Office for National Statistics

Compendium

# UK National Accounts, The Blue Book: 2018

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

## Chapters in this compendium

Compendium

# An introduction to the UK national accounts

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

# Table of contents

# 1 . What is 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 Office for National Statistics (ONS). They record and describe economic activity in the UK and, as such, are used to support the formulation and monitoring of economic and social policies.

## 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 2017.

## 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 sub-sectors 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 European Union purposes

## Chapter 12

Chapter 12 covers:

- 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 the following:

- 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.

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)

- 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 non-profit institutions serving households (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

The main gross domestic product (GDP) impacting improvements implemented to the Blue Book 2018 are as follows.

## Net spread earnings

Some companies make a return by trading in financial assets. They buy assets at a price that is typically lower than the prevailing market price and sell them at a price that is typically above the market price. These margins (or differences) together are referred to as net spread earnings (NSE). In the national accounts, NSE are considered to be the value of the production and income associated with this trading. NSE do not include the income that comes from the ownership of these assets (that is, dividends), therefore, estimates for this aspect are unaffected by this change.

Since its introduction in 2004, the Bank of England has collected NSE generated from trading in foreign exchange, securities and derivatives using its profit and loss (PL) form. This collection of NSE has proved challenging as the reporting units are not required to report under financial regulations. The closest concept is trading profits, which encompasses other types of income alongside NSE. The Bank of England has recently emphasised the importance of these data and targeted some of the main reporters to ensure that NSE are correctly reported. This has led to more comprehensive coverage and revisions to our estimates.

## Gross fixed capital formation – purchased software

A change was made in Blue Book 2017 to correct the estimation of elements of purchased software, which were being double-counted from 2001 onwards, along with discrepancies in the modelled data prior to 2001. During further quality assurance, we have identified that this adjustment did not fully address the issue and an additional amendment to other machinery and equipment, and information and communication technology (ICT) equipment is required. Purchased software is unaffected by this additional amendment.

# Pension schemes

Improvements have been made to the data and methods used to calculate figures for funded public sector employee pensions in the financial corporations sector, where the employer or "pension manager" is in local government or central government. These changes follow on from decisions made by our Economic Statistics Classification Committee and improve the method for calculating employer-imputed social contributions, as defined in the European System of Accounts 2010: ESA 2010.

Employer-imputed social contributions reflect any shortfall in actual contributions received as well as possible experience effects, where the outcome differs from the modelling assumptions. The improved method will calculate employer-imputed social contributions to funded defined benefit pension schemes as a residual after accounting for balances, transactions and other flows on an actuarial basis, whereas the current method involves modelling them as a percentage of wages and salaries.

As a result of these changes the estimate of compensation of employees (D.1) has changed. This affects the current price value of government output, of which compensation of employees (D.1) is a component. The majority of government output is provided free of charge or sold at economically insignificant prices and is therefore valued by summing the costs of production.

The estimate of the pension scheme service charge (D.61SC) has also changed. This affects market output (P.11) for the financial corporations (S.12) sector.

# Trade in goods processing systems

As outlined in the UK Trade Development Plan, a new processing system for trade in goods data has been developed. The new system has been built to provide faster and more streamlined processing for the monthly UK Trade statistics, as well as the production of quarterly and annual trade statistics for other national accounts publications. This will enable more detailed analysis of trade statistics. In particular, the new trade in goods system will provide more granular data for analysis – commodity by country on a balance of payments basis. The system will also be flexible to support future improvements to methods and data sources. A summary on UK trade data impact assessment from new developments, 1997 to 2016 was published on 8 May 2018.

The new system produces more detailed statistics and, in aggregate, the impact on GDP and net trade compared with the previous system is generally small. There is some impact at the more detailed level, and to gross imports and exports. These changes arise mainly from processing data at a more granular level, but also a review of historical national accounts conceptual adjustments. Further details were published in the article UK Trade data impact assessment from new developments on 8 May 2018.

Smaller improvements, impacting both GDP and sector and financial accounts include:

- Motor Vehicle Duty

- government alignment

- Reclassification of Rail for London, moved from local government to public corporations, effective from April 2011

There are also some smaller changes which only impact sector and financial accounts, these include:

- Corporation Tax

- listed shares change

- other households, and non-profit institutions serving households (NPISH) improvements

Reclassification of Housing Associations, registered social landlords and housing associations in Scotland, Northern Ireland and Wales ("devolved housing associations") from the private non-financial corporations sector to the public corporations sector. This reclassification is effective from July 2008.

A series of articles has been published describing the improvements and their impact in detail. The full list of these articles can be accessed via the national accounts article page.

# 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 2010: ESA 2010, a three-part numbering system is used; the first two digits denote the sector and the third digit denotes the ESA 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 2. UK whole economy accounts consistent with ESA 2010 are given in Section 1.6 as a time series and in Section 1.7 in 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

- AN for non-financial assets and liabilities

# 6 . What is an account? What is its purpose?

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

- accumulation accounts

- 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 of 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 the following:

- property income (from lending or renting assets)

- taxes on production and imports

The following are excluded:

- taxes on income or wealth

- social contributions or benefits

- 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 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

- 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 due neither to transactions between institutional units, as recorded in the capital and financial accounts, nor to 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 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 2010: 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)

But 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 European Union 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 . Economic activity: what production is included?

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 2010: 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

(European System of Accounts ESA 2010 (PDF, 6.4MB) (2013) paragraphs 1.29 and 1.30)

# 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).

They are also referred to as "market prices".

## 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.

GDP
equals
the sum of primary incomes distributed by resident producer prices.

The definition of GNI (gross national income) is gross domestic product (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).

Real gross domestic income (RGDI)
plus
real primary incomes receivable from abroad
less
real primary incomes payable abroad
equals
real gross national income (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:

.. not available

 nil or less than £500,000

£ billion denotes £1,000 million

Compendium

# National accounts at a glance

An examination of recent trends and movements within the UK economy, focusing particularly on how the economy has evolved since the EU referendum in June 2016.

# Table of contents

# 1 . Introduction

This section of the UK National Accounts, The Blue Book: 2018 edition provides an examination of recent trends and important movements for a range of information contained in a number of the subsequent Blue Book chapters. It will focus particularly on how the UK economy has evolved since the EU referendum in June 2016. All UK data referred to in this section are consistent with the Blue Book 2018.

# 2 . GDP and the headline economy

This section provides information on the headline economy, including the latest estimates of UK gross domestic product (GDP), which records how much output was produced in the UK in any given year. The UK economy grew by 1.7% in 2017 in volume terms, which followed growth of 1.8% in 2016. This marked the third consecutive year in which UK economic growth has slowed in annual terms.

The UK was the only G7 economy to see a slowing in 2017, with all other countries recording marked pickups (Figure 1.1). The latest IMF estimates show that global growth strengthened to 3.7% in 2017, which was the strongest pickup in activity since 2011. Having experienced the second-fastest rate of growth in 2016, the UK was only the joint fifth-fastest growing economy in the G7 in 2017, ahead of Italy.

**Figure 1.1: The UK was the only G7 economy to see a slowing in annual real gross domestic product growth in 2017**



Figure 1.1: The UK was the only G7 economy to see a slowing in annual real gross domestic product growth in 2017
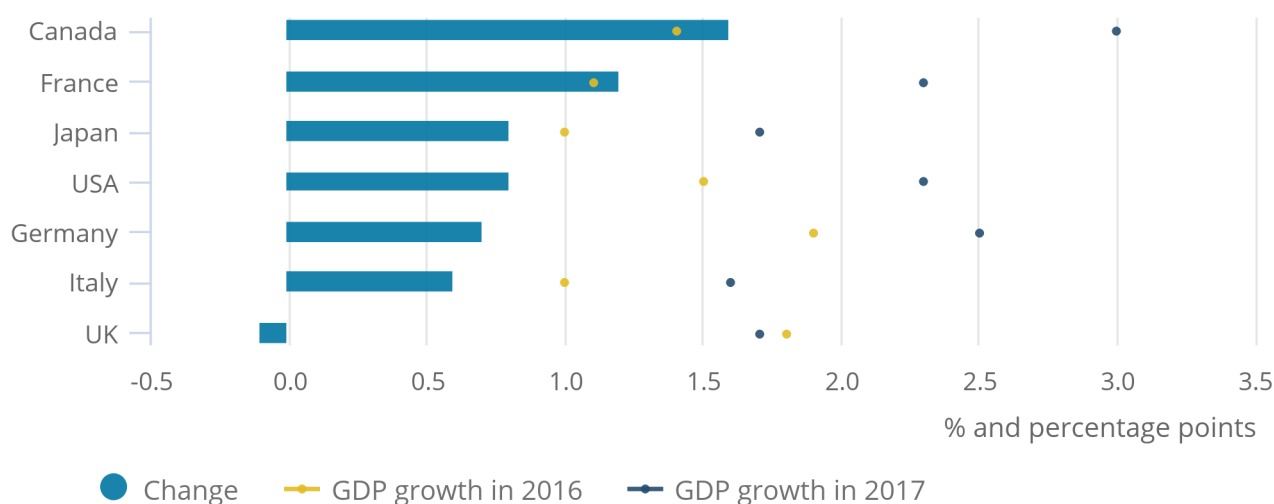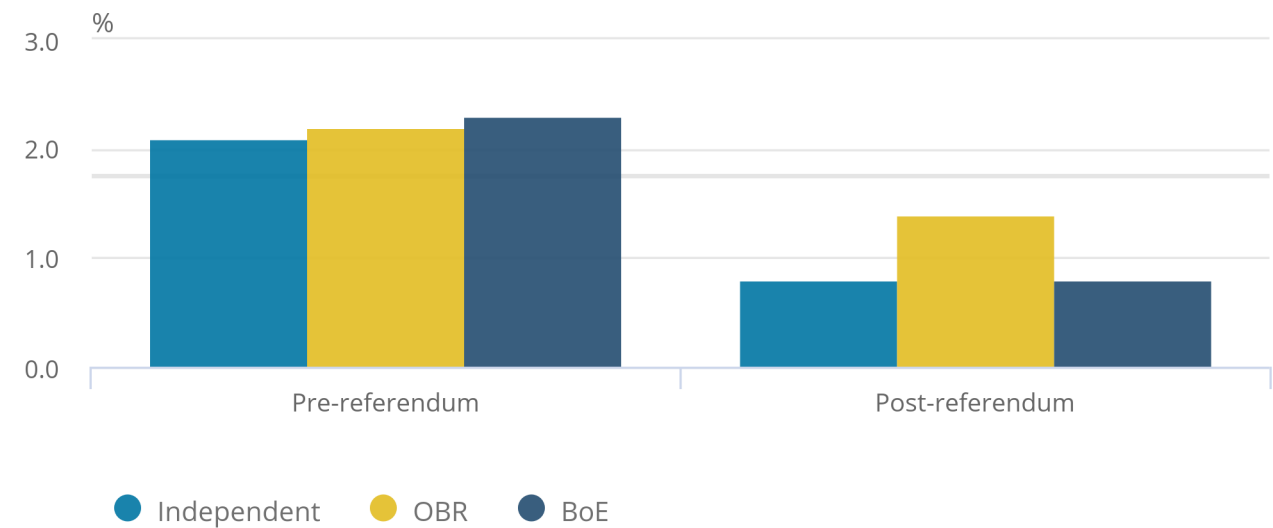
**Source: Office for National Statistics and Organisation for Economic Co-operation and Development**

However, UK growth has been more resilient than was initially expected immediately following the EU referendum in June 2016. Figure 1.2 compares the 2017 outturn with forecasts by the Bank of England (BoE), the Office for Budget Responsibility (OBR) and the consensus of independent forecasters, both before and after the vote.

