Office for National Statistics

Compendium

UK National Accounts, The Blue Book: 2021

National accounts statistics including national and sector accounts, industrial analyses and environmental accounts.

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Chapters in this compendium

Compendium

An introduction to the UK national accounts

Chapter summary and general overview of the national and sector accounts.

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1 . Overview of the Blue Book

The Blue Book was first published in August 1952 and presents a full set of economic accounts (national accounts) for the UK. These accounts are compiled by the Office for National Statistics (ONS). They record and describe economic activity in the UK and are used to support the formulation and monitoring of economic and social policies.

The UK National Accounts: The Blue Book, 2021 is available as a PDF by request only. To request a copy, please email blue.book.coordination@ons.gov.uk.

Chapter 1

Chapter 1 of the Blue Book provides a summary of the UK National Accounts, including explanations and tables covering the main national and domestic aggregates, for example:

- gross domestic product (GDP) at current market prices and chained volume measures
- GDP deflator
- gross value added (GVA) at basic prices
- gross national income (GNI)
- gross national disposable income (GNDI)
- population estimates
- employment estimates
- GDP per head
- the UK Summary Accounts (the goods and services account, production accounts, distribution and use of income accounts, and accumulation accounts)

Chapter 1 also includes details of revisions to data since the Blue Book 2020.

Chapter 2

Chapter 2 includes:

- input–output supply and use tables
- analyses of GVA at current market prices and chained volume measures
- capital formation
- workforce jobs by industry

Chapters 3 to 7

Chapters 3, 4, 5, 6 and 7 provide:

- a description of the institutional sectors
- the sequence of the accounts and balance sheets
- an explanation of the statistical adjustment items needed to reconcile the accounts
- the fullest available set of accounts providing transactions by sectors and appropriate subsectors of the economy (including the rest of the world)

Chapters 8 to 11

Chapters 8, 9, 10 and 11 cover additional analysis and include:

supplementary tables for gross fixed capital formation (GFCF), national balance sheet and public sector statistics for EU purposes

Chapter 12

Chapter 12 covers the UK Environmental Accounts.

Chapter 13

Chapter 13 covers flow of funds.

2 . Overview of the UK National Accounts and sector accounts

In the UK, priority is given to the production of a single gross domestic product (GDP) estimate using income, production and expenditure data. Further analysis is available on:

- income analysis at current prices
- expenditure analysis at both current prices and chained volume measures
- value added analysis compiled on a quarterly basis in chained volume measures only

Income, capital and financial accounts are produced for non-financial corporations, financial corporations, general government, households and non-profit institutions serving households (NPISH).

The accounts are fully integrated but with a statistical discrepancy (known as the statistical adjustment), shown for each sector account. This reflects the difference between the sector net borrowing or lending from the capital account and the identified borrowing or lending in the financial accounts, which should theoretically be equal.

Financial transactions and balance sheets are produced for the rest of the world sector in respect of its dealings with the UK.

An introduction to sector accounts

The sector accounts summarise the transactions of particular groups of institutions within the economy, showing how the income from production is distributed and redistributed and how savings are used to add wealth through investment in physical or financial assets.

Institutional sectors

The accounting framework identifies two kinds of institutions: consuming units (mainly households) and production units (mainly corporations, non-profit institutions or government).

Units can own goods and assets, incur liabilities and engage in economic activities and transactions with other units. All units are classified into one of five sectors:

- non-financial corporations
- financial corporations
- general government
- households and NPISH
- rest of the world

Types of transactions

There are three main types of transactions.

Transactions in products

Transactions in products are related to goods and services. They include output, intermediate and final consumption, gross capital formation, and exports and imports.

Distributive transactions

Distributive transactions transfer income or wealth between units of the economy. They include property income, taxes and subsidies, social contributions and benefits, and other current or capital transfers.

Financial transactions

Financial transactions differ from distributive transactions in that they relate to transactions in financial claims, whereas distributive transactions are unrequited. The main categories in the classification of financial instruments are:

- monetary gold and special drawing rights
- currency and deposits
- debt securities
- loans
- equity and investment fund shares or units
- insurance, pension and standardised guarantee schemes
- financial derivatives and employee stock options
- other accounts receivable or payable

3 . Summary of changes

Several important methodological improvements have been incorporated into Blue Book 2021, impacting on current price and volume estimates of gross domestic product (GDP) as well as the sector and financial accounts and the balance of payments. The main improvements are in the areas of volume estimates of GDP, double deflation, the financial services sector and household expenditure.

Further information about these improvements, and their associated data impacts, is available in Impact of Blue Book 2021 changes on current price and volume estimates and GDP, Detailed assessment of changes to institutional sector accounts: 1997 to 2019 and Detailed assessment of changes to balance of payments annual estimates: 1997 to 2019.

We have produced volume estimates of GDP in the supply and use table (SUT) framework for the first time, including the first published estimates of double deflation along with improved reconciliation of current price and volume estimates. SUTs are used to set the annual current price level of GDP, linking industry outputs, inputs, and gross value added (GVA). In Blue Book 2021, these annual SUTs have been used to compile volume estimates of GVA, which enables us to implement double deflation. This is recognised as the best approach for producing volume estimates of GVA (that is output minus intermediate consumption). Further detail is available in Double deflation methods and deflator improvements to UK National Accounts: Blue Book 2021.

Financial Services Survey

Continued improvement is being made to the quality of estimates for financial services using information from the Financial Services Survey (FSS), including the output and intermediate consumption of other financial institutions and financial auxiliaries. This involves implementation of new estimates on fees and commissions for industries K64 (financial service activities, except insurance and pension funding) and K66 (activities auxiliary to financial services and insurance activities). This real survey data replaces the previously extrapolated data used in the national accounts. With the introduction of the FSS data, we have taken this opportunity to review and improve our national accounts balancing adjustments applied across all transactions, including those indirectly impacted.

Removal of historic link factors and improvements to household expenditure exhaustiveness

In the early 2000s, the Living Costs and Food Survey (LCF) and Annual Business Survey (ABS) went through significant changes, so link factors were introduced to remove structural breaks in the historical estimates. With more recent survey estimates having been collected, these link factors are no longer required. Blue Book 2021 implements the removal of these adjustments, whereby data prior to the early 2000s are modified to align to current levels. This has led to a reduction in national accounts balancing adjustments and improved alignment for the expenditure approach to GDP, leading to revisions to household expenditure on various products. To achieve improved exhaustiveness of household expenditure, Blue Book 2021 includes uplifts to account for diary fatigue in the LCF, and ABS-sourced retail sales by non-retail businesses. It also includes methods changes to estimates of household spending on machine and remote gambling, and maintenance and repair of major durables.

Trade

We have implemented improvements to estimates of freight services in recent years for all modes of transport excluding sea freight. In Blue Book 2021 we have reviewed and replaced outdated estimates of sea freight data with Vessels Value data and UK Chamber of Shipping data. Other changes impacting trade include improved estimates on transactions of second-hand ships, and new methods of approximating the import and export adjustments for ship repairs. The changes also include improved methodology for calculating disbursements in the UK by foreign operators.

Deflators

The telecoms deflator has been updated to include data on business-to-consumer sales, broadband and mobile data. This captures the effect of bundling of services, tackles the under-representation of internet services, and improves the handling of access charges, leading to new estimates of price changes within telecommunications. We have also implemented improvements to the clothing deflator, impacting the retail sales index and household expenditure.

Valuables

There are several changes to measuring valuables, for example, improving sources, sector allocation and deflation. Imports and exports of valuables are sourced from HM Revenue and Customs (HMRC) data (now identified at a more granular level of product). Imports and exports of non-monetary gold are supplied by the Bank of England. Valuables now include acquisitions of domestically produced valuables such as art, jewellery, and coin.

Costs associated with the transfer of valuables from one unit to another are now included and measured as follows:

- distributors' trading margins – using Annual Business Survey (ABS) data from retailers to determine margins made on sale of valuables
- commission paid – using a mix of ABS and web-scraped auction house data, estimating the number of valuables sold and their total value
- taxes - standard VAT rates for imported and domestic items are used unless VAT exemption applies

Pension funds balance sheets

From Blue Book 2021, the new Financial Survey of Pension Schemes (FSPS) will be the data source used to calculate the Defined Contribution (DC) pensions element of pension entitlements. The FSPS data provides an improved coverage of DC, as it includes DC parts of hybrid schemes and very small schemes, unlike The Pension Regulator (TPR)'s publication DC Trust which is currently used to compile these liabilities. FSPS data are used for 2019 and onwards, with a revised historical series back to 1997.

Other changes

For Blue Book 2021, methods are being introduced to improve the coherence in the calculations of debt securities in the Household and non-profit institutions serving households (NPISH) sectors and data are being taken on from the Office for National Statistics' (ONS') Wealth and Assets Survey, for households' stock holdings of:

- debt securities (for example bonds) issued by UK government and by UK corporations
- debt securities issued by the rest of the world
- shares issued by the rest of the world
- shares issued by UK mutual funds

4 . The basic accounting framework

The accounting framework provides a systematic and detailed description of the UK economy, including sector accounts and the input–output framework.

All elements required to compile aggregate measures, such as gross domestic product (GDP), gross national income (GNI), saving and the current external balance (the balance of payments) are included.

The economic accounts provide the framework for a system of volume and price indices, to allow chained volume measures of aggregates such as GDP to be produced. In this system, value added, from the production approach, is measured at basic prices (including other taxes less subsidies on production but not on products) rather than at factor cost (which excludes all taxes less subsidies on production).

The whole economy is subdivided into institutional sectors with current price accounts running in sequence from the production account through to the balance sheet.

The accounts for the whole UK economy and its counterpart, the rest of the world, follow a similar structure to the UK sectors, although several of the rest of the world accounts are collapsed into a single account as they can never be complete when viewed from a UK perspective.

5 . Table numbering system

The table numbering system is designed to show relationships between the UK, its sectors and the rest of the world. For accounts drawn directly from the European System of Accounts (ESA) 2010, a three-part numbering system is used; the first two digits denote the sector and the third digit denotes the ESA 2010 account. Not all sectors can have all types of account, so the numbering is not necessarily consecutive within each sector's chapter.

The rest of the world's identified components of accounts two to six are given in a single account numbered two. UK whole economy accounts consistent with ESA 2010 are given in Section 1.6 as a time series and in Section 1.7 in a detailed matrix identifying all sectors, the rest of the world and the UK total.

The ESA 2010 code for each series is shown in the left-hand column, using the following prefixes:

- S for the classification of institutional sectors
- P for transactions in products
- D for distributive transactions
- F for transactions in financial assets and liabilities
- K for other changes in assets
- B for balancing items and net worth

Within the financial balance sheets, the following prefixes are used: AF for financial assets and liabilities and AN for non-financial assets and liabilities.

6 . The purpose of an account

An account records and displays all flows and stocks for a given aspect of economic life. The sum of resources is equal to the sum of uses, with a balancing item to ensure this equality.

The system of economic accounts allows the build-up of accounts for different areas of the economy, highlighting, for example, production, income and financial transactions.

Accounts may be elaborated and set out for different institutional units or sectors (groups of units).

Usually a balancing item has to be introduced between the total resources and total uses of these units or sectors. When summed across the whole economy, these balancing items constitute significant aggregates.

Table I.1 provides the structure of the accounts and shows how gross domestic product (GDP) estimates are derived as the balancing items.

7 . The integrated economic accounts

The integrated economic accounts of the UK provide an overall view of the economy. Table I.1 presents a summary view of the accounts, balancing items and main aggregates and shows how they are expressed. The accounts are grouped into four main categories:

- goods and services accounts
- current accounts
- accumulation accounts
- balance sheets

8 . The goods and services account (Account 0)

The integrated economic accounts of the UK provide an overall view of the economy. Table I.1 presents a summary view of the accounts, balancing items and main aggregates and shows how they are expressed. The accounts are grouped into four main categories:

- goods and services accounts
- current accounts
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- balance sheets

9 . Current accounts: the production and distribution of income accounts

The production account (Account I)

This account displays transactions involved in the generation of income by the activity of producing goods and services. The balancing item is value added (B.1). For the nation's accounts, the balancing items (the sum of value added for all industries) are, after the addition of taxes less subsidies on products, gross domestic product (GDP) at market prices or net domestic product when measured net of capital consumption. The production accounts are also shown for each industrial sector.

The distribution and use of income account (Account II)

This account shows the distribution of current income (value added) carried forward from the production account and has saving as its balancing item (B.8). Saving is the difference between income (disposable income) and expenditure (or final consumption).

The distribution of income compromises four sub-accounts:

- primary distribution of income account
- secondary distribution of income
- redistribution of income in kind
- use of income account

The allocation of primary income account (Account II.2.1)

Primary incomes are accrued to institutional units because of their involvement in production or their ownership of productive assets. They include property income (from lending or renting assets) and taxes on production and imports. They exclude taxes on income or wealth, social contributions or benefits, and other current transfers.

The primary distribution of income shows the way these are distributed among institutional units and sectors. The primary distribution account is divided into two sub-accounts: the generation and the allocation of primary incomes.

The secondary distribution of income account (Account II.2)

This account describes how the balance of primary income for each institutional sector is allocated by redistribution, through transfers such as taxes on income, wealth and so on, social contributions and benefits, and other current transfers. It excludes social transfers in kind.

The balancing item of this account is gross disposable income (B.6g), which reflects current transactions and explicitly excludes capital transfers, real holding gains and losses, and the consequences of events such as natural disasters.

The redistribution of income in kind account (Account II.3)

This account shows how gross disposable income of households and non-profit institutions serving households (NPISH) and government are transformed by the receipt and payment of transfers in kind. The balancing item for this account is adjusted gross disposable income (B.7g).

The use of income account (Account II.4)

The use of income account shows how disposable income is divided between final consumption expenditure and saving. In addition, the use of income account includes, for households and for pensions, an adjustment item (D. 8: adjustment for the change in pension entitlements), which relates to the way that transactions between households and pension funds are recorded.

The accumulation accounts (Account III)

These accounts cover all changes in assets, liabilities and net worth. The accounts are structured into two groups. The first group covers transactions that would correspond to all changes in assets, liabilities and net worth that result from transactions and are known as the capital account and the financial account. They are distinguished to show the balancing item net lending or borrowing.

The second group relates to all changes in assets, liabilities and net worth owing to other factors, for example, the discovery or re-evaluation of mineral reserves or the reclassification of a body from one sector to another.

The capital account (Account III.1)

The capital account is presented in two parts.

The first part shows that saving (B.8g), the balance between national disposable income and final consumption expenditure from the production and distribution and use of income accounts, is reduced or increased by the balance of capital transfers (D.9) to provide an amount available for financing investment (in both non-financial and financial assets).

The second part shows total investment in non-financial assets. This is the sum of gross fixed capital formation (P. 51g), changes in inventories (P.52), acquisitions less disposals of valuables (P.53) and acquisitions less disposals of non-financial non-produced assets (NP). The balance on the capital account is known as net lending or borrowing. Conceptually, net lending or borrowing for all the domestic sectors represents net lending or borrowing to the rest of the world sector.

If actual investment is lower than the amount available for investment, the balance will be positive – representing net lending. Similarly, when the balance is negative, borrowing is represented. Where the capital accounts relate to the individual institutional sectors, the net lending or borrowing of a particular sector represents the amounts available for lending or borrowing to other sectors. The value of net lending or net borrowing is the same irrespective of whether the accounts are shown before or after deducting consumption of fixed capital (P.51c), provided a consistent approach is adopted throughout.

The financial account (Account III.2)

This account shows how net lending and borrowing are achieved by transactions in financial instruments. The net acquisitions of financial assets are shown separately from the net incurrence of liabilities. The balancing item is net lending or borrowing.

In principle, net lending or borrowing should be identical for both the capital account and the financial account. In practice, however, because of errors and omissions this identity is very difficult to achieve for the sectors and the economy as a whole. The difference is known as a statistical adjustment.

The other changes in assets account (Account III.3)

The other changes in assets account is concerned with the recording of changes in the values of assets and liabilities, and thus of the changes in net worth, between opening and closing balance sheets that result from flows that are not transactions, referred to as “other flows”.

