

Inclusive income and wealth, UK quality and methods guide

What the inclusive income and wealth statistics cover, how we produce them, and their quality and comparability. Includes definitions and latest, past and upcoming changes.

Contact:
Inclusive Income and Wealth
team
inclusive.wealth@ons.gov.uk
+44 2071 120114

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1 . Overview

The aim of our inclusive income and wealth accounts is to provide statistics that complement gross domestic product (GDP) and the national accounts. They aim to better capture well-being and sustainability, while retaining practicality and comparability. These measures seek to improve conceptual alignment with GDP and the national accounts, without losing their strengths, such as simplicity, frequency, and objectivity.

GDP has long been recognised as an incomplete measure of economic welfare. As early as 1934, Simon Kuznets, (a chief figure in the construction of early national accounting and GDP in the US) cautioned against using national income to assess national welfare. More recently, the limitations of GDP in capturing social and environmental well-being were highlighted by [the 2009 Stiglitz-Sen-Fitoussi Commission \(PDF, 3.1MB\)](#). They called for a shift from purely production-based metrics to ones that reflect the sustainable well-being of current and future generations.

The need to rethink how we measure economic progress was also emphasised in the [Final Report - the Economics of Biodiversity of the Dasgupta Review](#). While GDP tracks economic activity, it ignores asset depreciation, especially of natural capital. The Dasgupta Review recommended an inclusive wealth measure that incorporates produced, natural and human capital. Integrating these into national accounts offers a more accurate view of whether economic activity is sustainable for future generations.

We have developed a range of outputs, including our inclusive income and wealth accounts, to better reflect sustainable economic progress and to build on these critiques. Our inclusive income and wealth accounts extend the national accounts framework to include all flows of value associated with produced, human and natural capital, and the stocks of these capitals that lie outside traditional national accounts boundaries.

We do this largely by adjusting the national accounts through:

- expanding the definition of economic activity and the production boundary to include the value of unpaid household services and non-market ecosystem services
- expanding the asset boundary by recognising natural and human capital alongside a broader suite of produced capital (such as additional intangible assets and capital employed in the home), to offer a more comprehensive view of economic activity

By expanding the definition of economic activity and asset boundaries, our inclusive income and wealth accounts seek to address the criticisms of GDP and other aspects of traditional national accounts by users who want a set of economic accounts with a more comprehensive view of economic activity and sustainability.

These are [official statistics in development](#). For more information, see [Section 5: Quality of the statistics](#).

Latest changes to quality and methods

We updated this guide on 23 December 2025. Important changes to quality and methods include:

- an improvement to the human capital depreciation methodology
- an improved method to create chained volume measures for ecosystem provisioning services

For more information on latest, past and upcoming changes, go to [Section 6: Changes and their effects on comparability over time](#).

2 . What the statistics cover

Our inclusive income and wealth statistics cover UK economic activity, including:

- market production
- non-market production
- unpaid household services
- ecosystem services

They aim to measure sustainable economic progress by expanding beyond the current production and asset boundaries within the System of National Accounts (SNA 2008) and the European System of Accounts (ESA 2010).

3 . Where the data come from

The main sources of data for these statistics are:

- Blue Book data from the National Accounts, produced by our gross domestic product (GDP) teams
- value and volume data on household services and components from our household satellite accounts
- value and stock data on ecosystem provisioning services from our natural capital accounts
- value data for intangible components from our intangibles statistics
- quality adjusted growth rates from our public sector productivity statistics
- human capital stocks from our human capital accounts
- our UK population estimates
- residence- and consumption-based measures of UK carbon emissions from our environmental accounts
- carbon prices from supplementary Green Book guidance from the Department for Energy Security and Net Zero

4 . How we produce the statistics

Adjustments within the existing production boundary

National accounts currently measure the output of corporations, non-profit institutions serving households and government. National accounts include goods made by households, but excludes unpaid household services, such as childcare and home cooking. Even within this scope of economic activity (production boundary), there are ways to redefine the measurement of economic activity that create more comprehensive measures of economic activity and capture aspects of sustainability.