Before the referendum, these forecasts had been conditional on the UK voting to remain in the EU. Figure 1.2 shows that these were subsequently revised down, based largely on the view that a weaker sterling would push up import prices, squeezing consumer budgets and spending, while heightened uncertainty would weigh on firms' decision to invest. While the UK economy did slow in 2017, the 1.7% growth recorded was not as weak as many had forecasted. In part, this was due to consumers initially spending more than had been predicted, with global GDP growth picking up since early 2016.

**Figure 1.2: The UK economy performed better than expected in the immediate aftermath of the EU referendum, but not as strongly as expected before the vote**



Figure 1.2: The UK economy performed better than expected in the immediate aftermath of the EU referendum, but not as strongly as expected before the vote [201]

**Source: Office for National Statistics, HM Treasury, Office for Budget Responsibility and Bank of England**

**Notes:**

1. Pre-referendum forecasts refer to the last published figure before the EU referendum vote– June 2016 for independent forecasts, May 2016 for the BoE and March 2016 for the OBR.
2. Post-referendum forecasts refer to the first published figure following the EU referendum vote– July 2016 for independent forecasts, August 2016 for the BoE and November 2016 for the OBR.

Meanwhile, growth in the implied GDP deflator – which measures changes in the price of all goods and services that comprise GDP – slowed to 1.9% in 2017. Despite this slowing, it was slightly stronger than its five-year average rate of 1.6%. Reflecting these price movements, nominal GDP growth in the UK economy was 3.6% in 2017, slightly below its five-year average annual growth rate of 3.8%.

The increase in the implied GDP deflator in 2017 reflected strengthening price growth across all expenditure components except for exports (Figure 1.3). Following a sharp rise of 6.1% in 2016, growth in UK nominal export prices eased to 4.9% in 2017. Meanwhile, nominal import price growth strengthened to 5.8% in 2017, the highest annual growth rate since 2011.

It is important to note that both export and import prices are based in sterling for the UK. While export prices have risen in sterling terms, it is possible there may have been no change in the price in foreign currency terms.

Movements in sterling export prices also reflect both exchange rate movements and changes in the price charged by the UK exporter, and there are a number of reasons why prices may be sticky in the short-term. Overseas firms that have agreed to pay a fixed price for UK exports may not be able to renegotiate the terms of those contracts in the short-term. Should prices be flexible, a domestic firm's choice to alter prices also depends on the price elasticity of demand of their products. For example, UK exporters may have the incentive to not pass through the full effect of an exchange rate appreciation to preserve market share and may not pass on the effects of a depreciation to increase profit margins.

**Figure 1.3: Export and import prices grew strongly in 2017, while growth in other components was modest**



Figure 1.3: Export and import prices grew strongly in 2017, while growth in other components was modest
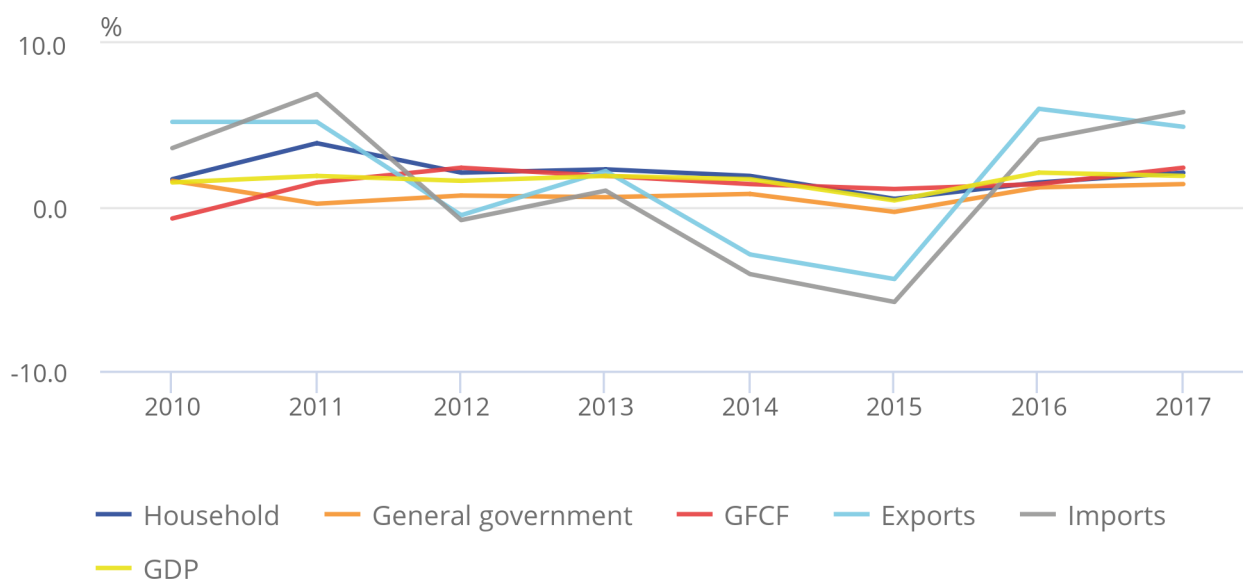
Price growth across all other components of expenditure strengthened modestly in 2017. The household consumption deflator rose by 2.1%, following growth of 1.5% in 2016. The fall in the exchange rate following the EU referendum led to an increase in UK import prices, which was then passed through to consumer prices.

This was driven by particularly robust price growth in food and drink, and household goods and services. Food and drink prices rose by 2.4% in 2017 following a 2.3% fall in 2016, which was the sharpest annual uptick on record. Growth in the prices of household goods and services saw a similar record increase, rising by 4.0 percentage points in 2017 following two flat years. This is in line with the slowdown seen in household expenditure and output in consumer-focused service industries in 2017.

# 3 . How have different industries fared since the referendum?

While headline gross domestic product (GDP) slowed in 2017, the output approach to measuring GDP strengthened slightly from 1.9% to 2.1% (Figure 1.4). This increase was driven by manufacturing, which grew by 2.5% and contributed 0.3 percentage points, following two flat years.

Construction output increased by 7.1%, which contributed 0.4 percentage points. Meanwhile, services output increased by 1.8%, with its contribution falling slightly in 2017 to 1.4 percentage points. This was a continuation of a longer-term trend, with the services industry on a gradual deceleration since 2014.

**Figure 1.4: Following two flat years, manufacturing contributed positively to growth in 2017 as the services sector slowed**

Figure 1.4: Following two flat years, manufacturing contributed positively to growth in 2017 as the services sector slowed
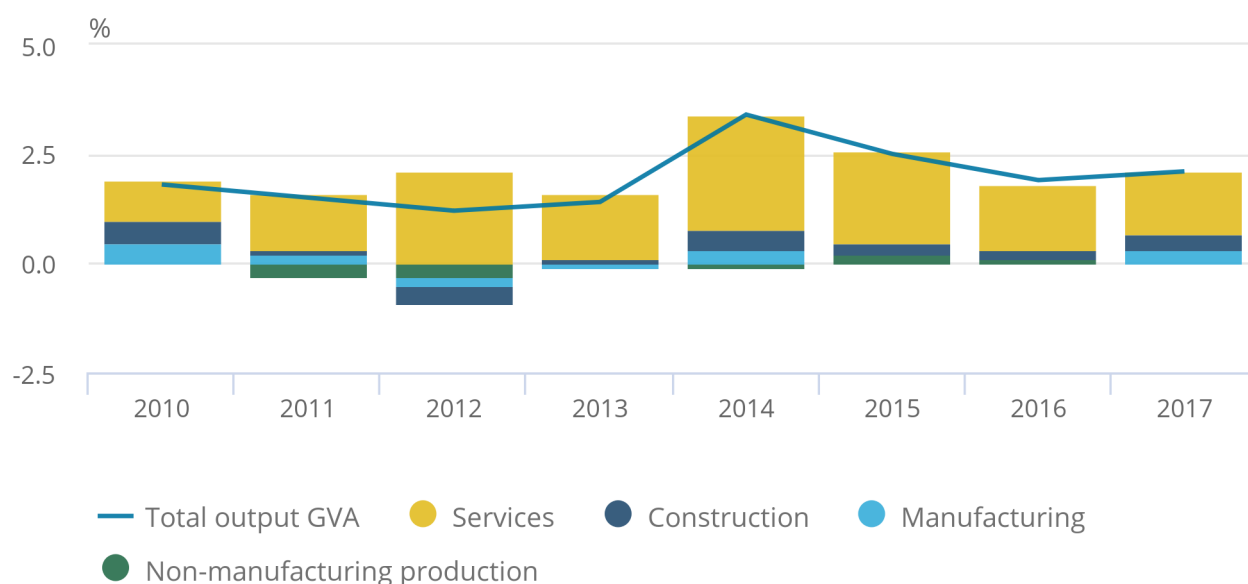


**Source: Office for National Statistics**

This slowdown in services can be attributed to weakness in consumer-focused industries, which saw a decline in their annual growth rate from 4.5% in 2016 to 1.8% in 2017 (Figure 1.5). In 2017, the distribution, hotels and restaurants sector – which includes retail trade and makes up a large proportion of consumer-focused industries – grew at its weakest annual rate since 2012 (2.1%).

This weakness in consumer spending reflects the squeeze on household purchasing power, with real incomes squeezed by rising inflation following the sterling depreciation that followed the outcome of the EU referendum. In the months following June 2016, the 12-month growth rate of the Consumer Prices Index including owner occupiers' housing costs (CPIH) increased sharply, from 0.8% in June 2016 to a peak of 2.8% in late 2017.

In other service sectors, business services and finance was the largest contributor to total services growth in 2017. This is in line with [external evidence (PDF, 712KB)](), which indicates that professional services firms across law, accountancy and consultancy have experienced robust demand for advice related to the acquisition of UK assets and from EU clients on the establishment of UK operations to retain market access.