This account is further subdivided into: other changes in the volume of assets account, III.3.1, and revaluation account, III.3.2.

The other changes in the volume of assets account records the changes in assets, liabilities and net worth between opening and closing balance sheets that are neither because of transactions between institutional units, as recorded in the capital and financial accounts, nor holding gains and losses as recorded in the revaluation account. Examples include reclassifications and write-offs. The balancing item for this account is other changes in volume (B.102).

The revaluation account records holding gains or losses accruing during the accounting period to the owners of financial and non-financial assets and liabilities. The balancing item for this account is nominal holding gains and losses (B.103).

The balance sheet (Account IV)

The second group of accumulation accounts complete the sequence of accounts. These include the balance sheets and a reconciliation of the changes that have brought about the change in net worth between the beginning and end of the accounting period.

The opening and closing balance sheets show how total holdings of assets by the UK or its sectors match total liabilities and net worth (the balancing item). Various types of assets and liabilities can be shown in detailed presentations of the balance sheets. Changes between the opening and closing balance sheets for each group of assets and liabilities result from transactions and other flows recorded in the accumulation accounts or reclassifications and revaluations.

Net worth equals changes in assets less changes in liabilities.

The rest of the world account (Account V)

This account covers the transactions between resident and non-resident institutional units and the related stocks of assets and liabilities. Written from the point of view of the rest of the world, its role is similar to an institutional sector.

10 . Satellite accounts

Satellite accounts cover areas or activities not included in the central framework because they either add additional detail to an already complex system or conflict with the conceptual framework. The UK Environmental Accounts are satellite accounts linking environmental and economic data to show the interactions between the economy and the environment.

See Chapter 12: UK Environmental Accounts for further information.

11 . The limits of the national economy: economic territory, residence and centre of economic interest

Economic territory and residence of economic interest

The economy of the UK is made up of institutional units that have a centre of economic interest in the UK economic territory. These units are known as resident units, and it is their transactions that are recorded in the UK National Accounts. UK economic territory

The UK economic territory includes:

- Great Britain and Northern Ireland (the geographic territory administered by the UK government within which persons, goods, services and capital move freely)
- any free zones, including bonded warehouses and factories under UK customs control
- the national airspace, UK territorial waters and the UK sector of the continental shelf
- The UK economic territory excludes Crown dependencies (Channel Islands and the Isle of Man)

ESA 2010 economic territory

Within the European System of Accounts (ESA) 2010, the definition of economic territory also includes territorial enclaves in the rest of the world (embassies, military bases, scientific stations, information or immigration offices and aid agencies used by the British Government with the formal political agreement of the governments in which these units are located). However, it excludes any extra territorial enclaves (that is, parts of the UK geographic territory like embassies and US military bases used by general government agencies of other countries, by the institutions of the EU, or by international organisations under treaties or by agreement).

Centre of economic interest

When an institutional unit engages and intends to continue engaging (normally for one year or more) in economic activities on a significant scale from a location (dwelling or place of production) within the UK economic territory, it is defined as having a centre of economic interest and is a resident of the UK.

If a unit conducts transactions on the economic territory of several countries, it has a centre of economic interest in each of them.

Ownership of land and structures in the UK is enough to qualify the owner to have a centre of interest in the UK.

Residency

Resident units are:

- households
- legal and social entities such as corporations and quasi corporations, for example, branches of foreign investors
- non-profit institutions
- government
- so-called “notional residents”

Travellers, cross-border and seasonal workers, crews of ships and aircraft, and students studying overseas are all residents of their home countries and remain members of their households.

When an individual leaves the UK for one year or more (excluding students and patients receiving medical treatment), they cease being a member of a resident household and become a non-resident, even on home visits.

12 . Production included in economic activity

Gross domestic product (GDP) is defined as the sum of all economic activity taking place in UK territory. In practice, a “production boundary” is defined, inside which are all the economic activities taken to contribute to economic performance. To decide whether to include a particular activity within the production boundary, the following factors are considered:

- Does the activity produce a useful output?
- Is the product or activity marketable and does it have a market value?
- If the product does not have a meaningful market value, can one be assigned (imputed)?
- Would exclusion (or inclusion) of the product of the activity make comparisons between countries over time more meaningful?

The following are recorded within the European System of Accounts (ESA) 2010 production boundary:

- production of individual and collective services by government
- own-account production of housing services by owner-occupiers
- production of goods for own final consumption, for example, agricultural products
- own-account construction, including that by households
- production of services by paid domestic staff
- breeding of fish in fish farms
- production forbidden by law, as long as all units involved in the transaction enter into it voluntarily
- production from which the revenues are not declared in full to the fiscal authorities, for example, clandestine production of textiles

The following fall outside the production boundary:

- domestic and personal services produced and consumed within the same household, for example, cleaning, the preparation of meals, or the care of sick or elderly people
- volunteer services that do not lead to the production of goods, for example, caretaking and cleaning without payment
- natural breeding of fish in open seas

13 . Prices used to value the products of economic activity

In the UK, a number of different prices may be used to value inputs, outputs and purchases. The prices are different depending on the perception of the bodies engaged in the transaction, that is, the producer and user of a product will usually perceive the value of the product differently, with the result that the output prices received by producers can be distinguished from the prices paid by producers.

Basic prices

Basic prices are the preferred method of valuing output in the accounts.

They are the amount received by the producer for a unit of goods or services minus any taxes payable plus any subsidy receivable as a consequence of production or sale.

The only taxes included in the price will be taxes on the output process, for example, business rates and Vehicle Excise Duty, which are not specifically levied on the production of a unit of output. Basic prices exclude any transport charges invoiced separately by the producer. When a valuation at basic prices is not feasible, producers' prices may be used.

Producers’ prices

Producers’ prices are basic prices plus those taxes paid per unit of output (other than taxes deductible by the purchaser such as Value Added Tax (VAT), invoiced for output sold) minus any subsidies received per unit of output.

Purchasers’ or market prices

Purchasers’ or market prices are the prices paid by the purchaser and include transport costs, trade margins and taxes (unless the taxes are deductible by the purchaser).

Purchasers’ or market prices are producers’ prices plus any non-deductible VAT or similar tax payable by the purchaser plus transport costs paid separately by the purchaser (not included in the producers’ price).

The rest of the world: national and domestic

Domestic product (or income) includes production (or primary incomes generated and distributed) resulting from all activities taking place “at home” or in the UK domestic territory.

This will include production by any foreign-owned company in the UK but exclude any income earned by UK residents from production taking place outside the domestic territory.

Gross domestic product (GDP) equals the sum of primary incomes distributed by resident producer prices.

The definition of gross national income (GNI) is GDP plus income received from other countries (notably interest and dividends), less similar payments made to other countries.

GDP plus net property income equals GNI.

This can be introduced by considering the primary incomes distributed by the resident producer units. Primary incomes, generated in the production activity of resident producer units, are distributed mostly to other residents’ institutional units.

For example, when a resident producer unit is owned by a foreign company, some of the primary incomes generated by the producer unit are likely to be paid abroad. Similarly, some primary incomes generated in the rest of the world may go to resident units. It is therefore necessary to exclude that part of resident producers’ primary income paid abroad, but include the primary incomes generated abroad but paid to resident units.

GDP (or income) less primary incomes payable to non-resident units plus primary incomes receivable from the rest of the world equals GNI.

GNI at market prices equals the sum of gross primary incomes receivable by resident institutional units or sectors.

National income includes income earned by residents of the national territory, remitted (or deemed to be remitted in the case of direct investment) to the national territory, no matter where the income is earned.

Real GDP (chained volume measures) plus trading gain equals real gross domestic income (RGDI).

RGDI plus real primary incomes receivable from abroad less real primary incomes payable abroad equals real GNI.

Real GNI (chained volume measures) plus real current transfers from abroad less real current transfers abroad equals real gross national disposable income (GNDI).

Receivables and transfers of primary incomes, and transfers to and from abroad, are deflated using the gross domestic final expenditure deflator.

14 . Gross domestic product: the concept of net and gross

The term gross means that, when measuring domestic production, capital consumption or depreciation has not been allowed for.

Capital goods are different from the materials and fuels used up in the production process because they are not used up in the period of account but are instrumental in allowing that process to take place. However, over time, capital goods wear out or become obsolete and in this sense gross domestic product (GDP) does not give a true picture of value added in the economy. When calculating value added as the difference between output and costs, we should also show that part of the capital goods are used up during the production process (the depreciation of capital assets).

Net concepts are net of this capital depreciation, for example:

GDP minus consumption of fixed capital equals net domestic product.

15 . Symbols used

In general, the following symbols are used:

.. denotes not available – denotes nil or less than £500,000 £ billion denotes £1,000 million

Compendium

National accounts at a glance

A summary of recent trends and movements within the UK economy.

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Table of contents

1 . Introduction

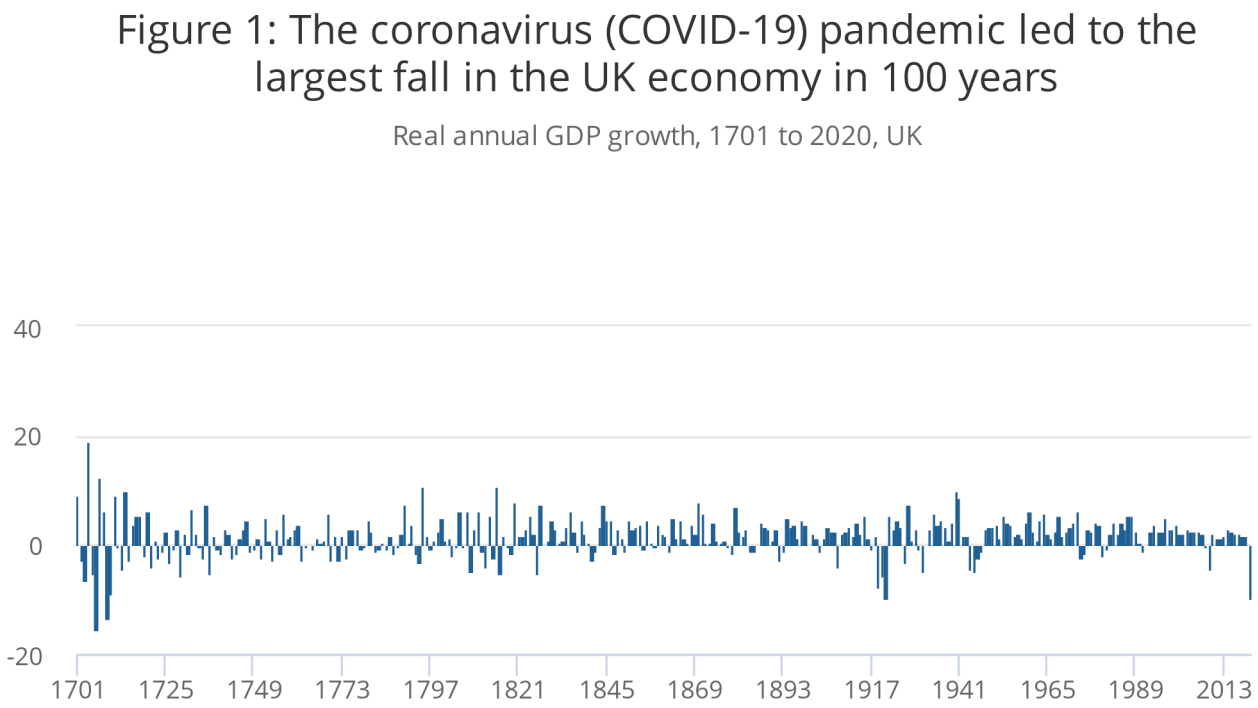
This section of the UK National Accounts, The Blue Book: 2021 edition looks at recent trends in the UK economy for a range of information that is published as part of the UK National Accounts. All UK figures referred to in this section are consistent with Blue Book 2021.

2 . Gross domestic product and the headline economy

The UK economy contracted by 9.7% in 2020 in response to the outbreak of the coronavirus (COVID-19) pandemic. This is the largest annual fall in UK gross domestic product (GDP) since 1921 (Figure 1)[1]. The introduction of public health restrictions and voluntary social distancing to reduce the spread of the virus explains the large fall in economic activity in 2020.

Figure 1: The coronavirus (COVID-19) pandemic led to the largest fall in the UK economy in 100 years

Real annual GDP growth, 1701 to 2020, UK



Source: Office for National Statistics – UK National Accounts, Bank of England

Notes:

1. Official UK GDP estimates from 1948.

The majority of G20 economies experienced a decline in GDP in 2020, reflecting the global nature of the pandemic. The size of these impacts likely reflects the extent to which coronavirus restrictions were in place over the year and the structural composition of these economies. Argentina and the UK experienced the largest falls. In contrast, China and Turkey were the only countries to have experienced a rise in GDP in 2020.

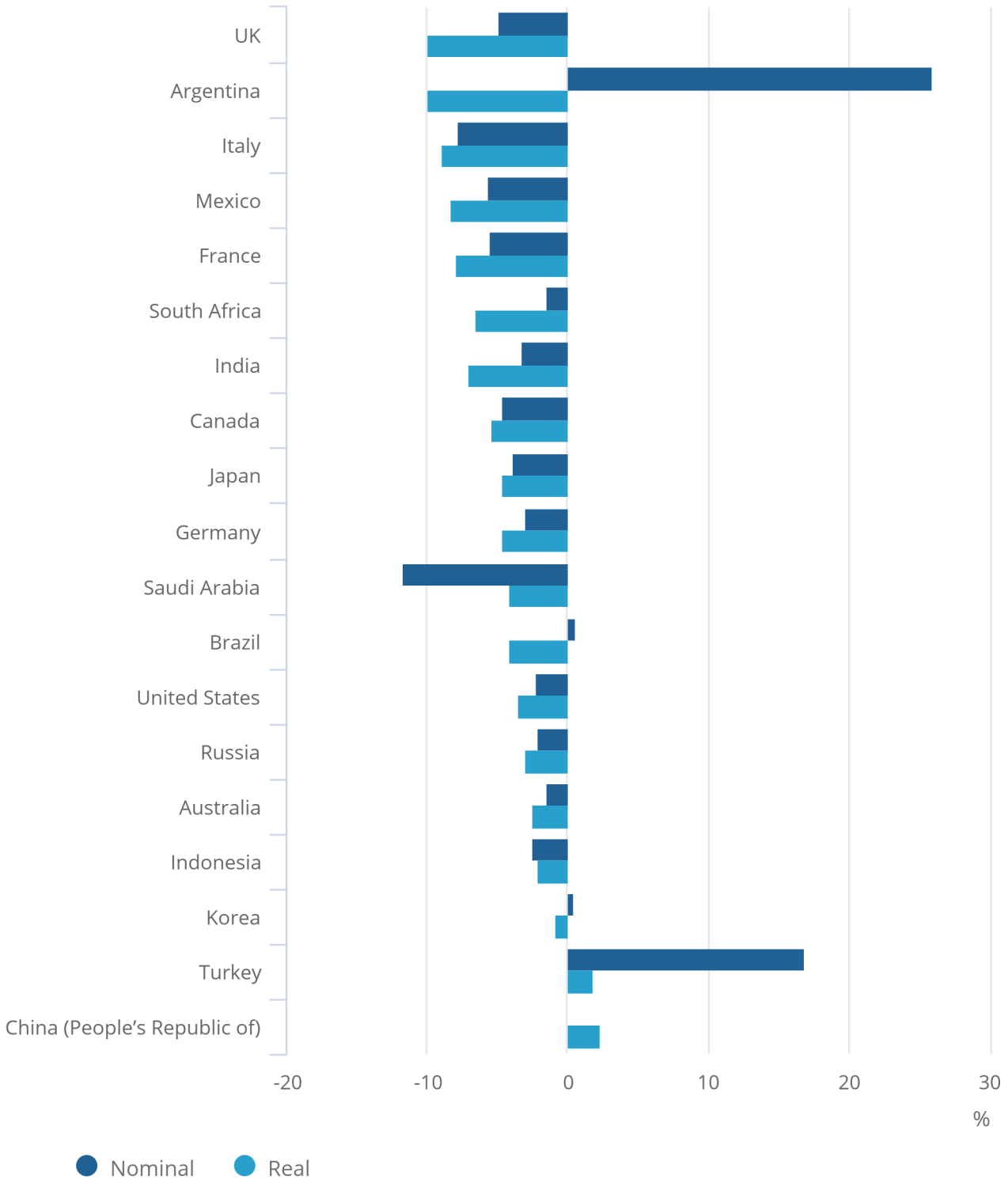
Recent analysis highlights the challenges of making international comparisons of GDP at this time and shows that it may be useful to compare nominal and real estimates of GDP, as well as estimates excluding government expenditure. Our initial international engagement has shown differences between national statistical institutes (NSIs) in how the challenges of non-market output have been addressed, particularly over the pandemic period.

