing <br> Rubber <br> Plastic products n.e.s. <br> Other manufacturing |  |  |
|  |  | 472,473 | 129, 130 |
|  |  | 471, 474, 475, 479 | 131, 134, 135, 136 |
|  |  | 481 | 1371 |
|  |  | 482 | 138, 139 |
|  |  | 483,484 $485,486,489$ | 140, 141 |
|  |  | 491 486, 489 | ${ }_{144}^{142,143}$ |
|  |  | 496 | 144 |
|  |  | 492, 493, 494, 495, 499 | 145, 146, 147, 148, 150 |
| 888888888889 | Construction | 500 |  |
|  | Gas | 601 | 151 |
|  | Electricity | 602 |  |
|  | Water supply Railways | 603 | 154 |
|  | Railways Road transport | 701 | - |
|  | Road ransport | 702, 703, 704 | - |
|  | Communication | $705,706,707,709$ | - |
|  | Distributive trades | 810, 811, 812, 820, 821, 831, 832 |  |
|  | Miscellaneous services | $861,862,864,865,866,871,873$ | 二 |
|  |  | 876, 879, 881, 883, 884, 885, 886, |  |
|  |  | 889, 892, 893, 894, 895 and parts |  |
|  |  | of $860,863,872,874,882,887$, |  |
|  | Public administration, Domestic services, Ownership of dwellings |  |  |
| 9 |  |  |  |
|  |  | $860,863,872,874,882,887,888 \text {, }$ | 二 |
|  |  |  |  |

## List of works cited

1. Armstrong A. G. 'Technology assumptions in the Construction of U.K. input-output tables'; paper presented to the Edinburgh University conference on input output techniques, March 1971.
2. Barna T. 'The Interdependence of the British Economy'. Journal of the Royal Statistical Society. Volume CXV, Part I, 1952.
3. Central Statistical Office: Input-output Tables for the United Kingdom 1954; Studies in Official Statistics No. 8. (HMSO. 1961.)
4. Central Statistical Office: Input-output Tables for the United Kingdom 1963; Studies in Official Statistics No. 16. (HMSO. 1970.)
5. Department of Applied Economics Cambridge: $\boldsymbol{A}$ Programme for Growth. Vols. 1-12. (Chapman and Hall.)
6. Economic Trends. 'Provisional input-output tables for 1968.' (HMSO. January 1971.)
7. Economic Trends. Investment matrices for plant and machinery: 1963 and 1968' and 'Commodity analysis of government current expenditure on goods and services'. (HMSO, August 1971.)
8. Economic Trends. 'The measurement of gross domestic product in 1972'. (HMSO. April 1973.)
9. Gigantes T. 'The representation of technology in input-output systems' in 'Contributions to InputOutput analysis' (edited by Carter and Brody, North Holland publishing company 1971).
10. Leontief W. W. The Structure of American Economy. 1919-1939. 2nd edition revised ; (Oxford University Press New York 1951).
11. Stewart I. G. 'Input-output table for the United Kingdom.' The London and Cambridge Economic Bulletin. The Times Review of Industry. December 1958
12. United Nations: A System of National Accounts Studies and Methods Series F. No. 2. Rev 3. (New York 1968).

THE BASIC TABLES







Table A Commodity analysis of domestic output in 1968 （continued）

|  |  |  |  |  | \％ | $\begin{aligned} & \text { Z } \\ & \text { U } \\ & \text { E } \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \frac{2}{0} \\ & \text { à } \\ & \vec{\omega} \\ & \stackrel{\rightharpoonup}{0} \\ & \text { m } \end{aligned}$ | $\begin{aligned} & \frac{n}{0} \\ & \frac{3}{\bar{x}} \\ & \stackrel{y}{c} \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales by | commodity group | 79 | 80 | 81 | 82 | 83 | 84 | 85 |  |  |  |
|  | Agriculture |  |  |  |  | 8 | 84 | 85 | 86 | 87 | 88 |
| 2 | Forestry and fishing Coal mining |  | － | － | － | － | － | － | － | － | － |
| 4 | Coal mining Stone，slate，chalk，sand，etc．extraction |  |  |  |  |  |  |  |  |  |  |
| 5 | Other mining and quarrying |  |  | 0.1 |  |  |  |  |  |  |  |
| 6 | Grain milling |  |  |  |  |  |  | － |  |  |  |
| 7 | Other cereal foodstuffs |  |  |  |  |  |  | － |  |  |  |
| 8 | Sugar |  |  |  |  |  |  |  |  |  |  |
| r9 | Cocoa，chocolate and sugar confectionery Oils and fats |  |  |  |  |  | － |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | － |  |
| 11 12 | Other food Soft drinks | － | － | － | － | － | － | － |  | $\square$ |  |
| 13 | Alcoholic drink |  |  |  |  |  | － | － | 二 | ＝ |  |
| 14 | Tobacco |  |  |  |  |  |  |  |  |  |  |
| 15 | Coke ovens and manufactured fuel |  |  |  | $5 \cdot 2$ |  |  |  |  |  |  |
| 16 | Mineral oil refining，lubricating oils and greases |  |  | － | $5 \cdot 2$ 0.2 |  |  |  |  |  |  |
| 17 | General chemicals |  |  |  | 3.1 |  |  |  |  |  |  |
| 18 19 | Pharmaceutical chemicals and preparations Toilet preparations | 0.1 | 0.2 | － | － |  |  |  |  | ＝ |  |
| 20 | Paint |  | 0.2 |  |  |  |  |  |  |  |  |
| 21 | Soap and detergents |  |  |  |  |  |  |  |  | － | － |
| 22 | Synthetic resins，plastic materials and synthetic rubber | $6 \cdot 3$ | 4.0 |  |  |  | － | － | － | － | － |
| 23 24 | Dyestuffs and pigments Fertilizers |  | － | － | －3 |  | － |  |  | － |  |
| 25 | Other chemical industries | 1.0 | 0.7 | 二 | $0 \cdot 3$ | 二 | － |  |  | ＝ |  |
| 26 | Iron castings，etc． |  | 0.7 | － | － |  |  |  |  |  |  |
| 27 | Other iron and steel |  |  | 0.2 | － |  |  |  |  | － |  |
| 28 29 | Aluminium and aluminium alloys Other non－ferrous metals | 0.2 |  |  |  |  | － |  |  |  | － |
| 29 30 | Other non－ferrous metals Agricultural machinery | － | $0 \cdot 2$ | － |  |  |  | － |  | 二 |  |
| 31 | Machine tools |  | － | － |  |  |  |  |  | － |  |
| 32 | Pumps，valves and compressors | 二 | 二 |  |  | － | － | － | － | － | － |
| 33 | Industrial engines |  |  |  |  |  |  |  |  |  |  |
| 34 | Textile machinery | － | － | 0.1 |  |  |  |  |  |  |  |
| 35 36 | Construction and mechanical handling equipment Office machinery | 二 | 二 | 0.1 | － |  |  | － | － |  |  |
| 37 | Other non－electrical machinery | 二 | 0.1 | $2 \cdot 4$ |  | 二 |  |  |  | － |  |
| 38 | Industrial plant and steelwork | － | 0.1 | 2.4 9.6 | 二 |  |  | － | － |  |  |
| 39 | Other mechanical engineering | 0.1 | $0 \cdot 2$ | 3.1 | － | － |  |  |  |  | － |
| 40 | Instrument engineering | 0.3 | － | － | － | － | － | 二 | 二 | 二 | － |
| 41 | Electrical machinery | 二 | － | 3.2 | － | － | － | － | － |  |  |
| 42 | Insulated wires and cables Electronics and telecommunications | $\overline{0.2}$ | － | － |  | － | － | － | － | － | － |
| 44 | Domestic electrical appliances | 0.1 |  | 二 |  |  |  |  |  | － |  |
| 45 | Other electrical goods | 0.7 | 0.1 |  |  |  |  |  |  |  |  |
| 46 | Shipbuilding and marine engineering | 0.1 | － | 0.1 | 二 | － |  |  |  | － |  |
| 47 | Wheeled tractors |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 49 \\ & 50 \end{aligned}$ | Aerospace equipment Other vehicles | － | 0.2 | － | 二 | 二 |  | 二 | 二 | 二 |  |
|  | Engineers＇small tools |  |  |  |  |  |  | － |  | － |  |
| 51 | Engineers＇smali tools Cutlery and jewellery | 0.1 0.3 | 0.2 | － | － | － | － | － | － | － |  |
| 53 | Bolts，nuts，screws，etc． |  |  |  |  |  |  | － | － | － |  |
| 54 | Wire and wire manufactures | 0.1 | － | － | － | － |  | － |  |  |  |
| 55 | Cans and metal boxes |  |  |  |  |  |  |  |  |  |  |
| 56 | Other metal goods | 1.7 | $1 \cdot 1$ | 1.5 | 二 | － |  | － |  |  |  |
| 57 58 | Production of man－made fibres Cotton，etc．spinning and weaving | 二 | 二 | 二 | － | － | － | － |  | 二 |  |
| 59 | Woollen and worsted |  |  | － | － | － |  | － | － | － |  |
| 60 | Hosiery and knitted goods | － | － | － | 二 | － |  |  |  |  |  |
|  | Carpets | － | － | － | － |  |  |  |  |  |  |
| $\begin{aligned} & 62 \\ & 63 \end{aligned}$ | Household textiles and handkerchiefs Textile finishing | － | － | － | － | － | 二 | － | － | － | － |
| 64 | Other textiles | 0.2 | 0.2 |  |  |  |  |  | － | － |  |
| 65 | Leather，leather goods and fur | 0.5 | 0.1 | 0.1 |  |  |  |  |  |  |  |
| 66 | Clothing |  | 0.1 |  |  | － | 二 | － | － | 二 |  |
| 67 | Footwear Bricks，fireclay and refractory goods | 0.5 |  | － |  |  |  |  | － | － | － |
| 68 69 | Bricks，fireclay and refractory goods Pottery and glass | 0.1 0.3 | 二 | 0.5 | － | － | － | － | － | － | － |
| 70 | Cement | $0 \cdot 3$ |  | 0.5 |  |  |  |  |  |  |  |
| 71 | Other building materials，etc． |  | 1.8 | 14.0 | － | － | － | － | － | － | － |
| 72 73 | Furniture and bedding，etc． Timber and miscellaneous wood manufactures | 0．6 | 1.3 | 0.1 | － | － |  | ＝ | ＝ | ＝ | － |
| 74 | Paper and board | 1.0 | 1.2 0.3 | 11.4 | － | － | － | － | － | － |  |
| 75 | Packaging products of paper，board，etc． | $1 \cdot 3$ |  |  |  |  |  |  |  |  |  |
| 76 | Other paper and board products | 0.4 | $5 \cdot 1$ | － | － |  |  |  |  |  |  |
| 77 | Printing and publishing | 0.1 | － | － | ＝ | 二 | － | － | － | － | － |
| 78 79 | Rubber Plastic products n．e．s． | 1.4 304.4 | 2.6 | － | － |  | － |  |  |  | － |
| 80 | Other manufacturing | 304.4 4.1 | 3.9 288.5 | 二 | 二 | 二 | 二 | 二 | 二 | 二 |  |
| 81 | Construction | － | － | $5847 \cdot 1$ | 24.5 | 97.5 | － | 18.6 | － | 6.5 | － |
| 82 83 | Gas | － | － | － | 521.3 |  | － | 18 | ＝ | － | － |
| 84 | Water supply |  | － |  | － | 1480．6 | $179 \cdot 4$ |  |  |  |  |
| 85 | Railways |  |  | － | － | 二 | $179 \cdot 4$ | 498.2 |  |  |  |
| 86 | Road transport | 3.7 | $2 \cdot 9$ |  |  |  |  |  | 1253．2 |  |  |
| 87 | Other transport |  | － |  |  |  |  |  | ， | $2285 \cdot 2$ |  |
| 88 | Communication |  | － |  |  |  |  |  |  | － | 1089.0 |
| 89 | Distributive trades Miscellaneous services | $4 \cdot 4$ | 5.0 | 11.9 | $28 \cdot 4$ | $25 \cdot 6$ |  |  |  |  |  |
| 90 | Miscellaneous services | － | － | －0．1 |  | 0.6 |  | 7.1 |  | － | － |
| 91 | Total goods and services | 334.5 | 320.1 | 5905.4 | 583.0 | 1604－3 | 179.4 | 523.9 | 1253．2 | 2291.7 | 1089.0 |


|  |  |  | $\begin{aligned} & \frac{0}{2} \\ & \frac{3}{3} \\ & \frac{2}{8} \end{aligned}$ |  |  |  |  |  |  | $\begin{gathered} \stackrel{.}{0} \\ \stackrel{y}{5} \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | commodity group |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |  |  |
| $\frac{1}{2}$ | Agriculture |  | $479 \cdot 2$ |  |  | － | － | 50.5 | 7 | 8 | 9 | 10 |
| 3 | Forestry and fishing Coal mining |  |  | $0 \cdot 3$ | 二 | － | － | 50.5 | 92.4 4.1 | 43.0 | 0.4 | $5 \cdot 2$ |
| 5 | Stone，slate，chalk，sand，etc．extraction |  | 1.1 5.8 |  |  | 0.6 3.7 | 0.5 | $0 \cdot 3$ | 0.5 | $3 \cdot \overline{3}$ | 0.8 |  |
| 5 | Other mining and quarrying |  | 5.8 |  | 0.1 | 3.7 |  |  |  | 0.4 | 0.8 | 0.2 |
| 7 | Grain milling |  |  |  |  | － | 0.2 |  | 0.2 |  |  |  |
| 8 | Other cereal foodstuffs Sugar |  | 403.1 |  |  |  |  | 5.7 0.7 | 115.3 |  | 1.5 | 1.5 |
| 9 | Cocoa，chocolate and sugar confectionery |  | 4.9 |  |  | － | － | 1.9 | 18.0 | 0.1 13.6 | 0.1 24.7 |  |
| 10 | Oils and fats |  |  |  |  |  |  |  | 11.6 |  | 9.6 |  |
| 11 | Other food |  |  |  |  |  |  | 2.2 | 25.7 | 0.2 | 4.1 | 18.5 |
| 12 | Soft drinks |  | 2.4 6.0 | 0.4 | 二 | － | － | 0.5 | 27.9 | 1.6 | 22.1 | 1.1 |
| 13 | Alcoholic drink |  |  |  |  |  |  |  |  |  |  | 1 |
| 14 15 | Tobacco Coke ovens and manufactured fuel |  |  |  |  |  |  | － | 0.7 |  | 0.3 | － |
| 16 | Mineral oil refining，lubricating oils and greases |  | 25．） | $5 \cdot 1$ | 0.1 | 0.1 |  |  | 0.1 | 0.3 | 0.1 |  |
| 17 | General chemicals |  | 25. | $5 \cdot 1$ | 2.7 | $10 \cdot 3$ 4.4 | 0.8 | 0.7 | 7.8 | $0 \cdot 9$ | 1.0 | 1.6 |
| 18 | Pharmaceutical chemicals and preparations |  | $5 \cdot 9$ |  |  | 4.4 | 1.5 |  | 1.7 13 | 0.6 | 2.4 | 1.6 |
| 19 | Toilet preparations Paint |  |  |  |  |  | － | 2.6 | 13.0 |  |  | 0.2 |
|  |  |  | 2.2 | － |  |  |  |  | － |  | ＝ | ＝ |
| $\begin{aligned} & 21 \\ & 22 \end{aligned}$ | Soap and detergents Synthetic resins plastic materials and synthetic rubber |  | 0.7 | － | － |  | － |  | 0.1 |  |  |  |
| 23 | Synthetic resins，plastic materials and synthetic rubber Dyestuffs and pigments |  |  |  |  | 0.7 | － | 0.2 | 6.1 |  | 4.0 |  |
| 24 | Fertilizers |  | $128 \cdot 3$ |  |  |  |  | － | － |  |  |  |
| 25 | Other chemical industries |  | 12.1 |  | 4.7 | 1.7 |  |  |  |  |  |  |
| 26 | Iron castings，etc． |  | 12 | 二 | 4.7 | 1.7 | 0.7 | 0.2 | 1.0 |  | $3 \cdot 2$ |  |
| 27 | Other iron and steel |  |  |  | 33.5 |  | $1 \cdot 9$ |  |  |  |  |  |
| 28 | Aluminium and aluminium alloys |  |  |  |  |  | 1.9 | 二 | 0.6 3.3 | 0.3 | 0.3 5.3 |  |
| 29 | Other non－ferrous metals |  |  |  |  |  |  |  | $3 \cdot 3$ |  | $5 \cdot 3$ |  |
| 30 | Agricultural machinery |  | $15 \cdot 3$ | 0.2 |  |  |  |  | － |  | － |  |
| 31 | Machine tools |  |  |  |  |  |  |  |  |  |  |  |
| 32 | Pumps，valves and compressors |  |  |  | 2.7 | 0.7 |  |  |  |  |  |  |
| 33 <br> 34 | Industrial engines |  | － | － | 1.2 | 0.4 | 二 | 0.1 | 0.4 | 0.1 | 0.1 |  |
| 35 | Construction and mechanical handling equipment |  | － |  |  |  |  |  |  |  |  |  |
| 36 | Office machinery |  |  | － | 6.0 0.1 | 1.7 | 0.1 | － | 0.2 | 0.1 | 0.1 |  |
| 37 | Other non－electrical machinery |  | 5.0 | － | 6.0 | 1.7 | 0.2 | 0.6 | 0.1 2.6 | 0.7 | 0.1 |  |
| 38 39 | Industrial plant and steelwork Other mechanical engineering |  |  |  |  |  |  | 0.1 | 0.5 | 0.1 | 0.1 | 0.2 |
| 40 | Instrument engineering |  |  |  | 17.2 | $3 \cdot 2$ | 0.4 | $1 \cdot 0$ | $3 \cdot 6$ | 0.7 | 1.8 | 0.8 |
| 41 | Electrical machinery |  |  |  |  |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables |  |  |  | 6.9 5.8 | － | － | － | － | － |  |  |
| 43 | Electronics and telecommunications |  |  |  |  |  |  |  |  |  |  |  |
| 44 | Domestic electrical appliances |  |  |  |  |  |  |  |  |  |  |  |
| 45 | Other electrical goods |  | 0.2 | － | － | 0.3 |  |  | 0.6 |  | － |  |
| 46 | Shipbuilding and marine engineering |  |  | 7.0 |  |  |  |  | 0.6 |  |  |  |
| 47 | Wheeled tractors |  | 4.5 |  |  |  |  |  |  |  |  |  |
| 48 49 | Motor vehicles |  | $2 \cdot 2$ | 0.2 | － | 0.9 | － | 0.1 | 1.7 |  | 0.1 | 0.1 |
| 50 | Other vehicles |  |  |  |  |  |  | － |  |  | － |  |
| 51 | Engineers＇small tools |  | － | － |  | $2 \cdot 9$ | 0.2 | 0.1 |  |  |  |  |
| 52 | Cutlery and jewellery |  |  |  | 10.6 | $2 \cdot 9$ | 0.2 | 0.1 | 0.6 | 0.1 | 0.2 | 0.1 |
| 53 | Bolts，nuts，screws，etc． |  |  |  |  |  |  |  |  |  |  |  |
| 54 | Wire and wire manufactures |  | 0.7 | － | $2 \cdot 3$ |  |  |  |  |  |  |  |
| 55 | Cans and metal boxes |  |  |  |  |  |  |  | 12.7 | 0.1 | $2 \cdot 3$ | $0 \cdot 3$ |
| 57 | Other metal goods Production of man－made fibres |  | $6 \cdot 3$ | 0.6 | $9 \cdot 9$ | 3.4 | 0.5 | 0.6 | 2.7 | 0.5 | 0.8 | 0.7 |
| 58 | Cotton，etc．spinning and weaving |  |  |  |  | － |  |  | － |  |  |  |
| 59 | Woollen and worsted |  |  |  |  |  |  |  |  |  |  |  |
| 60 | Hosiery and knitted goods |  |  |  |  |  |  |  |  |  |  |  |
| 61 | Carpets |  |  |  |  |  |  |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs |  |  |  |  | － |  | － | － |  |  |  |
| 63 64 | Textile finishing Other textiles |  |  |  |  |  |  |  |  |  |  |  |
| 65 | Other textiles Leather，leather goods and fur |  | 9.0 | 6.8 | 0.2 | 0.2 |  | 1.1 |  | 0.9 |  | 0.2 |
| 66 | Clothing |  | 0.5 | － | 3.9 |  |  | － | 0.1 | 0.1 |  | ＝ |
| 67 | Footwear |  | 0.5 | － | $3 \cdot 9$ |  |  |  | 0.1 | 0.1 |  |  |
| 68 | Bricks，fireclay and refractory goods |  | 4.7 | － | 1.7 | － |  |  | － |  |  |  |
| 70 | Pottery and glass <br> Cement |  |  |  |  |  |  |  |  |  | 0.3 | $0 \cdot 3$ |
| 70 |  |  | $2 \cdot 1$ | － | 0.3 | 1.0 | － | － | － | － | － | － |
| 71 | Other building materials，etc． |  | 18.6 | － | 1.0 | 0.2 | － | － | － | － | － | － |
| 73 | Furniture and bedding，etc． |  |  |  |  |  |  |  |  |  |  |  |
| 74 | Paper and board |  | ${ }^{15 \cdot 8}$ | $0 \cdot 4$ | 9.8 | 0.2 | 0.1 | 0.2 | 0.8 9.3 | 0.1 | 0.4 5.8 | 0.1 |
| 75 | Packaging products of paper，board，etc． |  | 0.8 |  |  | 1.3 | 0.7 | 7.7 | 25－7 | 2.5 | 10.8 | 0.9 |
| 76 | Other paper and board products |  | 0.6 | $0 \cdot 3$ | 0.9 | 0.2 | 0.1 | 0.1 | ${ }_{1} 1.6$ | 0.1 | 0.4 | 0.2 |
| 77 | Printing and publishing |  | $2 \cdot 2$ | － | 0.5 | 0.2 |  | －1 | 1.2 | － | 0.9 | 0.1 |
| 78 | Rubber ${ }^{\text {Plastic }}$（ |  | 7.6 | － | 5.0 | 0.8 |  | 0.2 | $2 \cdot 3$ | 0.1 | 0.2 | 0.2 |
| 79 80 | Plastic products n．e．s． Other manufacturing |  |  |  |  |  | 0.1 | 0.5 | $2 \cdot 3$ | 0.3 | 1.6 | 0.1 |
|  | Other manufacturing |  | － | － | 0.2 | 0.1 | － | － | 0.2 | － | 0.2 | 0.1 |
| 81 | Construction |  | 40.5 | 2.2 | 27.5 | 7.6 | － | 0.6 | 1.9 | 0.4 | 0.5 | 0.2 |
| 83 | Electricity |  | 0.4 19.7 |  | 0．1 | 0.1 | 0.9 | $0 \cdot 3$ | $3 \cdot 4$ | 0.1 | 0.3 2.6 | 1.0 |
| 84 | Water supply |  | 6.0 | 0.2 | 32.5 0.4 | 0.1 | 0.9 |  | 0.8 | 0.3 | 0.3 | 0.1 |
| 85 | Railways |  | 3.7 | 0.8 | 8.1 | － |  | 1.5 | $2 \cdot 3$ | 1.8 | 1.6 | 0.1 |
| 86 | Road transport |  | 28.6 |  | 9.1 | $2 \cdot 1$ | 0.2 | 7.8 | 16.9 | 7.6 | 6.2 | 2.2 |
| 87 | Other transport |  | $5 \cdot 3$ | 5.8 | 0.6 | 1.0 | $\bigcirc$ | 4.8 | 10.1 | 5.8 | 2.4 1.0 | 5.1 |
| 88 | Communication |  | $5 \cdot 7$ | 0.5 | $1 \cdot 3$ | $0 \cdot 6$ | 0.1 | 0．5 | 2．1 | 0.1 4.5 | 1.0 14.9 | 0.1 9.4 |
| 90 | Miscellaneous services |  | 96．5 54 | 0.7 8.8 | 4.8 1.5 | $\begin{array}{r}11.3 \\ \hline 2.7\end{array}$ | 0.3 1.8 | 12.7 21.5 | 49.1 54.4 | 4.5 4.8 | 14.9 26.2 | ${ }_{3} 3$ |
| 91 | Public administration，domestic services，ownership of dwellings |  |  |  |  |  |  | － |  | － | － | － |
| 92 | Imports of goods and services |  | $100 \cdot 6$ | 1.1 | $9 \cdot \overline{3}$ | 9.0 | $8 \cdot \overline{6}$ | 26.0 | 185．8 | 6.0 | 49.0 | 67.8 |
| 93 | Sales by final buyers |  | 1.5 |  | 1.1 | 0.5 | 0.1 | 0.8 | $2 \cdot 6$ | 0.5 | 0.8 | $0 \cdot 4$ |
| 94 | Taxes on expenditure less subsidies |  | －202．6 | －4．1 | －0．3 | 23.2 | 1.1 | 4.5 | 31.1 | 2.0 | 4.6 74.9 | 2.3 10.4 |
| 95 | Income from employment |  | 336.0 | 40.0 | 513.0 | 53.5 | 11.5 | 28.7 | 11.8 | 9.4 | $\begin{array}{r}74.9 \\ \hline 254 \\ \hline\end{array}$ | $\begin{array}{r}10.4 \\ 7.2 \\ \hline\end{array}$ |
| 96 | Gross profits and other trading income |  | 722.0 | 41.0 | 74.0 | 37.6 | 14.4 | 35.5 | 69.0 | 2.5 | $25 \cdot 4$ | 7.2 |
| 97 | Total input |  | 2391.6 | 118.8 | 816.3 | 197.1 | 47.0 | 29.5 | $60 \cdot 3$ | 8.1 | 317.5 | $143 \cdot 9$ |



















Table B Commodity analysis of purchases from domestic production in 1968 (continued)





















Table B Commodity analysis of purchases from domestic production in 1968 (continued)















啇｜ $\mid$ 思


Table B Commodity analysis of purchases from domestic production in 1968 (continued)



|  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { 商 } \\ \text { n } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commo | dity imported |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Agriculture |  | $58 \cdot 3$ | － |  |  |  | 124.2 |  |  |  |  |
| 2 | Forestry and fishing |  | － | － | 二 | 二 | － | $124 \cdot 2$ | 99.3 0.7 | － | 16.6 | 21.5 |
| 3 | Coal mining |  |  |  |  |  |  |  |  |  |  | ＝ |
| 4 | Stone，slate，chalk，sand，etc．extraction |  | 0.5 | － | － | － |  |  | － |  |  | ＝ |
| 6 | Grain milling |  | － | － | － | － | － | 0.4 | $8 \cdot 3$ |  |  |  |
| 7 | Other cereal foodstuffs |  | $9 \cdot 4$ | － |  | － |  | 1.6 | 23.0 |  |  |  |
| 8 | Sugar |  | 0.1 | － |  | － | － | 0.2 | 2.7 | 90.0 | 0.4 |  |
| 10 | Cocoa，chocolate and sugar confectionery Oils and fats |  | 1.8 | － | 二 |  |  | 3．0 | 2.6 | － | 16.9 |  |
| 11 | Other food |  | － | － | － |  |  |  |  |  |  | $49 \cdot 9$ |
| 12 | Soft drinks |  |  | － |  | － | － | 0.1 | 15.7 | $0 \cdot 3$ | 9.5 | 0.2 |
| 13 | Alcoholic drink |  |  | － |  |  |  |  | － |  |  | － |
| 14 | Tobacco |  |  | － |  |  |  | － |  |  |  |  |
| 15 | Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Mineral oil refining，lubricating oils and greases |  | 8.0 | 0.7 | 0.7 | 3.4 | 0.2 | 0.2 | 2.3 | 0.3 | 0.3 | 0.4 |
| 18 | General chemicals Pharmaceutical chemicals and preparations |  | 1.9 | 二 | 二 | $1 \cdot 7$ | 0.3 | 二 | 0.3 1.2 | 0.2 | 2.0 | 0.4 |
| 19 | Toilet preparations |  |  |  |  | － | － | 二 | 1.2 |  |  |  |
| 20 | Paint |  | 0.1 | － | － | － | － | － | － | － | － | － |
| 21 | Soap and detergents |  |  | － | － | － | － | － |  | － |  | － |
| 22 | Synthetic resins，plastic materials and synthetic rubber |  | － | 二 | 二 | 0.2 | － | － | 1.4 | － | 0.9 | － |
| 23 24 | Dyestuffs and pigments Fertilizers |  | $11 \cdot 4$ | 二 |  | － | 二 | 二 |  |  | － | － |
| 25 | Other chemical industries |  | 3.1 | － | 0.3 | 0.1 | － | ＝ | 0.2 |  | 0.4 |  |
| 26 | Iron castings，etc． |  | － | － |  | － |  |  |  |  |  |  |
| 27 | Other iron and steel |  |  |  | 2.3 |  | 0.1 | － |  |  |  |  |
| 28 | Aluminium and aluminium alloys |  | － | － | 二 | － | － | － | 0.2 | － | 0.3 | － |
| $\begin{aligned} & 29 \\ & 30 \end{aligned}$ | Other non－ferrous metals Agricultural machinery |  | 2.0 | － | 二 | － | 二 | － | － |  |  | － |
| 31 | Machine tools |  | － | － | － | － | － |  |  |  |  |  |
| 32 | Pumps，valves and compressors |  | － | － | 0.4 | 0.1 | － | ＝ | － |  |  |  |
| 33 | Industrial engines |  | － | － | 0.2 | － | － | － | 0.1 |  |  |  |
| 34 35 | Textile machinery Construction and mechanical handling equipment |  | 二 | － | 0.8 | 0.2 |  | 二 | － |  |  |  |
| 36 | Office machinery |  |  | － | 0.1 |  |  |  |  |  |  |  |
| 37 | Other non－electrical machinery |  | 0.5 | － | 0.6 | 0.1 | － | － | $0 \cdot 3$ | － |  |  |
| 38 | Industrial plant and steel work |  | － | － | 0 | － |  |  |  |  |  | － |
| $\begin{aligned} & 39 \\ & 40 \end{aligned}$ | Other mechanical engineering Instrument engineering |  |  | － | 0.1 | － |  | － | － |  |  |  |
| 41 | Electrical machinery |  |  | － | 0.3 | － |  |  |  |  |  |  |
| 42 | Insulated wires and cables |  | － | － | 0.2 |  |  |  | － |  |  |  |
| 43 | Electronics and telecommunications |  | － | － | － | － | － | － | － | － | － |  |
| 44 | Domestic electrical appliances Other electrical goods |  |  |  |  | ＝ | 二 |  | 0.1 |  |  | － |
| 46 | Shipbuilding and marine engineering |  | － | － | － | － | － |  |  | － | ＝ |  |
| 47 | Wheeled tractors |  | 0.5 |  | － | － | － | － |  | － | － |  |
| 48 | Motor vehicles |  | 0.2 | － | － | － | － | － | 0.1 |  |  |  |
| 49 | Aerospace equipment |  |  |  |  |  |  |  |  |  | － |  |
| 50 | Other vehicles |  |  | － | － | － | － | － | － | － | － | － |
|  | Engineers＇small tools |  | － | － | 0.7 | 0.2 | － | － | － | － | － | － |
| 52 | Cutlery and jewellery |  | － | － | － | － |  |  |  |  |  |  |
| 53 | Bolts，nuts，screws，etc． |  |  |  | 0.1 | 二 | 二 | 二 | ＝ | 二 | － |  |
| 54 55 | Wire and wire manufactures Cans and metal boxes |  |  |  | 0.1 |  |  |  |  |  | － |  |
| 56 | Other metal goods |  | $1 \cdot 2$ | － | 0.7 | 0.1 | － | － | － | － | － |  |
| 57 | Production of man－made fibres |  |  |  |  | － |  |  |  |  | － |  |
| 58 59 | Cotton，etc．spinning and weaving Woollen and worsted |  | － | － | － | － | － | － | － | － | － |  |
| 60 | Wosiery and knitted goods |  | － | － | － | － | － | － | － | － | － |  |
| 61 | Carpets |  | － | － | － | － | － | － | － | － | － | － |
| 62 | Household textiles and handkerchiefs |  | － | － | － | － | － | － | － | － | － | － |
| 63 64 | Textile finishing Other textiles |  | 1.0 | 0.5 | ＝ | － | － | 0.2 | － | 0.2 | 二 | 0.1 |
| 65 | Leather，leather goods and fur |  |  | － | － | － | － | － | － | － | － |  |
| 66 | Clothing ． |  | － | － | － | － | － | － |  | － |  |  |
| 67 | Footwear Bricks，fireclay and refractory goods |  |  |  | 二 | － |  | － |  |  |  |  |
| 68 69 | Bricks，fireclay and refractory goods Pottery and glass |  | 二 | ＝ | 二 | － | － | 二 | ＝ | 二 | － | ＝ |
| 70 | Cement |  | － | － | － | － | － | － | － | － | － | － |
| 71 | Other building materials，etc． |  | － | － | － | － | － | － | － | － | － | － |
| 72 73 | Furniture and bedding，etc． |  | $5 \cdot 9$ | 0.1 | 1.7 | 二 | － | － | 0.2 | － | － |  |
| 74 | Paper and board |  | 5 | －1 |  | － | － | $0 \cdot 4$ | 1.1 | 0.2 | 0.7 |  |
| 75 | Packaging products of paper，board，etc． |  | － | － | － | － | － | － | 0.2 | － | 0.1 |  |
| 76 | Other paper and board products |  | － | 二 | － | － | － | － | － |  | ＝ |  |
| 77 | Printing and publishing |  | $0 \cdot 6$ | 二 | 0.4 | 0.1 | － | － | 0.2 |  |  |  |
| 78 79 | Rubber Plastic products n．e．s． |  | $\stackrel{0}{0}$ | 二 | $0 \cdot 4$ | $\underline{0.1}$ | 二 | － | 0.2 | 二 | 二 | 二 |
| 80 | Other manufacturing |  | － | － | － | － | － | － | － | － | － |  |
| 81 | Construction |  | － | － | － | － | － | － | － | － | － | － |
| 82 | Gas |  | － | － | － | 二 | 二 | － | － | － |  | 二 |
| 83 | Electricity |  | － | － | 二 | ＝ | － | － | － |  |  | 二 |
| 84 85 | Water supply |  |  | － | ＝ |  |  | － | 二 | － |  | － |
| 85 86 | Railways Road transport |  | 二 | 二 | － | － | － | 二 | 二 | － | － | － |
| 87 | Other transport |  | － | － | － | 二 | 二 | ＝ | 二 |  | － |  |
| 88 | Communication |  | 二 | 二 | 二 | － |  |  |  |  | ＝ | 二 |
| 89 90 | Distributive trades Miscellaneous services |  | － | ＝ | － | － | － | － | － | － | － | － |
|  |  |  |  |  |  | 6.2 | 0.6 | $130 \cdot 3$ | 194.3 | 91.2 | 49.2 | 72．5 |
| 91 92 | Total imports of goods c．i．f． Valuation and coverage adjustments |  | 106.5 -0.6 |  | －69 |  | 0.6 |  | $-21.5$ | －9．0 | －3．6 | －9．5 |
| 93 | less Insurance and freight |  | －9．4 | －0．3 | $-0.9$ | －1．0 | 0.6 | $-12 \cdot 3$ | -21.5 172.8 | -9.0 82.2 | -3.6 45.6 | -9.5 63.0 |
| 94 | Total imports of goods f．o．b． |  | 96.5 | 1.0 0.1 | 8.7 0.6 | 5.2 3.8 | 0.6 8.0 | 18.0 8.0 | 1728 13.0 | 82.2 3.8 | $\begin{array}{r}45 \cdot 6 \\ 3.4 \\ \hline\end{array}$ | 63.8 4.8 |
| 95 | Imports of services |  | 4.1 | 0.1 | 0.6 | 3.8 | 8.0 | 8.0 |  |  |  |  |
| 96 | Total imports of goods and services |  | $100 \cdot 6$ | $1 \cdot 1$ | $9 \cdot 3$ | 9.0 | 8.6 | 126.0 | 185.8 | 86.0 | 49.0 | 67.8 |
| 97 | Protective duties |  | 2.8 | － | 0.6 | 0.1 | － | 1.0 | 2.9 | 0.1 | 0.6 | 0.4 |