**Figure 1.5: Growth in services output slowed in 2017, driven by weakness in consumer-focused industries**

Figure 1.5: Growth in services output slowed in 2017, driven by weakness in consumer-focused industries
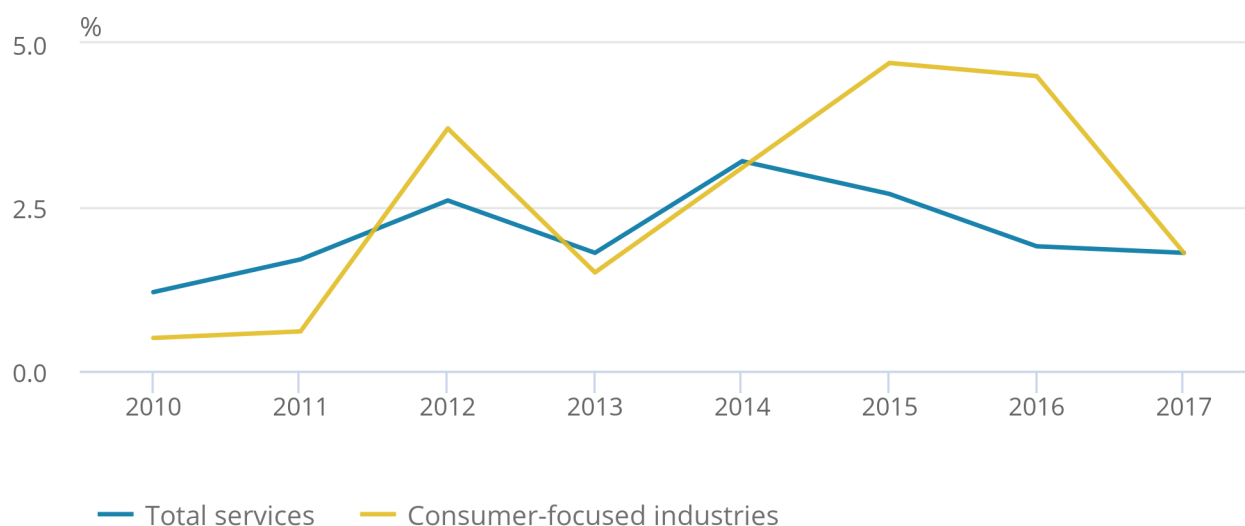


**Source: Office for National Statistics**

**Notes:**

1. "Consumer-focused" services defined here include retail trade (Standard Industrial Classification (SIC) 2007 codes 45 and 47), food and beverage (SIC code 56), publishing, audiovisual and broadcasting activities (SIC codes 58 to 60; including motion pictures), and arts, entertainment and recreation (SIC codes 90 to 93).

There is mixed evidence as to whether the result of the referendum has had a discernible impact on output in the construction industry. Construction output rose by 7.1% in 2017, following a rise of 4.1% in 2016. Although output subsequently fell by 0.8% in Quarter 1 (Jan to Mar) 2018 – the sharpest decline since Quarter 3 (July to Sept) 2012 – this fall was off a historically-high level in Quarter 4 (Oct to Dec) 2017 and output levels remain well above their pre-downturn peak in Quarter 1 2008.

Construction new orders have also remained broadly flat compared with pre-referendum levels. This is despite some survey evidence (PDF, 493KB) suggesting that Brexit-related uncertainty has impacted on firms' willingness to spend, weighing on new orders growth.

In the production industries, output rose by 1.8% in 2017 – its strongest annual growth rate since 2010. This was almost entirely driven by a 1.8 percentage point contribution from manufacturing, which expanded solidly to end 2017 on a run of seven consecutive months of growth. The Bank of England reports (PDF, 441KB) that manufacturers involved in export supply chains were benefitting from the fall in sterling and stronger global demand as the growth in their export volumes of manufacturing goods picked up.
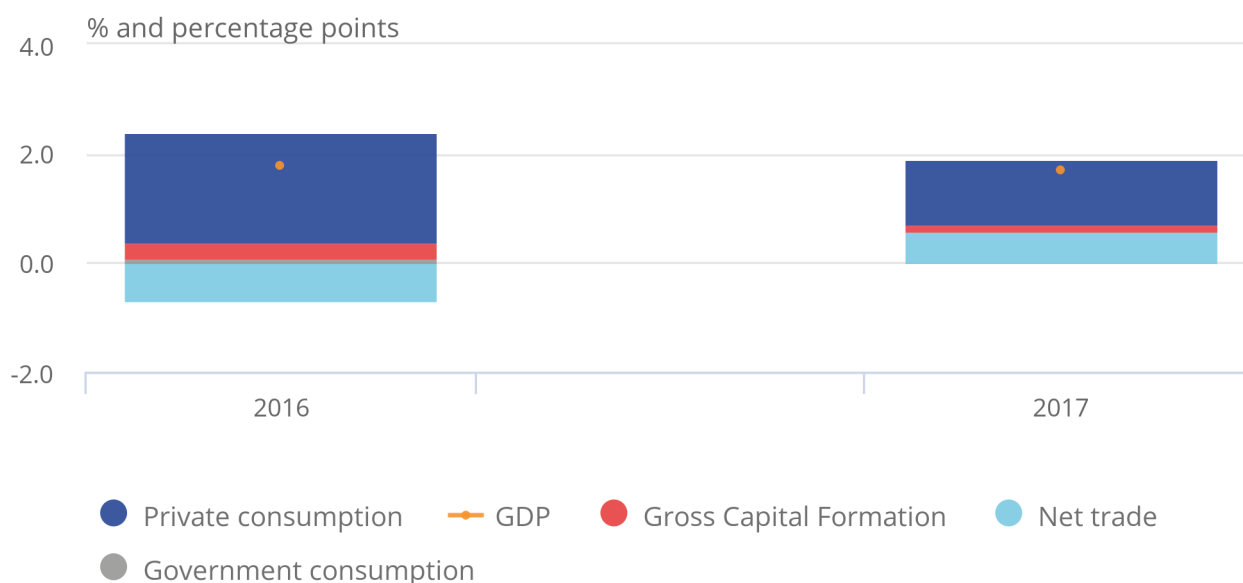
In other sectors, growth in waste management in 2017 was offset by a decline in energy supply, while mining and quarrying made no growth contribution.

# 4 . How has spending in the UK economy changed since the referendum?

Looking at how the expenditure components of gross domestic product (GDP) have evolved since the referendum, there has been some evidence of a rotation in demand in response to the depreciation in sterling and pickup in global demand. Figure 1.6 shows a notable shift away from private consumption and towards net trade and business investment in 2017.

**Figure 1.6: There has been a rotation away from consumption and towards net trade and business investment**

Figure 1.6: There has been a rotation away from consumption and towards net trade and business investment

% and percentage points

Legend: Private consumption, GDP, Gross Capital Formation, Net trade, Government consumption

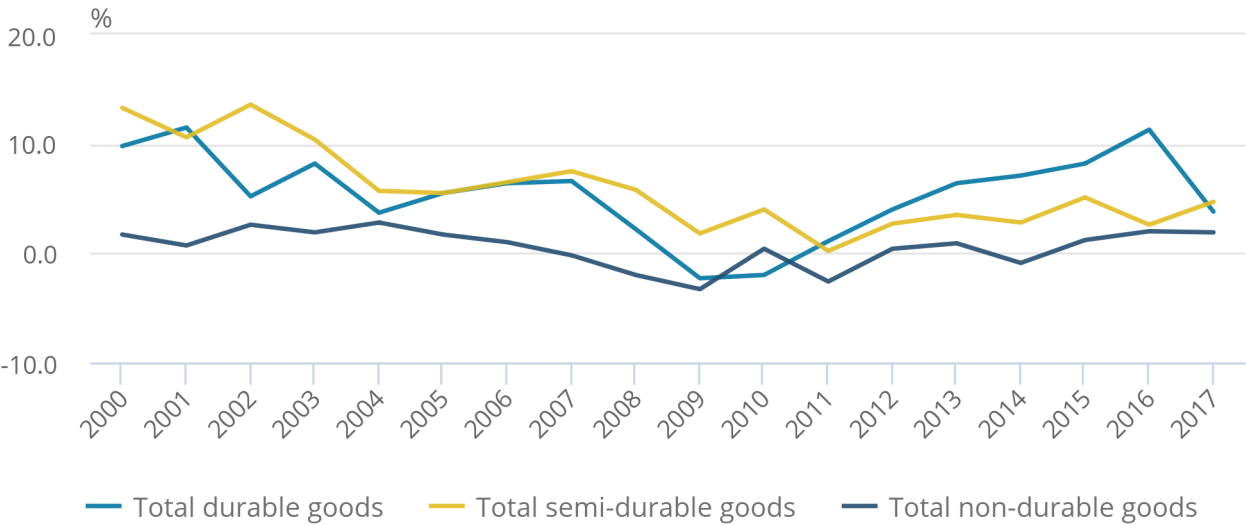**Source: Office for National Statistics**

Growth in household consumption slowed to 1.9% in 2017, down from the 3.2% recorded in 2016. This is the weakest annual rate since 2012, consistent with the weakness seen in consumer-focused service industries. The slowdown in household spending has been driven by the erosion of household purchasing power and stagnating real wage growth following the depreciation of sterling. Real household disposable income fell by 0.5% in 2017, the weakest annual rate since 2011.

Spending on durable goods – those that can be used repeatedly or continuously over a period of more than a year – is generally thought to be more discretionary in nature, as consumers can more easily delay their purchase. It is therefore expected that expenditure on these items might slow during periods of lower real income growth or heightened economic uncertainty.

Figure 1.7 shows a striking decline in the growth of durable goods consumption, which increased by only 3.8% in 2017, following seven years of strengthening growth. This is the weakest annual rate since 2011 and was driven primarily by reduced purchases of motor vehicles, which fell by 5.0% in 2017 – the first annual decline since 2011. Meanwhile, growth in the consumption of non-durables – which comprises around half of total goods consumption and grows at relatively lower rates – remained broadly stable in 2017.

**Figure 1.7: Household consumption of durable goods fell sharply in 2017 following a sustained period of growth**

Figure 1.7: Household consumption of durable goods fell sharply in 2017 following a sustained period of growth



**Source: Office for National Statistics**

Figure 1.8 shows that the main drivers of the consumption slowdown in 2017 were net tourism, transport, and recreation and culture.

Net tourism[1] was the largest negative contributor to household consumption growth in 2017. Exchange rate movements are expected to have a relatively quick pass-through to the tourism industries, with such movements having more of an immediate impact on the purchasing power of UK travellers abroad, which is likely to have reduced expenditure.