Figure 2: Gross domestic product fell across most G20 countries in 2020

GDP growth rate, 2020, UK

Figure 2: Gross domestic product fell across most G20 countries in 2020

GDP growth rate, 2020, UK



Source: Office for National Statistics – UK National Accounts, Organisation for Economic Co-operation and Development

Notes:

1. Figures for the European Union have not been included.

Notes for: Gross domestic product and the headline economy

1. Office for National Statistics: Quarterly economic commentary: October to December 2020.

3 . Industrial analysis

One feature of the pandemic has been how wide-ranging the industry-level effects have been. This reflects how specific industries have been more exposed to the effects of public health restrictions and social distancing, particularly those that might be considered as “high-contact”.

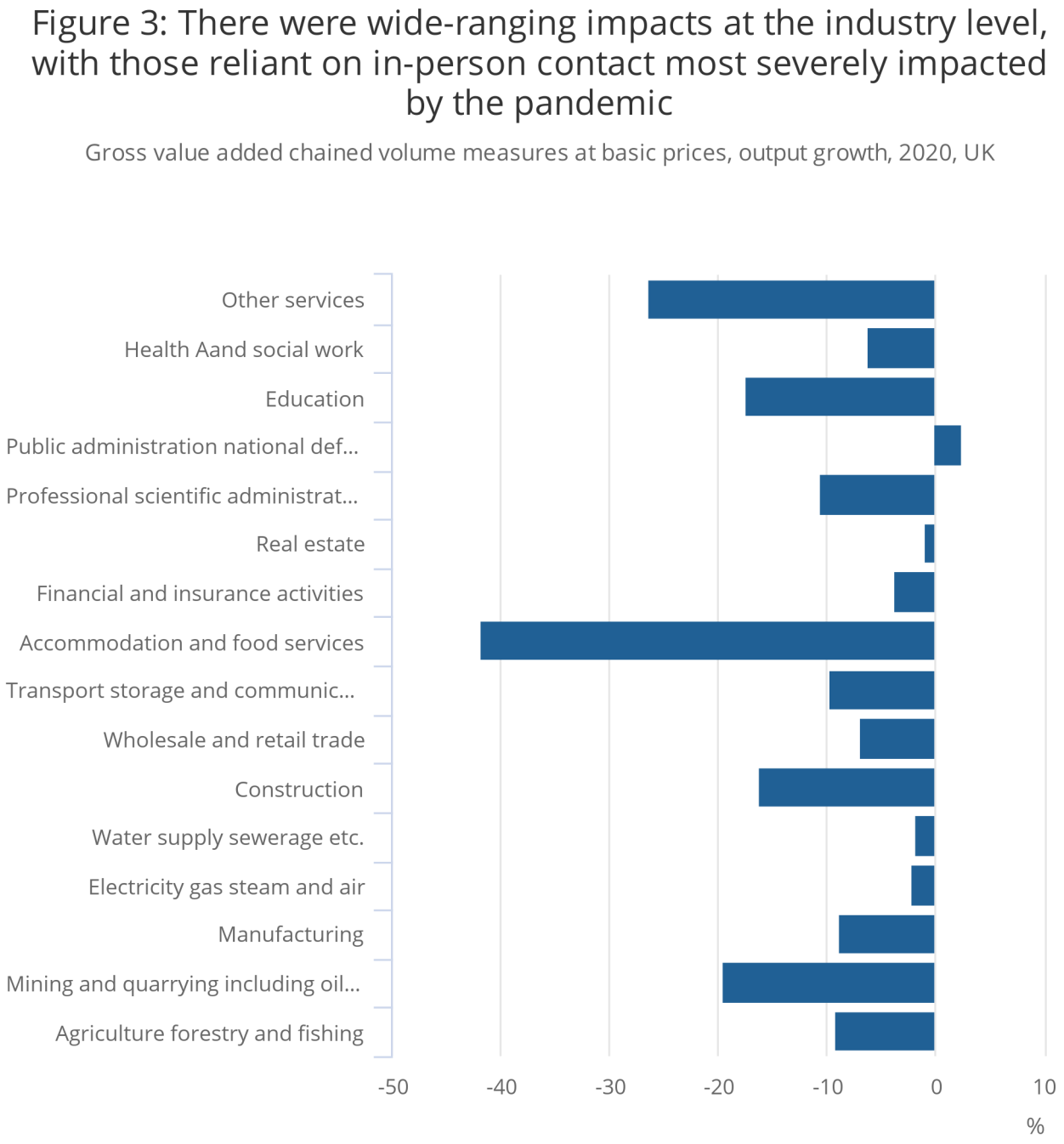
Those industries that rely on in-person customer contact or that were forced to stop trading were the most adversely impacted, as shown in Figure 3. The largest annual falls were in accommodation and food service activities (negative 41.7%); other services (negative 26.3%) (which includes arts, entertainment and recreation and other personal activities such as hairdressing); and education (negative 17.4%).

The pandemic impacted upon the health and social work industry in response to treating those infected, while there were also declines in more traditional types of health treatment given resource constraints. Public administration, national defence and social security was the only industry to see a rise in output (2.5%) in 2020, in part reflecting the government’s effort to provide support schemes during the pandemic.

Production output was hindered by closures of factories and warehouses as well as disruption to international trade causing delays in deliveries of inputs. There was also a large decline in construction output, impacted by the forced closure of working sites with little ability to shift to working from home.

Figure 3: There were wide-ranging impacts at the industry level, with those reliant on in-person contact most severely impacted by the pandemic

Gross value added chained volume measures at basic prices, output growth, 2020, UK



Source: Office for National Statistics – UK National Accounts

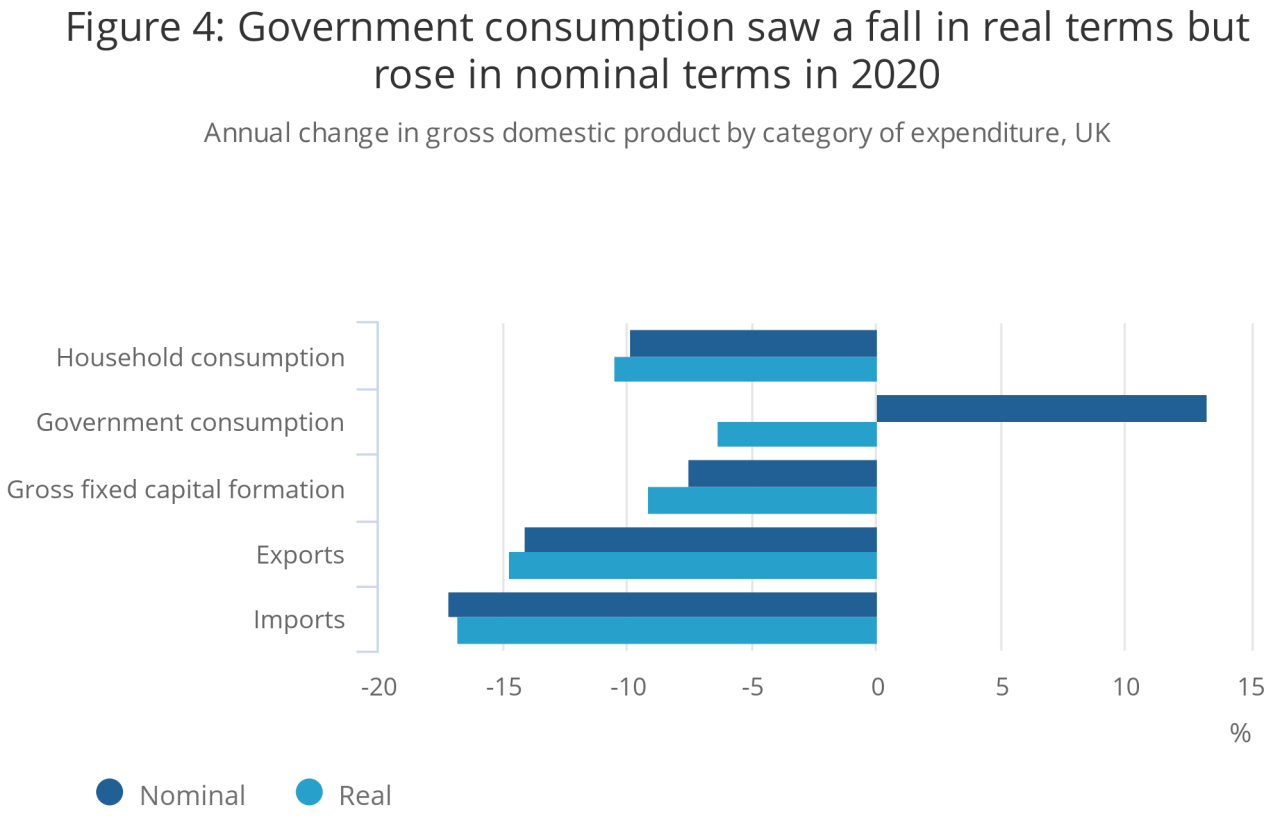
4 . Spending in the UK economy

Households' final consumption expenditure fell by 10.5% in 2020, as shown in Figure 4, reflecting the introduction of coronavirus restrictions along with voluntary social distancing to reduce the spread of the virus. This was particularly marked for household spending on services, which fell by 16.2% in 2020 and were more severely affected by these types of restrictions.

The largest declines in household consumption were experienced in restaurants and hotels (negative 42.2%); transport (negative 31.4%); and clothing and footwear (negative 12.8%). There were rises in spending on alcohol and tobacco (11.5%); food and drink (8.4%) and household goods and services (8.3%), which likely reflect changes in households' behaviour as people spent more time at home.

Figure 4: Government consumption saw a fall in real terms but rose in nominal terms in 2020

Annual change in gross domestic product by category of expenditure, UK



Source: Office for National Statistics – UK National Accounts

Notes:

1. Non-profit institutions serving households (NPISH), change in inventories and the acquisitions less disposals of valuables have been excluded.

Government consumption rose by 13.3% in current price terms but there was a fall of 6.3% in volume terms. This is largely explained by measurement challenges of non-market output, in particular healthcare and education. Estimates of healthcare and education in the UK are based on volume indicators, such as the number of treatments for healthcare or students enrolled for education. The fall in the volume of government consumption expenditure in part reflects the effects of school closures through much of 2020.

Gross fixed capital formation fell by 9.1%, including an 11.1% decline in business investment. Businesses have faced lower turnover and possible cashflow issues, while there is some evidence that the pandemic led to higher levels of economic uncertainty. The UK's exit from the EU is also expected to have contributed to uncertainty for businesses.

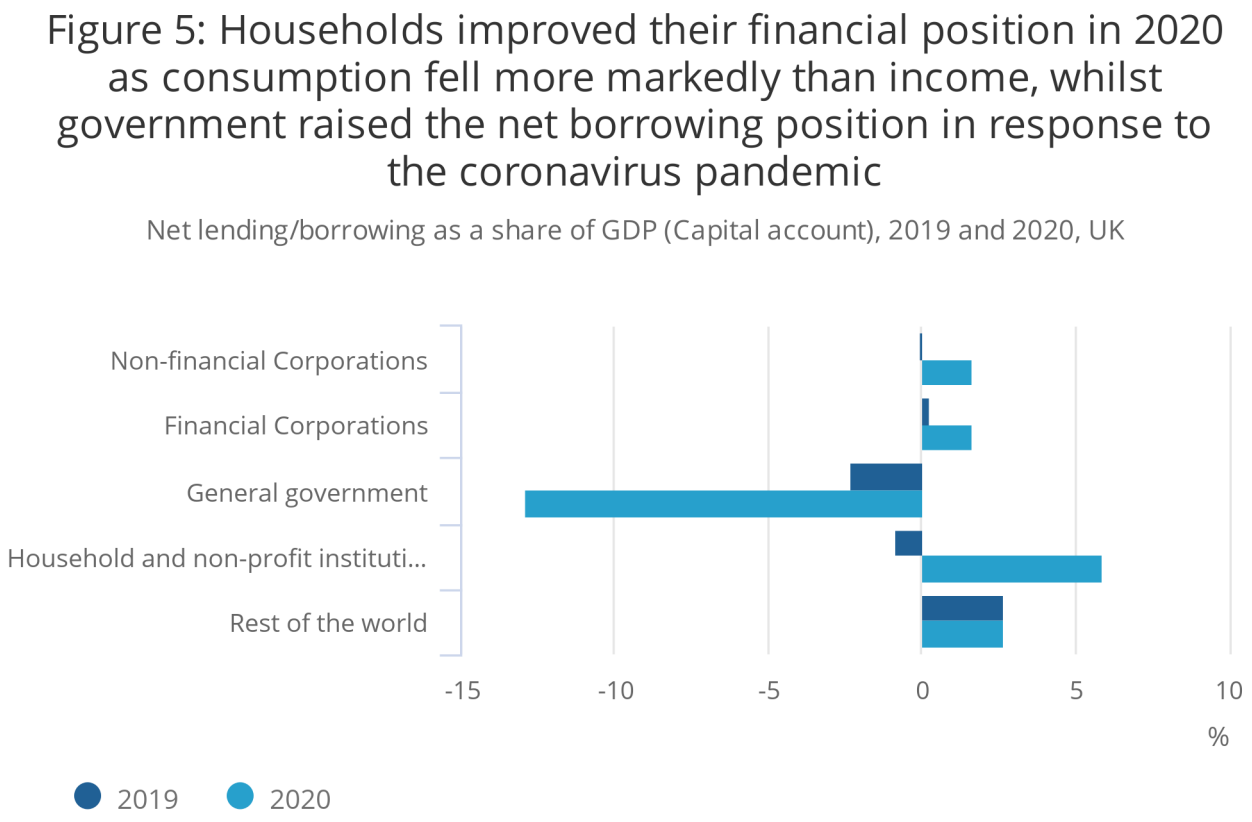
Exports fell by 14.7% while imports fell by 16.8% in 2020, reflecting the global impact of the pandemic. There has been a contraction in UK and global demand, while adverse impacts of restrictions on global supply chains would have likely impacted upon trade flows. International travel restrictions that have been in place for much of the year have also contributed to lower trade flows particularly for tourism. The UK's exit from the EU (31 January 2020) is also expected to have had an impact on trade through 2020, as uncertainty led to UK and EU businesses engaged in stockpiling.

5 . Institutional sector accounts

The change in institutional sectors' net lending/borrowing position between 2019 and 2020 is shown in Figure 5. The largest change was for the government, whose net borrowing increased, primarily reflecting the fiscal cost of the policy response to the pandemic, including the Coronavirus Job Retention Scheme (CJRS) and Self-Employment Income Support Scheme (SEISS) as well as lower tax receipts in response to the fall in economic activity. This was largely offset by the increase in net lending by households. While there was a record contraction in consumption expenditure in response to coronavirus restrictions, the CJRS and SEISS helped maintain household incomes.