Inclusive income also attempts to better measure the value of non-market output within the national accounts. We quality adjust output for public services (like education and healthcare) using data on public service quality from our [Public service productivity dataset](#). This results in higher quality public services being reflected as additional economic activity, and those of lower quality being reflected as less economic activity.

A portion of market gross value added (GVA) can be identified, which results from resource rents associated with ecosystem provisioning services. This effectively captures the value resulting from using a natural resource, such as oil, gas, or timber. Although this does not affect aggregates of economic activity, producing this breakdown helps highlight the role natural capital plays within the market economy.

Expanding the production boundary

Unpaid household services production (for example, childcare, cooking, or cleaning) is included using data from our Household satellite account dataset. This results in parity between market and household provision of these services, meaning this economic activity is included whether a household provides its own childcare, or pays for it through a market.

Regulating and cultural ecosystem services from our Natural capital accounts are included, where these result from additional economic activity not already captured in the national accounts and where there are consistent data available for all time periods in our Inclusive wealth and income accounts. This currently includes:

- carbon sequestration
- urban heat regulation
- air pollution regulating

This helps create parity in economic measurement between a service being provided by the market and the same service being provided by nature. Other ecosystem services are omitted because of the lack of available data, not on conceptual grounds.

Expanding the asset boundary

Human capital (labour) is treated as a capital. This is done in line with our [Human capital stocks estimates in the UK release](#), which treats all returns to labour (including labour returns to both employees and those who are self-employed) as a return to human capital. Similarly, several economic activities are reconceptualised away from being final consumption to being investment in human capital (for example, some portions of health, education, and childcare expenditure).

Additional natural capitals (provisioning, regulating, and cultural services) are added to land, land improvements, and cultivated biological resources, which are already treated as assets in the national accounts. We also recognise depletion and degradation to the atmosphere as an asset.

Additional intangible assets are treated as capitals in line with our [Investment in intangible assets in the UK release](#), which is based on the [Measuring Capital and Technology: An Expanded Framework article by Corrado, Hulten, and Sichel](#). Intangible assets are official statistics in development, and currently include:

- organisational capital
- design
- financial product innovation
- branding
- firm-specific training

Household durables used as capital in unpaid household production are also treated as capitals in this framework.

Corporations, non-profit institutions serving households, government, and households (excluding unpaid services)

For the corporations, non-profit institutions serving households, government, and households (excluding unpaid services) sectors of the economy, we use production data (output and intermediate consumption) in both current price and chained volume measures (CVM). These data come from the traditional national accounts in the Blue Book, notwithstanding adjustments for additional intangible investment and quality adjustment of public services, which are discussed later in this guide.

Unpaid household services

Current price production data (output and intermediate consumption) are taken from our [Household satellite account, UK dataset](#). This includes:

- household housing services
- transport
- nutrition
- clothing
- laundry
- childcare
- adult care
- voluntary activity

To calculate volume estimates of output for each service, we prioritise direct volume estimates. These estimates are based on data from the underlying household satellite accounts calculations and are currently available for the following services:

- household housing services, which uses hours worked; these data are available from 2014 onwards
- transport, which uses miles travelled; these data are available from 2014 onwards and are also based on data from the National Travel Survey from before 2014, which used a similar methodology to our household satellite accounts
- nutrition, which uses calories consumed; these data are available from 2014 onwards
- laundry, which uses the number of washes done; these data are available from 2014 onwards
- childcare, which uses the number of hours of care received; these data are available from 2005 onwards
- adult care, which uses the number of hours of care received; these data are available from 2014 onwards
- voluntary activity, which uses the number of hours worked; these data are available from 2014 onwards

Where direct volume measures are not available, deflators are constructed and used to deflate the current price data. We use three sources (according to priority order):