Table C Commodity analysis of imports in 1968 （continued）

|  |  |  |  |  |  |  |  |  |  |  | R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comm | dity imported | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| 1 | Agriculture | － | － | － | － | － |  |  |  |  |  |
| 2 | Forestry and fishing |  | － | － | 二 | － | － | － |  | 二 | － |
| 3 | Coal mining Stone，slate，chalk，sand，etc．extraction | 0.1 | － |  |  |  |  |  |  | － |  |
| 5 | Other mining and quarrying | 82.5 | 2.1 | 77.4 | － | ＝ | － |  |  |  |  |
| 6 | Grain milling | － | － | － |  |  |  |  |  |  |  |
| 7 | Other cereal foodstuffs | － | － | － | － | － | － |  |  |  |  |
| 8 | Sugar |  |  |  |  |  |  |  |  |  |  |
| 9 10 | Cocoa，chocolate and sugar confectionery Oils and fats |  | － | － | － | 二 | － |  |  |  | － |
|  |  | － | － | － | － | － | － |  | － | － | ＝ |
| 11 12 | Other food Soft drinks | － | 二 | － | － | － | － |  | － | － | － |
| 13 | Alcoholic drink |  | 二 |  | － | － |  |  |  |  |  |
| 14 | Tobacco | － | － |  |  |  |  |  |  |  |  |
| 15 | Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  |  |  |
| 16 | Mineral oil refining，lubricating oils and greases | 8.7 3.7 | 0.7 0.3 | 0.8 0.4 | 0.1 | 0.3 | 0.2 | 0.2 | 0.2 |  | 0.1 |
| 17 18 | General chemicals Pharmaceutical chemicals and preparations | 3.7 | $0.3$ | $0 \cdot 4$ | － | 0.1 | － | $\underline{-}$ | $0 \cdot 2$ | 0.1 | 0.1 |
| 19 | Pharmaceutical chemicals and preparations Toilet preparations | － | － | － |  | － | ＝ |  |  | － |  |
| 20 | Paint | － | － | － | － | － | － |  |  | 二 |  |
| 21 | Soap and detergents |  |  |  | － | － |  |  |  |  |  |
| $\begin{aligned} & 22 \\ & 23 \end{aligned}$ | Synthetic resins，plastic materials and synthetic rubber | 0.1 | 0.1 | 0.1 | － | － | 0.1 |  |  | － | 0.1 |
| 24 | Fertilizers | － |  | － |  |  | － |  |  |  |  |
| 25 | Other chemical industries | 0.1 | 0.1 | 0.1 |  |  |  |  |  |  |  |
| 26 | Iron castings，etc． | 0.8 |  |  |  |  |  |  |  |  |  |
| 27 | Other iron and steel | 27.3 | － | 0.2 | 0.7 | 0.8 | 1.4 | 0.5 | 0.6 | 3.2 | 0.2 |
| 28 | Aluminium and aluminium alloys | 0.1 30.5 | 84.4 3.2 | 0.3 000.9 |  | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| $\begin{aligned} & 29 \\ & 30 \end{aligned}$ | Other non－ferrous metals Agricultural machinery | $30 \cdot 5$ - | 3.2 | $200 \cdot 9$ | 0.1 | 0.4 | 0.8 | 0.6 |  | 0.4 | 0.2 |
| 31 | Machine tools | 0.3 | － | － | － | 0.5 | 0.2 | 0.1 | 0.1 |  |  |
| 32 | Pumps，valves and compressors | 0.3 |  | － | 0.5 | 1.4 | 2.9 | 0.8 | 1.0 | 3.3 | 0.1 |
| 33 | Industrial engines | 0.1 | － | － | 0.2 |  | 0.4 | 0.2 |  | 1.5 |  |
| 34 | Textile machinery Construction and mechanical handling equipment | 0.1 |  |  | － | 二 | － |  | 1.1 |  |  |
| 36 | Office machinery | 0.1 |  |  |  |  |  |  |  | $2 \cdot 9$ |  |
| 37 | Other non－electrical machinery | － | － | － | － | － |  |  |  | － |  |
| 38 | Industrial plant and steel work |  |  |  |  |  |  |  |  |  |  |
| 39 | Other mechanical engineering | 1.1 | － | － | 1.0 | 1.3 | 1.1 | 1.1 | 1.1 | $4 \cdot 6$ | 0.4 |
| 40 | Instrument engineering |  | － |  | 0.1 | 0.6 | 0.5 | 0.1 | 0.4 | 0.8 | － |
| 41 | Electrical machinery | － | － | 二 | － | 0.3 | 0.4 | － | 0.1 | 0.4 | 0.1 |
| 42 | Insulated wires and cables Electronics and telecommunications | － | － | 二 | 二 | 0.4 | － | 二 |  |  |  |
| 44 | Domestic electrical appliances |  |  |  |  | － |  |  |  |  |  |
| 45 | Other electrical goods |  | － | － | － | － | － | 0.2 |  | 0.1 |  |
| 46 | Shipbuilding and marine engineering |  |  |  |  |  |  | － |  | － |  |
| $\begin{aligned} & 47 \\ & 48 \end{aligned}$ | Wheeled tractors Motor vehicles | 二 | 二 | 二 | 二 | 二 | 二 | 二 |  |  |  |
| 49 | Aerospace equipment |  |  |  | － | － | － | － | 二 | 二 |  |
| 50 | Other vehicles |  | － |  | － | － | － | － | － | － | － |
| 51 | Engineers＇small tools | 0.7 | 0.1 | 0.1 | － | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 52 | Cutiery and jewellery |  |  | ＝ |  |  |  | － | － |  |  |
| $\begin{aligned} & 53 \\ & 54 \end{aligned}$ | Boits，nuts，screws，etc． Wire and wire manufactures | 二 | 二 |  | 0.1 | 0.1 0.1 | 0.2 | 二 | － | 0.2 0.1 |  |
| 55 | Cans and metal boxes |  |  |  |  |  |  |  |  |  |  |
| 56 | Other metal goods | 0.9 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | $0 \cdot 2$ | 0.3 | 0.8 | 0.3 |
| 57 | Production of man－made fibres |  |  |  | － |  |  | ＝ |  |  | － |
| 58 59 | Cotton，etc．spinning and weaving Woollen and worsted |  | － |  | － | 二 | － | － | 0.1 | － | － |
| 60 | Hosiery and knitted goods | － | － | － | － | － | － | － | － | － | － |
| 61 | Carpets | － | － | － | － | － | － | － | － | － | － |
| 62 | Household textiles and handkerchiefs | － | － | － | － | － | － | － | － | － | － |
| 63 | Textile finishing Other textiles |  |  | － | 二 | － | 二 |  | 0.1 | － |  |
| 65 | Other textiles Leather，leather goods and fur |  |  |  |  |  |  |  | － |  |  |
| 66 | Clothing | － | － | － | － | － | － | － | － | － |  |
| 67 | Footwear | 5 | － | － | － | － | － | － | － | － | － |
| 68 | Bricks，fireclay and refractory goods | 1.5 | 二 | 二 | 二 | 二 | 二 | 二 | ＝ | ＝ |  |
| 69 70 | Pottery and glass Cement |  | － | ＝ | ＝ | － | － | － | － | － | ＝ |
| 71 | Other building materials，etc． | － | － | － | － | 0.1 | 0.1 | － | － | 0.1 | － |
| 72 | Furniture and bedding，etc． | － | － | － | 0. |  |  |  |  |  |  |
| 73 | Timber，and miscellaneous wood manufactures | 0.4 | ， | ， | 0.1 | 0.1 | 0.2 | 0.1 | $0 \cdot 4$ | 0.3 | ＝ |
| 74 <br> 75 | Paper and board Packaging products of paper，board，etc． | ＝ | ${ }^{0.3}$ | 0.1 | 二 | 二 | － | － | 二 | ＝ |  |
| 76 | Other paper and board products | － | － | － | － | － | － | － | － | － |  |
| 77 | Printing and publishing | 二 | － | ＝ | 0.1 | 二 | 0.3 |  |  | 0.5 |  |
| 78 79 | Rubber <br> Plastic products n．e．s． | 0.2 | 0.1 | ＝ | 0.1 | ＝ | ${ }_{0}^{0.1}$ | － | － | 0.1 | 0.1 |
| 80 | Other manufacturing | 0 | 0 | － | － | － | － | － | － |  |  |
| 81 | Construction | － | － | － | － | － | － | － | － | － | － |
| 82 | Gas | － | － | － | － | － | 二 | ＝ | ＝ | ＝ |  |
| 83 84 | Electricity | ＝ | 二 | － | － | － | ＝ | ＝ | － | ＝ | － |
| 85 | Railways | － | － | － | － | － | － | － | － |  |  |
| 86 | Road transport | － | － | － | 二 |  |  |  |  |  |  |
| 87 | Other transport | － | 二 | － | － | ＝ |  |  |  |  |  |
| 88 | Communication Distributive trades | － | ＝ |  |  | － |  | ＝ |  |  | － |
| 89 90 | Distributive trades Miscellaneous services | 二 | ＝ | － | － | － | － |  |  | － | － |
|  |  | 159.6 | 91.5 | 280.5 | 3.1 | 7.0 | 9.5 | $4 \cdot 3$ | 5.7 | $20 \cdot 3$ | 1.7 |
| 92 | Valuation and coverage adjustments | －0．9 | －0．4 | －0．3 | － | －0．2 | －0．2 | 2 | －0．1 | －0．4 | －- |
| 93 | less Insurance and freight | －26．8 | －3．4 | $-21.3$ | －0．2 | －0．5 | －0．5 | －0．2 | －0．3 | －1．4 | -0.1 -1.6 |
| 94 | Total imports of goods f．o．b． | 131.9 | 87.7 | 258.9 16.3 | 2.9 1.7 | 6.3 4.1 | 8.8 5.0 | 4.1 <br> 3.2 |  |  | 1.6 3.6 |
| 95 | Imports of services | $22 \cdot 3$ | 2.7 | 16.3 | 1.7 | 4.1 | 5.0 | 3.2 | 4.8 |  |  |
| 96 | Total imports of goods and services | 154.2 | $90 \cdot 4$ | $275 \cdot 2$ | 4.6 | 10.4 | 13.8 | 7.3 | 10.1 | 26.7 | $5 \cdot 2$ |
| 97 | Protective duties | 2.6 | 1.2 | 0.7 | 0.1 | 0.6 | 0.5 | 0.1 | 0.3 | 1.1 | － |



















Table C Commodity analysis of imports in 1968 （continued）

|  |  |  |  |  |  |  |  |  |  |  | 亳 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comm | dity imported |  | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 |
| 1 | Agriculture |  |  | － | － | － | 0.6 | 4.5 |  |  |  |  |
|  | Forestry and fishing |  | － |  |  |  | 0.6 | 4.5 | 79.9 | － | 4.7 | － |
| 3 | Coal mining |  | － | － | － | － | － |  |  |  | － |  |
| 4 | Stone，slate，chalk，sand，etc．extraction Other mining and quarrying |  | 二 |  |  |  |  |  |  |  |  |  |
| 6 | Grain milling |  | － |  | － | 0.7 |  |  |  | － |  |  |
| 7 | Other cereal foodstuffs |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Sugar |  | － | ＝ | － |  |  |  |  |  |  |  |
| 9 | Cocoa，chocolate and sugar confectionery Oils and fats |  |  |  |  | － |  |  |  |  |  |  |
| 10 | Oils and fats |  | － | － | － | － | － | － | 0.3 | － | － | － |
| 11 | Other food |  | － | － | － | － | － | － | － | － |  |  |
| 12 13 | Soft drinks Alcoholic drink |  | － |  |  |  |  |  | － | － | ＝ | － |
| 13 14 | Alcoholic drink |  | 二 | － | － | － | － |  |  | － |  |  |
| 15 | Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Mineral oil refining，lubricating oils and greases |  | 0.2 | 0.2 | 0.1 | 1.7 | 0.8 | 0.5 | 0.5 | 0.3 | 0.2 |  |
| 17 | General chemicals |  | 0.1 | $0 \cdot 1$ | 0.1 | 1.4 | 14.6 | 0.2 | － | $0 \cdot 3$ | 0.2 | 0.1 |
| 18 19 | Pharmaceutical chemicals and preparations Toilet preparations |  | － | － | － | － | － |  |  | － | － |  |
| 20 | Paint |  | 二 | － | 0.1 | 0.2 | － |  |  |  |  |  |
| 21 | Soap and detergents |  | － |  |  |  | － |  |  |  |  |  |
| 22 | Synthetic resins，plastic materials and synthetic rubber |  | － | 0.2 | 0.1 | 0.6 | 8.4 | 0.2 |  | 0.1 | 0.6 |  |
| 23 24 | Dyestuffs and pigments |  | － |  | － | － | 0.5 | 0.4 | 1.4 | 0.6 | 0.9 | 0.1 |
| 24 25 | Fertilizers Other chemical industries |  | － |  | － | 0.2 | － | ＝ |  | － |  |  |
| 26 | Iron castings，etc． |  |  |  |  | ${ }_{0} 1$ | 二 |  |  |  |  |  |
| 27 | Other iron and st el |  | 1.1 | 7.0 | 4.1 | $10 \cdot 6$ | － | － |  |  |  |  |
| 28 | Aluminium and aluminium alloys |  |  | 0.4 | 0.1 | 1.6 | － | ＝ |  | ＝ |  |  |
| 29 | Other non－ferrous metals |  | 0.1 | 7.4 | － | 7.4 | － |  |  |  |  |  |
| 30 | Agricultural machinery |  |  | － | － | － | － | － | － | － | － |  |
| 31 | Machine tools |  | 0.2 | 0.1 | 0.1 | 0.4 | － | － | － | － | － | － |
| 32 32 | Pumps，valves and compressors Industrial engines |  | － | － | － | － | － |  |  | － | － |  |
| 34 | Textile machinery |  | － |  | － | － | 0.5 | $2 \cdot 3$ | 1.1 | 0.8 | 0.5 |  |
| 35 | Construction and mechanical handling equipment |  | － |  |  |  |  |  |  |  | 0.5 |  |
| 36 | Office machinery |  | － | － | － | 0.1 | － | － |  | － | － |  |
| $\begin{aligned} & 37 \\ & 38 \end{aligned}$ | Other non－electrical machinery Industrial plant and steel work |  | － | 二 | － | － | － | ＝ | 二 | － | － |  |
| 39 | Other mechanical engineering |  | － | － | － | 二 | 二 | － | 二 |  |  |  |
| 40 | Instrument engineering |  | － |  | － |  | － | － | － | － |  |  |
| 41 | Electrical machinery |  | － | － | － | － | － |  |  |  |  |  |
| 42 | Insulated wires and cables |  | － | － | － |  | 二 | － | 二 | － | － | － |
| 43 | Electronics and telecommunications |  | 二 | 二 | － | 0.1 | － | 二 |  | － | － |  |
| 45 | Other electrical goods |  | － | 二 | 二 | － | － | ＝ |  | － | － |  |
| 46 | Shipbuilding and marine engineering |  |  |  |  | － | － | － |  |  |  |  |
| 47 | Wheeled tractors |  | － | － | － | － | － |  |  |  |  |  |
| 48 | Motor vehicles |  | － |  |  |  | － | － | － |  |  |  |
| 49 50 | Aerospace equipment |  | － | － | － | － | － | － |  |  |  |  |
| 50 | Other vehicles |  | － |  | － |  |  | － | － | － | － | － |
| 51 | Engineers＇small tools |  | 0.2 | 0.1 | 0.1 | 0.5 | － | － | － | － | － | － |
| 52 | Cutlery and jewellery |  |  | － | － |  | － | － | － | ＝ | ＝ |  |
| 53 | Bolts，nuts，screws，etc． Wire and wire manufactures |  | 0.1 |  | － | 0.3 |  |  |  |  |  |  |
| 54 55 | Wire and wire manufactures |  | 0.4 | 0.9 | － | 0.5 | － | － | － | － | － |  |
| 56 | Other metal goods |  | 二 | 二 | ＝ | $1 \cdot \overline{6}$ | 二 | 二 | － | 1.0 |  |  |
| 57 | Production of man－made fibres |  | － | － | － | － | 0.3 | 19.5 | 6．8 | $7 \cdot 3$ | 1.6 |  |
| 58 | Cotton，etc．spinning and weaving |  |  | － |  | － | $0 \cdot 3$ | $60 \cdot 9$ | 0.7 | 3.0 | $1 \cdot 6$ | 9.7 |
| 59 | Woollen and worsted |  | － | － |  |  |  |  | 28.7 | 0.8 | $2 \cdot 5$ |  |
| 60 | Hosiery and knitted goods |  | － | － | － | － | － | － | － | 0.7 | － | 0.3 |
| 61 | Carpets |  | － | － | － | － | － | － | － | － | － | － |
| 62 | Household textiles and handkerchiefs |  | 二 | － | － | － | － | 二 | － | － | － | － |
| 64 | Textie tinishing |  | 0.1 | 0.1 | － | $0 \cdot \overline{4}$ | 0.1 |  | 0.1 | 0.7 | 3.2 |  |
| 65 | Leather，leather goods and fur |  | － |  | － | 0.1 | － |  |  |  |  |  |
| 66 | Clothing |  |  |  | － | － |  |  |  |  | － |  |
| 67 | Footwear |  |  |  |  | － |  |  |  |  | － | － |
| 68 | Bricks，fireclay and refractory goods |  |  | － |  | － | － |  |  |  | － | － |
| 69 70 | Pottery and glass <br> Cement |  | － | － | － | $0 \cdot 3$ | － |  |  |  | － | － |
| 70 | Cement |  | － | － | － | － | － | － | － | － | － | － |
| 71 | Other building materials，etc． |  | 0.1 | 0.1 | － | 0.3 | － | － | － | － | － | － |
| 72 | Furniture and bedding，etc． |  | － | － | － | 2.1 | － |  |  |  |  | － |
| 73 | Timber and miscellaneous wood manufactures |  | － | － | － | $2 \cdot 1$ | 5 | 0.2 |  |  | 0.1 | － |
| 74 75 | Paper and board ${ }^{\text {Packaging products of paper，board，etc，}}$ |  | － | － | － | 0.2 | 14.5 | 0.1 | 0.1 | 0.2 | － |  |
| 75 76 | Packaging products of paper，board，etc． Other paper and board products |  | 二 | ＝ | － | － | － | ＝ | － | ＝ | － | ， |
| 77 | Printing and publishing |  |  | － | － |  | － | － | － | － |  | 二 |
| 78 | Rubber |  | － | － | － | $0 \cdot 2$ | － | － | － |  | 0.2 | － |
| 79 | Plastic products n．e．s． |  |  |  | － | 0.6 | － |  | － | 0.1 | － |  |
| 80 | Other manufacturing |  | － | － | － | 0.1 | － | － | － | － | － | － |
| 81 | Construction |  | － | － | － | － | － | － | － | － | － | － |
| 82 | Gas |  | － | － | － | － | － | － | － | － | － | － |
| 83 | Electricity |  |  |  | 二 | 二 |  | 二 | － | ＝ | － |  |
| 84 | Water supply |  | － | － | － | － | － | － | － | － | － | ＝ |
| 85 86 | Railways |  | － | － | － | － | ＝ | － |  |  | － | ＝ |
| 86 87 | Road transport Other transport |  | 二 | － | － | 二 | ＝ | － | ＝ | － | ＝ | 二 |
| 88 | Communications |  |  |  |  | － |  |  |  |  |  |  |
| 89 | Distributive trades |  | － | － | － | － | － | － | － | － | － |  |
| 90 | Miscellaneous services |  | － | － | － | － | － | － | － | － | － | － |
| 91 | Total imports of goods c．i．f． |  | $2 \cdot 6$ | $16 \cdot 6$ | 4.8 | $32 \cdot 3$ | 40.6 | 88.8 | 119.6 | 15.6 | 16.1 | 10.2 |
| 92 | Valuation and coverage adjustments |  |  | －0．2 | －0．1 | －0．5 | －0．5 | 1.0 | －0．7 | －0．4 | －0．2 | -0.3 -0.4 |
| 93 | less insurance and freight |  | －0．1 | －0．8 | －0．3 | －2．6 | -4.2 35.9 | －83．7 | －8．8 | －1．0 | －1．1 14.8 | -0.4 9.5 |
| 94 95 | Total imports of goods f．o．b． Imports of services |  | 2.5 0.7 | $\begin{array}{r}15.6 \\ 2.5 \\ \hline\end{array}$ | 4.4 0.5 | 29.2 8.4 | 35.9 6.1 | 83.1 6.7 | 110.1 9.9 | 14.2 2.7 | 14.8 1.7 | 9.5 0.4 |
| 96 | Total imports of goods and services |  | 3.2 | 18.1 | $4 \cdot 9$ | 37.6 | 42.0 | 89.8 | 120.0 | 16.9 | 16.5 | $9 \cdot 9$ |
| 97 | Protective dutios ${ }^{\text {a }}$ |  | 0.1 | 0.5 | 0.3 | 1.4 | 1.4 | 2.9 | 2.1 | 1.2 | 0.6 | 0.8 |




Commodity imported
Agriculture
Forestry and fishing
Coal mining
Stone, slate, chalk, sand, etc. extraction
Other mining and quarrying
Grain milling
Other cereal foodstuffs
Sugar
Sugar

| Cocoa, choco |
| :--- |
| Oils and fats |

Other food
Soft drinks
Alcoholic dri
Soft drinks
Alcoholic drink
Tobacco
Coke ovens and manufactured fuel
Mineral oil refining, lubricating oils and greases
Pharmaceutical che
Toilet preurations
Toilet
Paint
Soap and dete
Synthetic resin
Dyestuffs and
Fertilizers
Other chemica
Iron castings,
Other iron and
Aluminium and
Other non-ferr
Agricultural m
Machine tools
Machine tools
Pumps, valves and compressors
Industrial engines
Textile machinery Construction and mechanical handing equipment
Office machinery
Other non-electrical machinery
Industrial plant and steel work
Instrument engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommu
Electronics and telecommunicatio
Domestic electrical ap
Other electrical goods
Shipbuilding and marine engineering
Wheeled tractors
Motor vehicles
Aerospace equil
Other vehicles

## ents

Synthetic resins, plastic materials and synthetic rubber Fertilizers
Other chemical industries
Other iron and.
Aluminium and aluminium alloys
Other non-ferrous metals
Other vehicles
Cutlery and jewellery
Bolts, nuts, screws, etc
Wire and wire manufactures
Cans and metal boxes
Other metal goods
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods

## Carpets

Household textiles and handkerchiefs
Textile finishing
Other textiles
Other textiles
Leather, leather
Leather, leather goods and fur
Clothing
Footwear
Bricks, fireclay and refractory goods
Pottery and glass
Cement
Other building materials, etc.
Furniture and bedding, etc
Timber, and miscellaneous wood manufactures
Paper and board
Packaging products of paper, board, etc
Other paper and board products
Printing and publishing
Rubber
Plastic p
Plastic products n.e.s
Other manufacturing
Construction
Gas
Electricity
Railways
Road transport
Other transport
Communication
Distributive trades
Miscellaneous services

## Total imports of goods c.i.f.

Valuation and coverage adjustments
less Insurance and freight
Total imports of goods f.o.b
Imports of services
Total imports of goods and services
Protective duties

|  | products |
| :--- | :--- |
| n.e.s. |  |

I.
















INDUSTRY $\times$ INDUSTRY TABLES

Agriculture
Forestry and fishing
$\frac{\frac{0}{3}}{\frac{2}{3}} \frac{1}{(479 \cdot 2)}$
Stone, slate, chalk, sand, etc. extraction
Other mining and quarrying
Other cereal foodstuffs
Sugar
Sugar
Cocoa,

| Cocoa, choco |
| :--- |
| Oils and fats |

Other food
Soft drinks
Alcoholic drink
Soft drinks
Alcoholic drink
Tobacco
Coke ovens and man
Mineral oil refining,
General chemicals.
General chemicals
Pharmaceutical chem
Toilet preparations
Paint
Soap and detergents
Synthetic resins, plas
Synthetic resins, plastic materials and synthetic rubber
Dyestuffs
Fertilizers
Other chemical industries
Iron castings, etc.
Aluminium and aluminium alloys
Other non-ferrous metals
Agricultural machinery
Machine tools
Pumps, valves and compressors
Textile machinery
Construction and mechanical handling equipment
Office machinery
Other non-electrical machinery
Industrial plant and steel work
Other mechanical engineering
Instrument engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommu
Electronics and telecommunicat
Domestic electrical appliances
Other electrical goods
Shipbuilding and marine engineering
Wheeled tractors
Motor vehicles
Aerospace equi
Other vehicles

## Engineers' small tools

Cutlery and jewellery
Wire and wire manufactures
Cans and metal boxe
Other metal goods
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods
Carpets
Household textiles and handkerchie
Household textil
Other textiles
Leather, leather goods and fur
Clothing
Footwear
Bricks, fireclay and refractory goods
Pottery and glass
Cement
Other building materials, etc.
Furniture and bedding, etc.
Paper and board
Packaging products of paper, board, etc
Other paper and board products
Printing and publishing
Rlastic
Other manufacturing
Construction
Gas
Electricity
Water supply
Railways
Road transport
Other transport
Communication
Distributive trades
Miscellaneous services

## Public administration, domestic services, ownership of dwellings <br> Imports of goods and services

Sales by final buyers
Taxes on expenditure less subsidies
income from employment
Gross profits and other trading income
Total input


















Table D Industry $\times$ industry flow matrix, 1968 (continued)

|  |  |  |  |  |  | $n$ <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |  |
| 1 | Agriculture | - | - | - | - | - |  |  |  |  | 36 |
| 2 | Forestry and fishing |  |  |  |  | - | - | - | - | - | - |
| 4 | Coal mining ${ }^{\text {Stone, slate, chalk, sand, etc. extraction }}$ | 3.7 12.5 | 0.1 0.1 | 1.1 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 |  |
| 5 | Other mining and quarrying | 12.5 8.7 | 0.1 | 1.3 2.2 |  | 0.1 | 0.1 | 0.5 |  | 0.2 |  |
| 6 | Grain milling |  |  |  |  |  |  |  |  |  |  |
| 7 | Other cereal foodstuffs Sugar |  |  |  |  |  |  | - |  | - |  |
| 9 | Cocoa, chocolate and sugar confectionery |  |  |  |  |  |  |  |  | - |  |
| 10 | Oils and fats | - | - |  |  |  |  |  |  |  |  |
| 11 | Other food | $0 \cdot 6$ | - | 0.1 | - |  |  |  |  |  |  |
| 12 | Soft drinks |  |  |  |  |  |  |  |  | - | - |
| 13 | Alcoholic drink |  | - |  |  |  |  |  |  |  |  |
| 14 | Tobacco |  |  |  |  |  |  |  |  |  |  |
| 15 | Coke ovens and manufactured fuel | 79.4 | 0.4 | 1.4 | 0.1 | 0.1 | 0.8 | 0.1 |  |  |  |
| 16 | Mineral oil refining, lubricating oils and greases | 40.4 | 3.0 | 3.5 | 0.5 | 0.9 | ${ }_{0} 0.8$ | 0.7 | 0.3 0.5 | 0.2 |  |
| 17 | General chemicals | 21.9 | 1.7 | 3.9 | 0.1 | 0.8 | 0.4 | 0.2 | ${ }_{0} 2$ | 2.0 0.4 | 0.3 |
| 18 | Pharmaceutical chemicals and preparations | 0.2 | 0.1 |  |  |  |  |  |  |  | 0.1 |
| 19 <br> 20 | Toilet preparations Paint | 1.4 | 0.8 |  | 0.5 | 0.4 |  |  |  | - | - |
|  |  |  |  |  |  |  | 0.3 | 0.2 | 0.2 | 1.1 | 0.2 |
| 21 22 | Soap and detergents Synthetic resins, plastic materials and synthetic rubber | 0.1 1.2 | 0.3 | 0.2 |  |  |  |  |  |  |  |
| 23 | Dyestuff's and pigments | 0.5 | $0 \cdot 3$ | 0.2 | 0.1 | 0.1 | 0.4 | - | 0.2 | 0.2 | 0.2 |
| 24 | Fertilizers | $0 \cdot 6$ |  | 0.1 | - |  |  |  |  |  |  |
| 25 | Other chemical industries | 0.5 | 1.2 | $0 \cdot 5$ |  |  | 0.1 |  |  |  |  |
| 26 | Iron castings, etc. | 73.5 | $0 \cdot 2$ | 0.4 | 1.2 | 9.6 | $6 \cdot 6$ | 4.5 | 3.9 |  |  |
| 27 | Other iron and steel | (407.7) | (55.2) | 3.5 | 10.7 | 12.7 | 20.8 | 8.5 | 8.9 | 6.8 46.2 | 0.3 2.2 |
| 28 29 | Aluminium and aluminium alloys Other non-ferrous metals | 2.4 37.7 | $(55.8)$ 10.5 | $10 \cdot 1$ $(160 \cdot 9)$ | 0.3 0.3 | 1.0 2.7 | 3.2 18.1 | 1.5 5.4 | 1.5 1.5 | $\begin{array}{r}1.1 \\ \hline\end{array}$ | 2.2 1.0 |
| 30 | Agricultural machinery | 0.3 | 10.5 | (160.9) | 0.3 $(0.4)$ | 2.7 | 18.1 | $5 \cdot 4$ | $1 \cdot 2$ | 2.3 0.2 | 0.5 |
| 31 | Machine tools | 2.0 | 0.1 | 0.5 | 0.2 | (2.3) | 1.1 |  |  |  |  |
| 32 | Pumps, valves and compressors | 3.7 | 0.2 | 2.6 | 3.1 | 8.0 | (12.7) | 0.6 4.8 | 0.7 5.9 | 1.3 18.7 | 0.3 |
| 33 | Industrial engines | $0 \cdot 9$ | 0.1 | 0.3 | 1.4 | 0.4 | 2.5 | (1.4) | 5.9 |  |  |
| 34 | Textile machinery | 0.5 | 2 | 0.2 | - | 0.1 | 0.2 | 0.1 | (2.2) | ${ }_{0} 9$ | 0.1 |
| 35 36 | Construction and mechanical handling equipment Office machinery | 4.0 0.2 | 0.2 | 0.6 0.2 | 0.2 | 0.5 | $0 \cdot 6$ | 0.3 | 0.4 | (12.9) | $0 \cdot 4$ |
| 37 | Other non-electrical machinery | 6.8 | 0.1 | 1.6 | 0.3 | 1.0 | 0.1 1.4 | 0.6 |  | 0.2 | (0.1) |
| 38 | Industrial plant and steel work | 4.1 | 0.3 | 1.1 | 0.3 | 0.7 | 1.4 0.8 | 0.6 0.4 | 0.9 | 1.9 | 0.7 |
| 39 | Other mechanical engineering | 26.0 | 1.4 | 6.6 | 3.0 | 8.0 | 8.6 | 5.4 | 0.8 8.2 | 1.5 13.1 | 0.8 12.3 |
| 40 | Instrument engineering | $0 \cdot 3$ |  | 0.2 | 0.3 | $2 \cdot 3$ | $2 \cdot 4$ | 0.6 | 2.0 | 4.1 | 12.3 0.4 |
| 41 | Electrical machinery | 1.8 | 0.2 | 2.5 | 1.0 | $4 \cdot 6$ | $5 \cdot 9$ | 0.8 | 2.0 | 7.0 | 1.5 |
| 42 | Insulated wires and cables | 1.5 0.4 | 0.5 | 22.1 | 0.1 | $0 \cdot 9$ | 1.1 | 0.3 | 0.3 | 1.8 | 0.8 |
| 43 | Electronics and telecommunications | 0.4 |  | $2 \cdot 3$ |  | $2 \cdot 2$ | $0 \cdot 3$ | 0.1 | 0.2 | 0.6 | 0.9 |
| 44 | Domestic electrical appliances | 0.9 | 0.1 | 1.0 | 0.1 | 0.3 | $0 \cdot 4$ | 0.1 | 0.2 | 0.5 | 0.2 |
| 46 | Other electrical goods Shipbuilding and marine engineering | 0.5 0.6 | - | 2.1 1.2 | - | $\stackrel{0.1}{-1}$ | 0.1 0.1 | 2.6 | 0.1 | 1.2 | 0.1 |
| 47 | Wheeled tractors | 0.4 | - | 0.1 | 0.2 | 0.1 | 0.1 0.3 | 0.1 |  | 1.3 1.4 | - |
| 48 | Motor vehicles | 9.5 | 0.5 | 4.5 | 0.4 | $2 \cdot 5$ | $3 \cdot 3$ | 0.5 | 0.4 | 3.6 | 0.4 |
| 49 | Aerospace equipment | $0 \cdot 3$ | 0.7 |  |  |  |  |  | 0 |  |  |
| 50 | Other vehicles | 1.0 | - | $0 \cdot 6$ | - | 0.1 | 0.1 | - | 0.1 | 0.1 | 0.1 |
| 51 | Engineers' small tools | 8.9 | 1.1 | 1.2 | 0.4 | $1 \cdot 4$ | 1.5 | 1.0 | 0.9 | 1.5 | $0 \cdot 6$ |
| 52 | Cutlery and jewellery |  |  |  |  |  | 0.1 |  | 0.6 | 0.1 |  |
| 54 | Bolts, nuts, screws, etc. Wire and wire manufactures | 2.0 |  | 2.4 | 1.0 | 1.1 | 3.2 | 0.9 | 1.0 | 3.6 | 0.4 |
| 55 | Cans and metal boxes | $1 \cdot 3$ |  | 0.4 |  | 0.1 | 0.1 | 0.1 | 0.7 | 0.2 | 0.1 |
| 56 | Other metal goods | 50.0 | $6 \cdot 9$ | $15 \cdot 6$ | 5.8 | 13.6 | 14.9 | 8.9 | 11.9 | 29.7 | 12.4 |
| 57 | Production of man-made fibres |  |  |  |  |  |  |  |  |  |  |
| 58 59 | Cotton, etc. spinning and weaving | - | - | - | - | - | 0.1 | - | 0.2 | - |  |
| 60 | Woollen and worsted Hosiery and knitted goods |  | - |  | - |  |  |  |  |  |  |
| 61 | Carpets | - | - | - | - | - | - | - |  |  |  |
| 62 | Household textiles and handkerchiefs |  | - |  |  |  |  |  |  |  |  |
| 63 | Textile finishing Other textiles | 0.2 | - | 0.1 | 0.2 | 二 | 0.2 | = | 0.3 |  |  |
| 65 | Leather, leather goods and fur | 0.2 |  | 0.1 | 0.2 |  | 0.2 |  | $0 \cdot 3$ | 0.2 |  |
| 66 | Clothing | - | 0.1 | 0.1 | - | - | - | - | - | - - |  |
| 67 | Footwear Bricks, fireclay and refractory goods |  |  |  |  |  |  |  |  |  |  |
| 69 | Bricks, fireclay and refractory goods Pottery and glass | 25.0 | 0.1 | 0.2 | - | - | 0.2 | 0.2 | 0.1 | 0.1 |  |
| 70 | ${ }_{\text {Pottery a and glass }}$ | 0.4 |  | 0.1 | 0.2 | - | 0.1 | - | 0.1 | 0.3 |  |
| 71 | Other building materials, etc. | 11.4 | 0.1 | 0.2 | 0.2 | $0 \cdot 4$ | 0.4 | $0 \cdot 3$ | $0 \cdot 4$ | 0.4 | - 0.1 |
| 72 | Furniture and bedding, etc. |  |  |  |  |  |  |  |  |  |  |
| 73 | Timber and miscellaneous wood manufactures | 1.7 | 1.2 | $0 \cdot 6$ | 0.5 | 0.7 | 1.0 | 0.8 | 1.5 | 0.8 | 0.6 |
| 74 | Paper and board | 0.1 | 2.5 | 0.8 |  | 0.1 | 0.1 |  | $0 \cdot 4$ |  |  |
| 75 | Packaging products of paper, board, etc. | 1.5 | 0.5 | 0.4 | 0.2 | 0.4 | 0.4 | 0.1 | 0.2 | 0.2 | 0.3 |
| 76 | Other paper and board products | 1.8 | 0.4 | 0.5 | 0.2 | 0.8 | 1.2 | 0.4 | 0.5 | 1.0 | 0.1 0.1 |
| 78 | Printing and publishing Rubber | 1.6 6.3 | 0.2 0.5 | 0.3 0.7 | 0.1 1.1 | 0.7 0.5 | 1.2 3.7 | 1.1 0.4 | 0.1 0.7 | 5.1 | 0.2 |
| 79 | Plastic products n.e.s. | 5.5 | 1.5 | 0.7 | 0.2 | 0.3 | 0.9 |  | 0.5 | 0.6 | $1 \cdot 3$ |
| 80 | Other manufacturing | 0.4 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | - |
| 81 | Construction | $2 \cdot 8$ | 0.6 | 0.7 | 0.1 | 0.5 | 0.6 | 0.2 | 0.4 | 0.9 |  |
| 82 | Gas | 49.2 | $2 \cdot 2$ | $2 \cdot 6$ | 0.3 | 0.5 | 0.6 | 0.3 | 0.4 | 0.6 | 0.2 |
| 83 | Electricity | 48.8 | 6.1 | 7.6 | 0.5 | 2.1 | 2.7 | 1.1 | 1.2 | 2.8 | 0.6 |
| 84 | Water supply | 2.7 | 0.2 | $0 \cdot 6$ | - | $0 \cdot 2$ | 0.2 | $0 \cdot 1$ | 0.1 | 0.1 | 0.1 0.3 |
| 85 | Railways | 27.5 | 0.7 | 3.9 | 0.6 | 0.3 | 1.2 | 0.9 | 0.2 0.3 | 0.9 1.9 |  |
| 86 87 | Road transport Other transport | 30.7 18.3 | 2.6 | 7.3 13.8 | 0.7 0.3 | 0.7 0.9 | 0.8 | 0.7 | 0.9 | 1.7 | $0 \cdot 3$ |
| 88 | Communication | 2.4 | 0.7 | 1.1 | 0.5 | 1.4 | 1.8 | 0.6 | 0.7 | $2 \cdot 2$ | 0.5 |
| 89 | Distributive trades | 59.4 | 9.4 | 50.4 | 2.5 | $4 \cdot 2$ | 5.0 | 2.5 | 3.1 | 11.4 | 2.3 4.3 |
| 90 | Miscellaneous services | $62 \cdot 3$ | 6.8 | $17 \cdot 6$ | 4.3 | 11.2 | 14.7 | 4.5 | $8 \cdot 3$ | 27.6 | $4 \cdot 3$ |
| 91 | Public administration, domestic services, ownership of dwellings |  |  |  | - | - | - | 7 | 10.1 | 26.7 |  |
| 92 | Imports of goods and services | 154.2 | $90 \cdot 4$ | $275 \cdot 2$ | 4.6 | 10.4 | 13.8 | 7.3 | 10.1 | 26.7 1.2 | 5.2 0.2 |
| 93 | Sales by final buyers | $62 \cdot 6$ | $5 \cdot 6$ | 58.8 | $0 \cdot 2$ | $0 \cdot 5$ | 0.8 | $0 \cdot 2$ | 0.4 1.5 | 1.2 4.9 | 5.2 -0.2 |
| 94 | Taxes on expenditure less subsidies | 22.9 | $4 \cdot 2$ | 574 | 1.2 | 3.0 87.9 | 1.7 99 99 |  | 1.5 54.5 |  |  |
| 95 96 | Income from employment ${ }_{\text {Gross }}$ (rofits and other trading income | 3788.7 | 69.7 10.8 | 87.7 50.2 | $\begin{array}{r}23.6 \\ 8.5 \\ \hline\end{array}$ | 87.9 23.0 | 99.0 32.7 | 39.7 10.5 | 54.5 21.2 | 127.0 79.8 | 31.7 |
| 97 | Total input | 1471.0 | $251 \cdot 2$ | $685 \cdot 3$ | 82.6 | 229.5 | 287.0 | 123.2 | 163.0 | 463.1 | 102.1 |

