Figure 5: Households improved their financial position in 2020 as consumption fell more markedly than income, whilst government raised the net borrowing position in response to the coronavirus pandemic

Net lending/borrowing as a share of GDP (Capital account), 2019 and 2020, UK



Source: Office for National Statistics – UK National Accounts

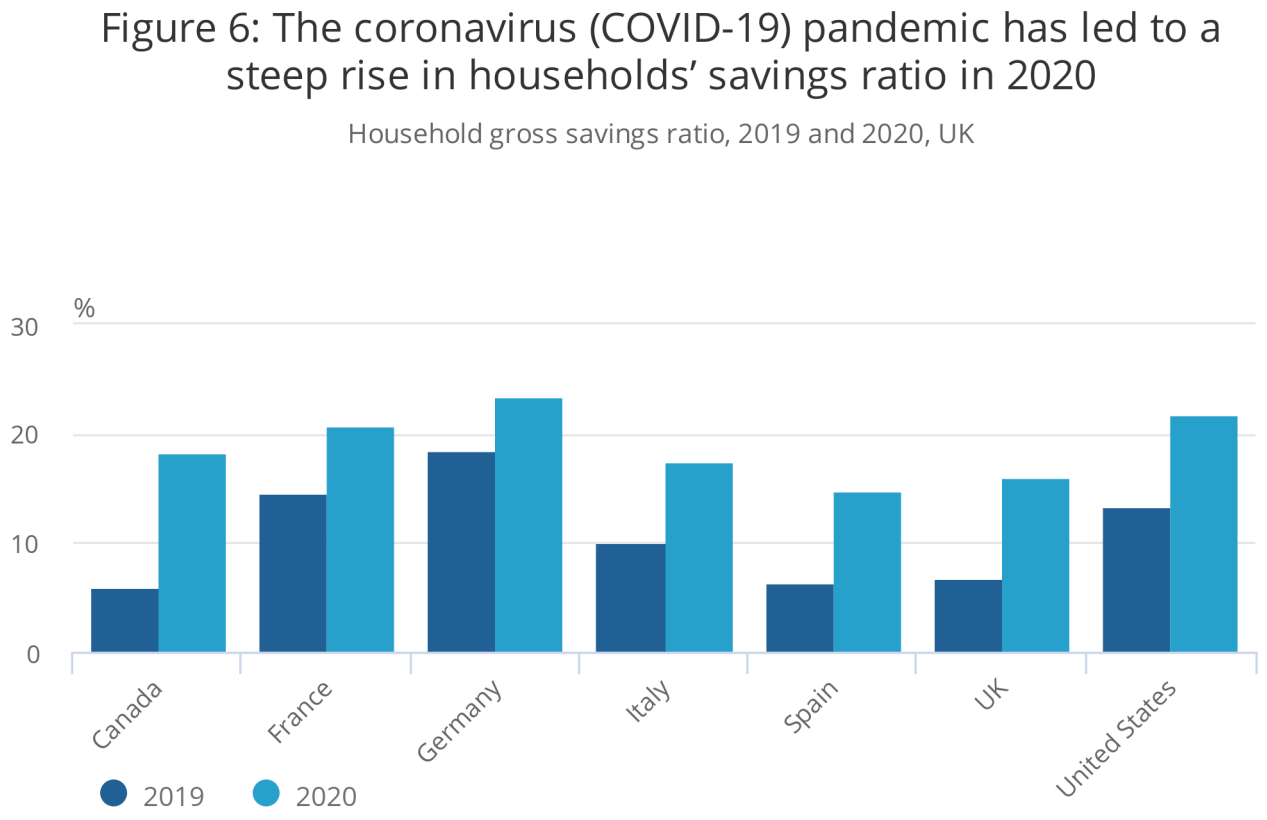
Notes:

1. This includes non-profit institutions serving households (NPISH).

The UK's savings ratio rose to a record 16.1% in 2020. This is likely to reflect "enforced" and precautionary savings, given the nature of the pandemic. The combination of reduced spending and protected household incomes helped by the CJRS and SEISS has been important in raising households' savings. This has been a common theme across G7 countries (Figure 6).

Figure 6: The coronavirus (COVID-19) pandemic has led to a steep rise in households' savings ratio in 2020

Household gross savings ratio, 2019 and 2020, UK

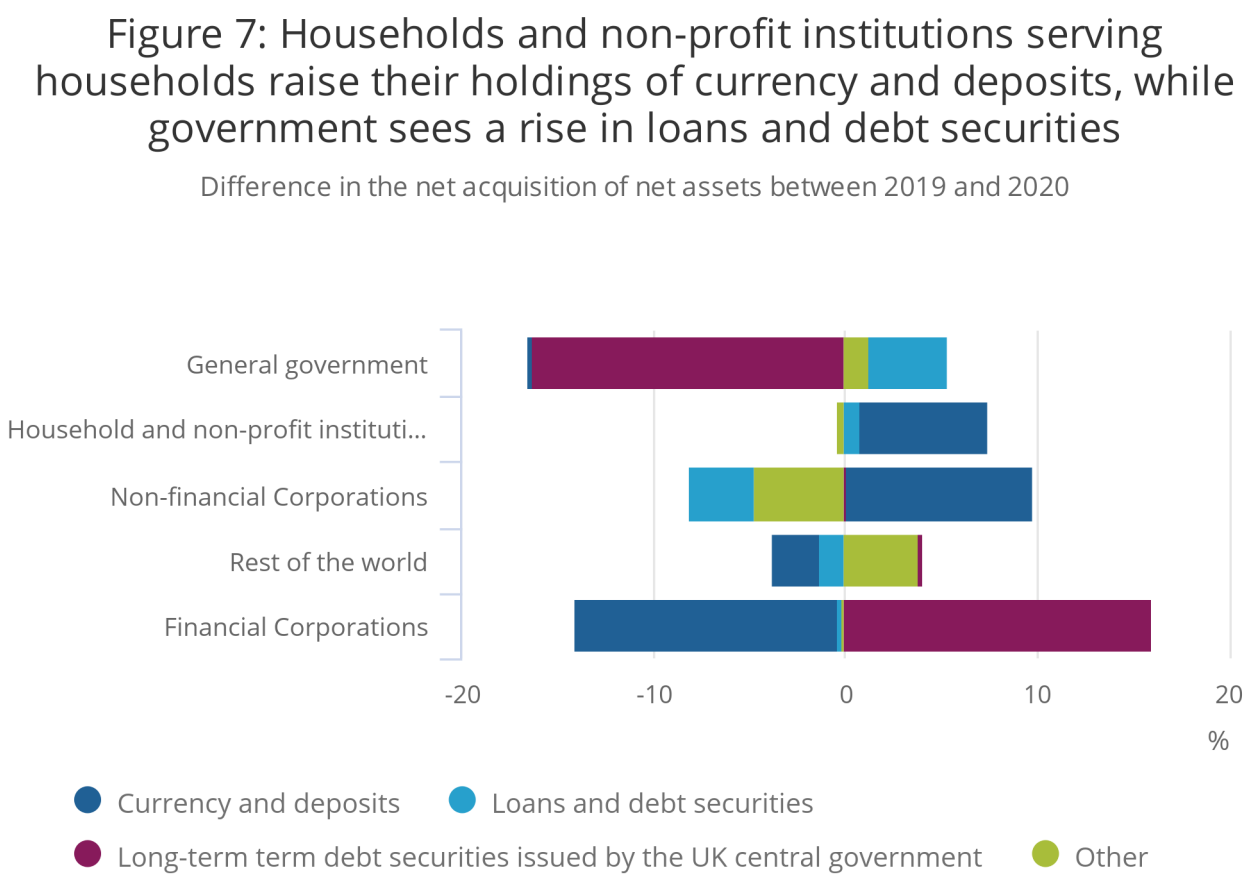


Source: Office for National Statistics – UK National Accounts, Organisation for Economic Co-operation and Development

There was a record increase in the holding of deposits, driven by households and non-financial corporations, shown in Figure 7. This was also then reflected in the change in the financial position of financial corporations, as restrictions on spending led to an "enforced" accumulation of deposits by households and non-financial corporations. The government primarily financed its increase in net lending by its issuance of gilts, that is, long-term debt securities in 2020.

Figure 7: Households and non-profit institutions serving households raise their holdings of currency and deposits, while government sees a rise in loans and debt securities

Difference in the net acquisition of net assets between 2019 and 2020



Source: Office for National Statistics – UK National Accounts

Compendium

The industrial analyses

Analysis of the 10 broad industrial groups' contributions to gross value added, compensation of employees and workforce jobs, and summary supply and use tables.

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29 October 2021

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To be announced

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2. Input-output supply and use tables

3. Current price analysis

4. Chained volume indices (2019=100) analyses

5. Workforce jobs by industry

6. Summary supply and use tables for the UK

7. Gross value added (GVA)

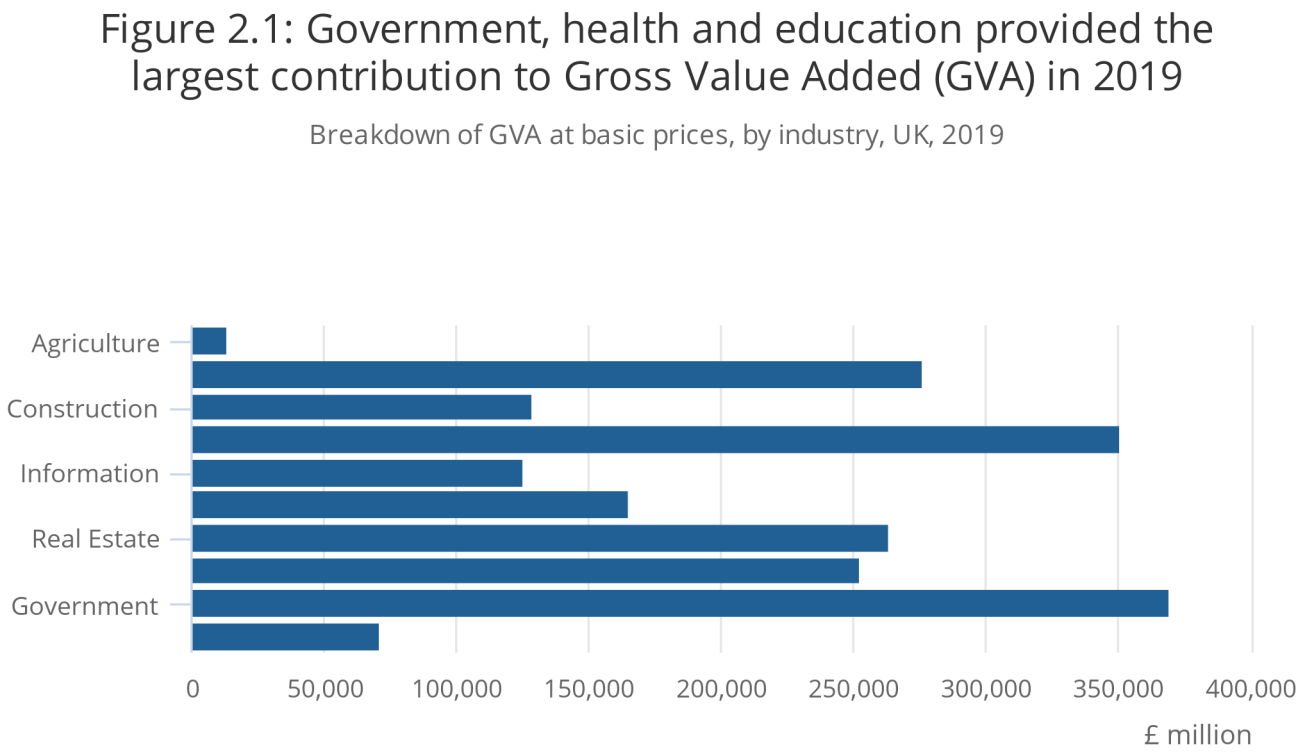
1 . The industrial analysis

Analysis of the 10 broad industrial groups shows that in 2019, the government, health and education industries provided the largest contribution to gross value added (GVA) at current basic prices. These industries contributed 18.3% to the total GVA of £2,017 billion, with a value of £370 billion. Of the remainder:

- distribution, transport, hotels and restaurants industries contributed 17.4%
- production industries contributed 13.7%
- real estate industries contributed 13.1%

Figure 2.1: Government, health and education provided the largest contribution to Gross Value Added (GVA) in 2019

Breakdown of GVA at basic prices, by industry, UK, 2019



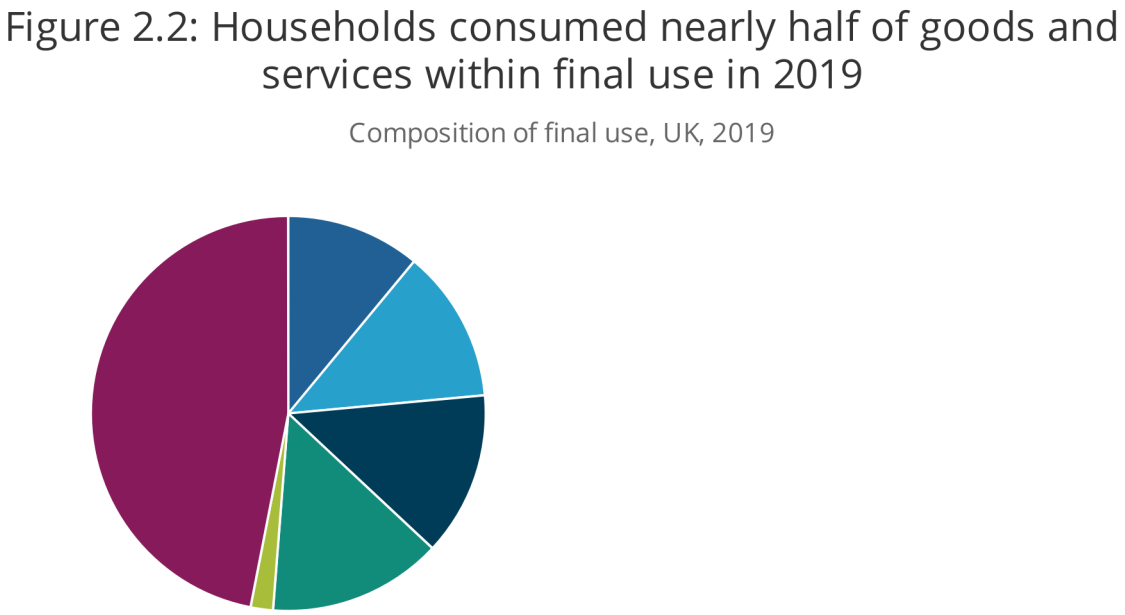
Source: Office for National Statistics – Blue Book 2021

In 2019, of all goods and services within final demand:

- households consumed 46.9%
- government, both central and local, consumed 14.3%
- non-profit institutions serving households (NPISH) consumed 1.8%
- gross capital formation, by all sectors of the economy, consumed 13.4%
- 12.5% were exported goods, and 11.0% were exported services

Figure 2.2: Households consumed nearly half of goods and services within final use in 2019

Composition of final use, UK, 2019

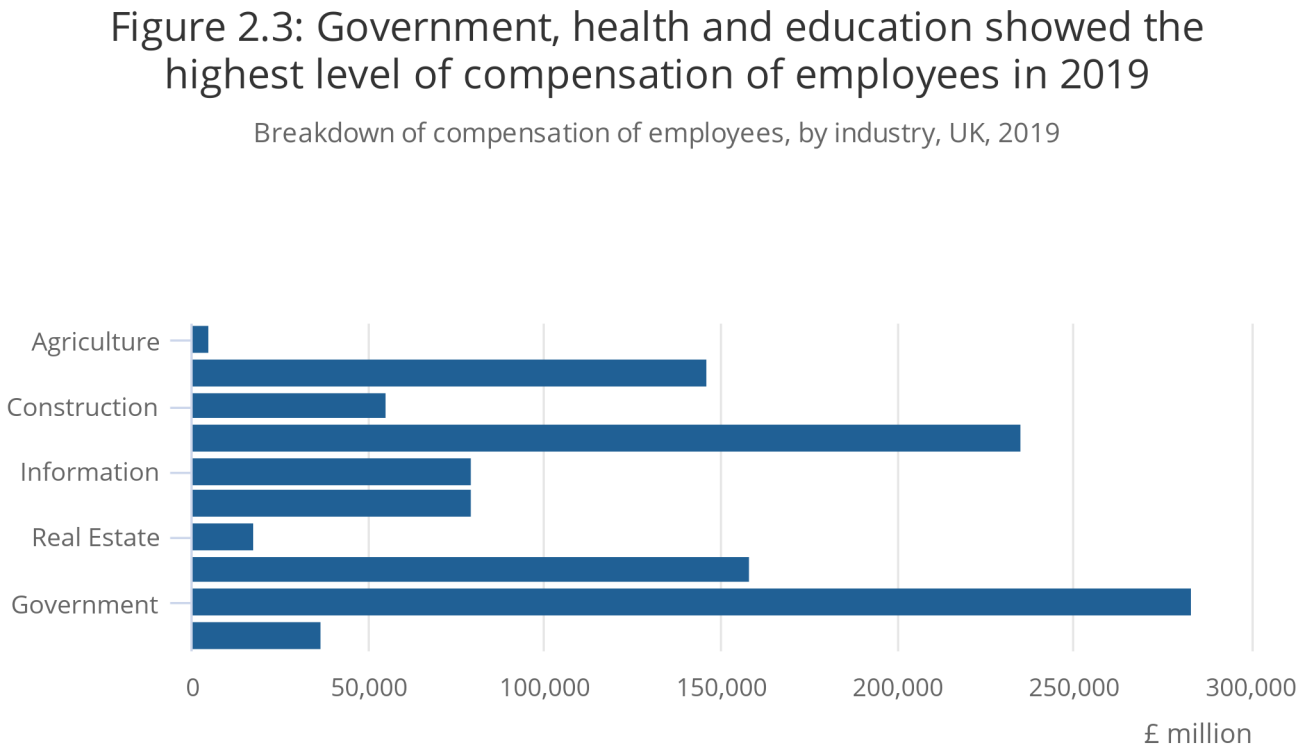


Source: Office for National Statistics – Blue Book 2021

The government, health, and education industries showed the highest level of compensation of employees in 2019 at £283.5 billion (25.8%). The second largest industry grouping, in terms of their contribution to total compensation of employees, were the distribution, transport, and hotels and restaurants industries at £235.0 billion (21.4%).