- our Services Producer Price Indices (SPPIs)
- experimental industry deflators
- whole-economy implied GVA deflator

If higher-priority data exist only for some years, they are combined (spliced) with lower-priority sources to create a continuous series. Specifically, each service uses the following sources:

- housing services uses the experimental deflator for industry 81 (building and landscaping activities)
- nutrition uses the experimental deflator for industry 56 (food and beverage services)
- clothing uses the whole-economy GVA deflator
- laundry uses SPPI for product 96.0 (washing and dry-cleaning services of textile and fur products)
- adult care uses the experimental deflator for industry 88 (social work activities without accommodation)
- voluntary activity uses the whole-economy GVA deflator

Total volume GVA for unpaid household services is calculated as a CVM of the eight volume GVA measures for the different services.

To calculate capital employed in the production of unpaid household services, we reinterpret household final consumption of three categories of durable goods (taken from our Supply and Use Tables) as investment in capital assets. These categories are:

- computers and electronics
- electrical equipment
- motor vehicles

Stocks and depreciation of these capital assets are calculated using a Perpetual Inventory Model (PIM) with linear depreciation. The following deflators and life lengths are used for each capital:

Computers and electronics uses Producer Price Index (PPI) and Import Price Indices (IPIs) for product 26 (Computer, Electronic and Optical Products), which are used to construct a deflator based on the weights of domestic supply and imports for this product. A four-year life length is used.

Electrical equipment uses PPI and IPIs for product 27 (Electrical Equipment), which are used to construct a deflator based on the weights of domestic supply and imports for this product. A 10-year life length is used.

Motor vehicles uses PPI and IPIs for product 29 (Motor Vehicles, Trailers and Semi-Trailers), which are used to construct a deflator based on the weights of domestic supply and imports for this product. A 10-year life length is used.

Ecosystem services, depletion, and natural capital

Constant price (KP) estimates of monetary annual flows for provisioning, regulating and cultural ecosystem services are taken from our UK natural capital accounts. These are converted to current price (CP) estimates using the gross domestic product (GDP) deflator. We use volume estimates from our natural capital accounts for each ecosystem service to produce a CVM for total provisioning services and for total regulating and cultural services.

Some ecosystem services are not available back to 2005 and the value of some cultural services are already captured within market output. Because of this, we only include the following ecosystem services in our inclusive wealth and income accounts:

- agricultural biomass (provisioning service)
- oil and gas (provisioning service)
- coal (provisioning service)
- minerals and metals (provisioning service)
- timber (provisioning service)
- wood fuel (provisioning service)
- water (provisioning service)
- carbon sequestration (regulating service)
- urban heat regulation (regulating service)
- air pollution regulation (regulating service)

Depletion estimates are only available since 2005 for oil and gas. Direct volume and KP estimates are supplied to us by our environmental division, in line with our [Developing estimates of depletion for the UK natural capital accounts: 2024 article](#). KP estimates are then reflated to CP using a GDP deflator and the direct volume estimates are chain-linked to create CVM.

Additional intangible capitals

We use several data sources to account for the reclassification of spending on additional intangible capitals from intermediate consumption to investment and to calculate capital stocks and depreciation of these assets.

Investment

Data on investment in intangible capitals by industry come from our [Investment in intangible assets in the UK release](#). Current price GVA in each industry is increased by the amount of investment in these additional intangible capitals, to reflect own-account production and capital purchases. CVM GVA in each industry is recalculated by deflating CP GVA by the original implied deflator of the industry.

Depreciation

Capital stocks and depreciation of the additional intangible assets is calculated using a Perpetual Inventory Model (PIM) with linear depreciation. The following deflators and life-lengths are used.

Organisational capital uses SPPI for product 70.22 (Business and other management consulting services) from 2011 onwards. The experimental industry deflator for industry 70 is used from 1997 to 2010. The implied industry GVA deflator for industry 70 is used for before 1997. A 10-year life length is used.