Travel services are also less likely to be constrained by long-term contracts and be relatively price elastic due to their discretionary nature and, while imperfect, the availability of domestic substitutes (travel within the UK).

While recreation and culture was the largest growth contributor to household consumption in 2016, growth in this category more than halved in 2017, from 6.6% to 3.2%. This sharp slowdown was driven primarily by cultural services (such as theatre and museum visits), recreational and sporting services, and newspapers.

Clothing and footwear (which makes up almost half of semi-durable goods), and restaurants and hotels have also both seen a notable slowdown since the second half of 2017. Together, these consumption patterns corroborate the slowdown seen in consumer-focused service industries.

**Figure 1.8: The slowdown in household consumption in 2017 was driven largely by net tourism, transport, and recreation and culture**

Figure 1.8: The slowdown in household consumption in 2017 was driven largely by net tourism, transport, and recreation and culture



**Source: Office for National Statistics**
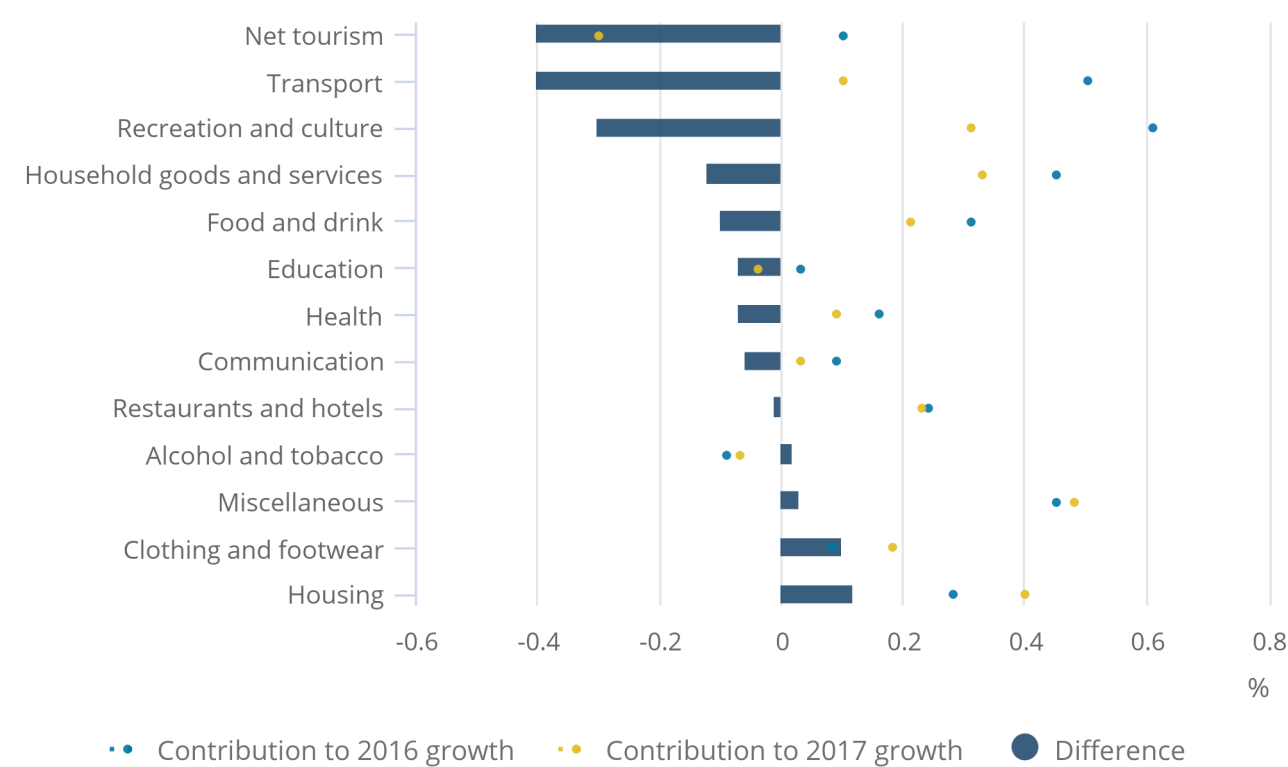
Business investment grew by 1.6% in 2017 following a 0.2% decline in 2016. This pickup may in part reflect the strengthening global economy, with both exporters investing to meet stronger overseas demand and domestic facing firms benefitting from import substitution expanding capacity. Investment by manufacturing firms picked up in 2017, consistent with the strength seen in manufacturing exports.

Business investment growth in 2017 was also supported by stronger investment in construction and other production (predominantly in mining and quarrying), while services investment slowed.

Despite the pickup in 2017, growth in business investment remained relatively muted, particularly in the context of stronger global activity and supportive financial conditions. Investment levels remain subdued compared with recent years. Survey evidence (PDF, 493KB) suggests that this is likely to reflect the impact of Brexit, with the associated political and economic uncertainty weighing on firms' decision to invest. Estimates from the Bank of England's Decision Maker Panel (DMP) Survey (PDF, 99KB) suggests that Brexit-related uncertainty lowered nominal investment by around 3 to 4 percentage points in the year to the first half of 2017.

**Notes for: How has spending in the UK economy changed since the referendum?**

1. Net tourism is included in UK National household final consumption expenditure, which measures final consumption expenditure by UK households in the UK and abroad. It is not included in UK Domestic household final consumption expenditure, which measures expenditure in the UK by UK and foreign households.

# 5 . Sector and financial accounts

The Blue Book also allows for an examination of activity by institutional sector. This includes the net lending or borrowing position of each domestic sector in the UK and the rest of the world. Net lending (borrowing) occurs when savings (investment) exceeds investment (savings). The net positions of each of these sectors must sum to zero, as there must be a pound lent for each pound that is borrowed.

Each of the domestic sectors in the UK – households (including non-profit institutions serving households (NPISH)), corporations and government – were net borrowers in 2017 (Figure 1.9). This is the first time on record that this has happened, with the UK reliant on external borrowing to help finance these net borrowing positions, running a current account deficit of 3.9% in 2017.

In recent years, the current account deficit has widened to historical highs, but there was a marked narrowing in 2017. This is likely to have reflected the effects of the recent sterling depreciation on competitiveness as well as the pickup in the global economy. These factors may also explain the improvement in the net rate of return on foreign investments by the UK.

Figure 1.9: Households became a net borrower in 2017 for the first time since 1988



%

Corporations    General government    Households    Rest of the world
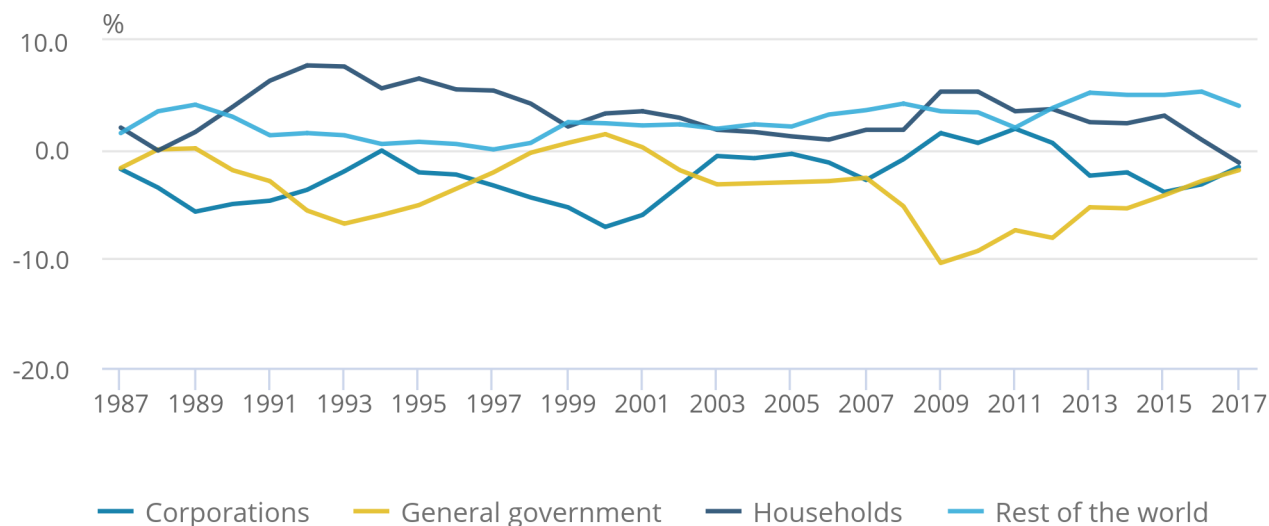
**Source: Office for National Statistics**

Most strikingly, households (excluding NPISH) were a net borrower in 2017 for the first time since 1988 – borrowing 1.2% of GDP to finance its spending and investment. Households financed this borrowing by acquiring more liabilities, although at a slower rate than in recent years.

Household net acquisition of liabilities fell as a share of gross domestic product (GDP) in 2017, for the first time since 2009. As Figure 1.10 shows, households markedly reduced their net acquisition of financial liabilities in 2008 and 2009, corresponding with the impacts of the downturn on the cost and availability of credit. In particular, acquisitions of long-term loans secured on dwellings fell sharply as households undertook a process of deleveraging. Since then, households have been increasingly taking on more liabilities, although net financial liabilities had not yet exceeded net financial assets until 2017.

Acquisitions of long-term loans secured on dwellings continued to account for most of the increase in liabilities in 2017, although growth in these types of loans slowed considerably from the previous year. Household net acquisition of short-term loans fell by £3.5 billion to £8.9 billion in 2017, the first annual fall since 2012.

Households also continued to acquire more financial assets in 2017, although at its slowest rate since 2008 – household net acquisition of financial assets fell to 3.4% of GDP in 2017. Driving this slowdown was a large decrease in deposits with UK monetary financial institutions, which was partly offset by a reduced disposal of equity and investment fund shares.

Meanwhile, the government budget deficit continued to narrow in line with government policy and was 1.9% of GDP in 2017 – the lowest since 2002. Similarly, corporations remained a net borrower with their net borrowing position narrowing to 1.6% of GDP in 2017.