Figure 2.3: Government, health and education showed the highest level of compensation of employees in 2019

Breakdown of compensation of employees, by industry, UK, 2019



Source: Office for National Statistics – Blue Book 2021

2 . Input-output supply and use tables

The annual estimates included in UK National Accounts, The Blue Book: 2021 edition, incorporate the results of annual inquiries that become available in the first part of the year, although the last year's estimates are based largely on quarterly information. Any newly collected data are shown as revisions. To reassess these estimates, supply and use tables (SUTs) are prepared using all the available information on inputs, outputs, gross value added, income and expenditure. To produce consolidated sector and financial accounts requires preparation of "top-to-bottom" sector and subsector accounts to identify discrepancies in the estimates relating to each sector.

The latest annual supply and use tables provide estimates for the years 1997 to 2019. Data for 2019 are balanced for the first time. Data for 2017 and 2018 have been fully re-balanced. Data from 1997 to 2016 have been revised to incorporate changes required under new international standards and guidelines, as well as to make sure the data are comparable and meet user needs.

Further general information regarding the supply and use framework and the balancing process can be found in the Guidance and methodology.

3 . Current price analysis

The analyses of gross value added (GVA) and other variables by industry, shown in Tables 2.1, 2.1A and 2.2, reflect estimates based on Standard Industrial Classification 2007: SIC 2007. These tables are based on current price data reconciled through the input-output supply and use framework from 1997 to 2019.

Estimates of total output and GVA are valued at basic prices, the method recommended by the European System of Accounts 2010: ESA 2010. Therefore, the only taxes and subsidies included in the price will be those paid or received as part of the production process (such as business rates), rather than those associated with the production of a unit of output (such as Value Added Tax).

4 . Chained volume indices (2019=100) analyses

Table 2.3 shows chained volume estimates of gross value added (GVA) at basic prices by industry. As part of Blue Book 2021, there are now more coherent estimates of industry level GVA. This is because we have expanded the supply and use tables (SUTs) framework to chained volume industry levels that have been reconciled through the input-output supply use framework from 1997 to 2019. Those industry-level estimates from within the SUTs framework are much richer than those that currently feed into the industry short-term volume estimates. This not only reflects that this is based on a wider range of annual surveys and administrative information, but it is also recording the correct concept of GVA, rather than turnover as a proxy indicator. This also means that at industry level, the current price and volume relationship is now preserved, which historically has not been the case. This means that monthly and quarterly industry data in Blue Book 2021 will now be benchmarked to these new annual volume estimates, in the same way that current price is benchmarked.

Data from after the supply use balanced years (2020 onwards) are derived from the movements in the short-term measures of output (Index of Production, Index of Services etc.)

5 . Workforce jobs by industry

Workforce jobs (WFJ) is the preferred measure of the change in jobs by industry. A person can have more than one job; the number of jobs is not the same as the number of people employed.

Table 2.4 breaks down WFJ into 10 broad industry groupings on Standard Industrial Classification 2007: SIC 2007.

The main component of WFJ is employee jobs. Estimates for employee jobs are obtained mainly from surveys of businesses selected from the Inter-Departmental Business Register (IDBR). All other business surveys collecting economic data also use this register.

The Labour Force Survey (LFS), a household survey, is used to collect self-employment jobs for all Standard Industrial Classification (SIC) sections, employee jobs for SIC sections A and T, and government supported trainees for England. It codes respondents according to their own view of the industry they work in, therefore the industry breakdown is less reliable than that of the business surveys.

WFJ also includes Her Majesty's Forces (within industry section O) and government-supported trainees. Government-supported trainees from the devolved administrations are sourced from administrative sources (split by industry using the Labour Force Survey).

6 . Summary supply and use tables for the UK

New tables are available for all years back to 1997. Links to tables for the latest years are included below.

Table 2.1a: Summary supply and use tables 2016
Table 2.1b: Summary supply and use tables 2017
Table 2.1c: Summary supply and use tables 2018
Table 2.1d: Summary supply and use tables 2019

7 . Gross value added (GVA)

The UK National Accounts provide a comprehensive industry breakdown of gross value added (GVA), with activities grouped into 20 broad sections in accordance with Standard Industrial Classification 2007: SIC 2007.

This also includes supplementary information for the different components that make up GVA for each industry. Under the income approach, GVA is split into compensation of employees (CoE), taxes less subsidies, gross operating surplus (GOS) and mixed income. Estimates of each industry's intermediate consumption and total output are also published, with the difference between the two equalling GVA.

This additional information allows for more detailed analysis of national output to be conducted. For example, CoE can be used to calculate how much of an industry's production income is spent on wages and salaries and employers' social contributions. GOS data can be used to estimate how much profit is generated by companies after considering labour costs and taxes less subsidies.

Compendium

Non-financial corporations

Public and private sector non-financial corporations.

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29 October 2021

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To be announced

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1 . Non-financial corporations

Non-financial corporations produce goods and services for the market and do not, as a primary activity, deal in financial assets and liabilities.

This sector includes retailers, manufacturers, utilities, business service providers (such as accountancy and law firms), caterers, haulage companies, airlines, construction companies and farms, among others.

The non-financial sector is broken down into two subsectors:

- public sector non-financial corporations
- private sector non-financial corporations

Tables 3.1.1 to 3.1.11 relate to non-financial corporations as a whole. Tables 3.2.1 to 3.2.11 relate to public non-financial corporations, which are government-owned or government-controlled trading businesses. Tables 3.3.1 to 3.3.11 relate to private non-financial corporations, which are trading businesses in the private sector. All the tables are downloadable as an Excel workbook.

Further information on sector classifications and classification decisions can be found in Economic statistics classifications.

Compendium

Financial corporations

Financial corporations including monetary financial institutions, insurance corporations and pension funds, and other financial corporations.

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1 . Financial corporations

The financial corporations sector (S.12) consists of institutional units that are independent legal entities and market producers, and whose principal activity is the production of financial services. Such institutional units comprise all corporations and quasi corporations that are principally engaged in:

- financial intermediation (financial intermediaries)
- auxiliary financial activities (financial auxiliaries)

Also included are institutional units providing financial services, where most of either their assets or their liabilities are not transacted on open markets.

Financial intermediation is the activity in which an institutional unit acquires financial assets and incurs liabilities on its own account by engaging in financial transactions on the market. The assets and liabilities of financial intermediaries are transformed or repackaged in relation to, for example, maturity, scale or risk in the financial intermediation process. Auxiliary financial activities are activities related to financial intermediation, but which do not involve financial intermediation themselves.

Financial corporations are presented in the following groupings:

- monetary financial Institutions (MFI)
- insurance corporations and pension funds (ICPF)
- financial corporations except MFI and ICPF

Further information on sector classifications and classification decisions can be found in economic statistics classifications.

Notes

For private sector defined benefit pension schemes, the calculation to produce an annual, end-year estimate of private sector employees' defined benefit pension entitlements is based on the latest information available from the Pension Protection Fund (PPF)'s "Purple Book". The Office for National Statistics (ONS) has used the Financial Survey of Pension Schemes to update the estimates for private sector employees' defined contribution pension entitlements.

For public sector pension schemes, public sector employees' pension entitlements have been updated using the latest administrative data, taking into account the latest guidance from Eurostat regarding financial assumptions (e.g the discount rate).

Compendium

General government

General government sector by central and local government.

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29 October 2021

Next release:
To be announced

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1 . General government

The general government sector is made up of units providing services for collective or individual consumption that are not sold at market prices. These units are usually funded by compulsory payments from units in other sectors (taxes) and may be involved in the redistribution of national income (for example, benefits and State Pension).

The sector includes government departments and agencies, local authorities, the devolved administrations in Northern Ireland, Scotland and Wales, the state education system, the NHS, the armed forces and the police. Non-departmental public bodies are also included in the general government sector.

The UK National Accounts, The Blue Book: 2021 edition presents estimates for the general government sector and subsector breakdowns for:

- central government
- local government

You can find further information on sector classifications and classification decisions in Economic statistics classifications.

Compendium

Households and non-profit institutions serving households

Households, and non-profit institutions serving households sectors.

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1 . Households and non-profit institutions serving households

The households sector covers people living independently in residential accommodation and those living in communal establishments. Residential households are groups of people sharing the same living accommodation who share some or all of their income, and collectively consume certain types of goods and services, such as food, electricity or housing. Examples of communal establishments include prisons, student accommodation, care homes and boarding schools.

The households sector also includes self-employed (market producers) who do not form part of quasi-corporations, as well as individuals or groups of individuals who produce goods and non-financial services for their own final use.

Non-profit institutions serving households (NPISH) are institutions that:

- provide goods and services, either free or below market prices
- mainly derive their income from grants and donations
- are not controlled by the government

In the UK, the NPISH sector includes:

- charitable organisations
- trade unions
- religious organisations
- political parties
- universities and further education establishments

The UK National Accounts, The Blue Book: 2021 edition presents estimates for the households and NPISH sectors separately. To allow comparison with previous Blue Book publications, estimates for the combined households and NPISH sectors are also presented.

Further information on sector classifications and classification decisions can be found in Economic statistics classifications.

Compendium

Rest of the world

Rest of the world sector including all institutions or individuals not resident in the UK that have economic interactions with resident units.

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29 October 2021

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To be announced

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1 . Rest of the world

The rest of the world sector includes all those institutions or individuals not resident in the UK that have economic interactions with resident units. It can include overseas corporations, charities, governments or private individuals. The sector also includes foreign embassies and consulates on UK soil.

Further information on sector classifications and classification decisions can be found in Economic statistics classifications.

Compendium

Gross fixed capital formation supplementary tables

Gross fixed capital formation estimates of net capital expenditure on fixed assets by public and private sectors.

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Release date:
29 October 2021

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1 . Gross fixed capital formation supplementary tables

Gross fixed capital formation (GFCF) is the estimate of net capital expenditure (acquisitions less the proceeds from disposals) on fixed assets by both the public and private sectors. Fixed assets are purchased assets used in production processes for more than one year.

Examples of capital expenditure include spending on:

- machinery and equipment
- transport equipment
- software
- artistic originals
- research and development
- new dwellings and major improvements to dwellings
- other buildings and major improvements to buildings
- structures, such as roads

In the Blue Book 2021, we have introduced several improvements to our GFCF estimates. The largest change comes from continued improvement to the quality of estimates for financial services using information from the Financial Services Survey (FSS). As is usual during the Blue Book process, the opportunity was taken to review and improve national accounts balancing adjustments across all transactions. This included those indirectly impacted by the FSS improvement, such as GFCF. In Blue Book 2021 GFCF estimates have been particularly impacted as a result of this change, with the largest impacts being seen from 2017 onwards impacting both the financial sector and whole economy.

Further changes include:

- improved transport estimates reflecting improvements to source data on transactions of second-hand ships
- updated research and development estimates impacting 2017 onwards
- incorporation of revised Annual Business Survey benchmarks for 2018 and new data for 2019.
- Updating the reference year and last base year of chained volume measure (CVM) estimates to 2019

Compendium

National balance sheet

A measure of the national wealth, or total net worth, of the UK, showing the estimated market value of financial assets.

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1 . National balance sheet

The national balance sheet is a measure of the national wealth, or total net worth, of the UK. It shows the estimated market value of financial assets, for example, shares and deposits at banks, and non-financial assets like dwellings and machinery. Market value is an estimate of how much these assets would sell for, if sold on the market.

The estimates are used for international comparisons, to monitor economic performance and inform monetary and fiscal policy decisions.

Financial assets and liabilities include:

- means of payment, such as currency
- financial claims, such as loans
- economic assets, which are close to financial claims in nature, such as shares

Produced non-financial assets:

- dwellings
- buildings and other structures
- machinery and equipment
- certain farming stocks, mainly dairy cattle and orchards
- intellectual property products, such as computer software and databases, and research and development inventories

Non-produced assets:

- contracts, leases and licences
- natural resources

Data sources include:

- the Office for National Statistics' (ONS) National Balance Sheet Survey
- annual reports of public corporations and major businesses
- industry publications
- other government departments and agencies

Where non-financial asset market valuations are not readily available, we use a proxy based on the UK net capital stocks data, modelled in the perpetual inventory method (PIM).

For central government, data are taken from returns made by government departments to HM Treasury.

Local authority housing is shown in the public non-financial corporations sector. This is because government-owned market activities are always treated as being carried out by public corporations, either in their own right or via quasi-corporations.

Compendium

Public sector supplementary tables

The main taxes and social contributions payable by UK residents to central and local government and the European Union.

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Table of contents

1 . Introduction

The majority of government income is provided by taxes and social contributions. Table 10.1 provides a breakdown of the main taxes and social contributions payable by UK residents to both the government (central and local government) and the European Union (EU).

2 . Taxes and social contributions payable by UK residents

Taxes on production are included in gross domestic product (GDP) at market prices.

Other taxes on production include taxes levied on inputs to production. These include national non-domestic rates, also known as business rates, and a range of compulsory unrequited levies that producers have to pay.

Taxes on products are taxes levied on the sale of goods and services; this includes Value Added Tax (VAT) and Fuel Duty. Taxes on income and wealth include Income Tax and Corporation Tax. Income Tax is the largest single source of tax revenue paid by UK residents. This category also includes a number of other charges payable by households including Council Tax, the BBC licence fee and taxes such as Vehicle Excise Duty, which, when paid by businesses, are classified as taxes on production. The totals include tax credits and reliefs recorded as expenditure in the national accounts, such as Working Tax Credit and Child Tax Credit.

The European System of Accounts 2010: ESA 2010 has a specific category of payments to the government called compulsory social contributions. These are payments associated with social security schemes, such as unemployment benefit and pensions. In the UK accounts this category includes all National Insurance contributions. Details of total social contributions and benefits are shown in Tables 5.2.4S and 5.3.4S.

Capital taxes are taxes levied at irregular or infrequent intervals on the values of assets, gifts or legacies. In the UK the main capital tax is Inheritance Tax.

Some UK taxes are recorded as the resources of the EU. These include taxes on imports, which are payable to the EU under the EU treaties.

Compendium

Statistics for European purposes

How the EU uses national accounts data in the calculation of gross national income, used to set the EU budget and member contributions.

