

Compendium

# An Introduction to the UK National Accounts



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# 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 United Kingdom. These accounts are compiled by the 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.

## 2 . 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 UK National Accounts: The Blue Book 2014.

## 3 . 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

## 4 . 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)

## 5 . Chapters 8 to 11

Chapters [8](#), [9](#), [10](#) and [11](#) cover additional analysis and include:

- supplementary tables for gross fixed capital formation, national balance sheet and public sector
- statistics for European Union purposes

## 6 . Chapter 12

[Chapter 12](#) covers:

- UK environmental accounts

## 7 . Chapter 13

[Chapter 13](#) covers:

- flow of funds

## 8 . Overview of the UK National Accounts

In the UK priority is given to the production of a single estimate of GDP using income, production and expenditure data, further analysis is available on the following:

- income analysis is available at current prices
- expenditure analysis is available at both current prices and chained volume measures
- value added analysis is 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 and 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.

## 9 . Summary of changes

The main categories of improvements implemented in Blue Book 2015 are:

1. changes required under international standards and guidelines; European System of Accounts 2010 (ESA 2010); Balance of Payments Manual 6 (BPM6) and the updated Manual on Government Deficit and Debt
2. changes from ensuring comparability in measuring GNI across European Union countries
3. other methodological changes to meet user needs, including implementation of the review of the price index used to deflate gross fixed capital formation software assets, and updating the last base year and reference year from 2011 to 2012

A series of articles have been published describing in detail the improvements and their impact. The articles can be accessed via the [Changes to National Accounts page](#) on the ONS website.

## 10 . 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 GDP, 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. It should be noted that 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.

## 11 . 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, whereby the first two digits denote the sector with the third digit denoting 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 2-6 inclusive are given in a single account numbered 2. UK whole economy accounts consistent with ESA 2010 are given in [section 1.6 \(836.5 Kb Excel sheet\)](#) as a time series and in [section 1.7 \(836.5 Kb Excel sheet\)](#) in detailed matrix format with all sectors, the rest of the world, and the UK total identified.

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

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

Within the financial balance sheets, the following prefixes are used:

- prefix AF for financial assets/liabilities
- prefix AN for non-financial assets/liabilities

## 12 . 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/sectors (groups of units).

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

[Table I.1 \(32.5 Kb Excel sheet\)](#) provides the structure of the accounts and shows how GDP estimates are derived as the balancing items.

## 13 . The integrated economic accounts

The integrated economic accounts of the UK provide an overall view of the economy. [Table I.1 \(32.5 Kb Excel sheet\)](#) 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:

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

## 14 . The goods and services account (Account 0)

The goods and services account is a transactions account balancing total resources, from outputs and imports, against the uses of these resources in consumption, investment, inventories and exports. No balancing item is required as the resources are simply balanced with the uses.

## 15 . Current accounts: the production and distribution of income accounts

### The production account (Account I)

The production 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) is, after the addition of taxes less subsidies on products, 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 accounts (Account II)

The distribution and use of income 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).

Three sub-accounts break down the distribution of income:

- the primary distribution of income
- the secondary distribution of income
- the redistribution of income in kind

## **The primary distribution of income account**

Primary incomes are accrued to institutional units due to their involvement in production or their ownership of productive assets and 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/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**

The secondary distribution of income account shows how the balance of primary incomes for an institutional unit or sector is transformed into its disposable income by the receipt and payment of current transfers (excluding social transfers in kind). The two further sub-accounts (the use of disposable income and the use of adjusted disposable income) look at the use of income for either consumption or saving.

## **The redistribution of income in kind**

The redistribution of income in kind account shows how gross disposable income of households and non-profit institutions serving households and of 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 accumulation accounts (Accounts III and IV)**

The accumulation accounts cover all changes in assets, liabilities and net worth. The accounts are structured into two groups.

The first group of accounts cover transactions which would correspond to all changes in assets/liabilities and net worth which result from transactions and are known as the capital account and the financial account. They are distinguished to show the balancing item net lending/borrowing.

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

## **Capital account (Account III.1)**

The capital account concerns the acquisition of non-financial assets (income creating or wealth only) such as fixed assets or inventories, financed out of saving, and capital transfers involving the redistribution of wealth. Capital transfers include, for example, capital grants from private corporations to public corporations.

The account shows how savings finance investment in the economy. In addition to gross fixed capital formation and changes in inventories, it shows the redistribution of capital assets between sectors of the economy and the rest of the world. If the balance on the account is negative, it is designated net borrowing and measures the net amount a unit or sector is obliged to borrow from others. If positive, the balance is described as net lending and measures the amount the UK or a sector has available to lend to others. This balance is also referred to as the financial surplus or deficit and the net aggregate for the five sectors of the economy equals net lending / borrowing from the rest of the world.

## **Financial account (Account III.2)**

The financial 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/borrowing.

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

## **The balance sheet (Account IV)**

The second group of accumulation accounts complete the sequence of accounts. Included in these accounts are 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)**

The rest of the world 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, the account is similar in role to an institutional sector.