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## Agriculture Forestry and fishing

Coal mining
Stone, slate, chalk, sand, etc. extraction
Grain milling
Other cereal foodstuffs
Sugar
Cocoa, chocolate and sugar confectionery
Oils and fat
Other food
Soft drinks
Alcoholic drink
Tobacco
Coke ovens and manufactured fue
Mineral oil refining, lubricating oils and greases
General chemicals
Thalet preparations
Paint
Soap and detergent
Synthetic resins, plastic materials and synthetic rubber Dyestuffs
Fertilizers
Other chemical industrie
Iron castings, etc.
Aluminium and aluminium alloys
Other non-ferrous metals
Agricultural machinery
Machine tools
Pumps, valves
Pumps, valves and compressors
Textile machinery
Construction and mechanical handling equipment
Office machinery
Other non-electrical machinery
Other mechanical engineering
Instrument engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommu
Electronics and telecommunicat
Other electrical goods
Shipbuilding and marine engineering
Wheeled tractors
Motor vehicles
Aerospace equi
Other vehicles
Engineers' small tools
Cutlery and jewellery
Bolts, nuts, screws, etc
Wire and wire manufac
Cans and metal boxes
Other metal goods
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods

## Carpets

Household textiles and handkerchiefs

## Textile finishing

Other textiles
Leather, leather goods and fur Clothing
Footwear
Bricks, fireclay and refractory goods Pottery and glass
Cement
Other building materials, etc
Furniture and bedding, etc.
Timber and miscellaneous wood manufactures
Paper and board
Packaging products of paper, board, etc
Other paper and board products
Printing
Rubber
Rubber
Other products n.e.s.

## Construction

Gas
Water supply
Railways
Road transport
Other transport
Communication
Distributive trades
Miscellaneous services
Public administration, domestic services, ownership of dwellings
mports of goods and services
Sales by final buyers
Taxes on expenditure less subsidies
ncome from employment
Gross profits and other trading income




















## Agriculture Forestry and fishing Coal mining

Coal mining
Stone, slate, chalk, sand,
Other mining and quarryi
Other mining and quarry milling
Other cereal foodstuffs
Other
Sugar
Cocoa, chocolate and sugar confectionery
Other food
Other food
Soft drinks
Alcoholic
Tobacco
Mineral oil refining, lubricating oils and greases
General chemicals
Pharmaceutical che
Toilet preparations
Toilet
Paint
Soap and detergents
Synthetic resins, plast
Dyestuffs and pigments
Fertilizers
Other chemical industries
Iron castings, etc.
Aluminium and aluminium alloys
Other non-ferrous metals

## Machine tools

Pumps, valves and compressors
Industrial engines
Textile machinery
Construction and mechanical handling equipment
Office machinery
Other non-electrical machinery
Industrial plant and steel work
Other mechanical engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommunications
Domestic electrical appliances
Other electrical goods
Shipbuilding and marine engineering
Wheeled tractors
Motor vehicles
Aerospace equipment
Other vehicles

## Engineers' small tools Cutlery and jewellery

Cutlery and jewellery
Bolts, nuts, screws, etc
Wire and wire manufactures
Cans and metal boxes
Other metal good
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods
Carpets
Household textiles and handkerchiefs
Household textile
Textile finishing
Textile finishin
Other textiles
Leather, leather goods and fur
Clothing
Footwear
Bricks, fireclay and refractory goods
Pottery and glass
Cement

Other building materials, etc
Furniture and bedding, etc
Timber and miscellaneous wood manufactures
Paper and board
ging products of paper, board, etc.
Other paper and board products
Printing and publishing
Rubber
Plastic products n.e.s
Construction
Gas

Gas
Water supply
Railways
Road transport
Other transport
Distributive trades
Miscellaneous service
Public administration, domestic services, ownership of dwellings Imports of goods and services
Sales by final buyers
Taxes on expenditure less subsidies
Income from employment
Gross profits and other trading income
Total input

$|$|  | $\begin{array}{l}\text { Plastic } \\ \text { products } \\ \text { n.e.s. }\end{array}$ |
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Table E Total requirements per 1000 units of final industrial output in terms of gross output, 1968

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Table E Total requirements per 1000 units of final industrial output in terms of gross output, 1968 (continued)




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$\underline{\text { Table E Total requirements per } 1000 \text { units of final industrial output in terms of gross output, } 1968 \text { (continued) }}$



















Table E Total requirements per 1000 units of final industrial output in terms of gross output, 1968 (continued)

|  |  | 79 | 80 | 81 | 82 | 83 | 84 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Agriculture |  |  |  |  |  | 84 | 85 | 86 | 87 | 88 |
| 2 | Forestry and fishing | 0.9 0.8 | $\begin{aligned} & 1.9 \\ & 0.5 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 0.4 \end{aligned}$ | 1.1 0.1 | 0.2 0.5 | 0.1 | 0.3 | 0.2 | 4.4 | 0.2 |
| 4 | Coal mining | 12.6 | 11.7 | 10.1 | $\begin{array}{r}114.5 \\ \hline 1\end{array}$ | 0.5 207.1 | 0.1 | 0.1 |  | 0.3 | 0.2 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 1.1 | 1.2 | 24.4 | 2.4 | 207.1 0.9 | 20.2 1.4 | 14.6 3.6 | 1.9 | $2 \cdot 6$ | $3 \cdot 2$ |
| 6 | Other mining and quarrying Grain milling | 0.7 | 0.6 | $0 \cdot 9$ | 24.9 | 0.2 | 0.4 | 0.5 | 0.2 | 0.2 | 0.4 |
| 7 | Other cereal foodstuffs | 0.1 | 0.2 |  | 0.1 |  |  |  | 0.1 | 0.1 | 0.1 |
| 8 | Sugar | 0.1 | 0.1 | 0.2 | 0.4 | 0.1 | 0.1 | 0.2 | 0.1 | 2.3 | -1 |
| 9 | Cocoa, chocolate and sugar confectionery | 0 | 0.1 |  | $0 \cdot 1$ |  |  |  | - | 2.3 | 0.1 |
| 10 | Oils and fats | 1.8 | 4.5 | 0.4 | 0.4 | 0.2 | 0.2 |  |  | 0.8 |  |
| 11 | Other food | 0.8 | 1.8 | 0.2 |  |  |  |  |  | $0 \cdot 2$ | 0.1 |
| 12 | Soft drinks | 0.8 | 18 | 0.2 | 1.8 | 0.1 | 0.1 | 0.2 | 0.1 | $2 \cdot 9$ | 0.2 |
| 13 | Alcoholic drink | 0.4 | 0.4 | 0.2 | 0.4 | 0.1 |  |  |  |  |  |
| 14 | Tobacco |  |  |  | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | $3 \cdot 1$ | 0.1 |
| 15 | Coke ovens and manufactured fuel | 2.8 | 3.1 | $4 \cdot 2$ | 22.1 | $2 \cdot 0$ |  |  |  |  |  |
| 16 | Mineral oil refining, lubricating oils and greases | 21.6 | 19.6 | 16.4 | ${ }_{99} 22.1$ | 26.0 26.8 | 3.8 6.7 | $\begin{array}{r}31.7 \\ \hline\end{array}$ | 0.4 | $0 \cdot 3$ | 0.8 |
| 17 | General chemicals | 72.5 | 52.8 | 9.1 | 13.2 | 26.8 6.4 | 6.7 12.6 | 21.0 | 21.3 | $15 \cdot 2$ | 3.5 |
| 18 | Pharmaceutical chemicals and preparations | 1.3 | 1.0 | 0.2 | 0.3 | 6.4 | 12.6 | 7.6 | 4.3 | $2 \cdot 3$ | 1.8 |
| 19 | Toilet preparations | 0.5 | 0.5 | 0.2 | ${ }_{0} 0.4$ | 0.2 0.2 | 0.2 0.1 | 0.3 0.4 | 0.1 | 0.1 | 0.1 |
| 20 | Paint | 1.9 | 5.7 | 11.2 | 1.6 | 0.2 0.9 | 0.1 0.5 | 0.4 4.9 | 0.2 | 0.1 | 0.1 |
| 21 | Soap and detergents | 1.0 | $1 \cdot 6$ |  |  |  |  |  |  |  | 0.4 |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 219.8 | 65.1 | 5.4 | 0.4 | 0.5 | 0.2 | 6.9 | $1 \cdot 6$ | 0.1 |  |
| 23 | Dyestuffs and pigments | 6.3 | 9.8 | 1.4 | 1.8 | 2.0 | 3.5 | 2.8 | $2 \cdot 6$ | 0.7 | 0.3 2.0 |
| 24 | Fertilizers | 2.7 | 2.1 | 1.4 | 0.6 | $0 \cdot 3$ | $0 \cdot 5$ | 0.8 | 0.4 | 0.1 | 0.2 |
| 25 | Other chemical industries | 9.8 | 5.9 | 1.8 | 0.5 | 0.3 | 0.6 | 0.4 | 0.2 | 0.4 | ${ }_{0} 0.1$ |
| 26 | Iron castings, etc. | 1.8 | $2 \cdot 1$ | 11.8 1.8 | 2.2 13.5 | 1.8 | 1.1 | 1.3 | $0 \cdot 6$ | 0.4 | 0.5 |
| 27 | Other iron and steel | 14.7 | 21.8 |  |  | 2.0 | $34 \cdot 3$ | $5 \cdot 4$ | $1-1$ | 0.5 | 1.6 |
| 28 | Aluminium and aluminium alloys | 3.7 | 5.2 | 11.0 3 | 1.7 1 | 18.3 | $10 \cdot 7$ | 51.6 | 4.1 | 3.6 | 9.4 |
| 29 | Other non-ferrous metals | 9.1 | 19.8 | 15.5 | 8.0 | 8.0 | $1{ }^{1.5}$ | $3 \cdot 9$ | 0.9 | 0.5 | 2.1 |
| 30 | Agricultural machinery | - | 0.1 | 15.3 0.3 | 8.0 0.1 | 8.7 | 10.3 0.1 | $10 \cdot 4$ | $2 \cdot 1$ | 1.3 | 10.2 |
| 31 | Machine tools | 0.7 | 0.6 | 1.0 |  |  |  |  |  |  | - |
| 32 | Pumps, valves and compressors | 1.7 |  |  | 0.7 | 0.7 | 0.5 | $1 \cdot 0$ | 0.2 | 0.1 | 0.4 |
| 33 | Industrial engines | 0.9 | 0.9 | 1.5 | 3.4 | 2.6 | 12.3 | 2.0 | 0.3 | 0.6 | 0.3 |
| 34 | Textile machinery | 0.3 | ${ }_{0} 6$ | 1.3 | 0.7 | 0.8 | 1.7 | 8.5 | 0.1 | 0.6 | 0.3 |
| 35 | Construction and mechanical handling equipment | 1.1 | 1.0 | 0.3 6.9 | 0.2 | 0.1 | $0 \cdot 2$ | 0.2 | 0.1 | 0.1 | 0.1 |
| 36 | Office machinery | 0.6 | $0 \cdot 2$ | 0.3 | 1.8 | 1.9 | 0.9 | 1.3 | 0.2 | $1 \cdot 9$ | 0.3 |
| 37 | Other non-electrical machinery | 2.5 | $3 \cdot 2$ |  |  | 0.2 | 0.1 | 0.6 | 0.3 | 0.1 | 0.7 |
| 38 | Industrial plant and steel work | $2 \cdot 2$ | 1.8 | 28.2 | 3.8 9.9 | 2.8 5.1 | $2 \cdot 2$ | 2.4 | $0 \cdot 4$ | 0.8 | 0.7 |
| 39 | Other mechanical engineering | 11.4 | 9.7 | 9.5 | 5.8 | 7.7 | 3.0 10.9 | 3.6 | $0 \cdot 3$ | 1.0 | 0.6 |
| 40 | Instrument engineering | 0.7 | 0.8 | 1.6 | 5.8 3.2 | 1.1 | 10.9 1.3 | 15.1 1.3 | 1.4 | 1.0 | 2.4 |
| 41 | Electrical machinery | $1 \cdot 3$ | 2.1 |  |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 2.5 | $3 \cdot 3$ | 7.6 |  | 13.3 | 2.2 | 15.5 | 0.7 | 1.5 | 2.0 |
| 43 | Electronics and telecommunications | 1.0 | 1.4 | 1.2 | 3.3 | 23.2 | 2.5 | 8.7 | 1.0 | 0.9 | $35 \cdot 1$ |
| 44 | Domestic electrical appliances | 1.0 | 0.9 | 1.0 | 1.0 | 10.4 | 0.5 | 2.1 | $0 \cdot 8$ | $0 \cdot 9$ | 12.4 |
| 45 | Other electrical goods | $1 \cdot 6$ | 1.8 | $8 \cdot 6$ |  |  | 0.9 | 1.3 | 0.3 | $0 \cdot 3$ | $0 \cdot 4$ |
| 46 | Shipbuilding and marine engineering | 0.3 | $0 \cdot 3$ | ${ }_{0} 8.6$ | 2.6 0.6 | 1.8 | 1.2 | 13.0 | 11.6 | 2.4 | 2.8 |
| 47 | Wheeled tractors | 0.1 | 0.1 | 0.4 | 0.1 | ${ }_{0} 0.1$ | 1.2 0.2 0.2 | 0.3 0.6 | 0.1 | 14.0 | 0.4 |
| 48 | Motor vehicles | $2 \cdot 9$ | $2 \cdot 8$ | 4.9 | 3.4 | 0.1 1.9 | 0.2 3.0 | 0.6 6.0 | -0.2 | 0.2 |  |
| 49 | Aerospace equipment | 0.1 | 0.1 | 0.1 | 0.4 0.3 | 10.9 0.1 | 3.0 | 6.0 | 15.7 | 0.7 | 1.6 |
| 50 | Other vehicles | 1.1 | 1.4 | $0 \cdot 9$ | 2.5 | 3.2 | 0.7 | 135.5 | 0.2 0.2 | 8.2 0.1 | 0.2 3.0 |
| 51 | Engineers' small tools |  | 4.9 | 4.1 |  |  |  |  |  |  |  |
| 52 | Cutlery and jewellery | 1.9 | 3.2 | 0.5 | ${ }_{0} .6$ | 4.9 | 2.2 | 2.5 | 0.5 | 0.4 | 3.4 |
| 53 | Bolts, nuts, screws, etc. | 0.8 | 1.1 | 3.0 | 0.8 | 0.9 | 0.6 |  |  | 0.2 | $0 \cdot 3$ |
| 54 | Wire and wire manufactures | 3.5 | 6.1 | 6.2 | 1.9 | 4.7 | 1.1 | 10.3 | 0.4 | 0.2 | 0.8 |
| 55 | Cans and metal boxes | 1.0 | 2.8 | 0.9 | 0.7 | $0 \cdot 3$ | 0.2 | 10.3 0.5 | 2.9 0.2 |  | 15.9 |
| 56 | Other metal goods | 38.1 | 23.8 | 22.4 | 23.7 | 7.6 | 8.6 | 10.5 11.9 | 0.2 3.3 | 0.2 1.4 | 0.2 |
| 57 | Production of man-made fibres | 7.1 | 9.0 | 0.7 | 0.5 | 0.6 | 8.7 | 11.0 | 3.3 1.0 | 1.4 0.3 | 3.6 0.4 |
| 58 | Cotton, etc. spinning and weaving | $2 \cdot 9$ | 16.5 | 1.0 | 0.9 | 1.1 | 0.8 | 1.5 | 1.6 | 0.3 0.5 | 0.4 0.6 |
| 59 | Woollen and worsted | 0.4 | 4.8 | $0 \cdot 3$ | 0.4 | $0 \cdot 3$ | 0.4 | 1.2 | 1.6 0.3 | 0.3 | 0.6 0.3 |
| 60 | Hosiery and knitted goods | 0.1 | 6.8 | 0.1 | 0.1 | 0.1 | 0.2 | 0.5 | 0.2 | 0.2 | 0.2 |
| 61 | Carpets |  | 0.7 | 0.4 |  |  |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs | 0.1 | 0.3 | 0.1 | 0.8 | 0.3 0.1 | 0.2 | 0.4 0.1 | 0.3 0.3 | 0.2 | 0.2 |
| 63 | Textile finishing | 0.5 | 1.2 | $0 \cdot 2$ | 0.2 | 0.1 | 0.1 | $0 \cdot 3$ | 0.1 | 0.1 |  |
| 64 | Other textiles | 3.0 | 12.1 | 1.6 | 0.6 | 0.4 | 3.8 | $3 \cdot 2$ | 0.1 | 0.1 0.9 | 0.4 |
| 65 66 | Leather, leather goods and fur Clothing | 0.8 | 2.2 | 0.1 | $0 \cdot 2$ | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| 67 | Footwear | 0.5 0.2 | 0.6 | 0.3 | 1.3 0.3 | $1 \cdot 3$ | 1.4 | $5 \cdot 3$ | 1.8 | 1.6 | 2.0 |
| 68 | Bricks, fireclay and refractory goods | 0.5 | 0.6 | $22 \cdot 3$ | 2.9 | 1.2 | 6.0 | 3.7 | 0.1 | 0.5 |  |
| 69 | Pottery and glass | 5.7 | 4.8 | 11.9 | 1.4 | 0.8 | 0.5 | 3.1 | 0.7 | 0.4 | ${ }_{0}^{0.6}$ |
| 70 | Cement | $0 \cdot 3$ | 0.4 | 16.1 | 1.5 | 0.6 | 2.1 | $2 \cdot 2$ | 0.1 | $0 \cdot 3$ | 0.9 |
| 71 | Other building materials, etc. | 3.2 | 4.7 |  | 5.5 | 4.9 | 12.9 | 14.2 | 0.4 | 1.0 |  |
| 72 | Furniture and bedding, etc. | 0.6 | 0.8 | 1.0 | 1.2 | 0.3 | 12.9 0.2 | 14.2 | 0.3 | 0.3 | 1.3 0.4 |
| 73 | Timber and miscellaneous wood manufactures | $5 \cdot 6$ | 14.0 | 55.5 | $5 \cdot 6$ | 3.9 | 1.1 | 7.6 | 0.5 | 0.6 | 1.5 |
| 74 75 | Paper and board Packaging products of paper, board, etc. | 17.9 | 34.4 | 4.1 | 2.8 | 1.8 | 1.7 | $2 \cdot 9$ | 1.7 | 1.1 | $2 \cdot 2$ |
| 76 | Other paper and board products | 17.5 4.7 | 29.5 6.1 | 3.2 4.4 | 1.7 1.9 | 1.1 2.9 | 1.2 2.4 | $2 \cdot 4$ | 1.1 | 0.7 | 1.3 |
| 77 | Printing and publishing | 9.1 | 15.5 | 4.4 6.0 | 12.9 | 2.9 4.9 | 2.4 3.3 | 4.7 6.2 | 3.3 4.6 | 1.9 3.4 | 3.0 8.4 |
| 78 | Rubber | 7.9 | 10.3 | 5.1 | 4.2 | 3.2 | 3.0 | 5.4 | 23.4 | 1.6 | 1.5 |
| 79 | Plastic products n.e.s. | $1002 \cdot 8$ | $23 \cdot 2$ | $9 \cdot 4$ | 1.7 | 1.0 | 9.9 | 2.0 | 1.7 | 0.5 | 1.0 |
| 80 | Other manufacturing | 3.5 | $1000 \cdot 6$ | 1.1 | 0.4 | 0.5 | $0 \cdot 9$ | 0.5 | 1.3 | 0.9 | 0.8 |
| 81 | Construction | 4.8 | $4 \cdot 6$ | $\underline{1006 \cdot 9}$ | $61 \cdot 4$ | 10.4 | $5 \cdot 3$ | 4.9 | 1.1 | 3.1 | 5.7 |
| 82 |  | $3 \cdot 6$ | 4.6 | 3.8 | $1003 \cdot 2$ | 1.7 | 2.5 | $3 \cdot 8$ | 0.7 | 0.5 | 1.4 |
| 83 84 | Electricity Water supply | 31.5 | 21.6 | 14.1 | $23 \cdot 9$ | 1012.8 | 59.8 | 44.8 | 5.9 | 10.2 | 10.2 |
| 84 85 | Water supply Railways | 3.3 | $2 \cdot 6$ | 0.7 | 1.3 | 1.2 | $1000 \cdot 5$ | 1.0 | $1 \cdot 3$ | 1.0 | 0.7 |
| 86 | Road transport | 6.9 24.4 | 9.2 20.7 | $\begin{array}{r}6.1 \\ \hline 2.7\end{array}$ | 17.9 | 22.9 | 4.3 | 1004.4 | 00.9 | $0 \cdot 9$ | 22.0 |
| 87 | Other transport | 12.6 | 14.2 | 29.3 | 16.4 33.4 | 12.0 8.0 | 6.7 2.8 | 8.5 | 1001.9 6.6 | r 1003.5 | 4.7 25.1 |
| 88 | Communication | 11.0 | 11.6 | 8.1 | 12.8 | 6.7 | 6.8 | 17.2 | $5 \cdot 2$ | 6.7 | $1002 \cdot 5$ |
| 89 | Distributive trades | 18.7 | $25 \cdot 3$ | 17.3 | 13.7 | 7.6 | 8.5 | 14.7 | 8.1 | 4.9 | 33.4 |
| 90 | Miscellaneous services | 89.2 | 98.6 | 60.8 | $132 \cdot 6$ | $46 \cdot 3$ | $23 \cdot 2$ | 38.8 | $36 \cdot 2$ | $35 \cdot 4$ | 23.0 |






## Agriculture Forestry and <br> Coal mining

Stone, slate, chalk, sand, etc. extraction
Other mining and quarrying
Grain milling
Other cereal foodstuffs
Sugar
Cocoa, choc
Oils and fats

## Other food Soft drinks <br> Alcoholic drink

Tobacco
Coke ovens and manufactured fuel
Mineral oil refining, lubricating oils and
General chemicals
Pharmaceutical chemicals and preparation
Toilet preparations

## Paint

Soap and detergents
Synthetic resins, plastic materials and synthetic rubber Dyestuffs
Fertilizers
Other chemical industries
Iron castings, etc.
Aluminium and aluminium alloy
Agricultural machinery
Machine tools
Pumps, valves
umps, valves and compressors
ndustrial engines
Construction and mechanical handling equipment
Office machinery
Industrial plant and steel work
Other mechanical engineering
Instrument engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommu
Electronics and telecommunica
Other electrical goods
Shipbuilding and marine engineering
Wheeled tractors
Aerospace equipment
Other vehicles
Engineers' small tools
Bolts, nuts, screws, etc
Wire and wire manufactures
Cans and metal boxes
Other metal goods
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods
Carpets
Household textiles and handkerchie
Textile finishing
Other textiles
eather, leather goods and fur
Coothing
Footwear
Bricks, fireclay and refractory goods
Pottery and glass
Cement
Other building materials, etc.
ture and bedding, etc
imber and miscellaneous wood manufactures
Paper and board
Packaging products of paper, board, etc
Other paper and board products
Printing
Rubber
Plastic products n.e.s
Constru
Gas
Electricity
Water sup
Railways
Road transport
Other transport
Communication
Miscellaneous services
Imports of goods and services
Sales by final buyers
expenditure less subsidies
Total

















$\underline{\text { Table F Total requirements per } 1000 \text { units of final industrial output in terms of net output, } 1968 \text { (continued) }}$

Agriculture
Forestry and fishin
Coal mining
Coal mining
Stone, slate, chalk, sand,
Other mining and quarryin
Grain milling and quarrin
Sugar
Sugar , chocolate and sugar confectioner
Oils and fats
0.1

## Soft drinks

Alcoholic
Coke ovens and manufactured fuel
Meneral chemicals, lubricating oils and grease
Pharmaceutical ch
Paint

Synthetic resins, plastic materials and synthetic rubber
Dyestuffs and pigments
Fertilizers
Other chemical industries
Iron castings, etc.
Other iron and steel
Aluminium and aluminium alloys
Other non-ferrous metals
Machine tools
Pumps, valves and compressors
Pumps, valves and
Industrial engines
Textile machinery
Office machinery
Other non-electrical machinery
Industrial plant and steel work
Other mechanical engineering
Instrument engineering
Electrical machinery
Insulated wires and cables
Electronics and telecommunications
Other electrical goods
Shipbuilding and marine engineering
Motor vehicles
Motor vehicles
Aerospace equipment
Engineers' small tools
Cutiery and jewellery
Bolts, nuts, screws, etc.
Wire and wire manufactures
Cans and metal boxes
Other metal goods
Production of man-made fibres
Cotton, etc. spinning and weaving
Woollen and worsted
Hosiery and knitted goods
Household textiles and handkerchiefs
Textile finishing
Other textiles
Leather, leather goods and fur

## Clothing

Bricks, fireclay and refractory goods
Pottery and glass
Other building materials, etc
Furniture and bedding, etc.
Timber and miscellaneous wood manufactures
Paper and board
Packaging products of paper, board, etc.
Other paper and board products
Printing and publishing
Rubber
Plastic products n.e.s.
Other manufacturing
Construction
Gas
Water supply
Rater suy
Road transport
Other transport
Communication
Distributive trades
Miscellaneous services
Imports of goods and services
Sales by final buyers
Taxes on expenditure less subsidies
Total




















Table F Total requirements per 1000 units of final industrial output in terms of net output, 1968 (continued)