Branding uses SPPI for product 73.11 (Services provided by advertising agencies) from 2011 onwards. The experimental industry deflator for industry 73 is used before 2011. A five-year life length is used.

Design uses the experimental industry deflator for industry 74 from 1997 onwards. The implied GVA deflator for industry 74 is used before 1997. A 13-year life length is used.

Financial product innovation uses SPPI for product 70.22 (Business and other management consulting services) from 2011 onwards. The experimental industry deflator for industry 70 is used from 1997 to 2010. The implied industry GVA deflator for industry 70 is used before 1997. A 10-year life length is used.

Firm-specific training uses the experimental industry deflator for industry 85. A five-year life length is used.

Public service quality adjustment

Our inclusive income and wealth accounts incorporate quality adjustment of the output of public services. This is calculated as part of our Public Service Productivity release to better reflect economic activity in the government administration, health and social care, and education industries. We use data underlying the national accounts on the market output of each industry.

Data underlying the national accounts on the market output of each industry are used to calculate the total non-market current price (CP) output of the government administration, health and social care, and education industries. Volume output of these industries is then calculated by deflating this CP output by the implied GVA deflator of these industries. The quality adjustment index from our Public Service Productivity release is then used to calculate quality adjusted volume output for these industries. The difference in volume output resulting from this quality adjustment is then added to volume GVA for the industries, as reported in the Blue Book.

Human capital

Human capital stocks, both in current price and volume terms, are taken from our [Human capital stocks estimates in the UK release](#).

Depreciation of human capital is calculated using data on the human capital stock, the value of human capital services (total labour income), and the definitional relationship between capital services and capital depreciation.

The Organisation for Economic Co-operation and Development's (OECD's) 2009 Measuring Capital Manual gives a simplified definitional relationship between capital services and depreciation. This is calculated as:

$$c_0^t p_0^t [r^{*t} - \delta_0]$$

c_0^t is the user cost of capital, or the value of a capital service per unit of capital

p_0^t is the price of a unit of the capital stock

r^{*t} is the rate of return on the capital

δ_0 is the rate of depreciation for the capital

In line with OECD guidance, we base our rate of return on the 3.5% discount rate recommended by the UK Treasury's Green Book. However, we only require that the rate of return equals 3.5% over a rolling nine-year period. This allows for fluctuations in economic conditions that may affect the year-to-year rate of return.

The user cost of capital is calculated as the total labour income from our [Labour costs and labour income, UK dataset](#), divided by our [Compositionally adjusted labour input dataset](#). The price of the human capital stock is taken from our human capital stocks release.

From this, we can calculate a depreciation rate of human capital and apply this to the opening human capital stock to calculate depreciation for the year. This is then deflated using changes in the user cost of capital over time.

Atmosphere depletion and degradation from greenhouse gas emissions methods

The depletion of the atmosphere in our inclusive income and wealth accounts represents the value attributable to using up the spatial function of the atmosphere as a sink for greenhouse gas emissions. In effect, this measures the extent to which economic activity was increased by emitting greenhouse gas (GHG) emissions, rather than spending money on an alternative to these emissions

This is calculated by multiplying residence-based carbon emissions from UK environmental accounts by the abatement cost of carbon given in Green Book guidance. The values are first expressed in constant prices (KP) and then reflatd using the GDP deflator for current price outputs. This depletion is treated as a negative adjustment, reducing net inclusive income to reflect changes in environmental sustainability within the inclusive income and wealth accounting framework.

The degradation of the atmosphere represents the economic cost of deteriorating atmospheric quality as a provider of essential services, such as clean air and climate regulation. This is calculated using residence-based GHG emissions from the UK environmental accounts. This is combined with a social cost of carbon, which is an estimate of the damage caused by carbon and other GHGs.