**Figure 1.10: In 2017, households' net acquisition of liabilities exceeded their net acquisition of financial assets for the first time since records began in 1987**

Figure 1.10: In 2017, households' net acquisition of liabilities exceeded their net acquisition of financial assets for the first time since records began in 1987



- Total net acquisition of financial liabilities
- Total net acquisition of financial assets
- — Net lending and borrowing from the financial account
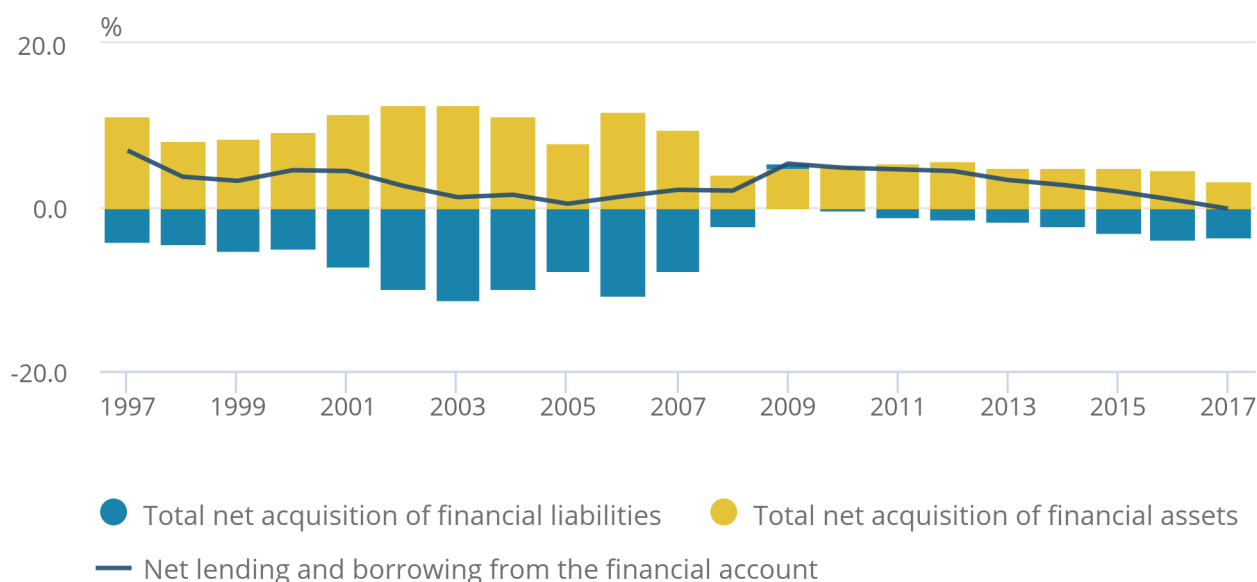
The household net borrowing position in 2017 largely reflects relatively subdued growth in household disposable income in both 2016 and 2017. As Figure 1.11 shows, there has been a marked slowdown in the growth of gross household disposable income (GHDI) compared with the preceding period. GHDI rose by 1.3% and 1.6% in 2016 and 2017 respectively, considerably weaker than the 10-year average annual growth rate of 3.0%. This slowdown was driven primarily by falls in net property income (earnings from interest on savings and dividends from shares) and net social contributions and benefits (Figure 1.11).

The slightly stronger growth in GHDI in 2017 was almost entirely driven by a 4.1% rise in compensation of employees (CoE), with employers' social contributions growing at their fastest rate since 2010 (9.9%) and wages and salaries also growing by a solid 2.9%. However, the contribution of wages and salaries to GHDI growth has fallen over the past two years, while the contribution of employers' social contributions has increased.

Looking at the impact of inflation, prices grew at a faster pace than gross disposable income in 2017 with the result that real household disposable income (RHDI) fell by 0.5% in 2017 – the second consecutive annual fall. The household consumption deflator increased by 2.1% in 2017, following the effects of the fall in the exchange rate. This inflationary squeeze on household spending power was the driver of slowing consumption growth in 2017.

The subdued growth in household income over the last two years is also reflected in historically-low levels of household savings, with the households' saving ratio hitting a record low of 4.1% in 2017. This reflects a reduction of gross savings by households, as growth in spending, although slowing, continued to outstrip growth in disposable income. As previous analysis showed, household spending slowed in 2017 but not as sharply as expected before the EU referendum.

## Figure 1.11: Growth in gross household disposable income has been subdued over the past two years
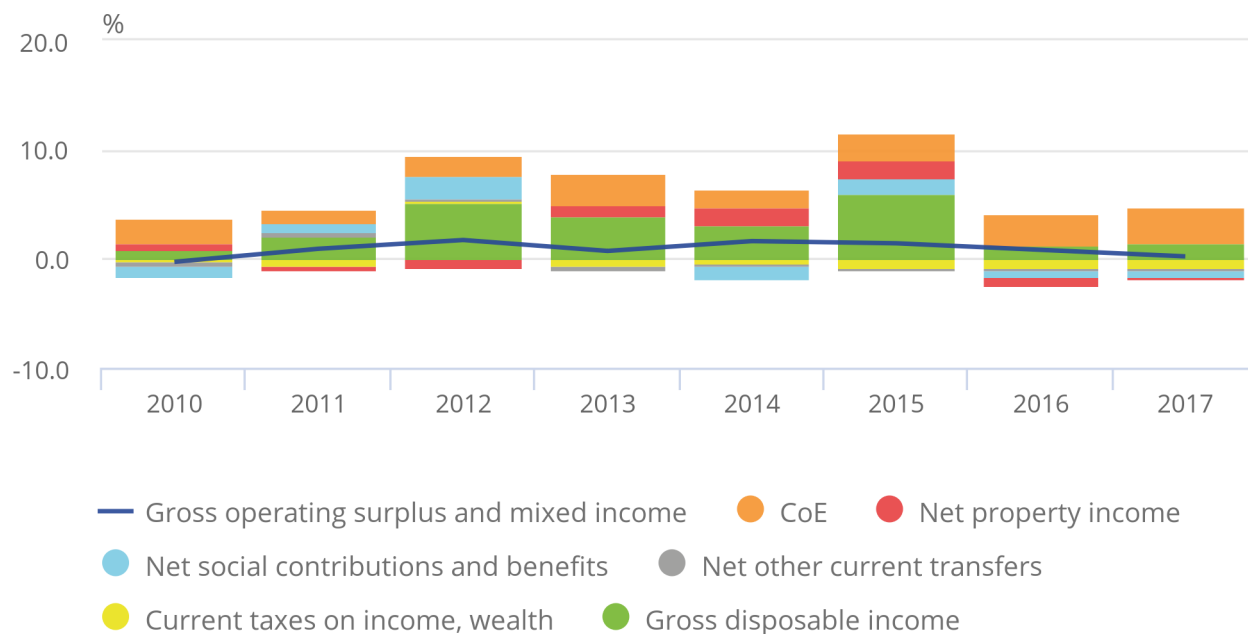


**Source: Office for National Statistics**

Figure 1.12 shows the net worth of households as a share of nominal GDP, decomposed into financial and non-financial assets as well as financial liabilities. The value of total assets continued to increase in 2017, albeit at a slower pace, rising to £12.3 trillion (or 604.4% of GDP).

Within these assets, the value remained relatively evenly split between financial and non-financial assets – as it has been over the past 10 years. However, growth in the value of financial assets slowed in 2017, driven by insurance and pension entitlements, which increased by a modest 1.4% following a sharp 11.1% rise in the previous year (which was due largely to revaluations). Consistent with the reduction in household savings, growth in currency and deposits also slowed to its weakest annual rate since 2011.

On the non-financial asset side, growth continues to be driven by increases in the value of land, which contributed 5.6 percentage points to the 6.6% growth in the total value of household non-financial assets in 2017. Land held by households now accounts for over 40% of the UK's total net worth.

Meanwhile, the value of household financial liabilities increased to £1.8 trillion in 2017, but remained broadly stable as a share of GDP. Household liabilities as a percentage of GDP has been on a steady decline since 2009, falling from 100.4% of GDP to 88.4% in 2017. This decline has been largely driven by a considerable slowdown in long-term loans secured on dwellings – the value of these types of loans averaged double-digit growth in the years leading up to the financial crisis, but has averaged only 1.6% since 2010.

With the rise in the value of total household assets more than offsetting the rise in the value of liabilities, household net worth as a share of GDP increased to 516.1% of GDP in 2017. While all domestic sectors except non-financial corporations saw an increase in net worth in 2017, it was the households sector that continued to be the driver of growth in total UK net worth, contributing 4.9 percentage points to the 5.1% growth in total net worth. Total net worth in the UK rose by £492.4 billion to 502.0% of GDP in 2017.

**Figure 1.12: Household net worth increased to 516% of gross domestic product in 2017**

Figure 1.12: Household net worth increased to 516% of gross domestic product in 2017
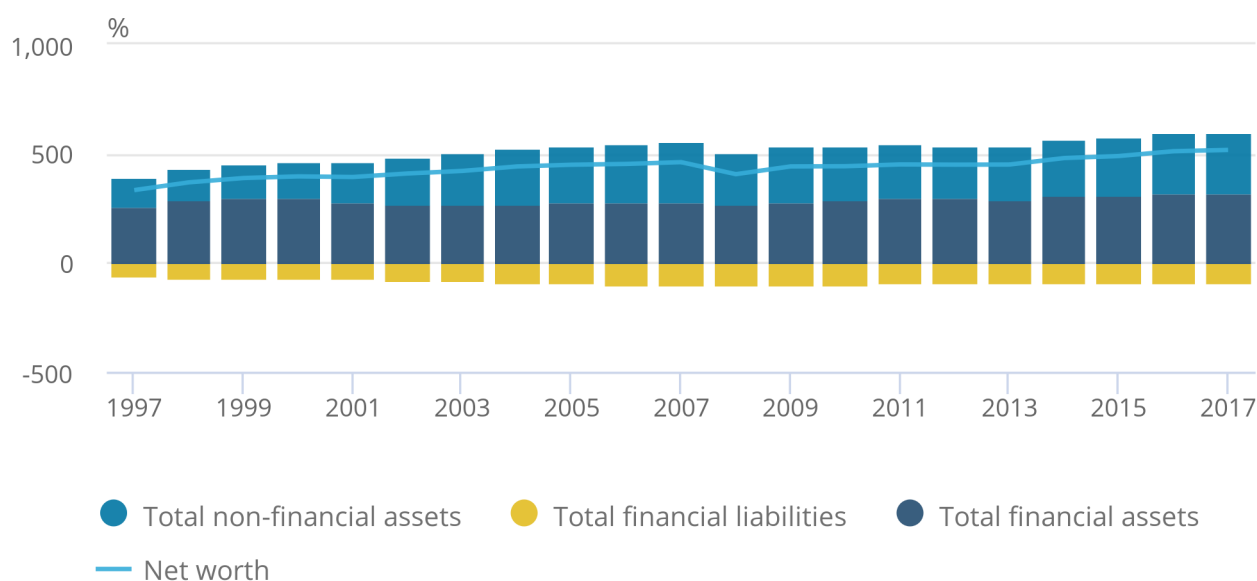


**Source: Office for National Statistics**

Compendium

# Explanation of 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.

# Correction

**18 September 2018 15:13**

A correction has been made to the following charts: Breakdown of gross value added at basic prices, by industry, 2016, UK and Compensation of employees, by industry, 2016, UK . This was due to a small error in the data input into the tool used to calculate these estimates. You can see the original content in the superseded version. We apologise for any inconvenience.