$|\vec{\circ}||\vec{\circ}| \vec{\Delta}$
 $|\vec{\circ}|$


 $\vec{\circ} \mid$











Table F Total requirements per 1000 units of final industrial output in terms of net output, 1968 (continued)

|  |  |  |  |  | ¢ّ | 兗 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
|  | Agriculture | 0.5 | 1.0 | 0.2 |  |  |  |  |  | 2.4 | 8 |
| $3$ | Forestry and fishing Coal mining | 0.5 | 0.3 | 0.2 0.3 | 0.6 0.1 0.1 | 0.1 0.4 | 0.1 | 0.2 0.1 | 0.1 | 2.4 | 0.1 |
|  | Stone, slate, chalk, sand, etc. extraction | 9.1 0.5 | 8.4 0.6 | 7.3 11.5 | 82.3 | 148.9 | 14.5 | 10.5 | 1.4 | 0.2 1.9 | $2 \cdot 3$ |
| 5 | Other mining and quarrying | 0.4 | ${ }_{0} 0.4$ | 11.5 0.5 | 1.1 13.8 | 0.4 | 0.7 | 1.7 | 0.1 | 0.1 | 2.3 0.2 |
| 6 | Grain milling |  |  | - | 13.8 | 0.1 | $0 \cdot 2$ | 0.3 | 0.1 | - | 0.1 |
| 7 | Other cereal foodstuffs | 0.1 | 0.3 |  | 0.1 |  |  | $0 \cdot 1$ |  | 0.1 |  |
| 8 | Sugar Cocoa, chocolate and sugar confectionery |  |  |  | 0 |  |  | 0.1 |  | 0.6 0.1 |  |
| 10 | Oils and fats | $0 \cdot 3$ | 0.6 | 0.1 | 0.1 |  |  |  |  | 0.3 |  |
| 11 | Other food | 0.1 | 0.3 |  | 0.3 |  |  |  |  | - | - |
| 12 | Soft drinks |  | $0 \cdot 3$ | - | 0.3 |  |  |  |  | 0.5 | - |
| 13 14 | Alcoholic drink | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 |  | 0.1 | 0.1 | 1.7 | 0.1 |
| 15 | Coke ovens and manufactured fuel | 0.4 | 0.5 | 0.6 |  |  |  |  |  |  | $\underline{-1}$ |
| 16 | Mineral oil refining, lubricating oils and greases | 2.2 | 2.0 | 1.7 | 10.1 | 0.3 2.7 | 0.6 0.7 | 0.5 | 0.1 | 0.1 | 0.1 |
| 17 | General chemicals | 27.0 | 19.7 | 3.4 | 4.9 | 2.4 | 4.7 |  | 2.2 1.6 | 1.6 | 0.4 |
| 18 | Pharmaceutical chemicals and preparations | 0.6 | 0.5 | 0.1 | 0.1 | 2.1 0.1 | 4.7 0.1 | 2.8 0.1 | 1.6 0.1 | 0.9 0.1 | 0.7 |
| $\begin{array}{r}19 \\ \hline\end{array}$ | Toilet preparations Paint | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 0.1 | 0.1 0.1 | 0.1 | - |
| 20 | Paint | 0.7 | 2.2 | $4 \cdot 3$ | 0.6 | 0.4 | 0.2 | 1.9 | ${ }_{0} 0.7$ | 0.1 | 0.2 |
| 21 | Soap and detergents | $0 \cdot 2$ | 0.3 | 0.1 | 0.1 | 0.1 |  |  |  |  |  |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 77.9 | 23.1 | 1.9 | 0.6 | 0.7 | $1 \cdot \overline{3}$ | 1.0 | 0.3 0.9 | 0.2 | 0.1 0.7 |
| 24 | Dyestuffs and pigments Fertilizers | 2.5 0.6 | 3.9 0.5 | 0.5 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 |
| 25 | Other chemical industries | 3.5 | 2.1 | 0.2 0.7 | 0.1 0.8 | 0.1 0.6 | 0.1 0.4 | 0.1 |  | 0.1 |  |
| 26 | Iron castings, etc. | 0.8 | 0.9 | 5.0 | 6.0 | 0.6 0.9 | 0.4 15.3 | 0.5 2.4 | 0.2 | 0.1 | 0.2 |
| 27 | Other iron and steel | 4.6 | 6.8 | 13.6 | 10.0 | 5.7 | 15.3 3 | 2.4 16.1 |  | $0 \cdot 2$ | 0.7 |
| 28 | Aluminium and aluminium alloys | 1.2 | 1.7 | 1.0 | 0.6 | 0.6 | ${ }^{3} 5$ | 16.1 1.2 | 1.3 0.3 | 1.1 0.2 | $2 \cdot 9$ |
| 29 30 | Other non-ferrous metals Agricultural machinery | $1 \cdot 8$ | 4.0 | 3.1 0.1 | $1 \cdot 6$ | 1.7 | 2.1 | 2.1 | 0.3 0.4 | 0.2 0.3 | 0.7 2.1 |
| 31 | Machine tools | $0 \cdot 3$ | $0 \cdot 3$ | 0.5 | 0.3 |  |  |  |  |  | - |
| 32 | Pumps, valves and compressors | 0.8 | 0.6 | 2.3 |  | $1 \cdot 2$ | 5.7 | 0.5 | 0.1 | 0.1 | 0.2 |
| 33 | Industrial engines | 0.4 | 0.4 | 0.6 | 0.3 | 1.2 0.3 | 5.7 0.7 | 0.9 3.4 | 0.2 | 0.3 | 0.1 |
| 34 | Textile machinery | 0.1 | $0 \cdot 3$ | 0.2 | 0.1 | 0.1 | 0.7 0.1 | 3.4 0.1 |  | 0.2 |  |
| 35 | Construction and mechanical handling equipment | 0.5 | 0.5 | 3.1 | 0.8 | 0.8 | 0.4 | 0.6 |  |  |  |
| 36 37 | Office machinery Other non-electrical machinery | 0.3 | 0.1 | 0.1 | $0 \cdot 2$ | 0.1 | 0.1 | 0.3 | 0.1 | 0.8 | 0.1 0.3 |
| 37 38 | Other non-electrical machinery Industrial plant and steel work | 1.2 | 1.5 | 11.3 | 1.8 | 1.3 | 1.0 | 1.1 | $0 \cdot 2$ | 0.4 | 0.3 0.3 |
| 39 | Other mechanical engineering | 5.8 | 0.9 4.9 | 18.6 4.8 | 4.8 | 2.5 | 1.5 | 1.7 | 0.1 | 0.5 | 0.3 |
| 40 | Instrument engineering | 0.4 | 0.4 | 0.9 | 2.9 1.8 | 3.9 0.6 | 5.5 0.7 | 7.7 0.7 | 0.7 0.2 | 0.5 0.3 | 1.2 0.3 |
| 41 | Electrical machinery | 0.6 | $1-1$ | 1.4 | $1 \cdot 3$ |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 0.6 | 0.8 | 1.8 | 0.8 | 5.6 | ${ }_{0}^{1.6}$ | 7.7 2.1 | 0.4 0.2 | 0.7 0.2 | 1.0 8.4 |
| 43 | Electronics and telecommunications | 0.5 | 0.7 | $0 \cdot 6$ | 0.6 | 0.8 | 0.3 | 1.1 | ${ }_{0} 0.4$ | 0.2 0.5 | 8.4 6.3 |
| 44 | Domestic electrical appliances | 0.4 | $0 \cdot 3$ | 0.4 | $0 \cdot 4$ | 3.8 | $0 \cdot 3$ | $0 \cdot 5$ | 0.1 | 0.1 | 6.3 0.1 |
| 45 | Other electrical goods | 0.7 | 0.8 | 3.8 | 1.2 | 0.8 | 0.6 | 5.8 | $5 \cdot 2$ | 1.1 | 1.2 |
| 46 | Shipbuilding and marine engineering | $0 \cdot 2$ | $0 \cdot 2$ | $0 \cdot 4$ | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | $8 \cdot 2$ | 0.2 |
| 48 | Wheeled tractors | 1.1 | 1.1 | 0.1 1.9 |  |  | 0.1 | 0.2 | 0.1 | 0.1 |  |
| 49 | Aerospace equipment | 0.1 | 0.1 | 1.9 | 1.3 0.2 | 0.7 | 1.1 | $2 \cdot 3$ | 6.0 | 0.3 4.7 | 0.6 |
| 50 | Other vehicles | 0.5 | $0 \cdot 6$ | 0.4 | 1.2 | 1.4 | $0 \cdot 3$ | $61 \cdot 6$ | 0.1 | 4.7 0.1 |  |
|  | Engineers' small tools | 3.8 | 3.1 | $2 \cdot 5$ | 3.3 | 3.1 | 1.4 | 1.5 |  | 0.2 |  |
| 52 | Cutlery and jewellery | 0.5 | 0.9 | 0.1 | 0.2 | 0.1 | 14 | 0.1 | ${ }_{0} 0.1$ | $0 \cdot 2$ | 2.1 |
| 53 | Bolts, nuts, screws, etc. Wire and wire manufactures | 0.4 | 0.5 | 1.3 | 0.4 | 0.4 | $0 \cdot 3$ | 1.1 | 0.2 | 0.1 | 0.4 |
| $\begin{aligned} & 54 \\ & 55 \end{aligned}$ | Wire and wire manufactures Cans and metal boxes | 1.0 0.3 | 1.7 0.8 | 1.7 0.2 | 0.5 | 1.3 | $0 \cdot 3$ | 2.9 | 0.8 | 0.1 | 4.4 |
| 56 | Other metal goods | 16.7 | 10.4 | 9. 9 | 0.2 10.4 | 0.1 3.3 | 0.1 3.8 | 0.1 5.2 | 0.1 1.5 | 0.1 0.6 | 0.1 1.6 |
| 57 | Production of man-made fibres | 2.8 | $3 \cdot 6$ | $0 \cdot 3$ | 0.2 | 0.2 | 3.8 0.3 | 0.4 | 1.5 0.4 | 0.6 0.1 | 1.6 0.2 |
| 58 | Cotton, etc. spinning and weaving | 1.0 | $5 \cdot 8$ | $0 \cdot 3$ | 0.3 | 0.4 | $0 \cdot 3$ | 0.5 | 0.5 | 0.2 | 0.2 |
| 59 60 | Woollen and worsted Hosiery and knitted goods | 0.1 | 1.7 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | 0.1 | 0.1 |
|  |  | - | 2.6 | - | 0.1 | - | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| 61 62 | Carpets <br> Household textiles and handkerchiefs | 0.2 | 0.2 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 63 | Textile finishing | 0.2 | ${ }_{0} 0.6$ | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 0.1 0.1 | 0.1 |  |
| 64 | Other textiles | 1.3 | $5 \cdot 2$ | 0.7 | $0 \cdot 3$ | 0.2 | 1.6 | 1.4 | $0 \cdot 3$ | 0.4 | 0.2 |
| 65 | Leather, leather goods and fur | 0.2 | 0.7 |  | $0 \cdot 1$ |  |  | 0.1 |  |  |  |
| 66 | Clothing | 0.2 | 0.2 | 0.1 | 0.5 | 0.5 | 0.6 | 2.1 | 0.7 | 0.6 | 0.8 |
| 68 | Footwear Bricks, fireclay and refractory goods | 0.1 | $0 \cdot 3$ | 10.0 | 0.1 |  |  |  |  |  |  |
| 69 | Pottery and glass | 3.0 | 2.5 | 6.2 | 0.7 | 0.4 | 2.7 | 1.6 | 0.4 | 0.2 0.2 | 0.4 0.3 |
| 70 | Cement | 0.1 | 0.1 | $5 \cdot 3$ | 0.5 | 0.2 | 0.7 | 0.7 | 0.4 | 0.1 | 0.3 |
| 71 | Other building materials, etc. | 1.1 | 1.6 | 22.5 | 1.9 | 1.7 | 4.5 |  | 0.1 |  |  |
| 72 | Furniture and bedding, etc. | $0 \cdot 2$ | 0.3 | 0.4 | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 0.5 |
| 74 | Paper and board | 2.1 5.8 | $5 \cdot 2$ 11.1 | 20.5 1.3 | 2.1 0.9 | 1.4 0.6 | 0.4 0.5 | 2.8 0.9 | ${ }_{0.6}^{0.2}$ | 0.2 0.3 | 0.5 0.7 |
| 75 | Packaging products of paper, board, etc. | 5.7 | 9.6 | 1.0 | 0.6 | 0.4 | 0.4 | 0.8 | 0.4 | 0.2 | 0.4 |
| 76 | Other paper and board products | 2.0 | $2 \cdot 5$ | 1.8 | 0.8 | 1.2 | 1.0 | 1.9 | 1.4 | 0.8 | 1.2 |
| 77 | Printing and publishing | $5 \cdot 4$ | 9.2 | 3.6 | 7.3 | 2.9 | 2.0 | 3.7 | 2.7 | 2.0 | 5.0 |
| 78 | Rubber | $3 \cdot 6$ | 4.7 | $2 \cdot 3$ | $1 \cdot 9$ | 1.4 | 1.3 | $2 \cdot 4$ | 10.6 | 0.7 | 0.7 |
| 79 | Plastic products n.e.s. | 437.5 | 10.1 | 4.1 | 0.8 | 0.5 | $4 \cdot 3$ | 0.9 | 0.7 | 0.2 | 0.4 |
| 80 | Other manufacturing | 1.5 | 430.0 | 0.5 | 0.2 | 0.2 | 0.4 | 0.2 | 0.6 | 0.4 | $0 \cdot 3$ |
| 81 | Construction | 2.5 | $2 \cdot 4$ | 513.8 | 31.3 | $5 \cdot 3$ | 2.7 | 2.5 | 0.5 | 1.6 | $2 \cdot 9$ |
| 82 | Gas | 1.5 | $1 \cdot 9$ | 1.5 | $404 \cdot 3$ | 0.7 | 1.0 | 1.5 | 0.3 | 0.2 | 0.6 |
| 83 | Electricity | 18.6 | 12.8 | $8 \cdot 4$ | 14.1 | 599.1 | 35.4 | 26.5 | 3.5 | 6.0 | 6.0 |
| 84 | Water supply | $2 \cdot 3$ | 1.8 | 0.5 | 0.9 | $0 \cdot 8$ | 698.7 | 0.7 | 0.9 | 0.7 | 0.5 |
| 85 | Railways | $6 \cdot 2$ | $8 \cdot 3$ | 5.5 | 16.1 | $20 \cdot 6$ | 3.8 | 902.6 | 0.8 | 0.8 | 19.8 |
| 86 | Road transport | 18.4 | $15 \cdot 6$ | 22.3 | 12.2 | 9.1 | 5.1 | 5.7 | 754.3 | 1.0 | 3.6 |
| 87 | Other transport | $5 \cdot 4$ | 6.1 | 3.6 | 14.3 | 3.4 | 1.2 | 3.5 | 2.8 | 428.9 | 10.7 743.9 |
| 88 | Communication Distributive trades | 8.2 | 8.6 | ${ }^{6.0}$ | 9.5 | $5 \cdot 0$ | 5.0 6.0 | 12.8 10.3 | 3.9 5.7 | 5.0 3.4 | 743.9 23.3 |
| 89 90 | Distributive trades Miscellaneous services | 13.0 64.4 | 17.6 71.1 | 12.0 43.9 | 9.5 95 | $\begin{array}{r}5.3 \\ 33.4 \\ \hline\end{array}$ | 6.0 16.8 | 10.3 28.0 | 5.7 26.1 | 3.4 25.5 | $23 \cdot 3$ 16.6 |
| 91 | Imports of goods and services | $170 \cdot 4$ | 187.3 | 99.0 | 150.2 | 52.5 | 31.2 | 63.6 | 37.8 | 464.4 | 73.9 |
| 92 | Sales by final buyers | 6.3 | 7.4 | 8.5 | 7.3 | 5.4 | 6.3 93.9 | 7.3 -248.2 | 37.7 111.8 | $\begin{array}{r}3.8 \\ 17.8 \\ \hline\end{array}$ | 17.7 25.2 |
| 93 | Taxes on expenditure less subsidies | 34.3 | 38.1 | 68.5 | 38.3 | $40 \cdot 3$ | $93 \cdot 9$ | -248.2 | 111.8 | 17.8 | 25.2 |
| 94 | Total | $1000 \cdot 0$ | $000 \cdot 0$ | $000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | 1000.0 |

Table G Industrial output in terms of primary input in 1968，in coefficient form

| 1 | Agriculture | $\bigcirc$ | － | E旡告 | 戌发第 | 会 | $\stackrel{\text { ⿹ㅡㄴ }}{\text { a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Agriculture Forestry and fishing | 405.8 | $492 \cdot 8$ | 182.0 | －84．4 | $3 \cdot 8$ |  |
| 3 | Coal mining | 511.3 | 417. | 93.7 | $-24.6$ | 2.3 | 1000.0 10000 |
| 4 | Stone，slate，chalk，sand，etc．extraction | 776.7 | 157.6 | 51.7 | 8.0 |  | 1000.0 |
| 5 | Other mining and quarrying | 455.5 | 282.1 | 120.2 | 136.8 | 5.9 5 | 1000.0 1000.0 |
| 6 | Grain milling | 367.1 | $363 \cdot$ | 230.4 | 136.8 33.4 | 5.5 5.7 | 1000.0 10000 |
| 7 | Other cereal foodstuffs | $280 \cdot 3$ | 247.0 | $455 \cdot 4$ | 13.0 | $4 \cdot 3$ | 1000.0 10000 |
| 8 | Sugar | 427.0 | 216.8 | 314.0 | 36.8 | 4.3 5.4 | 1000.0 |
| 9 |  | 290.6 477.8 | 211. | 493.7 |  | $4 \cdot 4$ | 1000.0 10000 |
| 10 | Oils and fats | 477.8 228.7 | 204. | 281.4 | $30 \cdot 9$ | $5 \cdot 9$ | 1000.0 10000 |
| 11 | Other food |  |  | 59.1 | 27.6 | 4.8 | $1000 \cdot 0$ |
| 12 | Soft drinks | 434.2 | 296.6 | 268.6 | －5．8 |  |  |
| 13 | Alcoholic drink | $521 \cdot 3$ | 225.3 | $180 \cdot 2$ | 67.6 | 5.7 | 1000.0 1000.0 |
| 14 | Tobacco | 397.5 | 457.6 | $105 \cdot 7$ | 34.2 | 5.0 | $1000 \cdot$ |
| 15 | Coke ovens and manufactured fuel | $321 \cdot 6$ | $232 \cdot 8$ | 415.5 | 25.3 | 4.7 | $1000 \cdot 0$ |
| 16 | Mineral oil refining，lubricating oils and greases | 709.8 | 216.6 | 62.3 | 4.0 | 7.4 | $1000 \cdot 0$ |
| 17 | General chemicals | 161.7 | 127.3 | 676.0 | 30.6 | 4.4 | $1000 \cdot 0$ $1000 \cdot 0$ |
| 18 | Pharmaceutical chemicals and preparations | $390 \cdot 9$ 457.2 | $278 \cdot 9$ | 287.5 | 35.7 | 7.0 | $1000 \cdot$ |
| 19 | Toilet preparations | 457.2 529.4 | 334．3 | 164.2 | 38.0 | 6.4 | $1000 \cdot$ |
| 20 | Paint | $529 \cdot 4$ 460.6 | 270.8 | 153.0 | 40.0 | 6.9 | 10000 1000 |
|  |  |  | 291.6 | 194.8 | 46.0 | 7.0 | 1000.0 |
| 21 22 | Soap and detergents <br> Synthetic resins，plastic materials and synthetic rubber | 442.7 | $218 \cdot 3$ | 278.2 | 53.9 | 6.8 |  |
| 23 | Dyestuffs and pigments | 407.0 | $294 \cdot 3$ | 259.4 | 32.8 | 6.6 | 1000．0 |
| 24 | Fertilizers | 452.1 | 264.7 | 241.6 | 34.1 | 7.5 | 1000．0 |
| 25 | Other chemical industries |  | $203 \cdot 9$ | 328.4 | 39.4 | 7.0 | $1000 \cdot 0$ |
| 26 | Iron castings，etc． | 487.9 638.2 | 217.8 | 219.1 | 68.3 | $6 \cdot 9$ | $1000 \cdot 0$ |
|  | Other iron and steel | 638.2 | 175.6 | 102.1 | 27.6 |  |  |
| 28 | Aluminium and aluminium alloys | $548 \cdot 4$ | 179.7 | 188.4 | $32 \cdot 2$ | 51．3 | 1000．0 |
| 29 | Other non－ferrous metals | 414.6 289.7 | 110.8 146.4 | 417.7 | 28.5 | $28 \cdot 3$ | $1000 \cdot 0$ |
| 30 | Agricultural machinery | 289.7 595.1 | $146 \cdot 4$ 218.7 | 453.7 | 20.8 | 89.5 | $1000 \cdot 0$ |
|  | Machine tools |  |  |  | 33－1 | 15.2 | $1000 \cdot 0$ |
| 32 | Machine rools | 644.9 | 197.9 | 114.6 | 29.5 | 13.1 |  |
| 33 | Industrial engines | 606.4 | 214.4 | 139.5 | 22.2 | 17.5 | $1000 \cdot 0$ 1000.0 |
| 34 | Textile machinery | 612.0 | 195.5 | 152.2 | 24.0 | 16.3 | $1000 \cdot 0$ |
| 35 | Construction and mechanical handling equipment | 598.0 | 228.7 | 135.1 | $25 \cdot 9$ | $12 \cdot 3$ | $1000 \cdot 0$ |
| 36 | Office machinery | 552.8 641.5 | 275.9 | 129.2 | 28.4 | 13.8 | $1000 \cdot 0$ |
| 37 | Other non－electrical machinery | 618.2 | 211．3 | 124.0 | 14.7 | 10.5 | $1000 \cdot 0$ |
| 38 | Industrial plant and steel work | $662 \cdot 9$ | 211.3 299.4 | 128.7 95.7 | 28.4 28.7 | 13.4 | 1000.0 |
| 39 | Other mechanical engineering | $562 \cdot 9$ 623.0 | 299.4 193.6 | 95.7 142.2 | 28.7 | 13.3 | $1000 \cdot 0$ |
| 40 | Instrument engineering | 623.0 | 193.6 202.7 | 142.2 139.7 | $25 \cdot 7$ 31.1 | 15．5 | $1000 \cdot 0$ |
| 41 | Electrical machinery |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 427.1 |  |  | 24.6 | 14.6 | $1000 \cdot 0$ |
| 43 | Electronics and telecommunications |  | 157.8 202.9 | 362.1 | 25.7 | $27 \cdot 3$ | 1000．0 |
| 44 | Domestic electrical appliances | 584.2 | 198.9 | 166.1 | $27 \cdot 9$ | $9 \cdot 3$ | $1000 \cdot$ |
| 45 | Other electrical goods |  | 233.6 | 157.4 | 36．7 | 13.9 | 1000．0 |
| 46 | Shipbuilding and marine engineering | 694.3 | 180.9 | 113.4 | $30 \cdot 8$ | $13 \cdot 3$ | $1000 \cdot 0$ |
| 47 | Wheeled tractors | 564.4 | 213.7 | 173.1 | 23.7 33 | 11.8 15.5 | $1000 \cdot 0$ |
| 49 | Merospace equipment | $620 \cdot 1$ | 173.7 | 152.1 | 37.5 | 16.6 | 1000.0 1000.0 |
| 50 | Aerospace equipment Other vehicles | 717.7 | 109.6 | 128.2 | 17.4 | 27.1 | 1000.0 |
|  |  | $725 \cdot 2$ | 108.4 | 133.7 | 19.9 | 12.7 | $1000 \cdot 0$ |
| 51 | Engineers＇small tools | 643.8 | 212.3 | 105.5 | 26.1 | 12.3 |  |
| 53 | Cutiery and jewellery | 272.9 | 149.9 | 547.4 | 18.7 | 11.1 | $1000 \cdot 0$ |
| 54 | Wire and wire manufactures | 617.8 | 202.3 | 128.7 | 32.7 | 18.5 | $1000 \cdot 0$ |
| 55 | Cans and metal boxes | 530.6 567.7 | 177.6 | 229.1 | $33 \cdot 6$ | 29.0 | $1000 \cdot 0$ |
| 56 | Other metal goods | 584.0 | 2012.6 | $160 \cdot 5$ 144.6 | 35.8 35.5 | 29.9 23.3 | $1000 \cdot 0$ 1000.0 |
| 58 | Production of man－made fibres | 394.9 | $345 \cdot 6$ | $225 \cdot 4$ | 28.7 | $5 \cdot 3$ | 1000.0 |
| 59 | Cotton，etc．spinning and weaving Woollen and worsted | 477.3 | $200 \cdot 4$ | 288.8 | 27.9 | $5 \cdot 6$ | $1000 \cdot 0$ |
| 60 | Hosiery and knitted goods | 468.7 535.6 | 149.7 | 349.1 | 27.2 | $5 \cdot 2$ | $1000 \cdot 0$ |
| 61 | Carpots |  |  | 84．8 | 27.8 | 5.6 | $1000 \cdot 0$ |
| 62 | Household textiles and handkerchiefs | 522.7 | 210.7 | 232.0 | 28.9 | $5 \cdot 7$ | 1000．0 |
| 63 | Textile finishing | 497.4 607.4 | 166.0 | $300 \cdot 6$ | $30 \cdot 9$ | 5.1 | $1000 \cdot 0$ |
| 64 | Other textiles | 607.4 496.8 | 211.8 211.8 | 133.7 253.5 | 43.0 $32 \cdot 3$ | 4.1 5.5 | $1000 \cdot 0$ |
| 65 | Leather，leather goods and fur | $435 \cdot 4$ | $200 \cdot 1$ | 332.6 | 26.4 | 5.4 | $1000 \cdot 0$ 1000 |
| 66 67 | Clothing | 584.5 | $160 \cdot 1$ | 215.5 | $34 \cdot 2$ | 5.7 | 1000．0 |
| 68 | Bricks，fireclay and refractory goods | 599.1 645.8 | 175.1 | 180.0 | 39.4 | 6.4 | $1000 \cdot 0$ |
| 69 | Pottery and glass | 645.8 619.4 | $173 \cdot 2$ 202.5 | 115.0 128.8 | 60.4 43.2 | 5.5 6.1 | 1000.0 1000.0 |
| 70 | Cement | $540 \cdot 5$ | 282.7 | $\begin{aligned} & 128.6 \\ & 113.6 \end{aligned}$ | 57.3 | 6.0 | 1000.0 1000.0 |
| 71 | Other building materials，etc． |  |  | $145 \cdot 8$ | 65.1 | 7.4 |  |
| 72 | Furniture and bedding，etc． | $550 \cdot 5$ | 178.9 | 211.9 | $52 \cdot 4$ | 6.4 | 1000.0 |
| 73 74 | Timber and miscellaneous wood manufactures Paper and board | $405 \cdot 4$ | 144.4 | 408.2 | 37.3 | 4.7 | $1000 \cdot 0$ |
| 75 | Packaging products of paper，board，etc． | $395 \cdot 4$ | 198.9 | 365.4 | $35 \cdot 3$ | 5.0 | $1000 \cdot 0$ |
| 76 | Other paper and board products | 459.1 469.4 | 193.0 260.5 | 306.0 229.4 | 36.1 35.4 | 5.9 5.4 | $1000 \cdot 0$ |
| 77 | Printing and publishing | 574.9 | 253.5 | 140.0 | 26.5 | 5.2 | 1000.0 |
| 78 79 | Rubber Plastic products $n$ ees． | 511.3 | 227.4 | 224.8 | 30.8 | 5.8 | $1000 \cdot 0$ |
| 80 | Plastic products n．e．s． Other manufacturing | $528 \cdot 2$ | $260 \cdot 7$ | $170 \cdot 4$ | 34.3 | $6 \cdot 3$ | 1000．0 |
|  |  |  |  |  |  |  |  |
|  | Total manufacturing | 509.8 | 217.2 | 229.1 | 29.7 | 14.2 | $1000 \cdot 0$ |
| 81 82 | Construction |  |  | 99.0 |  | 8.5 | 1000.0 |
| 82 | Gas | $549 \cdot 2$ | 254.9 | 150.2 | $38 \cdot 3$ | 7.3 | 1000．0 |
| 84 | Electricity | $440 \cdot 2$ | 461.7 | 52.5 | $40 \cdot 3$ | $5 \cdot 4$ | $1000 \cdot 0$ |
| 85 | Railways | 429.2 | 439.4 | 31.2 | 93.9 | $6 \cdot 3$ | $1000 \cdot 0$ |
| 86 | Road transport | 853.1 623.3 | $324 \cdot 3$ 223 | 63.6 37.8 | $-248-2$ 111.8 | 7.3 3.7 | 1000.0 |
| 87 | Other transport | 336.4 | 177.5 | 464.4 | 17.8 | 3.8 | $1000 \cdot 0$ |
| 88 | Communication | 631.1 | $252 \cdot 1$ | 73.9 | $25 \cdot 2$ | 17.7 | $1000 \cdot 0$ |
| 89 | Distributive trades | $565 \cdot 3$ | $321 \cdot 3$ | 30.5 | 78.8 | 4.0 | 1000.0 |
| 90 | Miscellaneous services | $633 \cdot 8$ | $244 \cdot 3$ | 50.7 | 67.7 | 3.5 | $1000 \cdot 0$ |
| 91 | Total final output | 487.4 | $220 \cdot 6$ | 176.4 | 115.6 | － | $1000 \cdot 0$ |

## Table H Industrial composition of final expenditure in terms of net output in 1968, in coefficient form

|  |  |  |  |  | $\begin{aligned} & \text { y } \\ & \text { ". } \\ & \text { in } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Agriculture | 33.2 | $6 \cdot 3$ | 1.3 | 7.2 | 10.5 | $20 \cdot 3$ |
| 2 | Forestry and fishing | 1.8 | 0.3 | 0.2 | 101.8 | 0.6 | 1.6 |
| 3 | Coal mining | 13.2 | 8.5 | 10.6 | -28.5 | 9.5 | 11.3 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 0.7 | 0.9 | $5 \cdot 9$ | 4.8 | 2.0 | 1.8 |
| 5 | Other mining and quarrying | $0 \cdot 3$ | $0 \cdot 6$ | 0.5 | -2.5 | 1.0 | 0.5 |
| 6 | Grain milling | $2 \cdot 1$ | 0.2 |  | 5.1 | 0.5 | 1.2 |
| 7 | Other cereal foodstuffs | $9 \cdot 3$ | 0.9 | 0.2 | 6.2 | 2.0 | $5 \cdot 4$ |
| 8 | Sugar Cocoa, chocolate and sugar confectionery | 1.0 | 0.1 | - | -0.2 | 0.4 | 0.6 |
| 9 | Cocoa, chocolate and sugar confectionery Oils and fats | 3.1 | $0 \cdot 1$ |  | $8 \cdot 3$ | 1.4 | 1.9 |
| 10 | Oils and fats | 0.5 | 0.1 | 0.1 | $1 \cdot 2$ | $0 \cdot 3$ | $0 \cdot 3$ |
| 11 | Other food | 10.5 | 2.5 | 0.1 | 20.3 | $2 \cdot 4$ | $6 \cdot 3$ |
| 12 | Soft drinks | 1.3 8.4 | 0.2 |  | $2 \cdot 9$ | 0.2 | 0.8 |
| 13 14 14 | Alcoholic drink | 8.4 3.0 | 0.4 | 0.2 | 16.2 | 13.6 | 6.8 |
| 15 | Coke ovens and manufactured fuel | 0.6 | 0.6 | 0.8 | 6.8 | 1.1 | 1.8 |
| 16 | Mineral oil refining, lubricating oils and greases | $1 \cdot 4$ | 1.0 | 1.4 | 6.8 | 3.8 | 0.7 |
| 17 | General chemicals | 3.3 | $2 \cdot 9$ | $3 \cdot 9$ | 49.8 | 17.4 | 5.8 |
| 18 | Pharmaceutical chemicals and preparations | 1.2 | 6.7 | 0.1 | 9.2 | $5 \cdot 3$ | 2.6 |
| 19 | Toilet preparations | 1.0 | 0.3 | $0 \cdot 1$ | 1.4 | 0.9 | 0.7 |
| 20 | Paint | 0.9 | 0.6 | 2.7 | 5.9 | 1.7 | 1.3 |
| 21 | Soap and detergents | 0.8 | $0 \cdot 4$ | 0.1 | 0.8 | 0.6 | $0 \cdot 6$ |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 1.8 | 1.2 | 2.2 | 7.7 | $8 \cdot 2$ | $2 \cdot 9$ |
| 23 | Dyestuffs and pigments | 0.4 | 0.3 | 0.4 | 5.5 | 3.9 | 1.0 |
| 24 | Fertilizers | 1.1 | 0.3 | 0.2 | $4 \cdot 3$ | 0.9 | 0.8 |
| 25 26 | Other chemical industries Iron castings, etc. | 1.8 | 1.9 | 0.8 6.7 | 9.5 | 4.9 | 2.2 |
| 27 27 | Ither Otron and steel | 1.0 3.4 | 1.1 4.1 | 6.7 | $0 \cdot 3$ | 5.7 | 2.7 |
| 28 | Aluminium and aluminium alloys | 0.8 | 1.0 | 2.4 | 12.1 | 21.0 3.4 | 8.8 |
| 29 | Other non-ferrous metals | 0.9 | 1.3 | 4.4 | 6.5 | 7.7 | 1.5 |
| 30 | Agricultural machinery | 0.2 | 0.1 | $2 \cdot 1$ | -3.0 | 1.2 | 2.7 0.6 |
| 31 | Machine tools | 0.2 | 0.5 | 7.6 | 11.0 | 4 |  |
| 32 | Pumps, valves and compressors | 0.4 | 1.1 | 7.1 | -6.5 | 6.5 | 2.5 |
| 33 <br> 34 | Industrial engines | 0.2 | $0 \cdot 6$ | 1.5 | -2.2 | 3.4 | 1.0 |
| 35 | Construction and mechanical handling equipment | 0.2 0.3 | 0.2 1.3 | 3.0 14.7 | -3.1 | 5.2 | 1.5 |
| 36 | Office machinery | 0.2 | 0.5 | 1.9 | 22.9 6.9 | 7.4 2.7 | 4.0 |
| 37 | Other non-electrical machinery | 1.3 | $2 \cdot 2$ | 20.8 | -3.4 | 15.4 | 0.9 6.8 |
| 38 39 | Industrial plant and steel work Other mechanical engineering | $0 \cdot 9$ | 2.2 | 33.3 | -37.8 | 5.5 | 6.7 |
| 40 | Instrument engineering | 2.1 0.9 | 5.1 4.7 | 9.5 11.7 | $-2 \cdot 6$ | 12.9 | 5.5 |
| 41 | Electrical machinery |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 0.9 0.6 | 2.3 0.9 | 18.7 4.7 | -45.8 | 8.3 | $4 \cdot 9$ |
| 43 | Electronics and telecommunications | 1.7 | 13.7 | $\begin{array}{r}22.4 \\ \hline\end{array}$ | -13.2 3.8 | 2.8 13.8 | 1.6 8.7 |
| 44 | Domestic electrical appliances | $2 \cdot 5$ | 13.7 0.5 | 1.0 | 3.8 2.7 | 13.8 2.4 | 8.7 1.9 |
| 45 | Other electrical goods ${ }^{\text {Shipbuilding and marine engineering }}$ | 2.1 | 3.0 | 4.4 | 2.6 | $5 \cdot 6$ | 3.2 |
| 47 | Wheeled tractors | 0.3 | 12.6 0.1 | 10.0 | $5 \cdot 2$ | 9.1 | 5.1 |
| 48 | Motor vehicles | 5.5 | 0.1 3.8 | 1.7 29.7 | -3.4 | 4.2 | 1.0 |
| 49 | Aerospace equipment Other vehicles | 0.1 | 27.82 | 29.7 5.1 | -6.8 -179.2 | 32.9 13.9 | 13.6 6.5 |
| 50 | Other vehicles | 1.0 | 0.4 | $2 \cdot 4$ | -4.2 | 13.9 2.9 | 6.5 1.4 |
| 51 52 | Engineers' small tools | 0.8 | 1.3 | 3.4 | -4.6 | $4 \cdot 4$ |  |
| 52 53 | Cutlery and jewellery Bolts, nuts, screws, etc. | 0.9 | 0.5 | O.4 | -4.6 1.0 | 3.4 | $1 \cdot 9$ 1.1 |
| 54 | Wire and wire manufactures | $0 \cdot 4$ | 0.6 | $2 \cdot 3$ | -5.6 | 2.2 | 1.0 |
| 55 | Cans and metal boxes | 0.5 0.9 | 0.6 0.3 0.3 | 2.2 | -2.4 | 2.4 | 1.1 |
| 56 57 | Other metal goods Production of man-made fibres | 0.9 5.2 | 0.3 3.3 | 0.2 16.2 | 1.0 2.5 | 0.7 15.9 | 0.7 8.4 |
| 57 58 | Production of man-made fibres Cotton, etc. spinning and weaving | $2 \cdot 1$ | 0.5 | 16.4 | 13.2 | 15.9 6.9 | 8.4 2.5 |
| 59 | Woollen and worsted | 3.2 | 0.9 | $0 \cdot 6$ | 7.9 | 5.9 | $2 \cdot 9$ |
| 60 | Hosiery and knitted goods | 2.8 4.8 | 0.4 0.3 | 0.2 | -17.4 | 7.8 | 2.8 |
| 61 |  |  |  | - | 13.2 | 3.2 | 3.2 |
| 62 | Household textiles and handkerchiefs | 1.7 | 0.4 | $0 \cdot 3$ | 0.3 | 1.2 | 1.2 |
| 63 64 | Textile finishing | 1.4 1.7 | 0.2 0.3 0.3 | $0 \cdot 2$ | 0.1 | 0.2 | 0.3 |
| 64 | Other textiles | 1.7 2.1 | 0.3 0.8 | 0.2 | 0.6 | 1.8 | 1.3 |
| 65 | Leather, leather goods and fur Clothing | 1.1 | ${ }_{0} 0.1$ | 0.9 | 5.7 5.6 | 3.3 2.6 | 2.0 |
| 67 | Footwear | 7.9 | 1.5 | $0 \cdot 2$ | 20.7 | 5.4 | $5 \cdot 4$ |
| 68 | Bricks, fireclay and refractory goods | $3 \cdot 1$ | $0 \cdot 2$ |  | 7.0 | 1.8 | 2.0 |
| 69 | Pottery and glass Cement | 0.6 2.2 | 0.6 1.4 | $5 \cdot 3$ 4.2 | 3.2 5.6 | 1.4 6.5 | 1.5 |
| 70 | Cement | 2.2 0.3 | 1.4 0.3 | 4.2 2.6 | 5.6 0.8 | 6.5 <br> 0.3 | 3.1 0.6 |
| 71 | Other building materials, etc. |  |  |  |  |  |  |
| 73 | Furniture and bedding, etc. | 3.7 | 2.1 | 11.4 1.3 | $5 \cdot 9$ | 1.8 | 3.7 |
| 74 | Paper and board | 2.5 | 1.6 | 13.2 | 89 198 | 1.0 2.0 | 2.7 4.0 |
| 75 | Packaging products of paper, board, etc. | 2.6 | 2.7 | 1.5 | $5 \cdot 1$ | 4.1 | 2.7 |
| 76 | Other paper and board products | $2 \cdot 9$ | 1.1 | 1.2 | 4.0 | $2 \cdot 6$ | $2 \cdot 3$ |
| 77 | Printing and publishing | 2.1 14.0 | 2.1 | 1.8 | 3.9 | 2.5 | $2 \cdot 1$ |
| 78 79 |  | 14.0 3.2 | 11.0 1.9 | $5 \cdot 8$ | 23.5 | 14.9 | 12.5 |
| 80 | Plastic products n.e.s. Other manufacturing | 3.2 2.3 | 1.9 1.5 | 4.0 3.9 | 15.7 3.8 3 | 8.1 4.1 | 4.0 |
|  |  | $2 \cdot 6$ | 1.8 | 0.6 | 3.2 | 5.1 | 2.6 |
|  | Total manufacturing | 161.2 | 153.6 | 343.0 | 87.5 |  |  |
| 81 | Construction |  |  |  | 87.5 | $402 \cdot 4$ | 228.3 |
| 82 | Gas | 14.4 | 18.8 | 241.8 | 24.0 | 5.2 |  |
| 83 84 | Electricity | 6.0 21.4 | 1.8 12.3 | 3.7 18.8 | 1.0 | 2.5 | 4.4 |
| 85 | Water supply | 21.4 3.1 | 12.3 1.5 | 18.8 1.0 | 6.1 | 11.7 | 17.9 |
| 86 | Road transport | 11.5 | 1.7 | 1.0 8.3 | 1.7 5.7 | 7.6 | $2 \cdot 3$ |
| 87 | Other transport | 23.9 | 7.7 | $15 \cdot 3$ | 4.7 | 11.1 11.3 | 9.1 17.9 |
| 88 89 | Communication Distributive trades | 7.3 15.8 | 5.1 | 4.9 | 22.1 | 64.9 | 17.9 16.4 |
| 90 | Distributive trades Miscellaneous services | 15.8 124.2 | 14.2 19.2 | $20 \cdot 6$ | 3.5 | 11.2 | 15.5 |
|  |  | 121.8 | 114.0 | 21.1 87.3 | 11.0 47.6 | 39.0 99.3 | 77.8 111.2 |
| 91 92 |  |  |  |  |  |  | 111.2 |
| 93 | Sales by final buyers | 158.5 | 528.9 116.0 |  |  |  | 123.1 |
| 94 | Taxes on expenditure less subsidies | 188.5 13.6 | 116.0 -76.2 | 180.6 -33.9 | 682.4 1.0 | 268.5 24.7 | 176.4 |
| 95 | Total final output | 173.7 | 63.0 | 68.8 | 19.0 | 24.7 27.0 | 115.6 |
|  |  | 1000.0 | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $000 \cdot 0$ |