Our social cost of carbon is calculated using a benchmark (converted to British pounds) from Rennert and others' 2022 [Comprehensive evidence implies a higher social cost of CO2 article](#). Changes from this benchmark over time are based on the marginal change in damage associated with a marginal increase in global temperatures from the Intergovernmental Panel on Climate Change's [2022 Sixth Assessment Report](#).

Volume data are calculated by deflating current price estimates by the GDP deflator.

Valuation

Exchange values (market prices) are used throughout these accounts.

For non-market activities, these can be calculated using a cost of production approach that is also used for government output in the national accounts, or by imputing prices based on equivalent market services (for example, cost of hiring childcare).

Measuring total economic activity - gross inclusive income

Gross inclusive income (GII) is calculated as the total of all output produced by UK residents, minus intermediate consumption (plus taxes and subsidies).

This is equivalent to the definition of GDP. GII only differs from GDP because of the adjustments made to the accounts. This means that GII can be calculated by adding the following to GDP:

- GVA associated with unpaid household services
- GVA associated with regulating and cultural ecosystem services
- additional intangible investment
- the quality adjustment of public services

Measuring total sustainable economic activity - net inclusive income

Net inclusive income (NII) measures the total amount of income available to the UK for consumption, while expecting to keep inclusive wealth constant. This means it can be interpreted as a measure of the resources available to the UK while maintaining sustainability. NII subtracts the value of capital depreciation from all capitals (produced, human, and natural) from GII and adds net income and transfers from abroad.

This is equivalent to the definition of net national disposable income from the national accounts.

Inclusive wealth builds on the capital accounts and national balance sheet by including not just financial and physical assets, but also intangible, human, and natural capital. The aim is to reflect and capture all sources of wealth and value available to the economy by considering:

- produced capital, which includes capitals currently included in the national accounts, household durables used in unpaid household service production, and additional intangible capitals
- human capital, which is the value of labour not yet employed and can be affected by education, training, and health spending, among other factors
- natural capital, which includes land, land improvements, cultivated biological resources, and natural capital providing provisioning, regulating and cultural ecosystem services

5 . Quality of the statistics

Statistical designation

These statistics are labelled as "official statistics in development". They are based on information from the data sources described in this guide. We are developing how we collect the data and produce the statistics to improve their quality.

Once we have completed the developments, we will review the statistics with the Statistics Head of Profession.

If the statistics meet trustworthiness, quality and value standards based on user feedback, we will remove the "official statistics in development" label to publish under the "official statistics" label.

If they do not meet trustworthiness, quality and value standards, we will further develop them and might stop producing them.

If they were "accredited official statistics" before the start of the developments, we will ask the Office for Statistics Regulation (OSR) to reassess and re-accredit them.

We will inform users of the outcome of our, and any OSR, review and any changes.

How we quality assure the data and statistics

Strengths and limitations

Strengths

- We use existing data to ensure feasibility and comparability with established frameworks.
- These statistics benefit from the rigour of an accounting framework, which enables comparability of components, conceptual coherence, and aggregation.
- These statistics enable a more comprehensive assessment of economic activity than traditional national accounts, including better accounting for sustainability.

Limitations

- Some components of these accounts (for example, natural capital services and human capital) lack comprehensive datasets because of data availability and coverage.
- The historical time series has limited backcasting, compared with gross domestic product's (GDP's) long history.
- While the accounts draw from data compiled according to international frameworks, those frameworks are not always completely consistent; the UK remains one of the few countries to have drawn together the frameworks in this way, so international comparisons may not be possible.

European Statistical System Quality Dimensions

The Office for National Statistics (ONS) has developed [Guidelines for measuring statistical quality](#), based on the five European Statistical System (ESS) Quality Dimensions. These are:

- relevance
- accuracy and reliability
- timeliness and punctuality
- comparability and coherence
- accessibility and clarity

We have integrated these considerations into the guide.

6 . Changes and their effects on comparability over time

These changes are ordered by date, with the most recent first. All changes are comparable over time, as adjustments have been made to the entire time series.