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# 1 . The industrial analysis

Analysis of the 10 broad industrial groups shows that in 2016, the government, health and education industries provided the largest contribution to gross value added at current basic prices. These industries contributed 18.1% to the total gross value added of £1,756 billion; with a value of £317.5 billion.

Of the remainder:

- production industries contributed 13.8%

- real estate industries contributed 13.8%

**Figure 2.1: Breakdown of gross value added at basic prices, by industry, 2016, UK**

Figure 2.1: Breakdown of gross value added at basic prices, by industry, 2016, UK
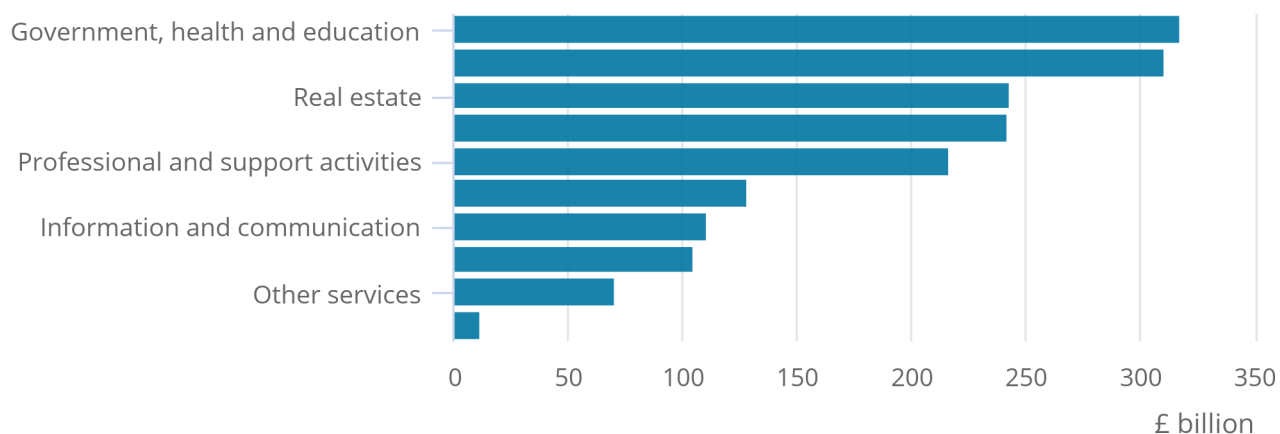


**Source: Office for National Statistics**

In 2016, of all goods and services within final demand:

- households consumed 48.3%

- 11.7% of goods and 10.1% of services were exported

- government, both central and local, consumed 14.4%

- gross capital formation, by all sectors of the economy, consumed 13.0%

- non-profit institutions serving households (NPISH) consumed 2.2%

**Figure 2.2: Composition of final demand for 2016, UK**

Figure 2.2: Composition of final demand for 2016, UK
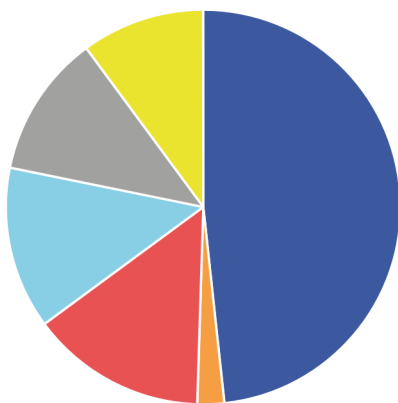


**Source: Office for National Statistics**

The government, health and education industries showed the highest level of compensation of employees in 2016 at £251.4 billion (26.1%). The second-largest industries, in terms of their contribution to total compensation of employees, were the distribution, transport, hotel and restaurant industries at £205.6 billion (21.3%).

Figure 2.3: Compensation of employees, by industry, 2016, UK

# 2 . Input-output supply and use tables

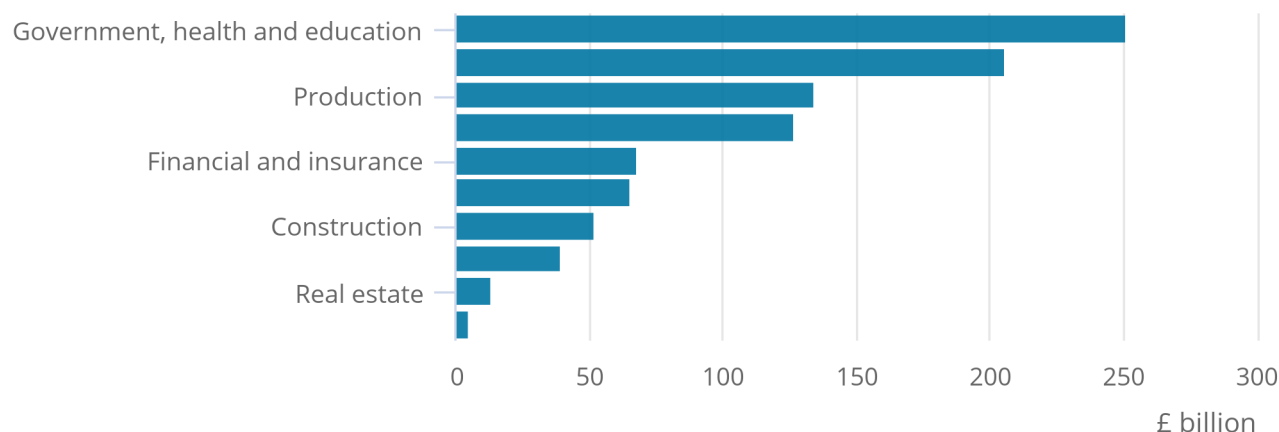The annual estimates included in UK National Accounts, The Blue Book: 2018 edition incorporate the results of annual inquiries that become available in the first part of the year, although last year's estimates are based largely on quarterly information. Any newly-collected data are shown as revisions. In order to reassess these estimates, supply and use tables 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 sub-sector 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 2016, with data for 2016 balanced for the first time. Data for 2014 to 2015 have been fully re-balanced. Data from 1997 to 2013 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 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 2016.

Estimates of total output and gross value added are valued at basic prices, the method recommended by European System of Accounts 2010: ESA 2010 (PDF, 6.4MB). 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 (2016=100) analyses

Table 2.3 shows chained volume estimates of gross value added at basic prices by industry. The output approach provides the lead indicator of economic change in the short-term. In the longer-term, the output measure of real gross domestic product (GDP) is required to follow the annual path indicated by the expenditure measure of real GDP (usually to within 0.2% of the average annual gross value added growth). To achieve this, balancing adjustments are sometimes applied to the output-based gross value added estimates.

We have developed an automatic function for assigning the annual adjustments to gross value added. This is designed to minimise changes to the quarterly path while adjusting the overall annual growth rate to align to the expenditure measure. For technical and other reasons the adjustments are not, at present, made to retail or the non-services industries for any years.

# 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; therefore 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 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.

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

The Labour Force Survey (LFS), a household survey, is used to collect self-employment jobs. It codes respondents according to their own view of the industry they work in; therefore the industry breakdown is less reliable than that for the business surveys.

# 6 . Summary supply and use tables for the UK

Table 2.1a: Summary supply and use tables 2013

Table 2.1b: Summary supply and use tables 2014

# 7 . Gross value added (GVA)

The UK National Accounts, The Blue Book provides a comprehensive industry breakdown of gross value added (GVA), with activities grouped into 20 broad sections in accordance with SIC 2007.

The Blue Book 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, available in the Blue Book, 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, whereas 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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31 July 2018

Next release:
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, amongst others.

The non-financial sector is broken down into two sub-sectors:

- 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 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.

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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) and/or

- 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, risk and so on 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)

- financial corporations except MFI and ICPF

- insurance corporations and pension funds (ICPFs)

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

Compendium

# General government

General government sector by central and local government.

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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 National Health Service, 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: 2018 edition presents estimates for the general government sector and sub-sector breakdowns for:

- central government

- local government

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

Compendium

# Households and non-profit institutions serving households

Households, and non-profit institutions serving households sectors.

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To be announced

## Table of contents

# 1 . Households and non-profit institutions serving households

The households sector covers both consumers and producers. Households as consumers is made up of 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. This sector also includes the self-employed who are treated as producers. A smaller group of units within the households sector is made up of those living permanently in institutions with little economic autonomy, such as prison populations and members of religious orders living in monasteries.

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

- provide goods and services, either free or below the market prices

- mainly derive their income from grants and donations

- are not controlled by government

In the UK the NPISH sector includes:

- most charities

- trade unions

- religious organisations

- political parties

- the majority of universities

The UK National Accounts, The Blue Book: 2018 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.

# Table

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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.

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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, new dwellings and major improvements to dwellings, other buildings and major improvements to buildings, and structures such as roads. Additional assets consisting of research and development, and military weapons systems were introduced into the definition of GFCF in Blue Book 2014.

A change was made in UK National Accounts, The Blue Book 2017 to correct the estimation of elements of purchased software, which were being double-counted from 2001 onwards along with discrepancies in the modelled data prior to 2001. During further quality assurance, we identified that the Blue Book 2017 adjustment did not fully address the issue and an additional amendment to other machinery and equipment, and information and communication technology (ICT) equipment was required. Purchased software was unaffected by this additional amendment.

This additional amendment was first implemented in the Blue Book 2018-consistent Quarterly national accounts dataset, published on 29 June 2018 and has increased the level of GFCF across the period by around 1.5% per year in current prices. The average impact on quarter-on-quarter GFCF current price growth is positive 0.01% and the average impact on quarter-on-quarter gross domestic product (GDP) current price growth is 0.00%. Although the chained volume measure impact of the change cannot be precisely measured, it is almost certainly of a similar magnitude.

In Blue Book 2018 we have also introduced a number of other changes to the estimates of GFCF and business investment. These include:

- improving the asset allocation of plant data between other machinery and equipment, hardware and telecoms

- updating the sector classification of housing associations, first done in Blue Book 2017, to include data from the devolved administrations

- introducing more up-to-date Annual Business Survey (ABS) data for annual benchmarks in 2015 and 2016

A more detailed explanation of the improved asset allocation can be found in the Latest developments to UK National Accounts and Balance of Payments – changes to be implemented for Blue Book and Pink Book 2018 article published on 4 December 2017.