Table I The allocation of net output in 1968 , in coefficient form

|  |  | Total final output |  | Consumers' expenditure |  |  | Public authorities current expenditure on goods and services |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \overleftarrow{0} \\ & \hline 0 . \end{aligned}$ |  | $\begin{aligned} & \text { ت} \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \text { 흠 } \\ & \text { 든 } \end{aligned}$ | $\stackrel{\bar{\circ}}{\stackrel{\circ}{\circ}}$ | $\begin{aligned} & \text { U } \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \text { U } \\ & \text { © } \\ & \text { 듣 } \end{aligned}$ | 巨 |
|  | Agriculture Forestry and fishing | 523 | 477 |  |  |  |  |  |  |
| $\begin{aligned} & 2 \\ & 3 \end{aligned}$ | Forestry and fishing Coal mining | 752 | 248 | 430 | 182 | 855 612 | 12 | 24 16 | 46 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 243 147 | 757 853 | 191 | 420 | 611 | 36 | 16 75 | 111 |
| 5 | Other mining and quarrying | 147 270 | 853 730 | 10 | 189 317 | 199 | 22 | 58 58 | 111 80 |
| ${ }_{7}$ | Grain milling | 544 | 456 | 497 | 317 402 | 317 899 | 131 | 50 | 181 |
| 7 | Other cereal foodstuffs | 573 | 427 | 542 | 402 | 899 | 6 | 13 | 19 |
| 8 | Sugar Cocoa, chocolate and sugar confectionery | 571 | 429 | 512 | 358 | 870 | 7 | 20 | 24 |
| 10 | Cocoa, chocolate and sugar confectionery Oils and fats | 922 | 78 | 783 | 63 | 846 | 7 | 15 4 | 22 |
|  |  | 267 | 733 | 193 | 540 | 733 | 18 | 45 | 11 63 |
| 11 12 | Other food Soft drinks | 948 | 52 | 826 | 38 | 864 | 55 | 3 |  |
| 13 | Alcoholic drink | 944 | 56 | 850 | 49 | 899 | 35 | 2 | 58 |
| 14 | Tobacco | 951 | 49 | 616 | 26 | 642 | 1 | 7 | 37 8 |
| 15 | Coke ovens and manufactured fuel | 990 | 10 | 873 | 6 | 879 | 2 | 1 | 8 |
| 16 |  | 364 369 | 636 | 270 | 174 | 444 | 80 | 47 |  |
| 17 | General chemicals | 369 351 | 631 | 124 | 292 | 416 | 34 | 48 | 127 |
| 18 | Pharmaceutical chemicals and preparations | 351 857 | 649 | 14 | 276 | 290 | 15 | 58 | 82 |
| 19 | Toilet preparations | 857 751 | 143 249 | 140 554 | 101 | 241 | 377 | 9 | 386 |
| 20 | Paint | 356 | 644 | 203 | 143 175 | 697 378 | 18 | 37 | 55 |
| 21 | Soap and detergents |  |  |  |  |  |  |  | 66 |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 298 | 288 | 502 | 200 | 702 | 73 | 21 | 94 |
| 23 | Dyestuffs and pigments Fertilizers | 551 | 449 | ${ }_{8}^{9}$ | 322 | 331 | 7 | 55 | 62 |
| 24 | Fertilizers | 145 | 855 |  | 208 | 216 | 9 | 36 | 45 |
| 25 | Other chemical industries | 591 | 85 | 31 | 665 | 696 | 10 | 45 | 55 |
| 26 | Iron castings, etc. | 32 | 968 | 206 3 | 216 | 422 | 86 | 41 | 127 |
| 27 | Other iron and steel | 189 | 968 | 3 | 190 | 193 | 3 | 57 | 60 |
| 28 | Aluminium and aluminium alloys | 132 | 818 | 2 | 197 | 199 | 2 | 68 | 70 |
| 29 | Other non-ferrous metals | 278 | 722 |  | 263 | 263 | 5 | 91 | 96 |
| 30 | Agricultural machinery | 278 798 | 722 202 | 1 | 167 141 | 168 | 5 | 70 | 75 |
| 31 | Machine tools |  |  |  |  |  |  | 12 | 16 |
| 32 | Pumps, valves and compressors | 815 | 185 | 1 | 37 | 38 | 11 | 21 | 32 |
| 33 | Industrial engines | 627 | 525 373 | 4 | 81 | 85 | 13 | 52 | 65 |
| 34 | Textile machinery | 863 | 137 | 1 | 87 | 92 | 62 | 28 | 90 |
| 35 | Construction and mechanical handling equipment | 883 | 137 168 | 1 | 63 | 64 | 9 | 7 | 16 |
| 36 | Office machinery | 813 | 187 | 13 | 39 | 40 | 32 | 17 | 49 |
| 37 | Other non-electrical machinery | 701 |  | 18 | 75 | 88 | 50 | 25 | 75 |
| 38 | Industrial plant and steel work | 656 | 344 | 18 | 85 | 103 | 21 | 26 | 47 |
| 39 | Other mechanical engineering | 298 | 702 | 1 | 190 | 72 197 | 25 | 23 | 48 |
| 40 | Instrument engineering | 789 | 211 | 51 | 46 | +97 | 119 | 62 31 | 139 150 |
| 41 | Electrical machinery |  |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 392 | 608 | 5 | 86 | 91 | 34 | 36 | 70 |
| 43 | Electronics and telecommunications | 832 | 168 | 68 | 202 | 203 103 | 16 | 66 | 82 |
| 44 | Domestic electrical appliances | 747 | 253 |  |  |  | 8 |  | 232 |
| 45 | Other electrical goods | 322 | 678 | 66 | 136 278 | 673 344 | ${ }_{6}^{8}$ | 78 | 36 |
| 46 | Shipbuilding and marine engineering | 911 | 89 | 6 | 278 | 344 26 | 62 361 | 78 4 | 140 |
| 48 | Wheeled tractors | 902 | 98 | 15 | 36 | 51 | 13 | 6 | 365 19 |
| 49 | Aerospace equipment | 892 | 108 | 173 | 40 | 213 | 33 | 9 | 42 |
| 50 | Other vehicles | 971 513 | 29 487 | 76 | $\begin{array}{r}7 \\ \hline\end{array}$ | 7 | 621 | 1 | 622 |
|  |  |  |  |  | 29 | 375 | 12 | 30 | 42 |
| 52 | Engineers small tools | 180 | 820 | 3 | 223 | 226 | 11 | 90 |  |
| 53 | Cutiery and jewellery | 741 | 259 | 271 | 133 | 404 | 34 | 33 | 101 67 |
| 54 | Wire and wire manufactures | 100 | 900 | 25 | 198 | 223 | 8 | 79 | 87 |
| 55 | Cans and metal boxes | 175 | 825 | 9 | 238 | 247 | 2 | 77 | 79 |
| 56 | Other metal goods | 296 | 944 | - 6 | 693 | 699 |  | 55 | 64 |
| 57 | Production of man-made fibres | 289 | 711 | 135 | 188 | 323 | 1 | 52 | 58 |
| 58 | Cotton, etc. spinning and weaving | 406 | 594 | 174 | 431 | 446 569 | 11 | 32 | 33 48 |
| 59 | Woollen and worsted | 474 | 526 | 123 | 398 | 521 | 1 | 18 | 18 |
| 60 | Hosiery and knitted goods | 826 | 174 | 663 | 131 | 794 | , | 9 | 19 13 |
| 61 | Carpets | 693 | 307 | 572 | 169 | 741 | 10 | 40 |  |
| 62 | Household textiles and handkerchiefs | 819 | 181 | 606 | 104 | 710 | 88 | 21 | 50 109 |
| 63 | Textile finishing | 6 | 994 | 2 | 701 | 703 |  | 29 | + 29 |
| 64 | Other textiles | 472 | 528 | 265 | 302 | 567 | 27 | 35 | 62 |
| 66 | Leather, leather goods and fur Clothing | 625 | 375 | 262 | 271 | 533 | 2 | 14 | 16 |
| 67 | Footwear | 931 1000 | 69 | 721 814 | 46 | 767 | 37 | 5 | 42 |
| 68 | Bricks, fireclay and refractory goods | 118 | 882 | 86 36 | 184 | 814 220 | 18 4 | 53 | 18 |
| 69 | Pottery and glass | 381 | 619 | 128 | 240 | 368 | 13 | 55 | 57 68 |
| 70 | Cement | 61 | 939 | 30 | 195 | 225 | 3 | 67 | 70 |
| 71 | Other building materials, etc. | 117 | 883 | 29 | 196 | 225 | 44 | 57 | 101 |
| 72 | Furniture and bedding, etc. | 801 | 199 | 650 | 82 | 732 | 82 | 34 | 116 |
| 73 74 | Timber, and miscellaneous wood manufactures | 227 | 773 | 88 | 242 | 330 | 5 | 53 | 58 |
| 74 | Paper and board Packaging products of paper, board, | 149 | 851 | 1 | 506 | 507 | 62 | 84 | 146 |
| 76 | Packaging products of paper, board, etc, Other paper and board products | 39 | 961 | 10 | 645 | 655 | 11 | 60 | 71 |
| 77 | Printing and publishing | 380 | 620 | 215 | 302 | 517 | 83 | 63 | 146 |
| 78 | Rubber | 322 | 678 | 127 | 333 289 | ${ }_{416}$ | 59 | 72 | 131 |
| 79 | Plastic products n.e.s. | 145 | 855 | 85 | 353 | 438 | 3 | 77 | 72 80 |
| 80 | Other manufacturing | 817 | 183 | 432 | 89 | 521 | 89 | 16 | 105 |
|  | Total manufacturing | 559 | 441 | 222 | 148 | 370 | 51 | 49 | 100 |
| 81 | Construction | 932 | 68 | 123 | 33 | 156 | 52 | 5 | 57 |
| 82 | Gas | 697 | 303 | 599 | 116 | 715 | 34 | 27 | 61 |
| 83 | Electricity | 542 | 458 | 400 | 225 | 625 | 63 | 39 | 102 |
| 84 | Water supply | 504 | 496 | 438 | 273 | 711 | 58 | 41 | 99 |
| 85 | Railways | 404 | 596 | 343 | 320 | 663 | 13 | 47 | 60 |
| 86 | Road transport | 332 | 668 | 308 | 388 | 696 | 26 | 38 | 64 |
| 87 | Other transport | 776 | 224 | 130 | 102 | 232 | 28 | 19 | 47 |
| 88 | Communication | 483 | 517 | 242 | 293 | 535 | 78 | 58 | 136 |
| 89 | Distributive trades | 843 | 157 | 758 | 77 | 835 | 25 | 12 | 37 |
| 90 | Miscellaneous services | 710 | 290 | 436 | 138 | 574 | 129 | 23 | 152 |
| 91 | Public administration, domestic services, ownership of dw | 1000 | - | 362 | - | 362 | 638 | - | 638 |
| 92 | Gross domestic product | 1000 | - |  | - | 477 | \% |  | 188 |



Table J Direct and indirect import and tax content of industrial output in 1968, in coefficient form


Table K Commodity $\times$ commodity matrix， 1968 ，in coefficient form

|  |  |  |  |  |  |  |  | $\begin{gathered} \text { 5. } \\ \text { © } \\ \hline \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 | 3 | 4 | 5 | 6 | 7 | 7 |  |  |
| $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | Agriculture Forestry and fishing | 3.0 | － | － | 19.6 | 157.7 | 98.1 | － 8 | $\underline{9}$ | 9 |
| 3 | Coal mining | 2.5 |  |  | 0.5 | 157.7 0.3 | 98.1 4.0 | 197.9 | 5.4 |  |
| 4 | Stone，slate，chalk，sand，etc．extraction |  |  | 3.2 19.2 | 10.2 | 0.9 | 0.6 | 15．1 | 0.1 2.6 |  |
| 5 | Other mining and quarrying | － |  | 19.2 | 4.1 |  |  | 1.8 | $2 \cdot 6$ |  |
| 7 | Grain milling Other cereal foodstuffs | 25 |  | 0.1 | $0 \cdot 3$ | 22.9 | 0.2 112.5 |  |  |  |
| 8 | Sugar | $2 \cdot 5$ |  | － | 0.1 | 22.7 | 11.5 | 0.5 | 5.0 | 21．6 |
| 9 | Cocoa，chocolate and sugar confectionery |  |  |  | 0.6 | 6.7 | 18.7 | 62.4 | 0.4 78.4 | 4 |
| 10 | Oils and fats |  |  |  | 0.1 1.0 | 0.6 | 11.7 | 0.1 | 78.4 30.4 | 2.2 1.3 |
| 11 | Other food | 3.3 |  |  |  | 8.0 | $25 \cdot 7$ | 1.0 | 13.2 | $115 \cdot 9$ |
| 12 | Soft drinks | $3 \cdot 3$ | 二 | 二 | 1.3 | 3.1 | 28.1 | 7.6 | $70 \cdot 3$ | 10.2 |
| 13 | Alcoholic drink <br> Tobacco |  |  | － | 0.1 |  | 0.7 |  |  |  |
| $\begin{aligned} & 14 \\ & 15 \end{aligned}$ | Tobacco Coke ovens and manufactured fuel |  |  |  |  |  | 0.7 |  | 1.0 | 0.1 |
| 16 | Mineral oil refining，lubricating oils and greases | $42 \cdot 5$ | 0.1 3.2 | 0.4 54.8 |  |  | 0.1 | 1.4 | $0 \cdot 3$ | 0.1 |
| 17 | General chemicals | $42 \cdot 5$ | 3.2 | 54.8 | 16.4 | 2.1 | $6 \cdot 3$ | 4.1 | 2.9 | 0.1 10.6 |
| 18 | Pharmaceutical chemicals and preparations | － |  | 24.1 | 30.8 0.1 | 0.1 8.4 | 1.9 | 2.8 | 7.9 | 12.2 |
| 19 20 | Toilet preparations Paint |  |  | － | 0.1 | 8.4 | 13.0 |  | 0.4 | 2.7 |
| 22 | Synthetic resins，plastic materials and synthetic rubber | 二 | － |  |  |  | － |  |  |  |
| 23 | Dyestuffs and pigments |  | － | $3 \cdot 8$ | 0.3 | 1.0 | 6.1 | 0.1 | 12.7 | 0.5 |
| 24 | Fertilizers | 0.8 |  |  |  |  |  |  |  |  |
| 25 | Other chemical industries | 0.1 | 5.9 | $9 \cdot 3$ | 14.3 |  |  |  |  | － |
| 26 27 | Iron castings，etc． Other iron and steel |  |  |  | $14 \cdot 3$ | 0.7 | 1.1 |  | 10.1 | 0.2 |
| 28 | Aluminium and aluminium alloys |  | 41.2 | － | 38.9 | 0.1 | 0.6 | 1.4 | 1.0 |  |
| 29 | Other non－ferrous metals |  |  |  | $0 \cdot 3$ | 0.2 | 3.5 | 0.1 | 16.9 | 0.1 |
| 30 | Agricultural machinery | 1.8 |  |  |  |  | － |  |  | － |
| 31 | Machine tools |  |  |  |  |  |  |  |  | － |
| 32 | Pumps，valves and compressors |  | $3 \cdot 4$ | $3 \cdot 9$ |  |  |  | － | － |  |
| 33 34 | Industrial engines | － | 1.5 | $2 \cdot 2$ | － | 0.3 | 0.4 | 0.5 |  |  |
| 35 | Construction and mechanical handling equipment |  |  |  |  | － |  | 0.5 | $0 \cdot 3$ | 0.1 |
| 36 | Office machinery |  | 7.3 0.1 | $9 \cdot 3$ | $2 \cdot 1$ | － | 0.2 | 0.5 | 0.3 |  |
| 37 | Other non－electrical machinery | － | 7.2 | 9.1 | 4.1 |  | 0.1 |  | $0 \cdot 3$ |  |
| 38 | Industrial plant and steel work |  |  |  |  |  | 2.6 | 3.2 | $2 \cdot 2$ | 1.5 |
| $\begin{aligned} & 39 \\ & 40 \end{aligned}$ | Other mechanical engineering Instrument engineering | － | 21.2 | 17.4 | $8 \cdot 4$ | 0.3 3.2 | 0.5 3.7 | 0.5 | $0 \cdot 3$ | 0.1 |
|  |  |  |  |  | － | － |  |  |  |  |
| 41 | Electrical machinery <br> Insulated wires and cables | － | 8.5 | － | － | － |  |  |  |  |
| 43 | Electronics and telecommunications |  | 7.1 | － | － |  |  |  |  |  |
| 44 | Domestic electrical appliances |  |  |  | － | － |  |  |  |  |
| 45 | Other electrical goods |  |  | 0.9 |  |  |  | － |  |  |
| 46 | Shipbuilding and marine engineering | 58.0 | ＝ | 0.9 |  | － |  |  |  |  |
| 48 | Wheeled tractors |  | － |  |  |  |  |  |  |  |
| 49 | Aerospace equipment | 1.7 | － | 4.0 | － | 0.1 | 0.6 | － | 0.1 | 0.6 |
| 50 | Other vehicles |  | － |  |  |  |  |  | － |  |
| 51 | Engineers＇small tools |  |  |  |  |  |  |  |  |  |
| 52 | Cutlery and jewellery |  | 13.1 | 15.9 | $4 \cdot 1$ | 0.3 | $0 \cdot 6$ | 0.5 | $0 \cdot 6$ | 0.7 |
| 53 | Bolts，nuts，screws，etc． |  |  |  |  | － | － | － |  |  |
| 54 55 | Wire and wire manufactures | － | 2.8 |  |  |  |  |  |  |  |
| 56 | Other metal goods |  |  |  | $1 \cdot 3$ | 0.8 | 12.5 | 0.6 | 7.6 | 3.7 |
| 57 | Production of man－made fibres | 5.0 | 12.1 | $18 \cdot 3$ | $10 \cdot 3$ | $1 \cdot 9$ | 2.7 | $2 \cdot 3$ | $2 \cdot 6$ | 4.7 |
| 58 | Cotton，etc．spinning and weaving |  |  |  |  |  |  | ， | － | － |
| 59 60 | Woollen and worsted Hosiery and knitted goods |  |  |  |  |  |  |  |  |  |
|  | Hosiery and knitted goods | － | － | － | － | － | － |  | － |  |
| 61 | Carpets |  |  |  |  |  |  |  |  |  |
| 62 63 | Household textiles and handkerchiefs Textile finishing |  | － | － |  | － | 二 | － | － |  |
| 64 | Other textiles | 56.4 | 0.2 | 1.0 |  |  |  |  |  |  |
| 65 | Leather，leather goods and fur | 56.4 | 0.2 | 1.0 | － | $3 \cdot 3$ | 0. | $4 \cdot 1$ | － | $1 \cdot 2$ |
| 66 | Clothing | － | 4.9 |  |  |  |  | 0.5 |  |  |
| 67 | Footwear |  |  |  |  |  |  | 0.5 |  |  |
| 68 | Bricks，fireclay and refractory goods Pottery and glass | － | 1.9 | － | － |  |  |  |  |  |
| 70 | Cement |  | 0.3 | $4 \cdot 3$ | 0.6 | 0.1 | 0.1 | － | 1.1 | 2.1 |
| 71 | Other building materials，etc． |  |  |  |  |  |  |  |  |  |
| 72 | Furniture and bedding，etc． | 0.1 | 0.6 | 0.1 | － | － | － | － | － | － |
| 73 | Timber and miscellaneous wood manufactures | $3 \cdot 4$ | 11.6 | 0.6 | 2.1 | 0.6 | 0.8 | 0.5 |  |  |
| 74 | Paper and board |  |  |  | 0.2 | 9.1 | 9.6 | 5.1 | 18.3 18.4 | 0.7 1.2 |
| 76 | Packaging products of paper，board，etc． Other paper and board products | － | － | 7.0 | 15.4 | 24.0 | 26.1 | 11.6 | 34.4 | 9.3 |
| 77 | Printing and publishing | $2 \cdot 5$ | 1.1 0.6 | 0.9 0.9 | 2.0 | 0.3 | 1.3 | 0.5 | 1.2 | 1.4 |
| 78 | Rubber | 二 | 0.6 6.2 | 0.9 3.0 | － | － | $0 \cdot 7$ | － | 2.7 | $0 \cdot 6$ |
| 79 80 | Plastic products n．e．s． |  | $6 \cdot 2$ | 3.0 | $2 \cdot 3$ | 0.4 1.5 | 0.8 2.3 | 0.4 1.4 | 0.3 5.1 | 1.2 1.3 |
| 80 | Other manufacturing | － | 0.2 | 0.5 | $2 \cdot 3$ | 1. | 0.1 | 1.4 | 5． 0.6 | 10.6 0.6 |
| 81 | Construction | 18.5 | 32.1 | 40.2 | 0.1 | 1.7 | 1.8 | 1.8 | 1.6 |  |
| 83 | Electricity | 4－ | 0.1 | 0.5 | － | 1.0 | $3 \cdot 3$ | 0.5 | 0.9 | 0.4 |
| 84 | Water supply | 4.3 1.7 | 40.1 0.5 | $\begin{array}{r}37.4 \\ 0.5 \\ \hline\end{array}$ | 18.6 | 10.3 | 7.7 | 1.9 | 8.2 | 7.0 |
| 85 | Railways | 6.7 | 0.5 9.9 | 0.5 | 0.1 | $4 \cdot 3$ | 0.7 2.2 | 1.4 8.2 | 0.9 50 | 0.7 0.8 |
| 86 87 | Road transport | $0 \cdot 2$ | 11.0 | 8.1 | 4.8 | 22.5 | $\begin{array}{r}15.5 \\ \hline 1.2\end{array}$ | 8.2 34.8 | 19.0 19 | 15.8 15.2 |
| 88 | Other transport | 48.1 | 0.7 | $5 \cdot 2$ | $0 \cdot 4$ | 14.8 | 10.5 | 26.5 | 7.7 | 32.1 |
| 89 | Distributive trades | 4.2 6.4 | 1.6 | 3.0 14.2 | 2.1 | 1.1 | 1.5 | 0.5 | 37.0 | 0.7 |
| 90 | Miscellaneous services | 6.4 73.3 | 5.8 1.4 | 14.2 59.0 | 8.7 39.0 | 40.4 64.9 | 49.7 54.3 | 20.9 22.3 | 47.7 83.2 | 63.3 27.8 |
| 91 | Imports of goods and services | 9.7 | $11 \cdot 3$ |  |  |  |  |  |  |  |
| 92 | Other primary inputs | 643.0 | 723.1 | 569．5 | $\begin{array}{r}1851.3 \\ \hline\end{array}$ | 3841.4 | 242.5 | 356.9 | 15208 | 434.0 148.4 |
| 93 | Total | $1000 \cdot 0$ | 1000.0 | 1000．0 | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ | $1000 \cdot 0$ |

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 $|\vec{\circ}|$ $|\stackrel{\rightharpoonup}{\circ}|$


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Table K Commodity $\times$ commodity flow matrix, 1968 , in coefficient form (continued)

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$\underline{\text { Table K Commodity } \times \text { commodity flow matrix, } 1968 \text {, in coefficient form (continued) }}$

|  |  |  |  |  |  |  |  |  |  | 2000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |  |  |
| $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | Agriculture <br> Forestry and fishing | - | - | - |  |  |  | 5 | 60 | 61 | 62 |
| 3 | Forestry and fishing |  | 3 | - | - | - | 二 | 6.4 | - | 1.5 |  |
| 4 | Stone, slate, chalk, sand, etc. extraction | 1.7 | $1 \cdot 3$ | 0.7 | 0.6 | 7.3 | 2.4 | 4.1 | 1.2 | 2.5 |  |
| 5 | Other mining and quarrying |  |  |  | 0.2 |  |  | , | 1.2 | 2.5 | 0.6 |
| 6 | Grain milling |  |  |  | 0.1 |  |  |  |  |  |  |
| 7 | Other cereal foodstuffs <br> Sugar |  |  |  |  |  |  |  |  |  |  |
| 8 | Sugar <br> Cocoa, chocolate and sugar confectionery |  |  |  | - |  |  |  |  |  |  |
| 10 | Cocoa, chocolate and sugar confectionery Oils and fats |  | 0.1 |  |  |  |  |  |  |  |  |
| 11 | Other food |  |  |  |  |  |  | 2.0 | - | - |  |
| 12 | Soft drinks |  |  |  |  | - | - | - | - | 1.0 |  |
| 13 | Alcoholic drink |  |  |  |  |  |  |  |  |  |  |
| 15 | Tobacco Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  |  |  |
| 16 | Mineral oil refining, lubricating oils and greases | $5 \cdot 8$ | 0.4 3.7 | 1.3 | 0.6 5.9 | 1.2 | 0.2 |  |  |  |  |
| 17 | General chemicals | 2.6 | 3.7 3.0 | $1 \cdot 3$ | 5.9 | 11.1 | 3.9 | 3.7 | 2.4 | 4.4 |  |
| 18 | Pharmaceutical chemicals and preparations |  | 3 | 5.7 | 7.4 | 111.7 | 8.4 | 0.1 | 0.8 |  | 3.2 2.0 |
| 19 | Toilet preparations |  |  |  |  |  |  |  |  |  |  |
| 20 | Paint | 0.1 | 0.6 | 17.8 | 5.3 |  |  |  |  |  |  |
| 21 | Soap and detergents |  |  |  |  |  |  |  |  |  | 0.1 |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 1.1 | 6.0 | 4.5 |  |  |  | 2.0 | - |  |  |
| 23 | Dyestuffs and pigments | 1 | 6 | 4.5 | 1.3 | 117.0 2.8 | 7.9 1.2 | 0.5 | 1.1 | 12.7 | $2 \cdot 6$ |
| 24 | Fertilizers |  |  |  |  |  | 1.2 | 4.2 | 2.5 | 8.1 | 1.7 |
| 25 | Other chemical industries | 0.3 | $0 \cdot 4$ | 2.9 | 0.9 | 0.3 |  |  | 2 |  |  |
| 26 27 | Iron castings, etc. Other iron and steel | $0 \cdot 4$ | $0 \cdot 3$ | 0.2 | 8.1 | 0.3 |  |  | 0.2 | 1.0 |  |
| 28 | Aluminium and aluminium alloys | $140 \cdot 6$ | $242 \cdot 1$ | 421.2 | $148 \cdot 3$ |  |  |  |  |  |  |
| 29 | Other non-ferrous metals | 49.7 | 28.4 93.9 | 16.8 | 27.5 |  |  |  |  |  |  |
| 30 | Agricultural machinery |  |  | 10.2 | 56.1 |  |  |  |  |  |  |
| 31 | Machine tools | $9 \cdot 3$ | 2.2 | 1.5 |  |  |  |  |  |  |  |
| 32 | Pumps, valves and compressors | 0.2 | 2.2 0.1 | 0.1 | 2.2 | - | - | - |  | - |  |
| 33 | Industrial engines | 0.9 | 0.4 | 0.1 | 0.5 |  |  |  |  |  |  |
| 34 | Textile machinery |  |  |  |  | 15.2 | $8 \cdot 4$ | $4 \cdot 3$ | 1.2 | $5 \cdot 6$ |  |
| 35 | Construction and mechanical handling equipment | 0.8 | 0.4 | 0.7 | 0.4 |  |  |  |  | $5 \cdot 6$ | 3.1 |
| 37 | Other non-electrical machinery | 0.8 0.9 | 0.4 |  | 0.1 | $0 \cdot 3$ |  |  |  |  |  |
| 38 | Industrial plant and steel work |  | 0.1 | 0.1 | 0.1 | - | 0.7 |  |  | - | 0.2 |
| 39 | Other mechanical engineering | 22.2 | 6.1 | 2.4 |  | 6.2 | 5.7 |  |  |  |  |
| 40 | Instrument engineering | 0.1 | 0.1 | - | 0.6 |  | 5.7 | 7.6 | 4.8 0.2 | $4 \cdot 6$ | 3.8 |
| 41 | Electrical machinery | 0.2 | 0.1 | - |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables |  | 0.2 |  | 0.4 |  | - | - |  |  |  |
| 43 | Electronics and telecommunications |  | 0.7 | 二 | 1.3 | - | - |  | 0.2 |  |  |
| 44 | Domestic electrical appliances |  |  |  |  |  |  |  | 0.2 |  |  |
| 45 | Other electrical goods |  | 0.1 | - | 0.3 | - |  |  |  |  |  |
| 46 | Shipbuilding and marine engineering |  |  |  |  |  |  |  |  |  |  |
| 47 | Wheeled tractors | - |  |  | - |  |  |  |  |  |  |
| 49 | Merospace equipment | 0.3 | 1.2 | 0.4 | 3.2 |  |  | 0.1 |  |  |  |
| 50 | Other vehicles |  |  |  | 0.1 | - |  |  |  |  |  |
| 51 | Engineers' small tools | 21.1 |  |  |  |  |  |  |  |  |  |
| 52 | Cutlery and jewellery |  | 8.0 | $5 \cdot 1$ | ${ }_{2}^{6.5}$ | $0 \cdot 3$ |  | - | - | - |  |
| 53 | Bolts, nuts, screws, etc. | 21.8 | 0.2 | 0.1 | 6.3 |  |  |  |  |  | 0.1 |
| 54 | Wire and wire manufactures | $104 \cdot 5$ | 128.8 | 0.2 | 14.9 |  |  |  |  |  | 0.1 |
| 56 | Cans and metal boxes |  |  | 89.8 | 0.8 |  |  |  |  |  |  |
| 57 | Production of man-made fibres | $12 \cdot 6$ | 6.1 | 1.7 | 59.2 | 0.9 | 1.1 | 1.4 | 4.5 | 1.0 | 1.8 |
| 58 | Cotton, etc. spinning and weaving |  | 0.2 |  | 1.6 | 1.3 | 171.4 228.8 | 41.1 | 92.1 | 32.1 | 52.7 |
| 59 | Woollen and worsted |  |  | 0.7 |  | 1.6 |  | 16.1 | 85.8 | 131.5 | 274.7 |
| 60 | Hosiery and knitted goods |  |  | 0.7 | 0.2 |  | 4.8 1.0 | 258.1 0.1 | 202.7 | 167.9 | 529 |
| 61 | Carpets |  |  |  |  |  |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs |  |  | - |  | - |  | 0.1 |  | 8.1 |  |
| 63 | Textile finishing |  |  |  | $0 \cdot 3$ |  | 0.6 |  | 0.1 |  | 49.7 |
| 64 | Other textiles | 1.7 | $2 \cdot 2$ | 0.1 | 2.7 | 2.5 | 1.0 | 2.2 | 17.5 | 14.2 | 7.1 3.3 |
| 65 | Leather, leather goods and fur |  |  | - | 0.6 | - | - | 8.0 | 0.5 | $2 \cdot 6$ | 0.3 |
| 67 | ${ }_{\text {Clothing }}$ |  |  |  | - | 0.6 | - | - | 11.7 | - | $1 \cdot 2$ |
| 68 | Bricks, fireclay and refractory goods |  |  |  |  |  | - | - | - | - | - |
| 69 | Pottery and glass |  | 0.5 |  | 0.3 2.7 |  | 0.8 |  |  |  | 0.3 |
| 70 | Cement |  | - |  | 0.1 | - |  |  |  |  | 0.3 |
| 71 | Other building materials, etc. | 3.4 | 1.7 | 1.5 | 1.4 |  |  |  |  |  |  |
| 72 | Furniture and bedding, etc. |  | 0.1 |  | 0.9 |  | 0.1 |  |  |  | $0 \cdot 3$ |
| 73 74 | Timber and miscellaneous wood manufactures | - | 2.7 | 0.8 | 3.8 | 0.3 | 0.5 | 0.5 | 0.4 | 1.5 | 0.8 |
| 75 | Paper and board Packaging products of paper, board, etc. |  | 0.2 | $2 \cdot 1$ | 1.5 | 1.9 | 1.2 | 1.2 | 2.9 |  | $2 \cdot 6$ |
| 76 | Other paper and board products | 7.4 2.5 | 3.4 | 5.0 | 6.5 | 9.9 | 4.6 | $2 \cdot 6$ | 8.7 | 0.8 | 11.3 |
| 77 | Printing and publishing | 2.7 | 1.0 | 1.8 2.8 | 1.8 2.6 | 2.5 1.8 | 0.5 0.3 | 0.3 1.2 | 0.9 0.3 | 1.0 0.8 | 1.2 |
| 78 | Rubber | $2 \cdot 5$ | 1.6 | 1.4 | 6.4 | 1.2 | 1.2 | 0.7 | 7.1 | 13.5 | 0.4 |
| 79 | Plastic products n.e.s. | 2.5 | 3.1 | 1.5 | 9.6 | 2.5 | 1.0 | 0.9 | 2.7 | 2.5 | 0.4 3.7 |
| 80 | Other manufacturing | 0.8 | 0.4 | 0.7 | $0 \cdot 3$ | $0 \cdot 3$ | 0.2 | 0.2 | 0.2 | 0.5 | 2.5 |
| 81 | Construction | $2 \cdot 6$ | 1.3 | 0.8 | 1.9 | 1.5 | $2 \cdot 6$ | 2.5 | 2.2 | 2.0 | 1.8 |
| 82 | Gas | $3 \cdot 4$ | 6.6 | 5.0 | 5.7 | 1.5 | 0.3 | 0.2 | $0 \cdot 4$ | 0.5 | 0.1 |
| 83 | Electricity | 15.1 | 16.4 | 5.8 | 12.4 | 18.5 | 17.3 | 10.8 | 5.7 | $5 \cdot 3$ | 6.5 |
| 84 | Water supply | 0.8 | $0 \cdot 9$ | 5 | 0.7 | 1.5 | 0.4 | 0.7 | 0.4 | $0 \cdot 5$ | 0.1 |
| 85 | Railways Road transport | $3 \cdot 3$ | 1.8 | 5.7 | 2.8 | 1.5 | 1.1 | 2.0 | 1.9 | 2.9 | 4.8 |
| 87 | Other transport | 11.9 | 19.7 | 22.0 | 10.8 | 11.3 | $5 \cdot 3$ | 6.4 | 4.2 | ${ }^{13 \cdot 3}$ | 6.8 |
| 88 | Communication | $4 \cdot 1$ | 2.6 | 2.1 | 4.2 | ${ }_{0} 6$ | 1.7 | 2.3 | 2.8 | 2.8 | 5.0 |
| 89 | Distributive trades | 18.1 | 27.4 | 43.6 | 31.2 | 5.6 | 24.3 | 28.2 | 16.0 | 19.7 | 28.0 |
| 90 | Miscellaneous services | $43 \cdot 8$ | 24.5 | 23.7 | 45.9 | 83.8 | 29.2 | 23.2 | 46.0 | 43.5 | 17.5 |
| 91 | Imports of goods and services | 27.7 | 85.5 | $35 \cdot 2$ | 36.8 | $130 \cdot 3$ | 159.8 | 215.8 | 39.2 | 83.9 |  |
| 92 | Other primary inputs | 446.5 | 255.7 | $253 \cdot 6$ | 423.8 | 405.5 | 288.9 | 267.0 | 72.4 | 314.7 | $239.6$ |
| 93 | Total | $000 \cdot 0$ | 000.0 | $000 \cdot 0$ | 000 | 10000 | 000 | 00.0 | 00.0 | $1000 \cdot 0$ | $1000 \cdot 0$ |
