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Release date:
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Next release:
To be announced

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3. Data to monitor government deficit and debt

1 . Introduction

The EU uses UK National Accounts data for a number of administrative and economic purposes. Gross national income (GNI) is one of the four measures used by the EU and is calculated in accordance with the European System of Accounts (ESA). GNI is used to set the EU budget and to calculate part of member states' contributions to the EU budget, and is based on the European System of Accounts 2010: ESA 2010.

2 . UK transactions with the institutions of the EU

Table 11.a shows payments flowing between the EU and the UK. The first part of the table shows the payments flowing into the UK in the form of EU expenditure. The second part of the table shows the UK contribution to the EU budget, which depends on UK GNI. An explanatory article detailing the UK contribution to the EU budget was published on 30 September 2019.

3 . Data to monitor government deficit and debt

The convergence criteria for the Economic and Monetary Union (EMU) are set out in the 1992 Treaty on European Union (The Maastricht Treaty). The treaty, plus the Stability and Growth Pact, require member states to avoid excessive government deficits – defined as general government net borrowing and gross debt as a percentage of gross domestic product (GDP). The treaty does not determine what constitutes "excessive". This is agreed by the Economic and Finance Council (ECOFIN).

Member states report their planned and actual deficits and the levels of their debt to the European Commission. Data to monitor excessive deficits are supplied in accordance with EU legislation.

The UK published the estimates of UK government debt and deficit in Table 11.a in October 2021.

Table 11a: UK government deficit and debt, calendar years 2014 to 2020

General Government deficit		**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
	Deficit (£bn)	103.1	87.2	66.6	49.3	46.9	49.6	277.1
	as % GDP	5.5	4.5	3.3	2.4	2.2	2.2	12.9
General Government debt								
	Debt[1] (£bn)	1,603.4	1,664.8	1,731.0	1785.9	1,837.0	1,890.7	2,204.8
	as % GDP[2]	85.5	86.0	85.8	85.2	84.5	83.8	102.3

Source: Office for National Statistics - UK government debt and deficit

Notes

1. Debt is recorded as at the end of December of each calendar year.
2. GDP - Gross domestic product.

Environmental accounts

Estimates of oil and gas reserves, energy consumption, atmospheric emissions, material flows and natural capital.

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29 October 2021

Next release:
To be announced

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1 . Environmental accounts

- Environmental accounts are “satellite accounts” to the main UK National Accounts.
- They are compiled in accordance with the System of Environmental-Economic Accounting (SEEA), which closely follows the United Nations System of National Accounts (SNA).
- They measure the impact the economy has on the environment, how the environment contributes to the economy, and how society responds to environmental issues by using the accounting framework and concepts of the national accounts.
- They are used to inform sustainable development policy, model impacts of fiscal or monetary measures and evaluate the environmental impacts of different sectors of the economy.
- Data are mostly provided in units of physical measurement (mass or volume) but can be provided in monetary units, where these are the most relevant or only data available.

Tables 12.1 to 12.5 (XLS, 137KB) show estimates of oil and gas reserves, energy consumption, atmospheric emissions and material flows. More data, information and other environmental accounts (including fuel use, environmental goods and services sector, environmental taxes and environmental protection expenditure) can be found on the UK Environmental Accounts release page.

2 . Oil and gas reserves

Table 12.1 presents non-monetary estimates of the oil and gas reserves and resources in the UK. “Resources” are minerals that are potentially valuable and could eventually be extracted, whereas “reserves” refer to discovered minerals that are recoverable and commercially viable.

Discovered reserves can be proven, probable or possible depending on the level of certainty that, based on the available evidence, they can be technically and commercially producible:

- proven reserves: better than 90% chance
- probable reserves: between 50% and 90% chance
- possible reserves: between 10% and 50% chance

Contingent resources are also shown in Table 12.1. These are the quantities of oil and gas estimated to be potentially recoverable from known sites, but the plans are not yet mature enough for commercial development. Potentially recoverable in this case means a better than 50% chance of being technically producible.

The Oil and Gas Authority (OGA) also produce estimates for prospective resources – those undiscovered or “yet to find”. Methodology for estimating this has changed over the years so it is not possible to show a consistent time series in Table 12.1.

Oil is defined as both oil and the liquids that can be obtained from gas fields. Shale oil is not included in the estimates. Gas includes gas expected to be available for sale from dry gas fields, gas condensate fields, oil fields associated with gas and a small amount from coal-bed methane projects. Shale gas is not included in these estimates. These reserves include onshore and offshore discoveries, but not flared gas or gas consumed in production operations.

Data is sourced from the OGA and the Department for Business, Energy and Industrial Strategy (BEIS).

3 . Energy consumption

Table 12.2 presents energy consumption by industry for the UK. Energy consumption is defined as the use of energy for power generation, heating and transport. This is essential to most economic activities, for example, as input for production processes. The term “direct use of energy” refers to the energy content of fuel for energy at the point of use, allocated to the original purchasers and consumers of fuels. On the other hand, “reallocated use of energy” means that the losses incurred during transformation[1] and distribution[2] are allocated to the final consumer of the energy rather than incorporating it all in the electricity generation sector.

Fossil fuels are the main source of energy for consumption, although other sources (including nuclear, net imports, renewable[3] and waste sources) are becoming increasingly important.

Short-term fluctuations in energy consumption are often attributable to changes in temperature or gross domestic product (GDP). Longer term, the decline in energy consumption has largely been driven by the switch away from coal by the energy supply and manufacturing industries to other, more efficient fuels, such as natural gas and, more recently, renewable sources.

Data are provided by Ricardo Energy and Environment.

Notes for: Energy consumption

1. Transformation losses are the differences between the energy content of the input and output product, arising from the transformation of one energy product to another.

2. Distribution losses are losses of energy product during transmission (for example, losses of electricity in the grid) between the supplier and the user of the energy.

3. Renewable sources include: solar photovoltaic, geothermal and energy from wind, wave and tide, hydroelectricity, wood, charcoal, straw, liquid biofuels, biogas from anaerobic digestion and sewage gas. Landfill gas, poultry litter and municipal solid waste combustion have also been included within this definition.

4 . Atmospheric emissions

Tables 12.3 and 12.4 show emissions of greenhouse gases, acid rain precursors (ARP) and other pollutants by industry for the UK.

Atmospheric emissions of greenhouse gases are widely believed to contribute to global warming and climate change. The greenhouse gases included in the tables are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydro-fluorocarbons (HFC), perfluorocarbons (PFC), nitrogen trifluoride (NF3) and sulphur hexafluoride (SF6). For comparability, all figures are presented as carbon dioxide equivalents (CO2e).

Other important atmospheric emissions include acid rain precursors (ARPs). Acid rain is caused primarily by emissions of sulphur dioxide (SO2), nitrogen oxides (NOX) and ammonia (NH3) and can have harmful effects on the environment. For comparability, all figures are weighted according to their acidifying potential and presented as sulphur dioxide equivalents (SO2e).

Emissions levels are influenced by factors such as gross domestic product (GDP) and UK temperatures. They are also influenced by policy initiatives, for example, those encouraging adoption of cleaner technologies or emissions standards on motor vehicles. Changes in energy consumption, particularly energy from fossil fuels, directly influence air emissions.

Data are provided by Ricardo Energy and Environment.

5 . Material flows

Table 12.5 presents economy-wide material flow accounts, which estimate the physical flow of materials through the UK economy. Domestic extraction is divided into four categories: biomass, non-metallic minerals, fossil energy materials and carriers, and metal ores:

- biomass includes material of biological origin that is not from fossil, such as crops, wood and wild fish catch
- non-metallic minerals are mainly construction and industrial minerals, including limestone and gypsum, sand and gravel, and clays
- fossil energy materials and carriers include coal, peat[1], crude oil and natural gas
- metal ores include precious metals such as gold

Data are compiled from multiple sources including the Department for Environment, Food and Rural Affairs (Defra), the United Nations Food and Agriculture Organisation (FAO), the British Geological Survey (BGS), Eurostat, and the Kentish Cobnuts Association.

Physical trade balance

The physical trade balance (PTB) shows the relationship between imports and exports and is calculated by subtracting the weight of exports from the weight of imports[2]. The UK has a positive PTB, meaning that more materials and products are imported than are exported suggesting that the UK may be becoming more reliant on the production of materials in other countries.

Material consumption

Direct material input (DMI) (domestic extraction plus imports) measures the total amount of materials that are available for use in the economy.

Domestic material consumption (DMC) (domestic extraction plus imports minus exports) measures the amount of materials used in the economy and is calculated by subtracting exports from DMI.

Notes for: Material flows

1. For fossil energy materials and carriers (which include coal, crude oil, natural gas and peat) peat estimates were not available from 2016.
2. The physical trade balance (imports minus exports) is defined in reverse to the monetary trade balance (exports minus imports). Physical estimates can differ quite significantly from monetary estimates.

6 . Natural capital

In collaboration with the Department for Environment, Food and Rural Affairs (Defra) we have been developing natural capital accounts to estimate the wealth of the UK's environment. These are currently Experimental Statistics.

The UK's natural wealth is reflected in the productivity of its soils, its access to clean water, and the splendour of its mountains. Any natural resource or process that supports human life forms an important part of our natural capital. Natural capital is one part of a wider move to better understand wealth. In that respect we are not only estimating what wealth the UK inherited in its islands and seas but what it might provide to future generations.

These figures are partial in terms of the number of services. We will continue to work to include as much of the economic value of the natural world as possible but may never complete that work, given the complexity and scale of the natural world. Our asset values are also narrowly market driven and not an absolute "value" of the natural world because nature supports all life on earth. Nature's wholesale collapse would be our own. For more details please see the UK Natural Capital Accounts: 2020.

7 . More information

There is more information about environmental accounts on the UK Environmental Accounts release page.

The residency adjustment is included, as the UK Environmental Accounts are based on a UK residency basis (as opposed to a territory basis). This is in line with national accounting principles, allowing environmental impacts to be compared on a consistent basis with economic indicators such as gross domestic product (GDP).

UK figures for energy and air emissions on a territory basis are published by the Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra). Energy and air emissions bridging tables are available, which illustrate the difference between these estimates.

Further explanation of the differences can be found in articles on energy consumption, and Net Zero and the different official measures of the UK's greenhouse gas emissions.

Data rounded to thousand tonnes can be found on the UK Environmental Accounts release page.

Compendium

Flow of funds

Estimates of stocks and flows of financial assets and liabilities by institutional sector and financial instrument.

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Release date:
29 October 2021

Next release:
To be announced

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2. What is flow of funds?

1 . Introduction

The tables in this chapter present estimates of stocks and flows of financial assets and liabilities by institutional sector and financial instrument.

Of these tables:

- Table 13.1 presents flows (or transactions) of financial assets and liabilities for each institutional sector and lower-level financial instrument (financial account)
- Table 13.2 presents levels (or stocks) of financial assets and liabilities for each institutional sector and lower-level financial instrument (balance sheet)
- Tables 13.3.1 to 13.3.8 present both financial flows and stocks by institutional sector and financial instrument

Estimates for all the institutional sectors are brought together in this chapter to allow changes in assets and liabilities to be compared across the sectors. Estimates for each individual sector are also published in the appropriate sector chapters in this publication.

These financial statistics are important for identifying the build-up of risks in the financial sector and for understanding financial connections among the institutional sectors and subsectors within the economy.

2 . What is flow of funds?

“Flow of funds” refers to the financial flows across sectors of the UK economy and the rest of the world. Information can be presented on debtor and creditor relationships and the changes in financial assets and liabilities in the economy. Flow of funds is based on the principle that the movement of all funds must be accounted for. Across the total economy (UK and the rest of the world), the total sources of funds must equal the total uses of funds, and every financial asset transaction must have a counterpart liability transaction.

Since the global financial crisis of the late 2000s, the international community has had an increased focus on the analysis of financial stability, and the development of improvements to the data that support that analysis. This is particularly important for those countries, like the UK, that have a significant financial sector. An important area identified internationally for improvement is the development of flow of funds counterpart statistics. These improve our understanding of how each individual sector may be exposed to the risk that could build up in other sectors. These statistics support macro-economic analysis and financial stability policy.

Counterpart statistics are not currently presented in this chapter. However, in response to the need for counterpart statistics, the Office for National Statistics (ONS) and the Bank of England started the joint Flow of Funds Project in 2014. More information on the project and the most recent experimental counterpart statistics are available based on Blue Book 2020 data.

Compendium

Glossary

An A to Z definition of the main terms used within the national accounts.

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1 . A to B

Above the line

Transactions in the production, current and capital accounts that are above the net lending (positive) or net borrowing (negative) (financial surplus or deficit) line in the presentation used in the economic accounts. The financial transactions account is below the line in this presentation.

Accruals basis

A method of recording transactions based on when the exchange of ownership of the goods, services or financial asset occurs (see also cash basis). For example, Value Added Tax (VAT) accrues when the expenditure to which it relates takes place but HM Revenue and Customs (HMRC) receives the cash some time later. The difference between accruals and cash results in an asset and liability in the financial accounts, shown as amounts receivable or payable (F.7).

Actual final consumption

The value of goods consumed, but not necessarily purchased, by a sector (see also final consumption expenditure, intermediate consumption).

Advance and progress payments

Payments made for goods in advance of completion and delivery of the goods and services. Also referred to as staged payments.

Asset boundary

A boundary separating assets included (for example, plant and factories and non-produced assets such as land and water resources) and those excluded (such as natural assets not managed for an economic purpose) in creating core economic accounts.

Assets

Entities over which ownership rights are enforced by institutional units – individually or collectively – and from which economic benefits may be derived by owners holding them over a period of time.

Balancing item

An accounting construct obtained by subtracting the total value of the entries on one side of an account from the total value for the other side.

Balance of payments

A summary of the transactions between residents of a country and residents abroad in a given time period.

Balance of trade

The balance of trade in goods and services is a summary of the imports and exports of goods and services across an economic boundary in a given period.

Balance sheet

A statement, drawn up at a particular point in time, of the value of assets owned and of the financial claims (liabilities) against the owner of these assets.

Bank of England

This comprises S.121, the central bank subsector of the financial corporation’s sector.

Bank of England – Issue Department

This part of the Bank of England deals with the issue of bank notes on behalf of central government. It was formerly classified to central government, though it is now part of the central bank and monetary authorities sector. Its activities include, among other things, market purchases of commercial bills from UK banks.

Basic prices

These are the preferred method of measuring gross value added (GVA) and output. They reflect the amount received by the producer for a unit of goods or services, minus any taxes payable, plus any subsidy receivable on that unit as a consequence of production or sale (that is, the cost of production including subsidies).

The only taxes included in the basic price are taxes on the production process – such as business rates and any Vehicle Excise Duty paid by businesses – that are not specifically levied on the production of a unit of output. Basic prices exclude any transport charges invoiced separately by the producer.

Below the line

The financial transactions account that shows the financing of net lending (positive) or net borrowing (negative) (formerly financial surplus or deficit).

Bond

A financial instrument that usually pays interest to the holder. Bonds are issued by governments and by companies and other institutions, for example, local authorities. Most bonds have a fixed date on which the borrower will repay the holder. Bonds are attractive to investors because they can be bought and sold easily in a secondary market. Special forms of bonds include deep discount bonds, equity warrant bonds, Eurobonds and zero-coupon bonds.

British government securities

Securities issued or guaranteed by the UK government; these also known as gilts.

2 . C to D

Capital

Capital assets are those that contribute to the productive process to produce an economic return. In other contexts, the word can include tangible assets (for example, buildings, plant and machinery), intangible assets and financial capital (see also fixed assets, inventories).

Capital formation

Acquisitions less disposals of fixed assets, improvement of land, change in inventories and acquisitions less disposals of valuables.

Capital stock

A measure of the cost of replacing the capital assets of a country held at a particular point in time.

Capital transfers

Transfers that are related to the acquisition or disposal of assets by the recipient or payer. They may be in cash or kind and may be imputed to reflect the assumption or forgiveness of debt.

Cash basis

The recording of transactions when cash or other assets are actually transferred, rather than on an accruals basis.