# **16 . Satellite accounts**

Satellite accounts cover areas or activities not included in the central framework due to them either adding additional detail to an already complex system or them conflicting with the conceptual framework. The UK environmental accounts are satellite accounts linking environmental and economic data in order to show the interactions between the economy and the environment.

## **17 . 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 which have a centre of economic interest in the UK economic territory. These units are known as resident units and it is their transactions which 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 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, aid agencies, used by the British government with the formal political agreement of the governments in which these units are located)

but 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
- also included are 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.

## **18 . Economic activity: what production is included?**

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. In order 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 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 e.g. of 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 voluntarily
- production from which the revenues are not declared in full to the fiscal authorities e.g. clandestine production of textiles

The following fall outside the production boundary:

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

([European System of Accounts ESA 2010](#) (2013) paragraphs 1.29 and 1.30)

## 19 . 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 VAT, invoiced for output sold) minus any subsidies received per unit of output.

## Purchasers' or market prices

Producers' 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 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/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 GNDI.

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

## 20 . Gross domestic product: the concept of net and gross

The term gross refers to the fact 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 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.

## 21 . Special events calendar

The Office for National Statistics has a [policy](#) on special events and maintains a [special events calendar](#). Special events are events which are identifiable, do not occur on a regular cycle and which have at least the potential to have an impact on statistics.

## 22 . Symbols used

In general, the following symbols are used:

.. not available

nil or less than £500,000

£ billion denotes £1,000 million

## 23. Background notes

1. We would welcome your feedback on this publication. If you would like to get in touch please contact us via email: [blue.book.coordination@ons.gsi.gov.uk](mailto:blue.book.coordination@ons.gsi.gov.uk)
2. As part of our user consultation, we are conducting a [Blue Book survey](#). The aim of the survey is to find out:
  - how you use our statistics
  - your understanding of the data published

- your views on the quality of the publication

Your responses will help us improve some of our most important products. We will analyse the responses and publish a summary of the results over the forthcoming months.

The survey will take about 10 minutes to complete and will close on 04 December 2015. All answers will remain anonymous. Our [confidentiality statement](#) has further details.

3. This release includes data available up to 2014. Data are consistent with [Index of Production](#), published on 07 October 2015, the current price trade in goods data within UK Trade, published on 09 October 2015 and [Balance of Payments](#), [Quarterly National Accounts](#) and [United Kingdom Economic Accounts](#), published on 30 September 2015.
4. In line with the [National Statistics Quality Review \(NSQR\): Review of National Accounts and Balance of Payments](#), we have published a [response to National Statistics Quality Review \(NSQR\) Series \(2\) Report No. 2: Review of National Accounts and Balance of Payments](#) on our website.
5. On 13 July 2015 users of national accounts were invited to respond to an informal consultation on the national accounts medium-term work plan, which lays out a proposed set of priorities for the next 3 years. This consultation closed on 25 September 2015. It followed a previous work plan for national accounts and related outputs following the consultation held in 2013.  
  
We will publish the final report, National Accounts Medium-Term Workplan, on our website by the end of November 2015.
6. We maintain a [Special Events Calendar](#). Special events are events that are identifiable; they do not recur on a regular cycle (so are not targeted by seasonal adjustment) and have the potential to have an impact on statistics. As explained in our [Special Events policy](#), it is not possible to separate the effects of special events from other changes in the series.
7. The UK Statistics Authority published [2 new assessment reports on the Annual and Quarterly National Accounts and Supply and Use Tables and Input-Output Tables](#) on 25 February 2015. These are available on the UK Statistics Authority website.
8. In order to implement improvements reflected in the European System of Accounts 2010 (ESA 2010), we will introduce a new survey to collect purchases data, and have published an [article detailing our intentions](#), along with a [high level project plan](#).
9. We regularly publish National Accounts [methodological information and articles](#) to provide more detailed information on developments within the national accounts. This includes supplementary analyses of data to help with the interpretation of statistics and guidance on the methodology used to produce the national accounts.
10. The UK national accounts are produced under internationally agreed guidance and rules set out principally in the [European System of Accounts \(ESA 2010\)](#) and the accompanying [Manual on Government Deficit and Debt- Implementation of ESA 2010 – 2014 edition \(MGDD\)](#).
11. In the UK, we are responsible for the application and interpretation of these rules. Therefore we make [National Accounts classification decisions](#) based upon the agreed guidance and rules.
12. We publish a monthly [Economic Review](#), giving economic commentary on the latest GDP estimate and our other economic releases. The next article will be published on 3 November 2015.
13. Common misinterpretations of this 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 as a result 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 clear when they do occur.

14. Estimates for the most recent quarters are provisional and are subject to revision in the light of updated source information.
15. Our revisions to economic statistics brings together our work on revisions analysis, linking to articles, revisions policies and documentation from the Statistics Commission's report on revisions.
16. Latest copies of our releases and [Publications](#) are on our website.
17. Details of the policy governing the release of new data are available from the [media relations office](#).
18. We are committed to ensuring 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](#), on our website.
19. You can follow us on [Twitter](#) and [Facebook](#).
20. National Statistics are produced to high professional standards set out in the [UK Statistics Authority's 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.
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22. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.