 \& $\mid$ N:

Table K Commodity $\times$ commodity flow matrix， 1968 ，in coefficient form（continued）

|  |  |  |  |  | \％ |  |  |  |  |  | $\begin{aligned} & \text { O} \\ & \text { O} \\ & \text { O} \\ & \text { D } \\ & \text { E } \\ & \text { E } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 |  |
| 1 | Agriculture | － | 0.5 |  |  |  |  |  |  | 87 | 88 |
| 3 | Forestry and fishing |  | － |  | － | 0.5 | － | 二 | － | $2 \cdot 3$ |  |
|  | Soal mining ${ }^{\text {Stone，slate，chalk，sand，etc．extraction }}$ | $1 \cdot 6$ | $2 \cdot 2$ | 0.2 15.5 | 118.3 | 202.1 | $3 \cdot 9$ | 1.4 |  | $0 \cdot 3$ |  |
| 5 | Other mining and quarrying | － |  | 15 | $25 \cdot 8$ | － | － | 1.2 |  |  |  |
| 6 | Grain milling ${ }^{\text {Other cereal foodstuffs }}$ |  |  | － |  |  |  |  |  |  |  |
| 7 | Other cereal foodstuffs |  |  |  |  |  |  |  |  | 0.3 |  |
| 8 | Sugar | － | － |  |  |  |  |  |  | 1.1 |  |
| 10 | Cocoa，chocolate and sugar confectionery Oils and fats | 0.1 | 3.8 |  | 1 |  |  |  |  | 0.3 0.6 |  |
| 11 | Other food | － | 0.9 |  |  | $\square$ | － |  | － | － |  |
| 12 | Soft drinks | 二 | 0.9 | 二 | 二 | － | － | － | － | $2 \cdot 3$ |  |
| 13 | Alcoholic drink | － | － | － |  |  |  |  |  | － |  |
| 14 15 | Tobacco Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  | 2.5 |  |
| 15 16 | Coke ovens and manufactured fuel Mineral oil refining，lubricating oils and greases | $5 \cdot 0$ | 0.3 8.3 | 0.1 4.9 | 19.9 95.4 | 0.6 | 0.6 |  |  |  |  |
| 17 | General chemicals | 21.2 | 84.0 34 | 4.9 0.7 | $95 \cdot 4$ 3.3 | 23.0 2.7 | 1.9 10.0 | 14.7 | 19.9 | 12.3 | 1.0 |
| 18 | Pharmaceutical chemicals and preparations | 0.1 | 0.1 | －7 |  | 2.7 | 10.0 |  |  | 0.7 | 10 |
| 19 | Toilet preparations |  | ， | － |  |  |  |  |  |  |  |
| 20 | Paint | 0.3 | $4 \cdot 3$ | $8 \cdot 4$ | － | － | － | 3.4 | 1.5 |  |  |
| 21 | Soap and detergents |  | 0.9 | － | － | 0.1 |  |  |  |  |  |
| 22 23 | Synthetic resins，plastic materials and synthetic rubber Dyestuffs and pigments | 217.7 2.3 | 59.5 7.0 | 二 | 二 | 0.1 | 二 | 7.7 | $1 \cdot 6$ | － |  |
| 24 | Fertilizers |  | 7.0 | 二 |  |  | 0.1 |  |  |  |  |
| 25 | Other chemical industries | $4 \cdot 9$ | 2.4 |  |  |  | 0.1 |  |  |  |  |
| 26 | Iron castings，etc． |  | － | 6.7 | 12.2 |  |  |  |  |  |  |
| 27 | Other iron and steel | 1.5 | $9 \cdot 6$ | 19.6 | 14.9 | － | 35.0 | 24.3 | － |  | 0.8 |
| 28 29 | Aluminium and aluminium alloys Other non－ferrous metals | 1.3 | 3．2 |  |  |  | － | $24 \cdot 3$ | － | 0.3 | 0.7 |
| 29 30 | Other non－ferrous metals Agricultural machinery | $0 \cdot 6$ | $12 \cdot 3$ | 6.1 | $2 \cdot 3$ | － | $5 \cdot 6$ |  |  |  |  |
| 32 | Pumps，valves and compressors |  |  | 0.8 | $1 \cdot 3$ | 0.1 1.0 | 11.7 |  | 二 | － | － |
| 33 <br> 34 | Industrial engines－ | 0.6 | 0.6 | 0.8 | － | 1.0 | 1.7 | ${ }_{1} 0.6$ |  |  |  |
| 35 | Construction and mechanical handling equipment | $0 \cdot 3$ | 0.3 | 5.0 |  | － | － | － |  |  |  |
| 36 | Office machinery | 0.3 | O | 0.1 | 0.2 | 0.1 |  |  |  | 1.4 |  |
| 37 | Other non－electrical machinery | 0.4 | 1.2 | 18.7 | 0.2 | 0.1 |  | 0.4 | 0.2 | － | $0 \cdot 4$ |
| 38 | Industrial plant and steel work | $0 \cdot 3$ | $0 \cdot 3$ | $32 \cdot 6$ | 6.0 | $2 \cdot 2$ | 1.1 |  |  |  |  |
| 39 40 | Other mechanical engineering | 7.5 | 6.4 | 3.1 | 0.5 | 1.1 | 8.9 |  |  | 0.4 |  |
|  |  | $0 \cdot 3$ | 0.4 | － | 2.5 | 0.1 | 0.6 | － |  | － |  |
| 41 | Electrical machinery | － | $0 \cdot 9$ |  | － | 11.3 | － | 8.1 | － | 0.7 | $1 \cdot 3$ |
| 43 | Electronics and telecommunications | ${ }_{0} 0.2$ | 0.3 0.9 | 3.9 | － | 18.4 | － | 4.0 | － |  | 31.0 |
| 44 | Domestic electrical appliances | － |  |  |  | 10.1 |  |  | － | － | 11.7 |
| 45 | Other electrical goods | － | 0.1 | $6 \cdot 2$ |  | 0.5 |  |  |  |  |  |
| 46 | Shipbuilding and marine engineering | － | 0 | 6 | － | 0.5 | 0.6 | 8.0 | 11.1 | 1.6 | 2.8 |
| 47 | Wheeled tractors |  |  |  |  |  |  |  | － | 12.4 |  |
| 48 | Motor vehicles | － | 0.2 | 1.2 | 0.7 | 0.2 | 1.1 | $2 \cdot 1$ | 15.0 |  |  |
| 49 50 | Aerospace equipment Other vehicles |  |  |  |  |  |  | $2 \cdot$ | 15.0 | 7.1 | 0.7 |
|  |  | － | － | － | － | － | － | 146.5 | － | － | － |
| 53 | Cutlery and jewellery Bolts，nuts，screws，etc． | 0.9 | 2.5 0.3 | 1.2 |  | － |  | － | － | － | 31 |
| 54 | Wire and wire manufactures | 2.0 | 4.7 | 2.5 |  | $0 \cdot 2$ |  |  |  |  | 0.5 |
| 55 | Cans and metal boxes |  | 1.9 |  |  |  |  | $9 \cdot 6$ | 2.5 |  | 11.1 |
| 56 | Other metal goods | 30.4 | 17.6 | 8.6 | 16.7 | 0.2 | $3 \cdot 4$ | 1.1 | 0.6 |  |  |
| 57 | Production of man－made fibres | 0.5 | $0 \cdot 4$ |  |  | ， |  | 1.1 | 0.6 | － | 0.6 |
| 58 | Cotton，etc．spinning and weaving | 2.8 | 14.5 | － | － | 0.5 | － |  |  |  |  |
| 59 | Woollen and worsted | 0.1 | $2 \cdot 6$ |  |  | O |  |  |  |  |  |
| 60 | Hosiery and knitted goods | 0.1 | 6.5 | － | － | － | － | － | － | － |  |
| 61 | Carpets | － | － | － | － | － |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs | － | － | － | － | － | － | － | 0.4 |  |  |
| 64 | Textie tinishing | $2 \cdot 4$ | 10.5 | 0.8 | － | － | $3 \cdot 3$ |  |  |  |  |
| 65 | Leather，leather goods and fur | $0 \cdot 3$ | 2.0 | － |  |  | $3 \cdot 3$ | $2 \cdot 8$ | 0.3 | 0.6 |  |
| 66 | Clothing |  | － | － | 0.2 | － | $1 \cdot 1$ | $5 \cdot 1$ | 1.7 | $1 \cdot 3$ | 7 |
| 67 | Footwear | 0.2 | － | － | 0.4 |  |  |  |  |  | 7 |
| 68 | Bricks，fireclay and refractory goods | － | － | 17.1 | － | － | $5 \cdot 0$ | 2.0 | － | 0.3 | 0.5 |
| 69 | Pottery and glass | 3.4 | $3 \cdot 6$ | 7.1 |  |  |  | 1.5 |  |  | 0.1 |
| 70 | Cement | － | － | 9.9 | － | － | 1.1 | 0.8 | － | 0.1 | 0.7 |
| 71 | Other building materials，etc． | 1.5 | 3.1 | 50.7 | － | － | 11.1 | $10 \cdot 6$ | － | 0.3 | 0.1 |
| 72 | Furniture and bedding，etc． Timber and miscellaneous wood manufactures | $2 \cdot 9$ | 11.5 | $43 \cdot 8$ | $0 \cdot 4$ | － | － |  |  |  |  |
| 74 | Paper and board | $12 \cdot 3$ | $22 \cdot 9$ | － | 0.1 |  |  | $3 \cdot 3$ | － |  | 0.5 |
| 75 | Packaging products of paper，board，etc． | 12.7 | 25.1 |  |  |  |  |  |  |  |  |
| 76 | Other paper and board products | 2.4 | 3.4 | 2.5 | － | 1.8 | 1.7 | 3.7 | 3.1 | 1.3 | $2 \cdot 4$ |
| 77 | Printing and publishing | 2.2 | 7.2 | 0.8 | 3.2 | 1.2 | 1.1 | 1.6 | 2.0 | 0.9 | 6.0 |
| 78 | Rubber | 4.2 | 6．2 | 1.2 | $0 \cdot 9$ | 0.2 | 1.1 | $1 \cdot 3$ | $20 \cdot 9$ | 0.8 | 0.5 |
| 79 | Plastic products n．e．s．s． Other manufacturing | 25.4 | 20.1 | 6.6 | － |  | $8 \cdot 9$ |  | 0.6 |  |  |
| 80 | Other manufacturing | 0.8 | 21.5 | 0.1 | － | 0.2 | 0.6 | 1.0 | 1.0 | 0.7 | 0.6 |
| 81 | Construction | $2 \cdot 1$ | 1.8 | 161.3 | 47.7 | 1.0 | 2.8 | 1.0 | 0.4 | 1.5 | 4.7 |
| 82 | Gas | 1.1 | 2.2 | $0 \cdot 4$ | 22.3 | 0.3 | 0.6 | 0.3 | 0.1 |  | 0.5 |
| 83 | Electricity | 17.3 | 10.2 | 2.2 | 11.4 | 17.8 | 51.8 | 37.4 | $3 \cdot 3$ | 7.3 | 6.0 |
| 84 85 | Water supply Railways | 0.7 | 1.0 |  | $0 \cdot 4$ | 0.6 | 49.4 | $0 \cdot 4$ | 1.0 | 0.7 | $0 \cdot 3$ |
| 85 86 | Railways Road transport | 2.7 | 4.8 | 0.7 | 14.7 | 18.7 | $0 \cdot 6$ | $0 \cdot 2$ |  | － | 20.2 |
| 86 87 | Road transport Other transport | 15.4 3 | 12.8 5.8 | 15.7 1.0 | 7.8 13.3 | 7.0 | 1.8 | 0．8 | 11.5 1.8 | 129.4 | 1.9 23.2 |
| 88 | Communication | 4.9 | $5 \cdot 1$ | 2.8 | 4.9 | 3.1 | 4.5 | 13.8 | $3 \cdot 2$ | 4.3 | 23.2 2.6 |
| 89 | Distributive trades | 13.4 | 16.5 | 10.5 | 6.0 | 1.7 | 4.5 | 5.7 | 6.5 | $2 \cdot 6$ | $30 \cdot 3$ |
| 90 | Miscellaneous services | 52.8 | 67.7 | 25.7 | $12 \cdot 5$ | $33 \cdot 3$ | 10.2 | 19.0 | 28.7 | 26.4 | 14.4 |
| 91 | Imports of goods and sorvices | 75.0 | 87.6 | 20.2 | $45 \cdot 0$ | 6.8 | $5 \cdot 1$ | 6.6 | 8.9 | $388 \cdot 3$ | 38.2 |
| 92 | Other primary inputs | $431 \cdot 6$ | 431.7 | $470 \cdot 6$ | 88.2 | 27.6 | 46.3 | 46.0 | 52.4 | 386.6 | 79.2 |
| 93 | Total | $000 \cdot 0$ | $000 \cdot 0$ | $1000 \cdot 0$ | 00.0 | 00.0 | 00.0 | 00 0 | $1000 \cdot 0$ | $1000 \cdot 0$ | 000．0 |



Table L Total requirements per 1000 units of domestic commodity output in terms of gross output, 1968

|  |  | $\begin{aligned} & \frac{0}{2} \\ & \frac{3}{3} \\ & \frac{0}{6} \end{aligned}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & \frac{2}{\circ} \\ & 0 \\ & 0 \\ & 0 \\ & \hline \overline{0} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $\underline{9}$ | 10 |
| 1 2 | Agriculture | $1024 \cdot 3$ |  | 0.1 | 0.5 | 21.2 | $165 \cdot 3$ |  | 205.8 | 497 | 10 |
| 3 | Forestry and fishing Coal mining | 0.9 7.5 | 1000.1 3 | 0.1 10120 | 0.1 | 0.6 | 0.6 | 135.8 4.6 | 205.8 0.3 | 49.7 1.0 | 58.4 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 7.5 3.5 | 3.0 | $1012 \cdot 0$ | 14.7 | 18.1 | 6.1 | 7.0 | 19.3 | 9.8 | 0.8 |
| 5 | Other mining and quarrying | 0.3 | 0.6 0.2 | 1.3 | 1001.2 | 0.7 | 0.8 | 0.9 | 2.7 | 0.8 | 5.1 |
| 6 | Grain milling | 19.7 | 0.5 | 0.5 | 0.4 | $1000 \cdot 5$ | 0.2 | 0.5 | 0.2 | 0.3 | 0.5 |
| 7 | Other cereal foodstuffs | 173.4 | 3.5 | - | 0.1 | 0.9 | 1003.7 | 116.1 | $4 \cdot 2$ | 6.9 | 0.2 23.0 |
| 8 | Sugar | 6.0 | 0.2 |  | 0.1 | 3.7 | 30.7 | 1023.5 | $35 \cdot 4$ | 9.0 |  |
| 9 | Cocoa, chocolate and sugar confectionery | 2.1 | 0.2 0.1 |  | 0.1 | 0.8 0.1 | 7.8 | 21.7 | 1001.3 | 79.7 | 11.3 3.0 |
| 10 | Oils and fats | 5.2 | 0.4 | 0.2 | 0.5 | 0.1 1.6 | 1.0 9.2 | 12.1 28.4 | 0.5 | $1000 \cdot 3$ | 1.5 1.5 |
| 11 | Other food | 6.5 | 3.7 | 0.1 |  |  |  |  |  |  | 1001.0 |
| 12 | Soft drinks | 2.6 | 3.1 | 0.1 | 0.2 | 1.6 | 4.7 | 31.0 | 9.1 | 71.8 |  |
| 13 | Alcoholic drink | $0 \cdot 3$ | $0 \cdot 3$ |  | 0.2 | 1.1 0.2 | 0.4 0.3 | 0.3 | 0.5 | 0.1 | 11.0 0.1 |
| 14 | Tobacco |  |  |  | 0.2 | $0 \cdot 2$ | 0.3 | 1.1 | 0.2 | $1 \cdot 3$ | 0.3 |
| 15 | Coke ovens and manufactured fuel | 0.8 | 0.6 | $3 \cdot 0$ | 1.7 | 2.7 | 0.4 |  |  |  |  |
| 16 | Mineral oil refining, lubricating oils and greases | 19.7 | $45 \cdot 9$ | 8.1 | 60.7 | 22.3 | 8.4 | 1.0 14.2 | 1.9 10.9 | 1.3 | $0 \cdot 6$ |
| 17 | General chemicals | 13.8 | 4.9 | 3.5 | 30.5 | 35.7 | 5.3 | 14.2 9.8 | $10 \cdot 9$ 7.2 | $10 \cdot 3$ | $15 \cdot 2$ |
| 18 | Pharmaceutical chemicals and preparations | 5.1 | 0.2 |  | 0.1 | 0.3 | $9 \cdot 3$ | 14.8 | 1.1 | 16.8 | 15.6 3 |
| 20 | Toilet preparations Paint | 0.2 1.4 | 0.3 0.6 | 0.1 0.7 | 0.3 | 0.2 | $0 \cdot 3$ | 0.3 | 0.1 | 0.4 | 3.2 0.3 |
| 21 | Soap and detergents | 0.7 | 0.2 |  |  |  |  |  |  | 0 | $0 \cdot 3$ |
| 22 | Synthetic resins, plastic materials and synthetic rubber | $3 \cdot 2$ | 2.5 | 1.9 | 5.7 | $0 \cdot 2$ | 0.5 | 0.6 | 0.4 | 0.5 | 0.9 |
| 23 | Dyestuffs and pigments | $0 \cdot 3$ | 0.2 | 0.2 | 5 | 2.6 0.3 | 3.3 | 9.6 | 2.0 | 17.2 | 2.5 |
| 24 | Fertilizers | $55 \cdot 2$ | 1.1 | 0 | 0.1 | 0.3 1.3 | 0.2 | 0.4 | $0 \cdot 2$ | 0.5 | 0.3 |
| 25 | Other chemical industries | 6.3 | 0.8 | 6.7 | 10.6 | 15.7 | 8.9 3.0 | 7.4 | 11.1 | 2.8 | $3 \cdot 2$ |
| 26 | Iron castings, etc. | 1.3 | 1.4 | 4.2 | 2.6 | 2.7 | 0.7 |  | 2.1 0.9 | 12.9 1.1 | 1.5 |
| 27 | Other iron and steel | 6.4 | $8 \cdot 4$ | 54.1 | 12.9 | 45.7 | 0.7 4.0 | 1.2 10.9 | 0.9 | 1.1 | 0.7 |
| 28 | Aluminium and aluminium alloys | 1.5 | $0 \cdot 9$ | 1.9 | 1.8 | 1.5 | 1.1 | 10.9 5.2 | $6 \cdot 3$ | 10.0 | $5 \cdot 2$ |
| 29 | Other non-ferrous metals | 2.1 | 2.8 | 7.7 | 5.6 | 3.8 | 1.5 | 5.2 2.4 | 0.9 1.6 | 18.5 3.2 | 1.4 |
| 30 | Agricultural machinery | 6.6 | 1.8 | - | - | 0.1 | 1.1 | 2.4 0.9 | 1.6 1.3 | 3.2 0.3 | 1.8 0.4 |
| 31 | Machine tools | 0.1 | 0.3 | 0.4 | 0.4 | 0.2 |  |  |  |  |  |
| 32 | Pumps, valves and compressors | 1.0 | $1 \cdot 3$ | 4.8 | $5 \cdot 8$ | 0.9 | 0.5 | 0.6 | 0.1 0.7 | 0.1 0.6 |  |
| 33 | Industrial engines | 0.5 | 0.3 | $2 \cdot 1$ | $2 \cdot 8$ | $0 \cdot 3$ | 0.5 | 0.6 0.7 | 0.7 0.7 | 0.6 | 0.5 |
| 34 | Textile machinery | 0.1 | 0.5 |  |  | - | 0.1 | 0.7 | 0.7 | 0.6 | 0.2 |
| 35 | Construction and mechanical handling equipment | $0 \cdot 3$ | 1.1 | 7.8 | $9 \cdot 8$ | 2.4 | 0.2 | 0.5 | 0.8 |  |  |
| 36 37 | Office machinery | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.8 | 0.6 0.4 | 0.2 0.1 |
| 37 38 | Other non-electrical machinery Industrial plant and steel work | 3.6 1.1 | 2.4 | 8.3 | 10.6 | 4.9 | 3.1 | 4.2 | 4.4 | 0.4 3.7 | 0.1 2.3 |
| 39 | Other mechanical engineering | 3.6 | 0.9 3.1 | 25.4 | ${ }_{21} 1.8$ | 0.4 | 0.7 | 1.1 | 0.9 | 0.8 | 0.4 |
| 40 | Instrument engineering | $0 \cdot 3$ | 0.9 | 0.6 0.6 | 1.8 0.7 | 11.4 0.3 | 5.0 0.2 | 6.8 0.3 | 5.4 0.2 | 9.0 0.3 | $6 \cdot 9$ |
| 41 | Electrical machinery | 0.6 | $1 \cdot 2$ |  |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables | 0.8 | 1.2 | 10.0 | 1.7 | 0.8 1.0 | 0.5 0.7 | 0.6 0.8 | 0.7 | 0.7 | $0 \cdot 5$ |
| 43 | Electronics and telecommunications | $0 \cdot 3$ | 0.6 | 0.6 |  | 0.3 | 0.7 | 0.8 | 0.6 | 0.9 | 0.6 |
| 44 | Domestic electrical appliances | 0.4 | 0.4 | 0.5 | 0.7 | 1.3 0.4 | 0.3 0.5 | 0.3 0.5 | 0.2 | $0 \cdot 4$ | 0.2 |
| 45 | Other electrical goods | 1.5 | 1.6 | 1.0 | $2 \cdot 4$ | 0.8 | 1.6 | 0.5 1.8 | 0.3 1.3 | 0.6 1.9 | 0.4 1.3 |
| 46 | Shipbuilding and marine engineering | 0.2 | 58.8 | 0.1 | 0.2 | 0.1 | 0.3 | 1.8 0.5 | 1.3 0.4 | 1.9 0.3 | 1.3 0.5 |
| 47 | Wheeled tractors | 2.0 | $0 \cdot 1$ | - |  | 0.1 | 0.3 | 1.5 0.3 | 0.4 0.4 | 10.3 0.1 | 0.5 |
| 48 | Motor vehicles | 2.6 | 2.9 | 1.4 | $5 \cdot 7$ | 1.0 | 1.6 | 2.2 | 1.5 | 1.7 |  |
| 49 | Aerospace equipment Other vehicles | 0.1 | 0.4 |  | 0.1 | 0.1 | 0.1 | ${ }_{0} 0.1$ | 10.5 0.2 | 1.7 0.2 | 1.6 0.3 |
| 50 | Other vehicles | 0.8 | 1.3 | 2.0 | 0.5 | 0.5 | 1.0 | 0.9 | 1.6 | 1.3 | 0.5 |
| 51 | Engineers' small tools | 1.0 | 0.8 | 14.5 | 17.4 | $5 \cdot 3$ |  | 1.5 | 1-2 | 1.7 |  |
| 52 | Cutlery and jewellery | $0 \cdot 3$ | $0 \cdot 4$ | 0.3 | 0.5 | $0 \cdot 3$ | $0 \cdot 3$ | 0.4 | 1.2 0.2 | 0.5 |  |
| 53 | Bolts, nuts, screws, etc. | 0.4 | 0.5 | $0 \cdot 8$ | 0.8 | 0.4 | $0 \cdot 2$ | 0.3 | 0.2 | 0.3 | 1.2 0.2 |
| 54 55 | Wire and wire manufactures | 1.4 | 1.3 | $5 \cdot 6$ | 1.6 | 0.9 | $0 \cdot 9$ | 1.1 | 0.9 | 1.2 | 0.6 |
| 55 | Cans and metal boxes | 3.0 | 0.4 | $0 \cdot 3$ | 0.5 | $1 \cdot 9$ | 1.7 | 14.4 | 1.5 | 10.1 | $4 \cdot 6$ |
| 56 57 | Other metal goods Production of man-made fibres | 7.0 | 8.1 3.3 | 18.3 | 24.1 | 14.5 | 4.6 | 6.6 | 5-3 | 6.7 | 6.8 |
| 58 | Cotton, etc. spinning and weaving | 0.5 0.9 | 3.3 4.5 | 0.5 1.3 | $0 \cdot 4$ | $0 \cdot 3$ | 0.5 | 0.4 | 0.5 | 0.4 | 0.3 |
| 59 | Woollen and worsted | 0.3 | 1.5 | 0.7 | 0.2 | 0.1 | 0.8 0.3 | 0.3 | 0.8 0.3 | 0.9 0.3 | 0.6 0.2 |
| 60 | Hosiery and knitted goods | $0 \cdot 1$ | 0.1 | 0.5 |  | 0 | 0.1 | 0.1 0.3 | 0.1 0.1 | 0.3 0.1 | 0.2 |
| 61 | Carpets | $0 \cdot 3$ | 0.5 | 0.1 | 0.4 | $0 \cdot 3$ | 0.5 | 0.5 | 0.2 | 0.6 | 0.3 |
| 62 | Household textiles and handkerchiefs | 0.1 | 0.1 |  | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 63 | Textile finishing | 0.6 | $0 \cdot 4$ | 0.2 | 0.2 | 0.2 | 0.5 | 0.7 | 0.4 | 0.7 | 0.7 |
| 64 | Other textiles | 4.5 | 57.0 | 0.8 | 1.6 | 0.5 | 4.4 | $1 \cdot 9$ | $5 \cdot 3$ | 1.2 | 1.9 |
| 65 66 | Leather, leather goods and fur | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | $0 \cdot 1$ | 0.2 | 0.1 |
| 67 | ${ }_{\text {clothing }}$ | $0 \cdot 6$ | $0 \cdot 3$ | 5.1 | 0.3 | 0.3 | 0.5 | 0.5 | 0.9 | 0.5 | 0.4 |
| 68 | Bricks, fireclay and refractory goods | 2.5 | 0.6 | $3 \cdot 4$ | 1.0 | 0.8 | 0.5 | 0.6 | 0.7 |  |  |
| 69 | Pottery and glass | 0.9 | 0.8 | 0.7 | 0.9 | 1.0 | 0.8 | 1.3 | 0.5 | 2.6 | 0.3 2.5 |
| 70 | Cement | 1.7 | $0 \cdot 4$ | 0.9 | $4 \cdot 9$ | 0.1 | 0.4 | 0.3 | 0.4 | 0.2 | 0.2 |
| 71 | Other building materials, etc. | 9.8 | $1 \cdot 6$ | 3.3 | $2 \cdot 9$ | 0.9 | 1.9 | 1.8 | $2 \cdot 4$ | 1.1 |  |
| 72 | Furniture and bedding, etc. | $0 \cdot 3$ | 0.9 | 0.2 | 0.4 | 0.3 | 0.4 | 0.5 | 0.2 | 0.6 | 0.2 |
| 73 | Timber and miscellaneous wood manufactures | $8 \cdot 3$ | $5 \cdot 3$ | 13.8 | 3.3 | 3.0 | 2.6 | 3.0 | 2.8 | 3.1 | 1.8 |
| 74 75 | Paper and board | 5.2 | 1.8 | 1.4 | 3.7 | 5.8 | 17.0 | 21.1 | 9.7 | 31.2 | 5.7 |
| 76 | Packaging products of paper, board, etc. | 7.7 1.6 | 1.2 3.7 | 1.1 2.0 | 8.6 2.2 | 16.9 3.0 | 26.8 1.5 | 33.3 3 | 14.0 1.4 | 39.7 2.9 | 12.2 |
| 77 | Printing and publishing | 5.1 | $5 \cdot 3$ | 2.2 | 6.0 | 3.7 | 6.1 | 7.6 | 3.4 | 10.6 | 4.5 |
| 78 | Rubber | $5 \cdot 2$ | 2.0 | 7.8 | $5 \cdot 1$ | 1.5 | 2.7 | $3 \cdot 3$ | 2.9 | 2.8 | 2.7 |
| 79 <br> 80 | Plastic products n.e.s. | 2.8 | 1.2 | 1.3 | 1.8 | 3.6 | $2 \cdot 9$ | $4 \cdot 4$ | 2.5 | 7.3 | 2.4 |
| 80 | Other manufacturing | 0.3 | 0.3 | 0.5 | 0.7 | 0.2 | 0.2 | 0.4 | 0.2 | 0.9 | 0.8 |
| 81 | Construction | 18.7 | 20.1 | 33.6 | 42.1 | 2.0 | 5.9 | $6 \cdot 3$ | 6.9 | 4.6 | 3.7 |
| 82 | Gas | 1.7 | 1.1 | $2 \cdot 4$ | 1.9 | 2.1 | 2.0 | 4.8 | 1.4 | 2.5 | 1.2 |
| 83 | Electricity | 17.1 | 9.6 | 45.8 | 44.2 | 24.9 | 16.9 | 17.1 | $8 \cdot 9$ | 16.8 | 12.5 |
| 84 85 | Water supply Railways | 3.8 | $2 \cdot 2$ | 0.9 | 1.3 | 0.8 | 1.1 | 1.9 | 2.5 | 2.2 | 1.5 |
| 86 86 | Railways Road transport | $5 \cdot 6$ | $8 \cdot 3$ | 12.9 | 2.9 | 2.9 | 6.8 | 6.0 | 10.5 | 8.7 | 3.0 |
| 87 | Other transport | 26.7 | 4.3 57.6 | 16.9 | 14.8 17.3 | 10.8 | 32.3 18.9 | 31.0 | 43.6 30.6 | 33.6 15.3 | 23.7 36.5 |
| 88 | Communication | 6.4 | 8.7 | 3.7 | 7.4 | 5.1 | $6 \cdot 3$ | 7.4 | 3.9 | 9.3 | 4.4 |
| 89 | Distributive trades | $56 \cdot 3$ | 12.0 | 12.8 | 20.7 | 15.7 | 54.4 | 72.0 | $35 \cdot 5$ | 64.4 | 71.2 |
| 90 | Miscellaneous services | 49.2 | 87.7 | 16.2 | 76.8 | 52.5 | $83 \cdot 3$ | 86.8 | 39.8 | 108.0 | 42.7 |



















Table L Total requirements per 1000 units of domestic commodity output in terms of gross output, 1968 (continued)



Table L Total requirements per 1000 units of domestic commodity output in terms of gross output, 1968 (continued)











 $\underset{\sim}{N}$











Table M Direct imported commodity requirements per 1000 units of domestic output, 1968



Table M Direct imported commodity requirements per 1000 units of domestic output, 1968 (continued)