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

Non-financial assets include:

Produced non-financial assets:

- 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

- valuables, such as works of art and precious stones

Non-produced assets:

- contracts, leases and licences

- natural resources

Data sources include:

- Office for National Statistics's (ONS's) National Balance Sheet Survey

- Chartered Institute of Public Finance and Accountancy report on local authority assets

- 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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# 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 (both central and local government) and to the European Union.

# 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. This includes 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 (PDF, 6.4MB) has a specific category of payments to 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 European Union (EU). These include taxes on imports, which are payable to the EU under the EU treaties.

Compendium

# How our statistics are used by the European Union

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

| Contact: | Release date: | Next release: |
|---|---|---|
| Bob Richards / James Wells | 31 July 2018 | To be announced |

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# 1 . Introduction

The European Union (EU) uses 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. 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 (PDF, 6.4MB).

# 2 . UK transactions with the institutions of the European Union

Table 11.1 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 note detailing GDP, GNI and the UK's contribution to the EU budget (PDF, 237KB) was published on 8 September 2015.

# 3 . Data to monitor government deficit and debt

The convergence criteria for 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, requires 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 submitted the estimates in Table 11.a to the European Commission in July 2018.

Table 11.a: UK government deficit and debt, financial year ending 2012 to financial year ending 2018

|  | 2011 to 2012 | 2012 to 2013 | 2013 to 2014 | 2014 to 2015 | 2015 to 2016 | 2016 to 2017 | 2017 to 2018 |
|---|---|---|---|---|---|---|---|
| **General government deficit** | | | | | | | |
| Net borrowing (£bn) | 123.9 | 123.9 | 99.9 | 89.9 | 75.5 | 47.1 | 40.7 |
| as percentage of GDP | 7.5 | 7.2 | 5.6 | 4.8 | 3.9 | 2.4 | 2.0 |
| **General government debt** | | | | | | | |
| Debt at nominal value (£bn) | 1,349.7 | 1,425.6 | 1,522.5 | 1,604.0 | 1,652.0 | 1,720.0 | 1,763.8 |
| as percentage of GDP | 81.8 | 83.3 | 85.5 | 86.5 | 86.4 | 86.5 | 85.8 |

Source: Office for National Statistics

Compendium

# UK Environmental Accounts

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

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# 1 . Environmental accounts

Environmental accounts are:

- "satellite accounts" to the main national accounts

- compiled in accordance with the System of Environmental-Economic Accounting (SEEA), which closely follows the United Nations System of National Accounts (SNA)

Environmental accounts measure:

- the impact the economy has on the environment

- how the environment contributes to the economy

- how society responds to environmental issues by using the accounting framework and concepts of the national accounts

Environmental accounts are used to:

- inform sustainable development policy

- model impacts of fiscal or monetary measures

- evaluate the environmental impacts of different sectors of the economy

Environmental accounts data:

- are mostly provided in units of physical measurement (mass or volume)

- can be provided in monetary units, where this is the most relevant or only data available

Tables 12.1 to 12.5 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 . Temperature

Figure 12.1 shows the change in mean air temperature between 1990 and 2016. This measure provides a useful context for some of the changes observed across the environmental accounts. For example, the average temperature in the UK fell to 8.0 degrees Celsius (°C) in 2010 from 9.2°C in 2009, which contributed to the increases in energy consumption and greenhouse gas emissions observed during that period.

At the same time, UK gross domestic product (GDP) started to recover after the economic downturn, which may also explain the increases in consumption and emissions. The average air temperature in 2016 was slightly higher than in 2015, up to 9.3°C from 9.2°C. This was still below the record high of 9.9°C in 2014.

**Figure 12.1: Mean air temperature**

Figure 12.1: Mean air temperature

UK, 1990 to 2016
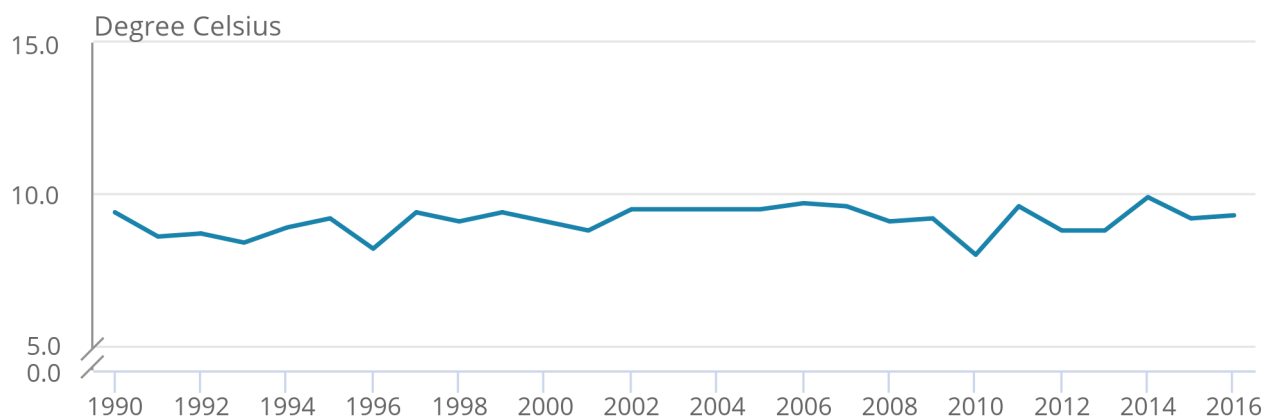
**Source: Met Office**

# 3 . 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.

Reserves can be proven, probable or possible depending on the confidence level:

- proven reserves (based on the available evidence) are virtually certain to be technically and commercially producible, that is, have a better than 90% chance of being produced

- probable reserves are not yet proven but have a more than 50% chance of being produced

- possible reserves cannot be regarded as probable at present, but are estimated to have a significant (but less than 50%) chance of being technically and commercially producible

Last year the Oil and Gas Authority developed a new category of oil and gas reserves, known as "contingent resources". Contingent resources are defined as "significant discoveries where development plans are under discussion". In the past these would have been included as "probable reserves".

Oil is defined as both oil and the liquids that can be obtained from gas fields. Shale oil is not included in the estimates. Total (discovered; proven and probable, plus possible reserve, contingent resources and undiscovered) oil reserves and resources for 2016 were estimated to be between 1,059 million tonnes and 1,658 million tonnes. Both upper range and lower range for total oil reserves have decreased due to a new reporting method for the years 2013 to 2016.

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. Total gas reserves and resources were estimated between 589 billion cubic metres (bcm) and 1,050 bcm in 2016. Both upper range and lower range for total oil reserves have decreased due to a new reporting method for the years 2013 to 2016.

# 4 . 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.

Total energy consumption of primary fuels and equivalent was 202.4 million tonnes of oil equivalent (Mtoe) in 2016, which was 1.1% lower than in 2015. Fossil fuels remained the dominant source of energy supply, although their use continued to fall. Energy consumption from fossil fuels in 2016 was at the lowest level since 1990 at 167.1 Mtoe. This represented 82.6% of total energy consumption.

Overall, direct use of energy from fossil fuels has dropped 18.9% since 1990, whereas total energy consumption has fallen 9.9% between 1990 and 2016. This fall in energy from fossil fuels is driven largely by the energy supply and manufacturing sectors. The energy supply sector continued its downward trend in 2016, with a 9.5% reduction on 2015 to 32.3 Mtoe, 42.5% below 1990 levels.

Although fossil fuels are the main source of energy for consumption, other sources (including nuclear, net imports, and renewable and waste sources) are becoming increasingly important. Total energy consumption from other sources was 35.3 Mtoe in 2016, which was 1.4% higher than in 2015. Approximately half of this (52.1 %) came from renewable and waste sources[3]. The largest annual increase in this category occurred between 2014 and 2015, when energy consumption from renewable and waste sources rose by 19.9%.

## 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.

# 5 . 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. In 2016, emissions of greenhouse gases were estimated to be 576.3 million tonnes of carbon dioxide equivalent (Mt CO2e), the lowest level since 1990. Across the time series, the largest annual fall in emissions of greenhouse gases occurred in 2009, following the onset of the economic downturn in 2008, when emissions decreased by 8.1%. Between 2015 and 2016, emissions decreased by 23.2 Mt CO2e (3.9%). This was due primarily to reductions in carbon dioxide emissions from the energy supply [1] and manufacturing sectors.

Carbon dioxide (CO2) was the dominant greenhouse gas, accounting for 84.7% of the UK's total greenhouse gas emissions in 2016. The remainder of greenhouse gas emissions comprised methane (8.9%), nitrogen oxide (3.6%) and fluorinated gases (2.6%).

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. Table 12.4 shows ARP emissions. For comparability, all figures are weighted according to their acidifying potential and presented as sulphur dioxide equivalents (SO2e).

Since 1990, total ARP emissions have decreased sharply, falling by 75.8%, from 7.1 million tonnes of sulphur dioxide equivalent (Mt SO2e) to 1.7 Mt SO2e in 2016. The reduction in ARPs was driven largely by a reduction in SO2 emissions, which fell by 93% between 1990 and 2016. This reduction can be linked to policy initiatives [2] to control sulphur and nitrogen oxides emission levels, discourage the use of high-sulphur fuels, control the sulphur content of those fuels and encourage the adoption of cleaner technologies. For example, electricity generation was switched from coal to gas, which generates fewer ARPs. As a result, ARP emissions from the energy supply sector fell 46.4% between 2015 and 2016, and 96.3% between 1990 and 2016.

NOX have also seen a large decline (63.3%) between 1990 and 2016. Moreover, as internal combustion engines are an important emitter of NOX, some of this reduction may be attributed to strict standards and policy initiatives, such as European emission standards for motor vehicles, regulating NOX, particulate matter, and other emissions from road freight vehicles [3]. This is reflected in an 54.8% decline of emissions from the transport [4] sector between the peak of 2004 and 2013. Since then the trend reversed and between 2013 and 2016, NOX emissions have risen by 16.6% to 363.6 thousand tonnes of SO2e. In contrast, at the same period, total NOX emissions have fallen by 6.6%.

## Notes for: Atmospheric emissions

1. The "energy supply" sector comprises of electricity, gas, steam and air conditioning supply industries.

2. Policies include UK National Air Quality Strategy Directive on Integrated Pollution Prevention and Control (IPPC) (Directive 2008/1/EC); Directive on industrial emissions 2010/75/EU (IED); UK Pollution Prevention and Control (PPC) regulations; Large combustion plant directive (LCPD, 2001/80/EC); Limiting sulphur emissions from the combustion of certain liquid fuels by controlling the sulphur contents of certain liquid fuels (Directive 1999/32/EC); Annex VI of the MARPOL agreement for ship emissions, augmented by the Sulphur Content of Marine Fuels Directive 2005/33/EC and the introduction of Sulphur Emission Control Areas.