Certificate of deposit

A short-term, interest-paying instrument issued by deposit-taking institutions in return for money deposited for a fixed period. Interest is earned at a given rate. The instrument can be used as security for a loan if the depositor requires money before the repayment date.

Chained volume measures

Time series that measure economic activity in real terms (that is, excluding price effects). Series are calculated in the prices of the previous year and in current price, and these two-year series are then “chain linked” together. The advantage of the chain-linking method is that the previous period’s price structure is more relevant than the price structure of a fixed period from further in the past.

Cost, insurance and freight (CIF)

The basis of valuation of imports for customs purposes, including the cost of insurance premiums and freight services. These need to be deducted to obtain the Free On Board (FOB) valuation consistent with the valuation of exports that is used in the economic accounts.

Classification of individual consumption by purpose (COICOP)

An international classification that groups consumption according to its function or purpose. The heading clothing, for example, includes expenditure on garments, clothing materials, laundry and repairs. It is used to classify the expenditure of households.

Combined use table

Table of the demand for products by each industry group or sector, whether from domestic production or imports, estimated at purchasers’ prices. It displays the inputs used by each industry to produce their total output and separates out intermediate purchases of goods and services. The table shows which industries use which products: columns represent the purchasing industries; rows represent the products purchased.

Commercial paper

This is an unsecured promissory note for a specific amount, maturing on a specific date. The commercial paper market allows companies to issue short-term debt directly to financial institutions, which then market this paper to investors or use it for their own investment purposes.

Compensation of employees

Total remuneration payable to employees in cash or in kind. Includes the value of social contributions payable by the employer.

Consolidated accounts

Accounts drawn up to reflect the affairs of a group of entities. For example, a ministry or holding company with many different operating agencies or subsidiary companies may prepare consolidated accounts reflecting the affairs of the organisation as a whole and accounts for each operating agency or subsidiary.

Consolidated fund

An account of central government into which most government revenue (excluding borrowing and certain payments to government departments) is paid and from which most government expenditure (excluding loans and National Insurance benefits) is paid.

Consumption

See final consumption, intermediate consumption.

Consumption of fixed capital

The amount of capital resources used up in the process of production in any period. It is not an identifiable set of transactions but an imputed transaction, which can only be measured by a system of conventions.

Corporations

All bodies recognised as independent legal entities that are producers of market output and whose principal activity is the production of goods and services.

Counterpart

In a double-entry system of accounting, each transaction gives rise to two corresponding entries. These entries are the counterparts to each other, so the counterpart of a payment by one sector is the receipt by another.

Debenture

A long-term bond issued by a UK or foreign company and secured on fixed assets. A debenture entitles the holder to a fixed-interest payment or a series of such payments.

Depreciation

See consumption of fixed capital.

Derivatives (F.71)

Financial instruments whose value is linked to the value of another financial instrument, indicator or commodity. Unlike the holder of a primary financial instrument (for example, a government bond or a bank deposit), who has an unqualified right to receive cash (or some other economic benefit), the holder of a derivative has only a qualified right to receive such a benefit. Examples of derivatives are options and swaps.

Dividend and Interest Matrix (DIM)

This represents property income flows related to holdings of financial transactions. The gross flows are shown in D.4 property income.

Direct investment

Net investment by UK or foreign companies in their foreign or UK branches, subsidiaries or associated companies. A direct investment in a company means that the investor has a significant influence on the operations of the company, defined as having an equity interest in an enterprise resident in another country of 10% or more of the ordinary shares or voting stock. Investment includes not only acquisition of fixed assets, stock building and stock appreciation but also all other financial transactions such as: additions to, or payments of, working capital; other loans and trade credit; and acquisitions of securities. Estimates of investment flows allow for depreciation in any undistributed profits. Funds raised by the subsidiary or associate company in the economy in which it operates are excluded as they are locally raised and not sourced from the parent company.

Discount market

The part of the market dealing with short-term borrowing. It is called the discount market because the interest on loans is expressed as a percentage reduction (discount) on the amount paid to the borrower. For example, for a loan of £100 face value, when the discount rate is 5%, the borrower will receive £95 but will repay £100 at the end of the term.

Double deflation

A method for calculating value added by industry chained volume measures, which takes separate account of the differing price and volume movements of input and outputs in an industry’s production process.

Dividend

A payment made to company shareholders from current or previously retained profits. Dividends are recorded when they become payable.

3 . E to F

ECGD

See Export Credit Guarantee Department.

Economically significant prices

These are prices whose level significantly affects the supply of the good or service concerned. Market output consists mainly of goods and services sold at “economically significant” prices, while non-market output comprises those provided free or at prices that are not economically significant.

Employee stock options

An agreement made on a given date (the “grant” date) under which an employee may purchase a given number of shares of the employer’s stock at a stated price (the “strike” price), either at a stated time (the “vesting” date) or within a period of time (the “exercise” period) immediately following the vesting date.

Enterprise

An institutional unit producing market output. Enterprises are found mainly in the non-financial and financial corporations’ sectors but exist in all sectors. Each enterprise consists of one or more kind-of-activity units.

Environmental accounts

A satellite account describing the relationship between the environment and the economy.

Equity

The ownership of a residual claim on the assets of the institutional unit that issued the instrument. Equities differ from other financial instruments in that they confer ownership of something more than a financial claim. Shareholders are owners of the company, whereas bond holders are merely outside creditors.

European System of National and Regional Accounts (ESA)

An integrated system of economic accounts; the European version of the System of National Accounts (SNA).

European Investment Bank

This was set up to assist economic development within the EU. Its members are the member states of the EU.

Exchange Cover Scheme (ECS)

A scheme introduced in 1969 whereby UK public bodies raise foreign currency from overseas residents, either directly or through UK banks, and surrender it to the Exchange Equalisation Account in exchange for sterling to finance expenditure in the UK. HM Treasury sells the borrower foreign currency to service and repay the loan at the exchange rate that applied when the loan was taken out.

Exchange Equalisation Account (EEA)

The government account with the Bank of England in which transactions in reserve assets are recorded. These transactions are classified to the central government sector. It is the means by which the government, through the Bank of England, influences exchange rates.

Export credit

Credit extended abroad by UK institutions, primarily in connection with UK exports but also including some credit in respect of third country trade.

Export Credit Guarantee Department (ECGD)

A non-ministerial government department, classified to the public corporations sector, the main function of which is to provide insurance cover for export credit transactions.

Factor cost

In the SNA 1968, this was the basis of valuation that excluded the effects of taxes on expenditure and subsidies.

Final consumption expenditure

The expenditure on those goods and services used for the direct satisfaction of individual needs or the collective needs of members of the community, as distinct from their purchase for use in the productive process. It may be contrasted with actual final consumption, which is the value of goods consumed, but not necessarily purchased, by that sector (see also intermediate consumption).

Financial auxiliaries (S.126)

Activities closely related to financial intermediation but that are not financial intermediation themselves, such as the repackaging of funds, insurance broking and fund management. Financial auxiliaries include insurance brokers and fund managers.

Financial corporations (S.12)

All bodies recognised as independent legal entities whose principal activity is financial intermediation and/or the production of auxiliary financial services.

Financial intermediation

The activity by which an institutional unit acquires financial assets and incurs liabilities on its own account by engaging in financial transactions on the market. The assets and liabilities of financial intermediaries have different characteristics so that the funds are transformed or repackaged with respect to maturity, scale or risk, for example, in the financial intermediation process.

Financial Intermediation Services Indirectly Measured (FISIM)

The implicit charge for the service provided by monetary financial institutions paid for by the interest differential between borrowing and lending rather than through fees and commissions.

Financial leasing

A form of leasing in which the lessee (the lease holder) contracts to assume the rights and responsibilities of ownership of leased goods from the lessor (the legal owner) for the whole (or virtually the whole) of the economic life of the asset. In the economic accounts, this is recorded as the sale of the asset to the lessee, financed by an imputed loan (F.42). The leasing payments are split into interest payments and repayments of principal.

Fixed assets

Produced assets that are themselves used repeatedly or continuously in the production process for more than one year. They comprise buildings and other structures, vehicles and other plant and machinery as well as plants and livestock that are used repeatedly or continuously in production, for example, fruit trees or dairy cattle. They also include intangible assets such as computer software, research and development, and artistic originals.

Flows

These reflect the creation, transformation, exchange, transfer or extinction of economic value. They involve changes in the volume, composition or value of an institutional unit’s assets and liabilities. They are recorded in the production, distribution and use of income and accumulation accounts.

Free On Board (FOB)

A Free On Board (FOB) price excludes the cost of insurance and freight from the country of consignment but includes all charges up to the point of the exporting country's customs frontier.

Futures

Forward contracts traded on organised exchanges. They give the holder the right to purchase a commodity or a financial asset at a future date.

4 . G to H

Gilts

Bonds issued or guaranteed by the UK government. Also known as gilt-edged securities or British Government securities.

Gold

The SNA and the International Monetary Fund (IMF) (in the sixth edition of its Balance of Payments Manual) recognise three types of gold:

- monetary gold, treated as a financial asset
- gold held as a store of value, to be included in valuables
- gold as an industrial material, to be included in intermediate consumption or inventories

The present treatment is as follows.

In the accounts, a distinction is drawn between gold held as a financial asset (financial gold) and gold held like any other commodity (commodity gold). Commodity gold in the form of finished manufactures, together with net domestic and overseas transactions in gold moving into or out of finished manufactured form (as in for jewellery, dentistry, electronic goods, medals and proof – but not bullion – coins) is recorded in exports and imports of goods.

All other transactions in gold (that is, those involving semi-manufactures, for example, rods and wire, bullion, bullion coins, or banking-type assets and liabilities denominated in gold, including official reserve assets) are treated as financial gold transactions and included in the financial account of the balance of payments.

The UK has adopted different treatment to avoid distortion of its trade in goods account by the substantial transactions of the London bullion market.

Grants

Voluntary transfer payments. They may be current or capital in nature. Grants from the government or the EU to producers are subsidies.

Gross

Important economic series can be shown as gross (as in, before deduction of the consumption of fixed capital) or net (as in, after deduction). Gross has this meaning throughout this publication unless otherwise stated.

Gross domestic product (GDP)

The total value of output in the economic territory. It is the balancing item on the production account for the whole economy. Domestic product can be measured gross or net. It is presented in the accounts at market (or purchasers') prices.

Gross fixed capital formation (GFCF)

Acquisitions less disposals of fixed assets and the improvement of land.

Gross national disposable income

The income available to the residents arising from gross domestic product (GDP) and receipts from, less payments to, the rest of the world of employment income, property income and current transfers.

Gross national income (GNI)

GDP less net taxes on production and imports, less compensation of employees and property income payable to the rest of the world, plus the corresponding items receivable from the rest of the world.

Gross value added (GVA) (B.1g)

The value generated by any unit engaged in production and the contributions of individual sectors or industries to GDP. It is measured at basic prices, excluding taxes less subsidies on products.

Holding companies

A purely financial concern that uses its capital solely to acquire interests (normally controlling interests) in a number of operating companies. Although the purpose of a holding company is mainly to gain control and not to operate, it will typically have representation on the boards of directors of the operating firms.

Holding companies provide a means by which corporate control can become highly concentrated through pyramiding. A holding company may gain control over an operating company, which itself has several subsidiaries.

Holding gains or losses

Profit or loss obtained by virtue of the changing price of assets being held. Holding gains or losses may arise from either physical or financial assets.

Households (S.14)

Individuals or small groups of individuals as consumers, and in some cases as entrepreneurs, producing goods and market services (where such activities cannot be hived off and treated as those of a quasi corporation).

5 . I to J

Imputation

The process of inventing a transaction where, although no money has changed hands, there has been a flow of goods or services. It is confined to a very small number of cases where a reasonably satisfactory basis for the assumed valuation is available.

Index-linked gilts

Gilts whose coupon and redemption value are linked to movements in the Retail Prices Index.

Institutional unit

The individual bodies whose data are amalgamated to form the sectors of the economy. A body is regarded as an institutional unit if it has decision-making autonomy in respect of its principal function and either keeps a complete set of accounts or is in a position to compile, if required, a complete set of accounts that would be meaningful from both an economic and a legal viewpoint.

Input–output

A detailed analytical framework based on supply and use tables. These are matrices showing the composition of output of individual industries by types of product and how the domestic and imported supply of goods and services is allocated between various intermediate and final uses, including exports.

Institutional sector

In the economic accounts, the economy is split into different institutional sectors, that is, units grouped according broadly to their role in the economy. The main sectors are non-financial corporations, financial corporations, general government, households and non-profit institutions serving households (NPISH). The rest of the world is also treated as a sector for many purposes within the accounts.

Intellectual property products (AN.112)

Products including mineral exploration, computer software, research and development, and entertainment, literary or artistic originals. Expenditure on them is part of GFCF. They exclude non-produced non-financial assets such as leases, transferable contracts and purchased goodwill, expenditure on which would be intermediate consumption.

Intermediate consumption

The consumption of goods and services in the production process. It may be contrasted with final consumption and capital formation.

International Monetary Fund (IMF)

A fund set up as a result of the Bretton Woods Conference in 1944, which began operations in 1947. It currently has 190 member countries (as of October 2020) including most of the major countries of the world. The fund was set up to supervise the fixed exchange rate system agreed at Bretton Woods and to make available to its members a pool of foreign exchange resources to assist them when they have balance of payments difficulties. It is funded by member countries' subscriptions according to agreed quotas.

Inventories

Finished goods (held by the producer prior to sale, further processing or other use) and products (materials and fuel) acquired from other producers to be used for intermediate consumption or resold without further processing as well as military inventories.

6 . K to L

Kind-of-activity unit (KAU)

An enterprise, or part of an enterprise, that engages in only one kind of non-ancillary productive activity or in which the principal productive activity accounts for most of the value added. Each enterprise consists of one or more kind-of-activity units.

Liability

A claim on an institutional unit by another body that gives rise to a payment or other transaction transferring assets to the other body. Conditional liabilities, where the transfer of assets only takes place under certain defined circumstances, are known as contingent liabilities.

Life assurance

An insurance policy that, in return for the payment of regular premiums, pays a lump sum on the death of the insured. In the case of policies limited to investments that have a cash value, in addition to life cover, a savings element provides benefits that are payable before death. In the UK, endowment assurance provides life cover or a maturity value after a specified term, whichever is sooner.

Liquidity

The ease with which a financial instrument can be exchanged for goods and services. Cash is very liquid whereas a life assurance policy is less so.

Lloyd’s of London

The international insurance and reinsurance market in London.

7 . M to N

Marketable securities

Securities that can be sold on the open market.

Market output

Output of goods and services sold at economically significant prices.

Merchant banks

Monetary financial institutions whose main business is primarily concerned with corporate finance and acquisitions.

Mixed income

The balancing item on the generation of income account for unincorporated businesses owned by households. The owner or members of the same household often provide unpaid labour inputs to the business. The surplus is therefore a mixture of remuneration for such labour and return to the owner as entrepreneur.

Monetary financial institutions (MFIs) (S.121 to S.123)

As defined by the European Central Bank, these consist of all institutional units included in the central bank (S. 121), deposit-taking corporations except the central bank (S1.22) and money market funds (S.123) subsectors.

Money market

The market in which short-term loans are made and short-term securities traded. “Short-term” usually applies to periods of under one year but can be longer in some instances.

NACE

The industrial classification used in the EU. Revision 2 is the “Statistical classification of economic activities in the European Community in accordance with Commission Regulation (EC) No. 1893/2006 of 20 December 2006”.

National income

The total value of goods produced and services provided by a country during one year, equal to the GDP plus the net income from foreign investments.

Net

After deduction of the consumption of fixed capital. Also used in the context of financial accounts and balance sheets to denote, for example, assets less liabilities.

Non-market output

Output of own account production of goods and services provided free or at prices that are not economically significant. Non-market output is produced mainly by the general government and NPISH sectors.

Non-observed economy

Certain activities that may be productive and also legal but are concealed from the authorities for various reasons, for example, to evade taxes or regulation. In principle these, as well as economic production that is illegal, are to be included in the accounts but are by their nature difficult to measure.