Table M Direct imported commodity requirements per 1000 units of domestic output， 1968 （continued）

|  |  |  |  |  |  |  |  |  |  | \％ \％ \％ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |  |
| 1 | Agriculture | － |  |  |  |  |  |  |  | 61 | 62 |
| 2 | Forestry and fishing | － | － | － | － | $1 \cdot 9$ | 7.6 | 144.7 | 0.4 | 24.0 | 3.0 |
| 4 | Stone，slate，chalk，sand，etc．extraction | － |  |  |  |  |  | － |  |  |  |
| 5 | Other mining and quarrying |  |  |  | 1.0 |  | 0.1 |  |  |  |  |
| 6 | Grain milling | 二 |  |  | 1.0 |  | 0.1 |  |  |  | 0.1 |
| 8 | Other cereal foodstuffs |  | － | － | － |  | － | － |  |  |  |
| 9 | Cocoa，chocolate and sugar confectionery |  |  | － | － |  |  |  |  |  |  |
| 10 | Oils and fats | － | － | 二 | － |  | － | 0.5 |  | － |  |
| 11 | Other food |  |  |  |  |  |  |  |  |  |  |
| 12 | Soft drinks | － |  |  |  |  | － | － | － | － |  |
| 13 | Alcoholic drink |  |  |  |  |  |  |  |  |  |  |
| 14 | Tobacco |  |  |  |  |  |  |  |  |  |  |
| 15 | Coke ovens and manufactured fuel |  |  | － |  |  |  |  |  |  |  |
| 16 | Mineral oil refining，lubricating oils and greases | 1.6 | 0.8 | 0.7 | 1.5 | $2 \cdot 5$ | $1 \cdot 0$ | 0.9 |  |  |  |
| 17 | General chemicals ${ }^{\text {Pharmaceutical chemicals and preparations }}$ | 0.8 | $0 \cdot 4$ | 0.7 | 1.3 | $45 \cdot 3$ | 2.7 | 0.9 | 0.7 0.1 | 0.9 | 1.4 0.1 |
| 19 | Toilet preparations |  | 二 | － |  | － | － |  | － | ＝ | 0.1 |
| 20 | Paint | － | 二 | 0.7 | 0.2 |  |  |  |  |  |  |
| 21 | Soap and detergents |  |  |  |  |  |  |  |  |  |  |
| 22 | Synthetic resins，plastic materials and synthetic rubber | － | $1 \cdot 3$ | 0.6 | 0.3 | 26.1 | 1.7 |  | $\overline{0}$ | 3 | $\bigcirc$ |
| 24 | Dyestuffs and pigments Fertilizers | 二 |  | － | － | 1.6 | 0.8 | $2 \cdot 6$ | 0.3 1.4 | 3.0 4.6 | 0.1 <br> 1.5 |
| 25 | Other chemical industries |  |  | － |  | 二 | － |  |  |  |  |
| 26 | Iron castings，etc． | － |  | － | ${ }_{0}^{0.1}$ |  |  |  |  |  |  |
| 27 28 | Other iron and steel Aluminium and aluminium alloys | $9 \cdot 3$ | 28.5 | 29.2 | $10 \cdot 3$ | － | － |  |  | － |  |
| 29 | Other non－ferrous metals | 1.0 | 1.7 40.0 | 0.7 | 1.5 | － |  |  |  |  |  |
| 30 | Agricultural machinery | 10 | 40．0 | 0.1 | 7.2 |  | － |  |  |  |  |
| 31 | Machine tools | 1.7 | 0.4 | 0.7 |  |  |  |  |  |  |  |
| 32 | Pumps，valves and compressors | － | 04 | 07 | 0.1 | － | 二 | 二 | － | － |  |
| $\begin{aligned} & 33 \\ & 34 \end{aligned}$ | Industrial engines |  |  | － | － | － |  |  |  | － |  |
| 35 | Construction and mechanical handling equipment | － | ＝ |  |  | $1 \cdot 6$ | 4.0 | 2.0 | 1.8 | 2.5 | 1.0 |
| 36 | Office machinery | － | 二 | 二 | 0.1 | － | ＝ | － | － | － |  |
| 37 38 | Other non－electrical machinery | － | － | － | 0 | 二 | 二 |  |  | － |  |
| 39 | Other mechanical engineering | 二 |  | 二 |  | － |  |  |  |  |  |
| 40 | Instrument engineering | 二 | 二 | － | 0.1 0.1 |  | － | － | 0.1 |  |  |
| 41 | Electrical machinery |  | － |  |  |  |  |  |  |  |  |
| 42 | Insulated wires and cables |  |  | － | － | － | － | － | － | － | － |
| 43 | Electronics and telecommunications |  | 0.2 |  | 0.3 | － |  |  |  |  |  |
| 44 | Domestic electrical appliances |  | － | － | － | － | － | － | ＝ | 二 |  |
| 46 | Shipbuilding and marine engineering | － | － |  | － |  | － |  | － |  |  |
| 47 | Wheeled tractors | － | － |  |  |  |  |  |  | － |  |
| 48 | Motor vehicles |  |  |  | 0.1 |  |  |  |  |  |  |
| $\begin{aligned} & 49 \\ & 50 \end{aligned}$ | Aerospace equipment Other vehicles | － | － | 二 | 07 |  |  |  |  |  |  |
|  |  | － | － | － | － | － | － | － | － | － |  |
| 51 | Engineers＇small tools | 1.7 | 0.4 | 0.7 | 0.5 | － |  |  |  |  |  |
| 52 | Cutlery and jewellery |  | － | 0 | 0.6 | － | 二 | 二 | ＝ | 二 | － |
| 53 <br> 54 | Bolts，nuts，screws，etc． Wire and wire manufactures | 0.8 3.3 | 3.9 | 二 | $0 \cdot 3$ | － | － | － | 二 | － |  |
| 55 | Cans and metal boxes | 3.3 | 3.9 | 二 | 0.5 | － |  |  | － | － |  |
| 56 | Other metal goods | － | － | － | 1.5 | － | － | － |  | － |  |
| 57 | Production of man－made fibres | － | － | － | 15 | 0.9 | $32 \cdot 9$ | 11．8 | ${ }_{16 \cdot 4}$ |  |  |
| 58 59 | Cotton，etc．spinning and weaving Woollen and worsted | － | 0.1 | － | － | $0 \cdot 9$ | 104.0 |  | 7.0 | 8.1 | 8.2 135.8 |
|  | Woollen and worsted Hosiery and knitted goods |  |  |  |  |  | － | 52.1 | $1 \cdot 9$ | 12.8 | 135.8 0.6 |
|  | Hosiory and knited goods | － |  | － |  |  | － | － | 1.6 | － | 3.5 |
| 61 62 | Carpets Household textiles and handkerchiefs | － | － | － | － | － |  |  |  |  | － |
| 63 | Textile finishing | － | － | － | － |  | － | － |  | － |  |
| 64 | Other textiles | 0.8 | 0.4 |  | 0.3 | 0.3 | 0.4 | 0.4 | $1 \cdot 6$ | 16.3 |  |
| 65 | Leather，leather goods and fur | － | － | － | 0.1 | $0 \cdot 3$ |  | 0.4 | 1.6 | 16－3 | 0.5 |
| 66 | Clothing |  |  |  |  |  |  |  |  |  |  |
| 67 | Footwear | － | － | － | － |  |  |  |  |  | － |
| 68 69 | Bricks，fireclay and refractory goods Pottery and glass | － | － | － |  | － | － |  |  |  |  |
| 70 | Cement |  |  |  | $0 \cdot 3$ | － |  |  |  |  |  |
| 71 | Other building materials，etc． | 0.9 | 0.5 | － | 0.3 |  |  |  |  |  |  |
| 72 | Furniture and bedding，etc． |  | 0.5 | － | $0 \cdot 3$ | － | － | － | － | － |  |
| 73 | Timber and miscellaneous wood manufactures |  | 0.1 |  | 1.5 |  | 0.4 |  |  | 0.5 |  |
| 74 | Paper and board | － | － | － | 0.1 | 45.0 | $2 \cdot 6$ | 0.2 | 0.6 | － | 0.5 0.1 |
| 75 76 | Packaging products of paper，board，etc． Other paper and board products | － | ＝ | 二 | － | － | － | 02 | － | － | － |
| 77 | Printing and publishing | 二 | － | － | － |  | － |  |  |  |  |
| 78 | Rubber Pl （estic |  | － | － | 0.2 | － | － |  |  | 1.0 |  |
| 79 | Plastic products n．e．s． Other manufacturing |  |  |  | 0.6 |  |  |  | 0.2 |  |  |
| 80 | Other manufacturing | － | － | － |  | － | － | － | ， | － | － |
| 81 | Construction | － | － | － | － | － | － |  |  | － |  |
| 82 83 | Gas | ＝ | ＝ | 二 | － | － | － | － | － | － | － |
| 84 | Water supply | ＝ | ＝ | － |  |  | ＝ |  |  |  |  |
| 85 | Railways | ＝ |  |  |  |  |  |  |  |  |  |
| 87 | Road transport |  |  |  |  |  |  |  |  |  |  |
| 87 | Other transport | － | － | － | － | － | － | － | － | － | － |
| 88 | Communication Distributive trades |  |  |  |  |  |  |  |  |  |  |
| 89 | Distributive trades Miscellaneous services |  |  |  |  |  |  |  |  |  |  |
| 90 | Miscellaneous services | － | － | － | － | － | － | － |  | － | － |
| 91 | Imports of goods c．i．f． |  |  |  |  |  |  |  |  |  |  |
| 92 | Adjustment f．o．b．and imports of services | 5 | 6.4 | 0.9 | $5 \cdot 4$ | 4.3 | 1.8 | 0.7 | 2.9 | 2.0 | －2．9 |
| 93 | Imports f．o．b．－goods and services | 27.7 | 85.5 | $35 \cdot 2$ | 36.8 | $130 \cdot 3$ | 159.8 | $5 \cdot 8$ | $39 \cdot 2$ | 83.9 | 153.5 |











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 ( $\stackrel{\rightharpoonup}{\stackrel{\sim}{\circ} \circ} \stackrel{\rightharpoonup}{\sim}$ $\underset{\sim}{9} \stackrel{O}{\circ} \mathrm{O}$




## Table M Direct imported commodity requirements per 1000 units of domestic output， 1968 （continued）

|  |  |  |  | $\begin{aligned} & \text { 들 } \\ & \text { O} \\ & \text { H} \\ & 0 \\ & 0 \end{aligned}$ | \％ | Z U U © © |  |  |  |  | ¢ ¢ ¢ ¢ E E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 |  |  |
| 1 | Agriculture | 2.7 | $4 \cdot 3$ |  |  |  |  |  |  | 87 | 88 |
| 2 3 | Forestry and fishing | 0.6 | － | 二 | － | 二 | 二 | ＝ | － | 1.4 |  |
| 4 | Stone，slate，chalk，sand，etc．extraction |  |  |  |  |  | － |  |  | － |  |
| 5 | Other mining and quarrying |  |  | 0.2 |  |  |  |  |  | － |  |
| ${ }_{7}$ | Grain milling |  |  | － | 23．4 | － | 0.1 |  | － | － |  |
| 8 | Other cereal foodstuffs Sugar |  | － | － | － | － | － |  |  | － |  |
| 9 | Cocoa，chocolate and sugar confectionery |  |  | － |  |  |  | － |  | ＝ |  |
| 10 | Oils and fats |  | 1.0 |  |  |  |  |  |  |  |  |
| 11 | Other food |  |  |  |  |  |  |  |  | － |  |
| 12 | Soft drinks |  | 二 | 二 | － | － | － | － | － | 1.0 | － |
| 13 14 | Alcoholic drink Tobacco |  |  | － | － | － | 二 | － |  | － |  |
| 15 | Coke ovens and manufactured fuel |  |  |  | － | － | － | － |  | － |  |
| 16 | Mineral oil refining，lubricating oils and greases | 1.2 | $1 \cdot 9$ | $1 \cdot 6$ | 31.5 |  |  |  |  | － |  |
| 17 | General chemicals | 5.9 | 7.1 | 1.6 | 31.5 0.7 | 5.6 0.6 | 0.6 1.8 | $3 \cdot 5$ | 6.9 | 2.7 | 0.4 |
| 18 | Pharmaceutical chemicals and preparations |  |  | － | 0.7 | 0.6 | 1.8 |  |  |  | － |
| 19 20 | Toilet preparations Paint | － |  |  | － | － | － | － | － | － |  |
|  |  | － | － | $0 \cdot 3$ | － | － | － | 0.2 | 0.1 |  |  |
| 21 | Soap and detergents |  | － |  |  |  |  |  |  |  |  |
| 22 | Synthetic resins，plastic materials and synthetic rubber | 49.6 | 13.6 |  |  |  | 二 | 二 | － | － | － |
| 24 | Dyestuffs and pigments Fertilizers | 1.0 | 4.1 | － | － | － |  | － |  |  |  |
| 25 | Other chemical industries | 0.3 | 0.3 |  |  |  | 0.1 |  |  |  |  |
| 26 | Iron castings，etc． |  |  |  |  |  |  |  |  |  |  |
| 27 | Other iron and steel | $0 \cdot 2$ | 0.6 | $3 \cdot 6$ | 1.1 |  |  |  |  | － |  |
| 29 | Aluminium and aluminium alloys Other non－ferrous metals | － |  |  |  |  |  |  |  |  | 0.1 |
| 30 | Agricultural machinery | 二 | $3 \cdot 2$ | 0.1 | $0 \cdot 2$ | － |  |  |  | － |  |
| 31 | Machine tools |  |  |  |  |  |  |  |  | － |  |
| 32 | Pumps，valves and compressors |  | － |  | 0.2 |  |  |  | － | － |  |
| 33 | Industrial engines | － | 二 | 0.1 | 0.2 | 0.2 | 1.7 |  |  | － |  |
| 34 | Textile machinery |  |  |  | － | － | － | 0.2 |  | － |  |
| 35 | Construction and mechanical handling equipment | － | － | 0.4 |  |  |  |  |  | － |  |
| 37 |  |  | － | 0.1 | 0.2 | 0.1 | － | 0.4 | 0.2 |  |  |
| 38 | Industrial plant and steel work | $2 \cdot 3$ | － | 0.7 | － | － |  | － | $\underline{-}$ |  | 0.3 |
| 39 | Other mechanical engineering |  |  | 0.6 |  | $0 \cdot 3$ | － |  |  |  |  |
| 40 | Instrument engineering | 0.1 | 0.1 | 二 | 0.7 | 0.3 |  |  |  |  |  |
| 41 | Electrical machinery |  |  |  |  |  |  |  |  | － |  |
| 42 | Insulated wires and cables | 二 |  | 0.1 | － | 0.7 | － | $0 \cdot 6$ | － | － | 0.1 |
| 43 | Electronics and telecommunications | ＝ | 0.1 | 0.1 |  | － | － | 0.2 | － | － | 0.2 |
| 44 | Domestic electrical appliances |  | 0 |  |  |  |  | － | － |  | 0.4 |
| 45 | Other electrical goods |  |  | 0.7 | － | － | － | 0.6 | 0.9 | 0.1 |  |
| 47 | Shipbuilding and marine engineering | － |  | － | － | － | － | － |  | 0.1 | 0.2 |
| 48 | Motor vehicles |  | － |  | － | － | － | － |  |  |  |
| 49 | Aerospace equipment |  |  |  |  |  |  |  | 0.5 |  |  |
| 50 | Other vehicles | － |  | － |  |  |  | － | － | $5 \cdot 8$ |  |
| 51 | Engineers＇small tools | 1.2 |  | 0.1 | 0.2 |  |  |  |  |  |  |
| 52 | Cutlery and jowellery | 1 | $0 \cdot 3$ | 0.1 | 0.2 | 0.1 |  | － | － | － | 0.2 |
| 53 54 | Bolts，nuts，screws，etc． Wire and wire manufactures | － | － | $0 \cdot 1$ | － |  |  |  |  |  | － |
| 55 | Cans and metal boxes |  | － | 0.1 | － | － |  | 0.2 | 0.1 | 二 | 0.4 |
| 56 | Other metal goods | 0.6 | $0 \cdot 3$ | 0.9 | 0.5 |  |  |  |  |  |  |
| 57 | Production of man－made fibres | 0 | 0 | 0.9 | 0.5 |  | － | 0.4 | － | － | 0.2 |
| 58 | Cotton，etc．spinning and weaving | 1.6 | 12.8 |  |  |  |  | － |  |  | － |
| 59 | Woollen and worsted | － | 0.3 |  |  |  |  |  |  |  |  |
| 60 | Hosiery and knitted goods | － | $0 \cdot 3$ | － | － | － | － | － | － | － |  |
| 61 | Carpets | － | － |  |  |  |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs | － | － | 二 | 二 | 二 | 二 | － | － | － | － |
| 63 64 | Textile finishing Other textiles |  |  | － | － | ＝ | － | － |  | － | 二 |
| 65 | Leather，leather goods and fur | 0.5 | $2 \cdot 2$ | － | － | － |  |  | 0.1 | 0.1 |  |
| 66 | Clothing | － | 0.5 | － | 二 | － | － | － | － | － |  |
| 67 | Footwear |  |  | － |  |  | － | － | 0.2 | 0.1 |  |
| 68 | Bricks，fireclay and refractory goods |  |  |  |  |  |  |  | － | － |  |
| 69 | Pottery and glass | 0.6 | 1.5 | $0 \cdot 3$ |  |  |  |  |  |  |  |
| 70 | Cement | － | － | 0.1 | － | － | － | － | － | － | － |
| 71 | Other building materials，etc． | － | － | 1.0 | － | － | － | － | － | － | － |
| 73 | Furniture and bedding，etc． | － | 4.0 |  | － | － | － | － | － | 二 | － |
| 74 | Paper and board | $3 \cdot 9$ | 4.0 3.3 | 6.5 1.2 | － | － | － | 1.9 |  | － | 0.9 |
| 75 | Packaging products of paper，board，etc． | 3 | 3 | 1.2 | － |  |  | － |  |  |  |
| 76 | Other paper and board products |  | － | － |  | － | － | － |  | － |  |
| 77 | Printing and publishing |  |  |  |  |  | － |  |  |  |  |
| 78 | Rubser Plastic products n．e．s． | $0 \cdot 3$ | 0.6 | 0.1 | － | － | － | － | 1.8 | 0.1 | － |
| 80 | Other manufacturing | 1.5 0.2 | 1.2 15.0 | $\stackrel{0.4}{-}$ | － | 二 | 0.6 | ＝ |  |  |  |
| 81 | Construction | － |  |  |  |  |  |  |  |  |  |
| 82 | Gas | － | － | 二 | － | － | － | － | － | － |  |
| 83 | Electricity |  |  |  |  | 1.0 |  |  |  |  |  |
| 84 | Water supply | － | － | － |  | 1.0 |  |  |  |  |  |
| 85 | Railways |  |  |  |  |  |  | － |  | － | － |
| 87 | Road transport Other transport | － | － | － | － | － | － | － | － | － |  |
| 88 | Communication |  |  | － |  | － | － |  |  |  |  |
| 89 | Distributive trades |  |  |  |  |  |  |  |  |  |  |
| 90 | Miscellaneous services | － | － | － | － | － | － |  | － | － | － |
| 91 | Imports of goods c．i．f． | 74.4 | 78.7 | 20.2 |  | 8.3 | $5 \cdot 0$ | 7.9 | 10.7 | 11.3 | 3.2 |
| 92 | Adjustment f．o．b．and imports of services | 0.6 | 8.9 |  | 13．4 | －1．5 | ${ }_{0} 0.1$ | －1．3 | －1．8 | 377.0 | 35.0 |
| 93 | Imports f．o．b．－goods and services | 75.0 | $87 \cdot 6$ | $20 \cdot 2$ | 45.0 | 6.8 | 5.1 | 6.6 | 8.9 | 388.3 | 38－2 |

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Table N Total requirements of imported commodities per 1000 units of domestic output, 1968


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Table N Total requirements of imported commodities per 1000 units of domestic output， 1968 （continued）

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }_{0}^{27}$ | ${ }^{28}$ | ${ }^{29}$ | $\frac{30}{1.6}$ | ${ }^{31}$ | ${ }^{32}$ | ${ }^{33}$ | $\underline{34}$ | $\xrightarrow{\text { a }}$ |  |
| 4 | cota |  | 0.1 | － | $\stackrel{1}{0.1}$ | 0 | 0， | 0.12 | ${ }_{0}^{0.8}$ | ${ }_{0.1}^{1,3}$ |  |
| $\stackrel{5}{7}$ |  | 70.6 | ${ }^{22} \overline{6}$ | 980 | 20.7 | $17 \overline{3}$ | （0． | ${ }_{20.0}^{0.7}$ | ${ }_{194}^{0.1}$ | ${ }^{0.9}$ |  |
| $\begin{gathered} 7 \\ 8 \\ 10 \end{gathered}$ |  | 三 | 三 | 三 | 三 | 三 | ＝ | $=$ | － | 4 |  |
|  |  | $0 . \overline{2}$ | 0. | $0 \cdot$ | 0.2 | $0 . \overline{7}$ | $\overline{0 .}$ | $0 \cdot \overline{2}$ | $\bigcirc$ | 三 |  |
|  |  | $\stackrel{0.1}{1}$ | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  | 0.2 |  |
| ， | Altobalic dink | － | － | 三 | 三 | － | 三 | $=$ | － | $\stackrel{0.1}{=}$ |  |
| ${ }_{17}^{15}$ |  | 10.2 | 4.5 | ${ }_{2}^{27}$ | 50 |  | 3.4 |  | $=$ |  |  |
| ， |  | 43 | 2.4 |  | 2．5 | ${ }_{2,2}^{4.0}$ | ${ }^{3,4}$ | ${ }_{2.2}^{4.8}$ | ${ }_{1: 8}^{3,8}$ | ${ }_{2,1}^{4.0}$ |  |
| 20 | Poit | － |  | ＝ | － |  |  | $0 . \overline{0}$ | 三 |  |  |
| $\begin{aligned} & 21 \\ & \substack{22 \\ 23} \\ & \hline 20 \end{aligned}$ | Soap and detergents Synthetic resins，plastic materials and synthetic rubber Dyestuffs and pigments | ${ }_{0}^{0.9}$ | ${ }^{1.7}$ | 0.9 | ${ }_{0.3}^{1.5}$ | ${ }_{0}^{0.9}$ | 0.7 | ， 1.4 |  | 1.2 |  |
|  |  | \％o， |  |  |  |  |  |  |  |  | ${ }^{2}$ |
| 26 | lin | （10．5 | $\bigcirc$ | 1， 1 | － | $\xrightarrow{0.1}$ | － 0.1 | 0， 0 | 0．${ }_{0}^{0.1}$ | 0.2 |  |
| 30 |  | ${ }^{24.2}$ | $\xrightarrow{264.9}$ | ${ }^{2856}$ |  | －${ }^{3.5}$ |  |  |  |  | ${ }_{14}^{6}$ |
| ${ }_{3}^{31}$ | Machine tools Pumps，valves and compressors | 0．24 | 0.1 | 0.1 |  | ${ }_{\substack{2,7 \\ 6: 7}}$ | $0 \cdot 8$ |  |  |  |  |
|  |  | $\stackrel{0.1}{\square}$ | ＝ |  |  | ${ }_{0}^{0.1}$ | ${ }_{1,3}^{9,1 / 3}$ |  | ¢， 6.1 | ${ }_{3}^{73}$ | 0.1 |
| $\begin{aligned} & 35 \\ & 37 \\ & 37 \end{aligned}$ | 为 | 0.1 0.1 0.1 |  |  | 0.4 0.3 0.3 | 0.1 0.4 0.4 | O．1 | ${ }_{0}^{0.1}$ |  | ${ }_{0}^{5.1}$ |  |
| 39 |  |  |  |  |  |  |  |  |  |  |  |
| 40 |  | ${ }_{0}^{0.8}$ | ${ }_{0}^{0.1}$ | ${ }_{0}^{0.1}$ | ${ }_{1}^{12.5}$ | ${ }_{3}^{61}$ | ${ }_{24}^{4.2}$ | ${ }_{1}^{8.1}$ | ${ }_{3}{ }_{3}^{7,2}$ | ${ }_{2,2}^{9.9}$ | ${ }_{0}^{4.7}$ |
| $\frac{41}{42}$ | Eleaticameatiner | $\stackrel{0.1}{0}$ | $=$ | $\stackrel{0.1}{ }$ | $\bigcirc$ | ${ }^{1.5}$ | ${ }_{0}^{1.1}$ | ${ }_{0.1}^{0.3}$ | $0 \cdot 8$ | 1.0 | ${ }^{1.2}$ |
| $\begin{gathered} 43 \\ \substack{43 \\ 45 \\ \hline 5} \end{gathered}$ |  | $\stackrel{0}{\square}$ | $\stackrel{0}{0}$ | $\stackrel{0.3}{-}$ | $\stackrel{0}{0}$ | ${ }^{2.6}$ | ${ }_{0}^{0.8}$ | ${ }_{0} 8$ | 0.6 | 0.6 |  |
|  |  | ${ }_{0}^{0.1}$ | $\stackrel{0.1}{\square}$ | $\stackrel{0.1}{\square}$ | $\stackrel{0.3}{ }$ | $\stackrel{0}{-1}$ | $\stackrel{0}{0}$ | ${ }_{0}^{17}$ | 0.1 | 0.4 |  |
| ${ }_{49}^{48}$ |  | ${ }_{0}^{0.1}$ | ${ }_{0}^{0.1}$ | 0.1 | ${ }_{0}^{10.5}$ | 0.1 | 0. | ${ }_{1,3}^{1,7}$ | 0.1 | 0.7 0.7 |  |
| ${ }_{50}$ | Comer |  |  |  |  | $\stackrel{0.1}{\square}$ | $\stackrel{0}{0.1}$ |  | 0.1 | ${ }_{0}^{0.4}$ |  |
| $\begin{aligned} & 51 \\ & .52 \\ & 53 \end{aligned}$ | Ene | 0.5 | ${ }_{0}^{0.4}$ | ${ }_{0.3}^{0.2}$ |  |  |  |  |  |  |  |
| ${ }_{6} 5$ | Wind | $0 \cdot 1$ | 0.1 | $\bigcirc$ | ${ }_{0}^{102}$ | ${ }_{0}^{0.6}$ | ${ }^{0.7}$ | ${ }_{0}^{0.3}$ | ${ }_{0}^{0.1}$ | 0.5 0.4 |  |
|  | Other meat oods | $\stackrel{7}{7}$ | $\stackrel{0.4}{4}$ | $\bigcirc$ |  | 0.7 | ${ }^{1 / 3}$ | $\stackrel{1}{1.9}$ | ${ }_{0}^{2 / 2}$ | ${ }^{2.0}$ | 3， |
| － | $\begin{aligned} & \text { Cotton, etc. spinning and weaving } \\ & \text { Woollen and worsted } \\ & \text { Hosiery and knitted goods } \end{aligned}$ | 0.4 | $\stackrel{0.3}{\square}$ | $\stackrel{0.3}{\square}$ | － 0.9 | $\stackrel{04}{-}$ | $\stackrel{07}{-}$ | ¢， |  | ${ }_{0}^{0.7}$ | － |
|  | Capers |  |  |  |  |  |  |  |  |  |  |
|  | （eateme | $0 \cdot$ | － | $\frac{\square}{0}$ | ${ }_{0}=$ | $\frac{\square}{2}$ | $\frac{-}{3}$ |  | $=$ | $=$ |  |
| ${ }^{6.6} 6_{6}^{66}$ | Leatioferiesioter goods and tur |  |  | $\stackrel{0.1}{-}$ |  |  |  | 0 |  | ${ }^{0.3}$ | ${ }^{0.3}$ |
| ${ }_{68}^{68}$ | Foill | ${ }_{0}^{0.8}$ |  | $\stackrel{-}{-1}$ | ${ }_{0}^{0.1}$ | 0.1 | ${ }_{0}^{0.1}$ | 0.1 | 0.1 | 0.1 |  |
| ${ }_{70}$ | （emerner | $\stackrel{0}{0}$ | $\stackrel{1}{0}$ | $\stackrel{0}{0}$ | $0 \cdot$ | $\bigcirc$ | $\bigcirc$ | ${ }_{0}^{0.3}$ | 0.1 | 0 | $\bigcirc$ |
| 7 | Oter | $=$ | － | ${ }^{0.1}$ | 0.2 | 0.6 | 0.5 | $0 \cdot 3$ | 0.2 | 0.4 | 0.2 |
| $\substack{173 \\ 74 \\ 7 ⿰ 亻 ⿱ 丶 ⿻ 工 二 十}$ | Timber nod miseolineous wood mautif | $1: 178$ | ${ }_{46}^{17}$ | ${ }^{0.8}$ | ${ }_{30}^{4.3}$ | ${ }_{30}^{\substack{2.4}}$ | ${ }_{30}^{2.7}$ | ${ }_{3,3}^{3.5}$ | ${ }_{34}^{6.0}$ | ${ }_{24}^{2,3}$ | ${ }_{3.1}^{3.0}$ |
| 7 | Onemer |  |  |  |  |  |  |  |  |  |  |
| （78 |  |  | $\begin{aligned} & 0,1 \\ & 0.1 \\ & 0.1 \end{aligned}$ | $\begin{aligned} & 0,1 \\ & 0.1 \\ & 0.1 \end{aligned}$ | 0.1 0.6 0.6 | －${ }_{0}^{0.1}$ | 0.1 | 0，${ }^{0}$ | \％ 0.1 | ${ }^{0} 18$ | ${ }^{0.1}$ |
| 81 |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{83}^{82}$ |  | ＝ | ＝ | ＝ | ＝ | ＝ | ＝ | ＝ | ＝ | ＝ | $=$ |
| ${ }_{85}^{88}$ |  | 三 | 三 | 三 | 三 | 三 | 三 | 三 | 三 | E |  |
| ${ }_{89}$ |  | モ | 三 | 三 |  | 三 |  |  |  |  |  |
|  | coiche |  |  |  |  |  |  |  |  |  |  |
|  | Miselianous sonicas | 0.1 |  | － | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |



















Table N Total requirements of imported commodities per 1000 units of domestic output, 1968 (continued)