Latest changes

- We have made a conceptual improvement to our human capital depreciation methodology, which is more compliant with the Organisation for Economic Co-operation and Development (OECD) Measuring Capital Manual 2009; this improved method results in a substantial reduction in the value of human capital consumption, resolving the previous issue of underestimation of net inclusive income.
- We are using an improved method to create chained volume measures (CVM) for ecosystem provisioning services by using a direct volume measure; this is a conceptual improvement to our previous methodology for constructing CVM, which are current price data deflated by the gross domestic product (GDP) deflator, resulting in a more stable volume series over time that is less sensitive to price fluctuations.

Past changes

Past changes have focused on integrating:

- natural capital services
- intangible capital
- public service quality adjustments
- human capital
- atmospheric depletion/degradation
- chain-linking

All changes have been made to the entirety of the time series, so all changes are comparable over time.

Upcoming changes

Future developments to these statistics will aim to:

- extend the historical series
- improve international comparability
- refine valuation methods
- resolve remaining inconsistencies in the framework
- create more timely and frequent estimates
- link inclusive income and wealth to broader well-being metrics
- enhance automation and data quality for regular updates

Timing and prioritisation of these improvements will be based on user feedback and resource availability. All future changes will aim to be made to the entire time series and so will remain comparable over time.

7 . Comparability and coherence with other statistics producers

Our Inclusive income and wealth accounts are mainly based on and comparable with the following international guides:

- the United Nations's (UN's) System of National Accounts (SNA 2008) and the European System of Accounts (ESA 2010) for gross domestic product (GDP)-aligned concepts and production boundary adjustments
- the UN System of Environmental-Economic Accounting (SEEA) for integrating natural capital services and stocks
- the Organisation for Economic Co-operation and Development's (OECD's) Guidelines on Measuring Capital for intangible and produced capital treatment
- the UN Economic Commission for Europe (UNECE) Guide on Measuring Human Capital and Household Satellite Accounts

8 . Users and uses of these statistics

The main users of our inclusive income and wealth statistics are:

- government policymakers
- national and international economic analysts
- academics
- think tanks focused on sustainability and well-being

These statistics are used to:

- inform policy decisions on economic resilience, sustainability, and long-term growth beyond gross domestic product (GDP)
- assess well-being and living standards by incorporating natural capital, human capital and environmental impacts
- support international discussions around economic measurement frameworks to ensure greater comparability and usability of these frameworks
- guide investment and resource allocation by highlighting the role of intangible and natural assets in economic performance

9 . Definitions

Gross inclusive income

Gross inclusive income is a measure of economic welfare that builds on current gross domestic product (GDP). It capitalises additional capitals (such as natural capital and human capital) and expands the scope of economic activity within the production boundary, to include additional ecosystem services and unpaid household production.

Net inclusive income

Net inclusive income takes gross inclusive income and subtracts (in other words, nets off) capital consumption across all capital types, flows of income and transfers from abroad.

Production boundary

Under the System of National Accounts 2008, the production boundary is generally defined as "activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods or services. There must be an institutional unit that assumes responsibility for the process of production and owns any resulting goods or knowledge-capturing products or is entitled to be paid, or otherwise compensated, for the change-effecting or margin services provided."

Unpaid household production

Unpaid household production activity includes services provided by individuals in the household sector to each other (such as unpaid childcare, household housing services, nutrition, and laundry). This is currently captured in our Household satellite account.

10 . Related links

[UK inclusive wealth and income accounts: 2005 to 2023](#)

Article | Released 23 December 2025

Estimates and analysis of economic progress, including a broader range of economic activities and assets than gross domestic product (GDP), like unpaid household services, ecosystem services, and more.

[New Beyond GDP measures for the UK: a workplan for measuring inclusive income](#)

Article | Released 23 December 2025

Planned work, as well as timeline estimates, for projects feeding into a new a measure of "inclusive income", aligned with the concept of "inclusive wealth".

11 . Cite this page

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