3. Euro1, Euro2, Euro3, Euro4, Euro5, and Euro6 is a family of European emission standards for motor vehicles, regulating NOx, particulate matter, and other emissions. More can be found in this link: EUR-Lex

4. The transport sector refers to the standard industrial classification sector 'transportation and storage'.

# 6 . Material flows

[Table 12.5](#) presents economy-wide material flow accounts, which estimate the physical flow of materials through the UK economy. The quantity of materials extracted in the UK has been declining gradually and hit its lowest point in 2013 with 418 million tonnes extracted, a decrease of almost 41.8% from 2000. This trend reversed slightly between 2014 and 2015, rising to 452 million tonnes, before falling by 1.3% to 447 million tonnes in 2016.

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. In 2016, there were 132 million tonnes of biomass extracted, 7 million tonnes less than in 2015. Of this, crop residues, fodder crops and grazed biomass accounted for 65% (86 million tonnes).

Non-metallic minerals are mainly construction and industrial minerals, including limestone and gypsum, sand and gravel, and clays. There has been an overall fall in extraction of non-metallic minerals since 2000, a 26.5% fall by 2016. However, extraction of non-metallic minerals has been increasing again from the all-time low in 2012. In 2016, there was a 1.4% increase in the extraction of non-metallic minerals (from 221 million tonnes to 224 million tonnes).

Fossil energy materials and carriers include coal, peat[1], crude oil and natural gas. The extraction of these has decreased slightly since 2015 at 91 million tonnes, still 3.9% higher than 2014. However, 2015 was the first increase since 2000 and can be attributed to an increase in the production of crude oil and natural gas liquids from the North Sea due to the opening of new fields. Prior to this increase, extraction of fossil energy materials had fallen 67.1% between 2000 and 2014.

## Physical trade balance

Physical imports increased by 27.3% between 2000 and 2016, rising from 221 million tonnes to 281 million tonnes. Contrary to this, physical exports have gradually decreased, peaking at 201 million tonnes in 2002 and falling to 158 million tonnes in 2016 – the lowest point since 2000 and a drop of 21.6%. The rise in imports partly offsets the decline in domestic extraction.

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.

In 2000, the PTB was relatively small at 21 million tonnes. It generally increased until 2007, before falling between 2008 and 2010 during the economic downturn. Since 2010, the PTB increased, peaking at 151 million tonnes in 2013. However, the PTB has since decreased year-on-year with a 5.9% drop in 2016 from 2015 (to 123 million tonnes). Despite this, the amount of materials and products that were imported (281 million tonnes) was almost twice the amount of materials and products that were exported (158 million tonnes), 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.

In 2016, the UK consumed 571 million tonnes of material, consisting of 237 million tonnes of non-metallic minerals (41.5%), 171 million tonnes of biomass (30%), 150 million tonnes of fossil fuels (26.4%) and 12 million tonnes of metal ores (2.2%).

Between 2000 and 2016, DMI and DMC decreased by 22.5% and 22.8% respectively. DMI and DMC have gradually declined since the start of the economic downturn in 2008. This indicates that fewer material resources were being used and consumed in the UK economy. DMI and DMC fell most sharply between 2008 and 2009 (decreasing by 11.6% and 12.3% respectively). Between 2015 and 2016, DMI decreased by 1.9%, from 742 million tonnes to 728 million tonnes and DMC decreased by 2.3%, from 584 million tonnes to 570 million tonnes.

## 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 for 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.

# 7 . More information

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

As of this year, we have revised the sector breakdown for the energy and air emissions sections. For example, the former sector "Transport, storage, information and communication" is now broken down to "Transport and storage" and "Information and communication". This creates more categories where energy consumption and air emissions can be allocated, and therefore provides better granularity of data.

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).

Percentages have been calculated using data rounded to thousand tonnes, so figures may not match those calculated using the linked dataset. 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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31 July 2018

Next release:
To be announced

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# 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 sub-sectors within the economy.

# 2 . What is flow of funds?

"Flow of funds" are 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 recent global financial crisis, the international community has had an increased focus on the analysis of financial stability and the development of improvements to the data, which support that analysis. This is particularly important for those countries, like the UK, which 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 may 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, Office for National Statistics and the Bank of England started the joint Flow of Funds Project in 2014. More information on the project and experimental counterpart statistics are available based on last year's figures. Updated figures will be published on 26 November 2018.

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

## Actual final consumption

The value of goods consumed by a sector but not necessarily purchased by that 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

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

## Assets

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

## Balancing item

A balancing item is 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. The balance of trade 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 sub-sector of the financial corporations 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 prices are the preferred method of valuing gross value added 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). As a result 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 – which 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, which 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 as well as 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 since 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; also known as gilts.

# 2 . C to D

## Capital

Capital assets are those that contribute to the productive process so as to produce an economic return. In other contexts the word can be taken to 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

Chained volume measures are time series that measure gross domestic product (GDP) in real terms (that is, excluding price effects). Series are calculated in the prices of the previous year and in current price and all of 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, it includes 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, who 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

Those accounts that are 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, as well as 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; 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 changes in the value of another financial instrument, an indicator or a commodity. In contrast to 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) in the future, 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)

The Dividend and Interest Matrix 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

That 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

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. See Dividend and Interest Matrix (DIM).

# 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 employee stock option is 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

Equity is 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 which is the European version of the System of National Accounts (SNA).

# European Investment Bank

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

# Exchange Cover Scheme (ECS)

A scheme first 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 for use 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 System of National Accounts 1968 this was the basis of valuation, which 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)

Auxiliary financial activities are ones closely related to financial intermediation but which are not financial intermediation themselves, such as the repackaging of funds, insurance broking and fund management. Financial auxiliaries therefore 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

Financial intermediation is 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, risk and so on, in the financial intermediation process.

## 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.

## Financial intermediation services indirectly measured (FISIM)

FISIM represents 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.

## Fixed assets

Produced assets that are themselves used repeatedly or continuously in the production process for more than one year. They include buildings and other structures, vehicles and other plant and machinery, and also plants and livestock which 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

Economic flows 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.

## FOB (free on board)

A 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 System of National Accounts (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; or 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 government or the European Union to producers are subsidies.

## Gross

Main 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 GDP, and receipts from, less payments to, the rest of the world of employment income, property income and current transfers.

## Gross national income (GNI)

GNI is gross domestic product 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 gross domestic product. It is measured at basic prices, excluding taxes less subsidies on products.

## Holding companies

A holding company is 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 put aside 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 Institutional units are the individual bodies whose data is 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)

Intellectual property products include mineral exploration, computer software, research and development, and entertainment, literary or artistic originals. Expenditure on them is part of gross fixed capital formation. 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 188 member countries (as of October 2014) 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

Inventories consist of 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, which 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 which 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 which have a cash value, in addition to life cover, a savings element provides benefits which 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)

MFIs, as defined by the European Central Bank, consist of all institutional units included in the central bank (S.121), deposit-taking corporations except the central bank (S.122) 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 European Union. 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

See gross national disposable income and real national disposable income.

## 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 non-profit institutions serving households (NPISH) sectors.

## Non-observed economy

Certain activities 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 they are by their nature difficult to measure.

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

Non-profit institutions serving households (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 gross fixed capital formation by the producer. Also known as own-account production.

## Own-account production

Production of output for final consumption or gross fixed capital formation 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 PIM is used in the UK accounts to estimate the stock of fixed capital and hence 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 share holders 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, which 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 British Telecom, 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 authorities and general government.

## 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 sub-sectors 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 government, which 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, which 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 sub-soil 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)/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 System of National Accounts (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 International Monetary Fund (IMF). Also included between July 1979 and December 1998 are European Currency Units acquired from swaps with the European Co-operation Fund, 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 gross domestic product 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 re-sell 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, SIC 2007, is consistent with NACE, revision 2. See the NACE section of the glossary for further details.

## System of National Accounts (SNA)

The internationally agreed standard system for macroeconomic accounts. The latest version is described in System of National Accounts 2008 (PDF 9.8MB).

## Special drawing rights (SDRs) (F.12)

These are reserve assets created and distributed by decision of the members of the International Monetary Fund (IMF). Participants accept an obligation to provide convertible currency to another participant, when designated by the IMF to do so, in exchange for 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)

SPEs 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.

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

SPEs should be treated as direct investment enterprises if they meet the 10% criterion. SPEs 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

Standardised guarantees 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) (PDF 3.5 MB) this means, broadly speaking, that another company either holds a majority of the voting rights in it, is a member of it and has the right to appoint or remove a majority of its board of directors, or is a member of it and controls alone (pursuant to an agreement with other members) a majority of the voting rights in it. The category also includes subsidiaries of subsidiaries.

## Subsidies (D.3)

Current unrequited payments made by general government or the European Union 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 includes 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 European Union. 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)

- capital taxes (D.91)

### Technical reserves (of insurance companies) (F.61)

These reserves consist of pre-paid 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 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, which are issued by 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 sub-sector 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 therefore 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 therefore 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 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.

| Contact: | Release date: | Next release: |
| --- | --- | --- |
| Emma Howley | 31 July 2018 | To be announced |

# Table of contents

# 1 . What do you think?

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

# 2 . Release policy

This release includes data up to 2017. Data are consistent with Index of Production, Index of Services and Index of Construction published on 10 July 2018, the current price trade in goods data within UK trade, published on 10 July 2018 and Balance of payments, Quarterly national accounts and UK Economic Accounts, published on 29 June 2018.

# 3 . National Accounts Work Plan

The Economic Statistics and Analysis Strategy (ESAS) is reviewed and updated annually in the light of changing needs and priorities, and availability of resources. Making explicit our perceived priorities will allow greater scrutiny and assurance that these are the right ones. In addition, this ESAS will allow research and development priorities to be laid out, making it easier for external experts to see the areas where we would be particularly keen to collaborate.

# 4 . Continuous improvement of sources, methods and communication

Prior to publication, we published a series of articles detailing the changes and the impact they would have within Blue Book 2018; these can be found on the national accounts articles page . This includes supplementary analyses of data to help with the interpretation of statistics and guidance on the methodology used to produce the national accounts.

# 5 . National accounts classification decisions

The UK National Accounts are produced under internationally agreed guidance and rules set out principally in the European System of Accounts: ESA 2010 (PDF 6.4MB) and the accompanying Manual on Government Deficit and Debt – Implementation of ESA 2010 – 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 upon the agreed guidance and rules.

# 6 . Economic context

We publish Economic commentary, giving commentary on the latest gross domestic product (GDP) estimate and our other economic releases. The next article will be published on 28 September 2018.

# 7 . Important quality issues

Common pitfalls in interpreting series:

- 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 allows 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 quite clear when they do occur.

## 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 due to 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, making 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, we don't 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 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 Official Statistics . They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.