|  |  |  |  |  |  |  |  |  |  | 亳 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |  |
| 1 2 | Agriculture | 0.6 | 0.6 | 0.9 | 1.1 | 3.5 |  |  |  | 61 | 62 |
| 3 | Forestry and fishing | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | $9 \cdot 2$ | 147.2 | 32.7 0.1 | 53.3 0.1 | 10.0 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 0.1 | 0.1 | 0.1 | 0.1 |  |  |  |  | 0.1 | 0.1 |
| 5 | Other mining and quarrying Grain milling | 24.8 | 31.8 | $34 \cdot 9$ | $25 \cdot 9$ | 21.1 | $8 \cdot 4$ | $6 \cdot 8$ |  |  | = |
| 7 | Other cereal foodstuff |  |  |  | - |  |  | 6 | $8 \cdot 2$ | $10 \cdot 3$ | 8.0 |
| 8 | Sugar |  |  |  |  |  |  | 0.1 |  |  |  |
| 9 | Cocoa, chocolate and sugar confectionery |  |  |  |  | 0.1 |  |  |  |  |  |
| 10 | Oils and fats | 0.1 | 0.2 | 0.4 | 0.2 | 1.0 | 0.3 |  |  |  |  |
| 11 12 | Other food | 0.1 | 0.1 | 0.1 | 0.1 |  | 1 | 1.5 | 0.5 | 0.6 | 0.3 |
| $\begin{aligned} & 12 \\ & 13 \end{aligned}$ | Soft drinks Alcoholic drink |  | 0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |
| 14 | Tobacco |  |  |  |  |  |  |  |  |  |  |
| 15 | Coke ovens and manufactured fuel |  |  |  |  |  |  |  |  |  |  |
| 16 | Mineral oil refining, lubricating oils and greases | $5 \cdot 3$ | $5 \cdot 1$ | 6.5 | $5 \cdot 3$ | $8 \cdot 8$ | 3.7 |  |  |  |  |
| 17 | General chemicals | $2 \cdot 8$ | $2 \cdot 9$ | 4.6 | 3.9 | 63.4 | 15.3 | 3.0 4.8 | 3.6 9.8 | 3.9 | $4 \cdot 2$ |
| 19 | Pharmaceutical chemicals and preparations |  | - | - |  | - | 15 | 4.8 | 9.8 | $8 \cdot 2$ | 9.7 |
| 20 | Paint |  |  | 0.7 | 0.2 |  |  |  |  |  | - |
| 21 | Soap and detergents |  |  |  |  |  |  |  | - |  | - |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 0.9 | 2.1 |  |  | 0.1 28.6 | 7.0 | 0.1 | - |  |  |
| 23 | Dyestuffs and pigments | 0.1 | 0.1 | 0.5 | 1.7 0.2 | 28.6 2.9 | 7.0 | 1.8 | 4.8 | 6.9 | $4 \cdot 5$ |
| 24 | Fertilizers Other chemical industries |  |  | 0.1 |  | 0.4 | 0.1 | 4.7 0.1 | 3.7 0.1 | 6.3 | 2.7 |
| 26 | Iron castings, etc. | 0.2 0.1 | 0.2 | 0.2 | 0.4 | $0 \cdot 3$ | 0.1 | 0.2 | 0.2 | 0.1 0.2 | 0.1 |
| 27 | Other iron and steel | 15.8 | 32.9 3 | 0.2 36.2 | 0.2 |  |  |  |  | $0 \cdot 2$ | 0.2 |
| 28 | Aluminium and aluminium alloys | 3.0 | 10.6 | 5.9 | 13.8 | 0.5 | 0.3 | 0.3 | 0.4 | 0.4 |  |
| 29 | Other non-ferrous metals | 26.0 | $70 \cdot 9$ | 14.4 | $\begin{array}{r}9.9 \\ \hline 8.2\end{array}$ | $0 \cdot 4$ | 0.2 | 0.2 | $0 \cdot 3$ | 0.3 | 0.3 0.2 |
| 30 | Agricultural machinery |  | \% |  |  | 3.8 | 1.5 | 1.0 | 1.4 | $1 \cdot 4$ | $1 \cdot 3$ |
| 31 | Machine tools | 1.9 | 0.5 | 0.8 |  |  |  |  |  |  |  |
| 32 33 | Pumps, valves and compressors | 0.3 | $0 \cdot 2$ | 0.2 | 0.3 | 0.3 | 0.2 | 0.1 |  |  |  |
| 34 | Textile machinery | - |  | 0.1 | 0.1 |  |  | 0.1 | 0.1 | 0.1 | 0.1 |
| 35 | Construction and mechanical handling equipment |  | - | 0.1 | - | 1.8 | 4.4 | $2 \cdot 4$ | 3.1 | 4.1 | 2.7 |
| 36 | Office machinery | 0.1 | 0.1 | 0.1 |  |  |  | - |  |  |  |
| 37 | Other non-electrical machinery | 0.1 | 0.1 | 0.1 | ${ }_{0}^{0.1}$ | 0.1 0.1 | 0.1 |  | 0.1 | 0.1 | 0.1 |
| 38 | Industrial plant and steel work |  |  | - |  | 0.1 |  |  | 0.1 | 0.1 |  |
| 39 <br> 40 | Other mechanical engineering Instrument engineering | $0 \cdot 4$ | $0 \cdot 3$ | 0.4 | 0.4 | 0.2 |  |  |  |  |  |
|  | Instrument engineering | $0 \cdot 2$ | $0 \cdot 1$ | 0.1 | 0.2 | 0.1 | 0.1 0.1 | 0.1 0.1 | 0.1 0.1 | 0.2 0.1 | 0.1 0.1 |
| 41 | Electrical machinery | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | - | - | - | - |  |
| 43 | Electronics and telecommunications | 0.2 | 0.4 |  |  |  |  |  |  |  |  |
| 44 | Domestic electrical appliances | $0 \cdot 2$ | $0 \cdot 4$ | 0.1 | 0.5 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 |
| 45 | Other electrical goods | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |  |  |  |  |
| 46 | Shipbuilding and marine engineering |  | -1 | 0. | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 47 | Wheeled tractors |  |  |  |  |  |  |  |  |  |  |
| 49 | Motor vehicles Aerospace equipment | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |  | - | 0.1 | 0.1 |  |
| 50 | Other vehicles |  | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 51 | Engineers' small tools | 1.9 |  |  |  |  |  |  |  |  |  |
| 52 | Cutlery and jewellery | 0.9 | 0.6 0.6 | 1.0 0.5 | 0.7 1.7 | 0.1 0.5 | 0.1 0.3 | - | 0.1 | 0.1 | 0.1 |
| 53 | Bolts, nuts, screws, etc. | 0.9 |  |  | 1.7 0.3 | 0.5 | 0.3 | 0.2 | 0.4 | $0 \cdot 4$ | 0.3 |
| 54 | Wire and wire manufactures | 3.8 | 4.0 | 0.1 | 0.6 |  |  |  |  | - |  |
| 56 | Other metal goods |  |  |  |  |  |  |  |  |  |  |
| 57 | Production of man-made fibres | 0.1 | $0 \cdot 3$ | 0.4 | 1.7 | 0.2 | 0.1 | 0.1 | 2.4 | 0.1 | $0 \cdot 3$ |
| 58 | Cotton, etc. spinning and weaving | 0.4 | 0.5 |  | 0.1 | 1.1 | 33.2 | 12.5 | 22.1 | $15 \cdot 6$ | 19.5 |
| 59 | Woollen and worsted | 0 | 0.5 | 0.4 | 0.8 | 1.9 | 104.6 | 2.1 | 18.4 | 25.8 | 166.8 |
| 60 | Hosiery and knitted goods | - | - | $0 \cdot 1$ | $0 \cdot 1$ | 0.1 | 0.2 | 52.1 | 12.8 1.7 | 21.7 | 2.2 |
| 61 | Carpets |  |  |  |  |  |  |  |  |  |  |
| 62 | Household textiles and handkerchiefs | - | - | - | - | - | - | - | - | - | - |
| 63 | Textile finishing |  |  | - |  |  |  | - | - | - | - |
| 64 65 | Other textiles | 1.2 | 0.7 | 0.1 | 0.7 | 0.7 | 0.7 | 0.8 | 3.7 | 24.8 | 1.5 |
| 66 | Clothing |  |  | - | 0.1 | - | - | $0 \cdot 6$ | 0.2 | $0 \cdot 3$ | 0.1 |
| 67 | Footwear |  | - | - | - | - | - | - | - | - | - |
| 68 | Bricks, fireclay and refractory goods | 0.2 | 0.2 | $0 \cdot 4$ | 0.1 |  |  |  |  |  |  |
| 70 | Pottery and glass | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | $0 \cdot 1$ | = | 0.1 | 0.1 | 0.1 |
|  |  |  | - | - | - |  | - | - | - | - | - |
| 71 72 | Other building materials, etc. Furniture and bedding, etc. | 1.0 | 0.5 | - | $0 \cdot 4$ | - | - | - | - | - | - |
| 73 | Timber and miscellaneous wood manufactures |  |  |  |  |  | 1.0 | $0 \cdot 6$ |  |  |  |
| 74 | Paper and board | 3.8 | 1.8 2.9 | 4.1 | 3.5 4.3 | 0.9 53.6 | 1.0 14.2 | 0.6 4.7 | 0.7 11.7 | 1.7 <br> 6.5 | $\begin{array}{r}1.5 \\ 12.3 \\ \hline\end{array}$ |
| 75 76 | Packaging products of paper, board, etc. | - | 2 | 4 | 4 | 53.6 | $14 \cdot 2$ | 4.7 | 11.7 | 6.5 | $12 \cdot 3$ |
| 76 | Printing and publishing |  |  |  |  |  |  |  | - | - | - |
| 78 | Rubber | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 79 | Plastic products n.e.s. | 0.2 0.1 | 0.2 0.1 | 0.2 0.1 | 0.4 0.7 | 0.1 0.1 | 0.1 | 0.1 | 0.1 | 1.2 | 0.1 |
| 80 | Other manufacturing | 0.1 | 0.1 | 0.1 0.1 | 0.7 0.1 | 0.1 0.1 0.1 | - | = | 0.3 0.1 | = | 0.1 0.1 |
| 81 | Construction | - | - | - | - | - | - | - |  | - |  |
| 82 | Gas |  | - | - | - | - | - | - | - | - | - |
| 83 | Electricity ${ }^{\text {Water supply }}$ |  |  | - | - |  | - | - | - | - | - |
| 85 | Railways | - | - | - | - | - | - | - | - | - | - |
| 86 | Road transport |  |  | - | - | - | = | - | - | - |  |
| 87 | Other transport |  |  |  |  |  |  |  |  |  |  |
| 88 | Communication |  |  |  |  |  |  |  |  |  |  |
| 89 | Distributive trades |  |  |  |  |  |  |  |  |  |  |
| 90 | Miscellaneous services | 0.1 | - | 0.1 | 0.1 | 0.1 | 0.1 | - | 0.1 | 0.1 | 0.1 |







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$\underline{\text { Table } N \text { Total requirements of imported commodities per } 1000 \text { units of domestic output, } 1968 \text { (continued) }}$


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ANALYSES OF FINAL DEMAND
ANALYSIS OF OUTPUT OF PRINCIPAL PRODUCTS
ANALYSIS OF RECORDED AND UNCLASSIFIED PURCHASES OF MATERIALS AND FUELS
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Table 0 Analysis of consumers' expenditure in 1968

(1) The negative items in this column represent expenditure by foreign tourists. etc. in the United Kingdom, the positive items represent consumers' expenditure abroad.


Table 0 Analysis of consumers' expenditure in 1968 (continued)


Table P Analysis of public authorities' current expenditure in 1968

| Commodity group |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |
| 1 | Agriculture | 0.4 | 25.8 | 1.3 | 34.4 | -18.9 | 43.0 |
| 2 | Forestry and fishing |  | 1.5 |  |  |  | 1.5 |
| 3 | Coal mining | 3.0 | $10 \cdot 3$ | 1.0 | $15 \cdot 2$ |  | 29 |
| 4 | Stone, slate, chalk, sand, etc. extraction |  | 0.2 |  | 4.0 | - | $4 \cdot 2$ |
| 5 | Other mining and quarrying |  | 1.0 | 2.3 | 3.2 |  | 6.5 |
| 6 | Grain milling |  | 0.2 | 0.2 | - | - | 0.4 |
| 7 | Other cereal foodstuffs | 0.1 | $2 \cdot 3$ | 0.4 |  |  | $2 \cdot 8$ |
| 8 | Sugar | 0.1 | 1.0 | 0.1 |  | - | $1 \cdot 2$ |
| 9 | Cocoa, chocolate and sugar confectionery |  | 0.7 | - |  |  | 0.7 |
| 10 | Oils and fats | - | $2 \cdot 2$ | - | - | - | $2 \cdot 2$ |
| 11 | Other food | 4.0 | 10.9 | $35 \cdot 4$ | 81.0 | -32.7 | 98.6 |
| 12 | Soft drinks |  | 1.1 | 2.4 |  |  | 3.5 |
| 13 | Alcoholic drink | 0.5 | 0.2 | , |  |  | 0.7 |
| 14 | Tobacco | 0.3 | - | 0.2 |  |  | $0 \cdot 5$ |
| 15 | Coke ovens and manufactured fuel | 0.5 | 3.2 | 1.3 | $13 \cdot 3$ |  | 18.3 |
| 16 | Mineral oil refining, lubricating oils and greases | 20.4 | 3.1 | 7.0 | 17.7 | -17.2 | 31.0 |
| 17 | General chemicals | 1.8 | 0.2 | 5.7 | 2.0 | -0.1 | $9 \cdot 6$ |
| 18 | Pharmaceutical chemicals and preparations | 3.5 | 129.6 | 0.3 |  | -15.4 | 118.0 |
| 19 | Toilet preparations | 0.1 |  |  |  |  | 0.1 |
| 20 | Paint | $2 \cdot 3$ | 0.7 | - |  | - | 3.0 |
| 21 | Soap and detergents | 0.4 | 3.7 | 0.1 | 8.2 | - | 12.4 |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 1.3 | 0.3 | 0.4 |  |  | 2.0 |
| 23 | Dyestuffs and pigments |  |  |  |  |  |  |
| 24 | Fertilizers Other chemical industries | 4.3 |  | 0.3 | 1.0 |  | $1 \cdot 3$ |
| 26 | Other chemical industries Iron castings, etc. | 0.4 | 23.9 | $2 \cdot 5$ | - | -1.4 | 29.3 |
| 27 | Other iron and steel | 0.5 | 0.2 | 1.7 |  | -0.2 | $0 \cdot 9$ |
| 28 | Aluminium and aluminium alloys | 1.5 |  | 0.1 | - | -0.1 | 1.5 |
| 29 | Other non-ferrous metals | $2 \cdot 2$ | $0 \cdot 6$ | 0.4 | - |  | 3.2 |
| 30 | Agricultural machinery |  |  | 0.5 |  | -0.3 | 0.2 |
| 31 | Machine tools | $1 \cdot 4$ | 0.1 | 1.1 | - | - | $2 \cdot 6$ |
| 32 | Pumps, valves and compressors | $1 \cdot 6$ | 0.1 | $1 \cdot 2$ | - |  | 2.9 |
| 33 | Industrial engines | $3 \cdot 3$ |  |  |  |  | $3 \cdot 3$ |
| 34 | Textile machinery | 0.7 | - |  |  | - | 0.7 |
| 35 | Construction and mechanical handling equipment | $5 \cdot 6$ |  | $0 \cdot 4$ | $7 \cdot 9$ |  | 13.9 |
| -36 | Office machinery | $0 \cdot 2$ | 1.2 | 0.6 |  |  | 2.0 |
| 37 | Other non-electrical machinery | $12 \cdot 1$ | 0.1 | 0.4 |  |  | 12.6 |
| 38 | Industrial plant and steel work | 2.1 | 0.2 | 1.7 | $9 \cdot 8$ |  | 13.8 |
| 40 | Other mechanical engineering | 64.4 | 0.1 | $2 \cdot 3$ |  | -6.0 | 60.8 |
|  | Instrument engineering | 23.3 | 27.5 | $5 \cdot 3$ |  | $-5 \cdot 6$ | 50.5 |
| 41424344454647484950 | Electrical machinery <br> Insulated wires and cables <br> Electronics and telecommunications <br> Domestic electrical appliances <br> Other electrical goods <br> Shipbuilding and marine engineering <br> Wheeled tractors <br> Motor vehicles <br> Aerospace equipment <br> Other vehicles | 12.6 | 0.2 | 0.7 | - | - | . 5 |
|  |  | 2.8 | $0 \cdot 9$ | 0.4 |  |  | 4.1 |
|  |  | 151.6 | $2 \cdot 2$ | 15.8 | 0.2 | $-0 . \overline{6}$ | 169.2 |
|  |  |  | $0 \cdot 6$ | 0.4 |  |  | 1.0 |
|  |  | $10 \cdot 9$ | 0.8 | 1.0 | 11.1 | - | 23.8 |
|  |  | $164 \cdot 2$ | - | $3 \cdot 2$ | - |  | 167.4 |
|  |  | 37.1 | 2.5 | 0.9 | 16.5 |  | 56.8 |
|  |  | 425.1 |  | $80 \cdot 4$ | 16.5 | $-142.9{ }^{(1)}$ | 362.6 |
|  |  | 0.4 | 1.2 | - | - | - | 1.6 |
| 51525354555657585960 | Engineers' small tools Cutlery and jewellery Bolts, nuts, screws, etc. Wire and wire manufactures Cans and metal boxes Other metal goods Production of man-made fibres Cotton, etc. spinning and weaving Woollen and worsted Hosiery and knitted goods | 0.6 | 0.2 | 1.0 | - | - | . 8 |
|  |  |  | 0.2 | 6.5 |  |  | 6.7 |
|  |  | 0.7 | 0.1 | - | - | - | 0.8 |
|  |  | 0.6 0.6 | - |  |  |  | 0.6 |
|  |  | 0.6 3.7 |  | 0.5 0.3 | 二 |  | 1.1 4.6 |
|  |  | 3.7 | 0.8 |  |  | -0.2 | 4.6 |
|  |  | 1.9 | 0.4 | 0.8 |  |  | $3 \cdot 1$ |
|  |  | $0 \cdot 3$ | 16 | 0.1 | - |  | 0.4 |
| 61626364656667686970 | Carpets |  | 1.6 |  |  |  | 1.6 |
|  |  | - | 0.2 | 0.8 | 1.0 | - | 2.0 |
|  | Textile finishing | 0.2 | 3.6 | 3.6 | - | - | 7.4 |
|  | Other textiles |  | 5 | 14 |  |  |  |
|  | Leather, leather goods and fur | 0.9 0.2 | 4.5 | 1.4 | - | - | 6.8 |
|  | Clothing Footwear | 3.1 | 5.7 | 1.4 | 15.8 | - | ${ }_{26} 6$ |
|  |  | 0.1 | 2.8 | 0.1 | $1 \cdot 3$ |  | 4.3 |
|  | Pottery and glass | 0.2 | $0 \cdot 5$ | $\bigcirc$ | - | - | 0.7 |
|  | Cement | 0.4 | 2.9 0.3 | 0.7 | - | - | 4.0 0.3 |
| $\begin{aligned} & 71 \\ & 72 \\ & 73 \\ & 74 \\ & 75 \\ & 76 \\ & 77 \\ & 78 \\ & 79 \\ & 80 \end{aligned}$ | Other building materials, etc. |  |  |  |  |  |  |
|  | Furniture and bedding, etc. | ${ }_{0}^{0.2}$ | 4.4 | 0.3 5.0 | 20.0 18.6 | - | 20.5 |
|  | Paper and board | 0.6 | 0.9 | 1.3 |  | - | $\begin{array}{r}28.5 \\ 2.8 \\ \hline 2.8\end{array}$ |
|  | Packaging products of paper, board, etc. | 0.2 | 3.1 | $5 \cdot 2$ | 18.6 |  | 27.1 |
|  | Other paper and board products | 1.5 0.3 | 0.5 | 0.4 |  | - | 2.4 |
|  | Printing and publishing | 0.3 2.7 | 0.5 0.4 | 3.0 10.3 | 19.8 49.5 | - | 23.6 |
|  |  | 5.6 | 1.0 | 0.2 | ${ }_{0} 0.1$ |  | 62.9 6.9 |
|  | Other manufacturing | $0 \cdot 6$ |  | 0.2 |  |  | 6.9 0.8 |
| 81 |  | 2.5 | $3 \cdot 9$ | 2.4 | 18.9 | - | 27.7 |
| 81 <br> 88 <br> 83 <br> 84 <br> 88 <br> 86 <br> 8 <br> 88 <br> 88 <br> 90 | Construction | 112.8 | 16.5 | $45 \cdot 6$ | 81.0 |  |  |
|  | Electricity | 9.1 | 3.7 | 1.1 | 6.4 |  | $20 \cdot 3$ |
|  | Water supply | 13.6 | 8.1 | 13.6 | $65 \cdot 1$ | - | 100.4 |
|  | Railways Road transport | 2.8 2.3 | 3.5 | 0.9 | 2.7 | - | 9.9 |
|  | Other transport | 15.4 | 0.2 | 3.1 1.7 | 28.4 |  | 6.5 |
|  | Communication | 19.1 |  | 6.0 | 21.7 | $9 \cdot 2$ | $45 \cdot 7$ 56.0 |
|  | Distributive tradesMiscellaneous services | 18.3 | 7.2 | 26.9 | 32.0 |  | 84.4 |
|  |  | $\begin{array}{r}10.1 \\ 87.5 \\ \hline\end{array}$ | 72.3 | 12.6 | 53.4 |  | 148.4 |
| 91 | Public administration, domestic services, ownership of dwellings Imports of goods and services <br> Sales by final buyers <br> Taxes on expenditure less subsidies | 87.5 | 307.0 | 285.5 | 367.5 | - | $1047 \cdot 5$ |
| 92 |  | 934.0 | 657.0 | 525.0 | 1966.0 |  |  |
| 93 <br> 94 |  | 190.0 | 0.1 | 50.8 |  | $232 \cdot 6$ | 4082.0 473.5 |
| 94 |  | $\begin{array}{r}-73.2 \\ \quad 33.0 \\ \hline\end{array}$ | -57.4 57.1 | 267.2 65.5 | -221.7 -184.4 | - | -619.5 |
|  | Total expenditure |  |  |  | 184.4 |  | $340 \cdot 0$ |
|  |  | $2370 \cdot 0$ | 1376.0 | 996.0 | 2976.0 | - | 7718.0 |

[^5]Table $Q$ Plant and machinery investment matrix, 1968

| Sales by commodity group |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sugar | - | - | 1 | - | - | - | - |  |  |  |  |  |
| Alcoholic drink | - | - | - | 1 | - | - | - |  | - | - | - | - |
| General chemicals | - | - | - | - | - | 4 | - |  | - | - | - | - |
| Synthetic resins, plastic materials and synthetic rubber | - | - | - | - | - | 1 | - | - | - | - | - | - |
| Fertilizers | - | - | - | - |  | 1 |  |  | - |  | - | - |
| Other iron and steel | - | - | - | - | - |  | , |  | - | - | - | - |
| Agricultural machinery | 54 | - | - | - | - | - | - | - | - | - | - | - |
| Machine tools | - | - | - | - | - | - | 1 | - | - | - | - | - |
| Pumps, valves and compressors | 1 | 1 | 1 | 1 | 6 | 12 | 2 | 1 | 63 | 6 | 26 | 2 |
| Industrial engines | - | - | - | - | - | - | 2 |  | 1 | - | - | - |
| Textile machinery | - | - | - | - | - | - | - | - | - | - | - | - |
| Construction and mechanical handling equipment | - | 56 | 7 | 4 | - | 6 | 7 | - | 12 | - | - | - |
| Office machinery | - | 1 | 1 | 1 | - | 1 |  |  | 12 | - | 9 | 2 |
| Other non-electrical machinery | 3 | 41 | 43 | 26 | 2 | 18 | 11 | - | 2 | - | 2 | - |
| Industrial plant and steel work | - | - | 25 | 8 | 67 | 95 | 16 | 9 | 4 | 1 | 9 | - |
| Other mechanical engineering | - | - | - | - | - | - |  |  | 1 | - | 1 | - |
| Instrument engineering | - | - | 2 | - | 4 | 8 | 2 | 5 | - | - | - | - |
| Electrical machinery | 1 | 1 | 1 | - | 3 | 7 | 2 | 1 | 7 | 3 | 16 | 1 |
| Insulated wires and cables | - | - | - |  |  |  | 2 | 1 | 2 | - | 1 | - |
| Electronics and telecommunications | - | - | 3 | 1 | 3 | 5 |  |  | - | - | - | - |
| Domestic electrical appliances | - | - | - | - | - | 5 | 3 | 3 | 8 | 2 | 6 | 1 |
| Other electrical goods | - | - | - | - | - | - | - | - | - | - | - | - |
| Shipbuilding and marine engineering | - | - | - | - | - | - | - | - | - | - | - | - |
| Aerospace equipment | - | - | - | - |  |  |  |  |  | - | - | 1 |
| Wheeled tractors | 36 |  |  |  |  | - | - | - | - | - | - | - |
| Other metal goods | - |  |  |  |  |  |  |  |  |  |  |  |
| Furniture and bedding, etc. | - |  |  |  |  |  |  |  |  |  |  |  |
| Timber and miscellaneous wood manufactures | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Construction |  | -1 | 15 | 5 | 15 | 28 | 11 | 4 | 10 | 1 | 8 |  |
| Distributive trades | 15 |  |  |  |  |  |  |  |  |  |  |  |
| Taxes on expenditure less subsidies | - |  |  |  |  |  |  |  |  |  |  |  |
| Disposals | -7 |  |  |  |  |  |  |  |  |  |  |  |
| Investment grant adjustment | - |  |  |  |  |  |  |  |  |  |  |  |
| Own account capital formation | - | - | - | - | - | - | - | - | - | - | - |  |
| Total investment including grant adjustment | 104 | 99 | 99 | - 47 | 100 | 186 | 73 | 29 | 110 | 13 | 78 | 7 |
| less Investment grant adjustment (1) | - | - |  |  |  |  |  |  |  |  | -48 (2) |  |
| Total investment | 104 | 99 |  |  |  |  |  |  |  |  | 1154(2) |  |

[^6]

Table R Analysis of gross domestic fixed capital formation in 1968


| Industry or commodity group |  | Output of 'principal products' of each industry group as a percentage of the industry group's total output | Output produced as 'principal products' as a percentage of the total output of each commodity group |
| :---: | :---: | :---: | :---: |
| 1 | Agriculture | 100 | 100 |
| 2 | Forestry and fishing | 100 | 99 |
| 3 | Coal mining | 98 | 100 |
| 4 | Stone, slate, chalk, sand, etc. extraction | 91 | 96 |
| 5 | Other mining and quarrying | 98 | 90 |
| 6 | Grain milling | 80 | 94 |
| 7 | Other cereal foodstuffs | 87 | 93 |
| 8 | Sugar | 99 | 99 |
| 9 | Cocoa, chocolate and sugar confectionery | 89 | 98 |
| 10 | Oils and fats | 88 | 85 |
| 11 | Other food | 94 | 97 |
| 12 | Soft drinks | 80 | 91 |
| 13 | Alcoholic drink | 84 | 100 |
| 14 | Tobacco | (1) | 100 |
| 15 | Coke ovens and manufactured fuel | 88 | 96 |
| 16 | Mineral oil refining, lubricating oils and greases | 99 | 97 |
| 17 | General chemicals | 87 | 86 |
| 18 | Pharmaceutical chemicals and preparations | 88 | 94 |
| 19 | Toilet preparations | 86 | 82 |
| 20 | Paint | 91 | 96 |
| 21 | Soap and detergents | 89 | 89 |
| 22 | Synthetic resins, plastic materials and synthetic rubber | 91 | 92 |
| 23 | Dyestuffs and pigments | 77 | 95 |
| 24 | Fertilizers | 78 | 96 |
| 25 | Other chemical industries | 88 | 86 |
| 26 | Iron castings, etc. | 95 | 85 |
| 27 | Other iron and steel | 94 | 99 |
| 28 | Aluminium and aluminium alloys | 93 | 92 |
| 29 | Other non-ferrous metals | 90 | 92 |
| 30 | Agricultural machinery | 81 | 82 |
| 31 | Machine tools | 86 |  |
| 32 | Pumps, valves and compressors | 78 | 83 |
| 33 | Industrial engines | 66 | 67 |
| 34 | Textile machinery | 90 | 96 |
| 35 | Construction and mechanical handling equipment | 88 | 88 |
| 36 | Office machinery | 73 | 93 |
| 37 | Other non-electrical machinery | 84 | 86 |
| 38 | Industrial plant and steel work | 84 | 88 |
| 40 | Other mechanical engineering | 88 | 74 |
|  | Instrument engineering | 84 | 88 |
| 41 | Electrical machinery | 2 |  |
| 42 | Insulated wires and cables | 71 | 97 |
| 43 | Electronics and telecommunications | 90 | 93 |
| 44 | Domestic electrical appliances Other electrical goods | 82 | 94 |
| 46 | Shipbuilding and marine engineering | 85 93 | 86 93 |
| 47 | Wheeled tractors | 70 | 93 64 |
| 48 | Motor vehicles | 91 | 97 |
| 49 | Aerospace equipment | 97 | 98 |
| 50 | Other vehicles | 90 | 90 |
| $\begin{aligned} & 51 \\ & 52 \\ & 53 \\ & 54 \\ & 55 \\ & 56 \\ & 57 \\ & 58 \\ & 59 \\ & 60 \end{aligned}$ | Engineers' small tools | 91 |  |
|  | Cutlery and jewellery | 90 | 83 94 |
|  | Bolts, nuts, screws, etc. | 90 | 97 |
|  | Cans and metal boxes | 94 | 79 |
|  | Other metal goods | 93 | 97 |
|  | Production of man-made fibres |  | 91 |
|  | Cotton, etc. spinning and weaving | 85 95 | 100 91 |
|  | Woollen and worsted | 97 | 91 99 |
|  | Hosiery and knitted goods | 98 | 99 98 |
| 61626364656667686970 | Carpets |  |  |
|  | Household textiles and handkerchiefs | 89 | 100 72 |
|  | Textile finishing | 96 | 99 |
|  | Leather, leather goods and fur | 91 | 91 |
|  | Clothing | 97 | 99 |
|  | Footwear | 98 | 100 |
|  | Bricks, fireclay and refractory goods | 98 | 96 |
|  | Pottery and glass Cement | 95 95 | 98 98 |
|  |  | 96 | 95 |
| 71 <br> 72 <br> 73 <br> 74 <br> 75 <br> 76 <br> 77 <br> 78 <br> 79 <br> 80 | Other building materials, etc. Furniture and bedding, etc. | 91 | 94 |
|  | Timber, and miscellaneous wood manufactures | 93 | 97 |
|  | Paper and board | 95 | 96 |
|  | Packaging products of paper, board, etc. | 96 | 97 |
|  | Other paper and board products | 91 | 96 |
|  | Printing and publishing | 89 97 | 86 |
|  | Rubber Plastic products nes | 97 92 | 99 |
|  | Other manufacturing | 91 | 89 |
|  |  | 90 | 92 |
| 81 82 | Construction Gas | 99 |  |
| 83 | Electricity | 89 | 96 95 |
| 84 | Water supply | 92 | 98 |
| 85 | Railway | 100 | 100 |
| 86 | Road transport | 95 | 100 |
| 87 | Other transport | 100 | 74 |
| 88 | Communication | 100 | 100 |
| 89 90 | Distributive trades Miscellaneous services | 100 99 | 100 |
|  |  | 99 | 91 99 |

(1) Due to losses on merchanting activities, the output of principal products exceeds the output of the industry group.

Table T Proportions of residual purchases of materials and fuel for Census industries in 1968

| Industry group |  | Total value of materials and fuel purchased (at purchaser's $\qquad$ <br> £ million | Value of unclassified materials purchased |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | 'All other materials for processing purchased by large firms (1) | Total purchases of materials and fuel by small firms, etc. (2) |
|  |  | Percentages of total value of materials and fuel purchased |
| 3 | Coal mining |  | 172 |  |  |  |
| 4 | Stone, slate, chalk, sand, etc. extraction |  | 52 | 16 34 | 15 | 1 |
| 5 | Other mining and quarrying | 9 | 26 | 12 21 | 22 |
| ${ }_{7}$ | Grain milling | 227 | 11 | 2 | 9 |
| 7 | Other cereal foodstuffs | 659 116 | 17 | 7 | 10 |
| 9 | Cocoa, chocolate and sugar confectionery | 116 169 | 2 | 2 |  |
| 10 | Oils and fats | 119 | 17 | 3 5 5 | 4 |
| 11 | Other food | 1325 | 11 | 5 3 | 12 |
| 12 | Soft drinks | 58 | 17 | 7 | 108880 |
| $\begin{aligned} & 13 \\ & 14 \\ & 15 \\ & 16 \\ & 17 \\ & 18 \\ & 19 \\ & 20 \\ & 21 \\ & 22 \end{aligned}$ | Alcoholic drink | 299 | 7 |  |  |
|  | Tobacco | 157 | 3 | 4 | 3 |
|  | Coke ovens and manufactured fuel | 176 | 3 | 2 | 1 |
|  | Mineral oil refining, lubricating oils and greases | 817 | 3 | 2 | 1 |
|  | General chemicals | 537 | 16 | 12 | 4 |
|  | Pharmaceutical chemicals and preparations | 136 | 14 | 9 | 5 |
|  | Toilet preparations | 49 | 15 | 8 | 7 |
|  | Paint | 89 | 16 | 7 | 9 |
|  | Soap and detergents | 103 | 12 | 2 | 10 |
|  | synthetic rubber | 246 | 12 | 8 | 4 |
| 23 | Dyestuffs and pigments | 64 | 10 | 8 |  |
| 24 | Fertilizers | 116 | 19 | 13 | 6 |
| 25 | Other chemical industries | 165 | 23 | 19 | 4 |
| 26 | Iron castings, etc. | 163 | 21 | 13 | 8 |
| 27 | Other iron and steel | 1210 | 7 | 6 | 8 |
| 28 | Aluminium and aluminium alloys | 200 | 10 | 6 | 1 |
| 29 | Other non-ferrous metals | 668 | 10 | 3 | 4 |
| 30 | Agricultural machinery | 41 | 23 | 7 | 16 |
| 31 | Machine tools | 89 | 12 | 7 | 16 5 |
| 32 | Pumps, valves and compressors | 131 | 13 | 10 | 5 |
| $\begin{aligned} & 33 \\ & 34 \\ & 35 \end{aligned}$ | Industrial engines | 58 | 22 | 21 |  |
|  | Textile machinery | 63 | 17 | 9 | 8 |
|  | Construction and mechanical handling equipment | 236 | 15 |  | 8 |
| $\begin{aligned} & 36 \\ & 37 \\ & 38 \\ & 39 \\ & 40 \\ & 41 \\ & 42 \end{aligned}$ | Office machinery | 40 | 4 | 3 | 6 |
|  | Other non-electrical machinery | 318 | 15 | 7 | 8 |
|  | Industrial plant and steel work | 310 | 12 | 4 | 8 |
|  | Other mechanical engineering | 202 | 32 | 8 | 24 |
|  | Instrument engineering | 185 | 17 | 9 | 8 |
|  | Electrical machinery | 208 | 11 | 8 | 8 3 |
|  | Insulated wires and cables | 229 |  | 2 | 1 |
| 43 | Electronics and telecommunications | 444 |  |  |  |
| 44 | Domestic electrical appliances | 142 | 9 | 116 | 3 |
| 45 | Other electrical goods | 162 | 16 | 9 | 7 |
| 47 | Shipbuilding and marine engineering Wheeled tractors | 194 | 17 | 13 | 4 |
| 48 | Motor vehicles | 102 1503 | 3 | 2 | 1 |
| 49 | Aerospace equipment | 260 | 10 | ${ }_{9}$ | 3 |
| 50 | Other vehicles | 89 | 10 | 9 | 1 |
| 51 | Engineers' small tools | 44 | 42 | 24 | ${ }_{18}^{2}$ |
| 52 | Cutlery and jewellery | 186 | 16 | 4 | 12 |
| 53 <br> 54 <br> 55 <br> 56 <br> 57 <br> 58 <br> 59 <br> 60 <br> 61 <br> 62 | Bolts, nuts, screws, etc. | 51 |  | 10 |  |
|  | Wire and wire manufactures | 153 | 16 | 7 | 7 |
|  | Cans and metal boxes | 95 | 5 |  |  |
|  | Other metal goods | 488 | 26 | 8 | 18 |
|  | Production of man-made fibres | 146 | 34 | 34 |  |
|  | Cotton, etc. spinning and weaving | 359 | 5 | - |  |
| $\begin{aligned} & 59 \\ & 60 \end{aligned}$ | Woollen and worsted | 332 | 7 | 2 | 5 |
| $\begin{aligned} & 60 \\ & 61 \end{aligned}$ | Hosiery and knitted goods Carpets | 117 | 8 | 3 | 5 |
| 62 | Household textiles and handkerchiefs | 41 | $\begin{array}{r}8 \\ 23 \\ \hline\end{array}$ | 6 4 | 2 |
| 63 | Textile finishing |  |  |  |  |
| 64 | Other textiles | $\begin{array}{r}41 \\ 137 \\ \hline\end{array}$ | 14 23 | ${ }^{8}$ | ${ }^{6}$ |
| 65 | Leather, leather goods and fur | 122 | 21 | 13 3 3 | 10 18 |
| 66 | Clothing | 376 | 17 | 3 | 14 |
| 67 |  | 113 | 9 | 4 | 5 |
| 68 | Bricks, fireclay and refractory goods | 58 | 14 | 7 | 7 |
| 70 | Pottery and glass | 116 48 | 20 7 | 15 6 | 5 |
| 71 | Other building materials, etc. | 217 | 38 | 8 | 1 30 |
| 72 | Furniture and bedding, etc. | 184 | 23 | 8 | 18 |
| 73 | Timber and miscellaneous wood manufactures | 384 | 28 | 10 | 18 |
| 74 | Paper and board | 274 | 5 | 3 | 2 |
| 75 | Packaging products of paper, board, etc. | 219 | 11 | 5 | 6 |
| 76 | Other paper and board products | 127 | 19 | 11 | 8 |
| 77 | Printing and publishing Rubber | 309 | 23 | 5 | 18 |
| 79 | Plastic products n.e.s. | 211 153 | 11 30 | ${ }_{14}^{8}$ | 3 |
| 80 | Other manufacturing | 142 | 28 | 14 16 | 16 12 |
| 81 | Construction | 1797 | 67 | 41 | 12 26 |
| 82 | Gas | 236 | 21 | 21 |  |
| 83 | Electricity | 529 |  | 9 |  |
| 84 | Water supply | 38 | 19 | 17 | 2 |
|  | Total | 21182 | 18 | 10 | 8 |

(1) That is, by firms employing 25 persons or more
(2) Comprises purchases by firms employing fewer than 25 persons and firms not making satisfactory returns in the Census.

49 righ Holborn, London WC1V 6HB 13A Castle Street, Edinburgh EH2 3AR 109 St. Mary Street, Cardiff CF1 1 JW Brazennose Street, Manchester M60 8AS 50 Fairfax Street, Bristol BS1 3DE
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[^0]:    - For a discussion of the differences between industries and commodities see Chapter two (page 5).

[^1]:    - For the definition of the establishment, see the Standard Industrial

    Classification, 1968, page iii.

[^2]:    - Note however that in Table O, the analysis of consumers' expenditure by category of expenditure and commodity, transactions are valued at purchasers' and not sellers' prices. This is because Table $O$ is an attempt to provide a close link with the functiona categories of expenditure used in the National Income and Expenditure Blue Book.

[^3]:    An allowance has been made for the margin earned on importing for direct re-export.

[^4]:    （1）This output is indicated by an asterisk．

[^5]:    Imports of goods recorded in the overseas trade accounts adjusted to a payments basis. See Table C

[^6]:    (1) See Table 56 of the 1972 Blue Book.
    (2) Total manufacturing industry.