Non-profit institutions serving households (NPISH) (S.15)

These include bodies such as charities, universities, churches, trade unions and members' clubs.

8 . O to P

Operating leasing

The conventional form of leasing in which the lessee makes use of the leased asset for a period in return for a rental while the asset remains on the balance sheet of the lessor. The leasing payments are part of the output of the lessor and the intermediate consumption of the lessee (see also Financial leasing).

Operating surplus

The balance on the generation of income account. Households also have a mixed income balance. It may be seen as the surplus arising from the production of goods and services before taking into account flows of property income.

Ordinary share

The most common type of share in the ownership of a corporation. Holders of ordinary shares receive dividends (see also equity).

Output for own final use (P.12)

Production of output for final consumption or GFCF by the producer. Also known as own-account production.

Own-account production

Production of output for final consumption or GFCF by the producer. Also known as output for own final use.

Par value

A security's face or nominal value. Securities can be issued at a premium or discount to par.

Pension funds (S.129)

The institutions that administer pension schemes. Pension schemes are significant investors in securities. Self-administered funds are classified in the financial accounts as pension funds. Those managed by insurance companies are treated as long-term business of insurance companies.

Perpetual inventory model (or method) (PIM)

A method for estimating the level of assets held at a particular point in time by accumulating the acquisitions of such assets over a period and subtracting the disposals of assets over that period. Adjustments are made for price changes over the period. The perpetual inventory model (PIM) is used in the UK National Accounts to estimate the stock of fixed capital and as such the value of the consumption of fixed capital.

Portfolio

A list of the securities owned by a single investor. In the balance of payments statistics, portfolio investment is investment in securities that does not qualify as direct investment.

Preference share

This type of share guarantees its holder a prior claim on dividends. The dividend paid to preference shareholders is normally more than that paid to holders of ordinary shares. Preference shares may give the holder a right to a share in the ownership of the company (participating preference shares). However, in the UK they usually do not, and are therefore classified as bonds (F.3).

Prices

See economically significant prices, basic prices, purchasers' prices.

Principal

The lump sum that is lent under a loan or a bond.

Production boundary

Boundary between production included in creating core economic accounts (such as all economic activity by industry and commerce) and production that is excluded (such as production by households that is consumed within the household).

Promissory note

A security that entitles the bearer to receive cash. These may be issued by companies or other institutions (see commercial paper).

Property income

Incomes that accrue from lending or renting financial or tangible non-produced assets, including land, to other units. See also tangible assets.

Public corporations (S.11001 and S.12001)

These are public trading bodies that have a substantial degree of financial independence from the public authority which created them. A body is normally treated as a trading body when more than half of its income is financed by fees. A public corporation is publicly controlled to the extent that the public authorities appoint a majority of the board of management or when public authorities can exert significant control over general corporate policy through other means.

Since the 1980s, many public corporations, such as the BT Group, have been privatised and reclassified within the accounts as private non-financial corporations. Public corporations can also exist in the financial sector.

Public sector

Central government, local government and public corporations.

Purchasers' prices

These are the prices paid by purchasers. They include transport costs, trade margins and taxes (unless the taxes are deductible by the purchaser from their own tax liabilities).

9 . Q to R

Quasi corporations

Unincorporated enterprises that function as if they were corporations. For the purposes of allocation to sectors and subsectors, they are treated as if they were corporations, that is, separate units from those to which they legally belong. Three main types of quasi corporation are recognised in the accounts:

- unincorporated enterprises owned by the government that are engaged in market production
- unincorporated enterprises (including partnerships) owned by households
- unincorporated enterprises owned by foreign residents

The last group consists of permanent branches or offices of foreign enterprises and production units of foreign enterprises that engage in significant amounts of production in the territory over long or indefinite periods of time.

Real national disposable income (RNDI)

Gross national disposable income adjusted for changes in prices and in the terms of trade.

Related companies

Branches, subsidiaries, associates or parents.

Related import or export credit

Trade credit between related companies included in direct investment.

Rental

The amount payable by the user of a fixed asset to its owner for the right to use that asset in production for a specified period of time. It is included in the output of the owner and the intermediate consumption of the user.

Rents (D.45)

The property income derived from land and subsoil assets. It should be distinguished in the current system from rental income derived from buildings and other fixed assets, which is included in output (P.1).

Repurchase agreement (repo or reverse repo)

This is short for "sale and repurchase agreement". One party agrees to sell bonds or other financial instruments to other parties under a formal legal agreement to repurchase them at some point in the future – usually up to six months – at a fixed price.

Reverse repos are the counterpart asset to any repo liability. Repo or reverse repo transactions are generally treated as borrowing or lending within other investment, rather than as transactions in the underlying securities.

The exception is for banks, where repos are recorded as deposit liabilities. Banks' reverse repos are recorded as loans, the same as for all other sectors. Legal ownership does not change under a "repo" agreement. It was previously treated as a change of ownership in the UK financial account but under the SNA is treated as a collateralised deposit (F.22).

Reserve assets

Short-term assets that can be very quickly converted into cash. They comprise the UK's official holdings of gold, convertible currencies, special drawing rights and changes in the UK reserve position in the IMF.

Also included between July 1979 and December 1998 are European Currency Units (ECUs) acquired from swaps with the European Monetary Cooperation Fund (EMCF), European Monetary Institute (EMI) and the European Central Bank (ECB).

Residents

These comprise general government, individuals, private non-profit-making bodies serving households and enterprises within the territory of a given economy.

Residual error

The term used in the former accounts for the difference between the measures of GDP from the expenditure and income approaches.

Resources and uses

The term resources refers to the side of the current accounts where transactions that add to the amount of economic value of a unit or sector appear. For example, wages and salaries are a resource for the unit or sector receiving them. Resources are by convention put on the right side or at the top of tables arranged vertically.

The left side (or bottom section) of the accounts, which relates to transactions that reduce the amount of economic value of a unit or sector, is termed uses. To continue the example, wages and salaries are a use for the unit or sector that must pay them.

Rest of the world

This sector records the counterpart of transactions of the whole economy with non-residents.

10 . S to T

Satellite accounts

Satellite accounts describe areas or activities not dealt with by core economic accounts. These areas or activities are considered to require too much detail for inclusion in the core accounts or they operate with a different conceptual framework. Internal satellite accounts re-present information within the production boundary. External satellite accounts present new information not covered by the core accounts.

Saving (B.8g)

The balance on the use of income account. It is that part of disposable income that is not spent on final consumption and may be positive or negative.

Secondary market

A market in which holders of financial instruments can resell all or part of their holding. The larger and more effective the secondary market for any particular financial instrument, the more liquid that instrument is to the holder.

Sector

See institutional sector.

Securities

Tradable or potentially tradable financial instruments.

Standard Industrial Classification (SIC)

The industrial classification applied to the collection and publication of a wide range of economic statistics. The current version, Standard Industrial Classification (SIC) 2007, is consistent with NACE, revision 2. See NACE for further details.

System of National Accounts (SNA)

The internationally agreed standard system for macroeconomic accounts. The latest version is described in SNA 2008.

Special drawing rights (SDRs) (F.12)

These are reserve assets created and distributed by decision of the members of the IMF. Participants accept an obligation to provide convertible currency to another participant, when designated by the IMF to do so, in exchange for special drawing rights (SDRs) equivalent to three times their own allocation.

Only countries with a sufficiently strong balance of payments are so designated by the IMF. SDRs may also be used in certain direct payments between participants in the scheme and for payments of various kinds to the IMF.

Special purpose entities (SPEs)

These are generally organised or established in economies other than those in which the parent companies are resident and engaged primarily in international transactions but in few or no local operations.

Special purpose entities (SPEs) are defined either by their structure (for example, financing subsidiary, holding company, base company or regional headquarters) or their purpose (for example, sale and regional administration, management of foreign exchange risk or facilitation of financing of investment).

SPEs should be treated as direct investment enterprises if they meet the 10% criterion. They are an integral part of direct investment networks as are, for the most part, SPE transactions with other members of the group.

Staged payments

See advance and progress payments.

Standardised guarantees

These are normally issued in large numbers, usually for fairly small amounts, along identical lines. There are three parties involved in these arrangements: the debtor, the creditor and the guarantor. Either the debtor or creditor may contract with the guarantor to repay the creditor if the debtor defaults. The classic examples are export credit guarantees and student loan guarantees.

Subsidiaries

Companies owned or controlled by another company. Under Section 1159 of the Companies Act (2006) this means, broadly speaking, that another company either:

- holds a majority of the voting rights
- is a member and has the right to appoint or remove a majority of its board of directors
- is a member and controls alone (pursuant to an agreement with other members) a majority of the voting rights

The category also includes subsidiaries of subsidiaries.

Subsidies (D.3)

Current unrequited payments made by general government or the EU to enterprises. Those made on the basis of a quantity or value of goods or services are classified as “subsidies on products” (D.31). Other subsidies based on levels of productive activity (for example, numbers employed) are designated “other subsidies on production” (D.39).

Suppliers’ credit

Export credit extended overseas directly by UK firms other than to related concerns.

Supply table

Table of estimates of domestic industries’ output by type of product. Compiled at basic prices and including columns for imports of goods and services, for distributors’ trading margins and for taxes less subsidies on products. The final column shows the value of the supply of goods and services at purchasers’ prices. This table shows which industries make which products: columns represent the supplying industries, rows represent the products supplied.

Taxes

Compulsory unrequited transfers to central or local government or the EU. Taxation is classified in the following main groups: taxes on production and imports (D.2), current taxes on income wealth and so on (D.5), and capital taxes (D.91). Technical reserves (of insurance companies) (F.61)

These reserves consist of prepaid premiums, reserves against outstanding claims, actuarial reserves for life insurance and reserves for with-profit insurance. They are treated in the economic accounts as the property of policy-holders.

Terms of trade

Ratio of the change in export prices to the change in import prices. An increase in the terms of trade implies that the receipts from the same quantity of exports will finance an increased volume of imports, so measurement of real national disposable income needs to take account of this factor.

Transfers

Unrequited payments made by one unit to another. They may be current transfers (D.5 to D.7) or capital transfers (D.9). The most important types of transfers are taxes, social contributions and benefits.

Treasury bills

Short-term securities or promissory notes that are issued by the government in return for funding from the money market. Each week in the UK, the Bank of England invites tenders for sterling Treasury bills from the financial institutions operating in the market. European currency unit (ECU) or euro-denominated bills were issued by tender each month, but this programme has now wound down; the last bill was redeemed in September 1999. Treasury bills are an important form of short-term borrowing for the government, generally being issued for periods of three or six months.

11 . U to Z

Unit trusts

Institutions within subsector S.123 through which investors pool their funds to invest in a diversified portfolio of securities. Individual investors purchase units in the fund representing an ownership interest in the large pool of underlying assets, giving them an equity stake. The selection of assets is made by professional fund managers.

Unit trusts give individual investors the opportunity to invest in a diversified and professionally managed portfolio of securities, without the need for detailed knowledge of the individual companies issuing the stocks and bonds. They differ from investment trusts in that the latter are companies in which investors trade shares on the stock exchange, whereas unit trust units are issued and bought back on demand by the managers of the trust.

The prices of unit trust units reflect the value of the underlying pool of securities, whereas the price of shares in investment trusts are affected by the usual market forces.

Uses

See resources and uses.

Use table

See combined use table.

United Kingdom (UK)

Broadly, in the accounts, the United Kingdom (UK) comprises Great Britain plus Northern Ireland and that part of the continental shelf deemed by international convention to belong to the UK. It excludes the Channel Islands and the Isle of Man.

Valuables

Goods of considerable value that are not used primarily for production or consumption but are held as stores of value over time, for example, precious metals, precious stones, jewellery and works of art.

Valuation

See basic prices, purchasers' prices, factor cost.

Value added

The balance on the production account: output less intermediate consumption. Value added may be measured net or gross. Value Added Tax (VAT) (D.211)

A tax paid by enterprises. In broad terms an enterprise is liable for VAT on the total of its taxable sales but may deduct tax already paid by suppliers on its inputs (intermediate consumption). Therefore, the tax is effectively on the value added by the enterprise. Where the enterprise cannot deduct tax on its inputs, the tax is referred to as non-deductible. VAT is the main UK tax on products (D.21).

Compendium

Background notes

Information about the compilation of the latest national accounts including quality and reliability issues.

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Release date:
29 October 2021

Next release:
To be announced

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1 . Feedback

We welcome your feedback on this publication. If you would like to get in touch, please email us at: blue.book.coordination@ons.gov.uk.

2 . Release policy

This release includes data up to 2020. Data are consistent with the Index of Production and the current price trade in goods data within UK trade, both published on 13 October 2021, as well as the balance of payments, quarterly national accounts and UK Economic Accounts, published on 30 September 2021.

3 . Continuous improvement of sources, methods and communication

Because of changes to our publishing regime as a result of the coronavirus (COVID-19) pandemic, which allowed us to increase our level of cross-cutting analysis to service the needs of the UK, we published a smaller number of articles detailing the changes and impact they would have within Blue Book 2021. These can be found on the Office for National Statistics (ONS) website using the following keywords: BlueBook2021, BB21 and NationalAccounts.

4 . National accounts classification decisions

The UK National Accounts are produced under internationally agreed guidance and rules set out European System of Accounts: ESA 2010 (PDF, 6.4MB) and the accompanying Manual on Government Deficit and Debt – Implementation of ESA 2010 to 2016 edition (MGDD) (PDF, 3.7MB).

In the UK, we are responsible for the application and interpretation of these rules. Therefore, we make classification decisions based on the agreed guidance and rules.

5 . Economic context

We publish economic commentary, giving commentary on the latest gross domestic product (GDP) estimate and our other economic releases. The next commentary will be published on 22 December 2021.

6 . Important quality issues

Common pitfalls in interpreting series include:

- expectations of accuracy and reliability in early estimates are often too high
- revisions are an inevitable consequence of the trade-off between timeliness and accuracy
- early estimates are based on incomplete data

Very few statistical revisions arise because of “errors” in the popular sense of the word. All estimates, by definition, are subject to statistical “error”. In this context, the word refers to the uncertainty inherent in any process or calculation that uses sampling, estimation or modelling. Most revisions reflect either the adoption of new statistical techniques or the incorporation of new information, which allow the statistical error of previous estimates to be reduced. Only rarely are there avoidable “errors”, such as human or system failures, and such mistakes are made clear when they do occur.

7 . The quality of Blue Book estimates

Unlike many of the short-term indicators we publish, there is no simple way of measuring the accuracy of the Blue Book dataset. All estimates, by definition, are subject to statistical uncertainty, and for many well-established statistics we measure and publish the sampling error and non-sampling error associated with the estimate, using this as an indicator of accuracy. Since sampling is typically done to determine the characteristics of a whole population, the difference between the sample and population values is considered a sampling error. Non-sampling errors are a result of deviations from the true value that are not a function of the sample chosen, including various systematic errors and any other errors that are not because of sampling.

The Blue Book dataset, however, is currently constructed from various data sources, some of which are not based on random samples or do not have published sampling and non-sampling errors available. This makes it very difficult to measure both error aspects and their impact on gross domestic product (GDP). While development work continues in this area, like all other G7 National Statistical Institutes (NSIs) we do not publish a measure of the sampling error or non-sampling error associated with this dataset.

8 . Reliability

Estimates for the most recent quarters are provisional and are subject to revision in the light of updated source information. We currently provide an analysis of past revisions in the gross domestic product (GDP) and other statistical bulletins that present time series.

Our revisions to economic statistics page brings together our work on revisions analysis, linking to articles and revisions policies. Revisions to data provide one indication of the reliability of main indicators.

9 . Further information

You can get the latest copies of this and all our other releases through our release calendar.

Details of the policy governing the release of new data are available from the UK Statistics Authority.

We are committed to ensuring that all information provided is kept strictly confidential and will only be used for statistical purposes. Further details regarding confidentiality can be found in the respondent charters for businesses and households.

10 . Code of Practice

National Statistics are produced to high professional standards set out in the Code of Practice for Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.