Office for National Statistics

Article

UK inclusive wealth and income accounts: 2005 to 2022

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.

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Release date:
13 November 2024

Next release:
To be announced

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1 . Main points

- Gross inclusive income (GII) per person grew by 2.8% in 2022, following a similar rise of 2.8% in 2021.
- Net inclusive income (NII) per person increased by 5.0% in 2022, following a rise of 9.0% in 2021.
- Unlike gross domestic product (GDP) per person, GII per person and NII per person have not yet returned to their pre-coronavirus (COVID-19) pandemic peaks, in volume terms.
- Inclusive capital per person, which is a measure of inclusive wealth included in this article for the first time, fell by 0.4% in 2022, following a fall of 0.2% in 2021.
- These data are an important methodological step forward; they include the widest range of components yet in these experimental measures, which capture a broader range of activities than GDP.
- Though they require further research to complete the framework, these data have revealed new features of this wider perspective of the economy - particularly the weaker trends in GII and NII between 2017 and the pandemic; this reflects a more complex picture of economic welfare than more market-centred measures like GDP, while inclusive wealth demonstrates how the UK's broad productive capacity held up during the pandemic.

2 . Understanding Inclusive wealth and income measures

Inclusive income estimates provide a broader measure of the economic welfare of the UK population. They reflect the economic value of both paid activity, included in gross domestic product (GDP), and unpaid activity, which includes ecosystem services and unpaid household services. The result is measures of economic progress that include activity and assets beyond those currently included in GDP.

Gross inclusive income (GII) per person is a broad measure of economic activity in the UK. It builds on the concept of GDP, with the following amendments:

- quality adjustment of public service output
- inclusion of unpaid household services within the production boundary
- inclusion of regulating and cultural ecosystem services, which currently includes greenhouse gas regulation, air pollution regulation, and urban heat regulation
- expansion of the definition of intellectual property products, or intangible investment, to include products currently uncapitalised in the national accounts

Net inclusive income (NII) per person is as a broad measure of sustainable income. It includes unpaid "income", such as the implied income associated with unpaid household work, and ecosystem services. It builds on GII by:

- subtracting the capital consumption, or depreciation, of fixed assets, including the depreciation of additional intangible capitals
- subtracting the depreciation of household durables used in unpaid household production
- subtracting the depreciation of human capital
- subtracting the depletion of oil and gas
- subtracting the value of depletion and degradation of the atmosphere from UK greenhouse gas emissions
- adding income from abroad, minus transfers from abroad

Inclusive wealth is a broad measure of the assets in the UK that we derive inclusive income from. This article produces two measures of inclusive wealth - inclusive capital and inclusive net worth.

Inclusive capital is our first measure of inclusive wealth. It includes produced capital, natural capital, and human capital.

Inclusive net worth is our second measure of inclusive wealth. It builds on inclusive capital, and also includes financial assets and liabilities, and contracts, leases, and licences.

Inclusive capital is our lead measure of inclusive wealth in this article, because of the additional volatility added by financial assets and liabilities. It reflects the use of inclusive wealth as a longer-term measure of sustainable economic progress.

We do not include all natural capitals that are included in our natural capital accounts in inclusive capital or inclusive net worth. This is because some data are not available back to 2005. Additionally, this article treats several assets included in the national accounts as natural capitals, alongside the natural capitals included in our natural capital accounts. These are land, land improvements, and cultivated biological resources.

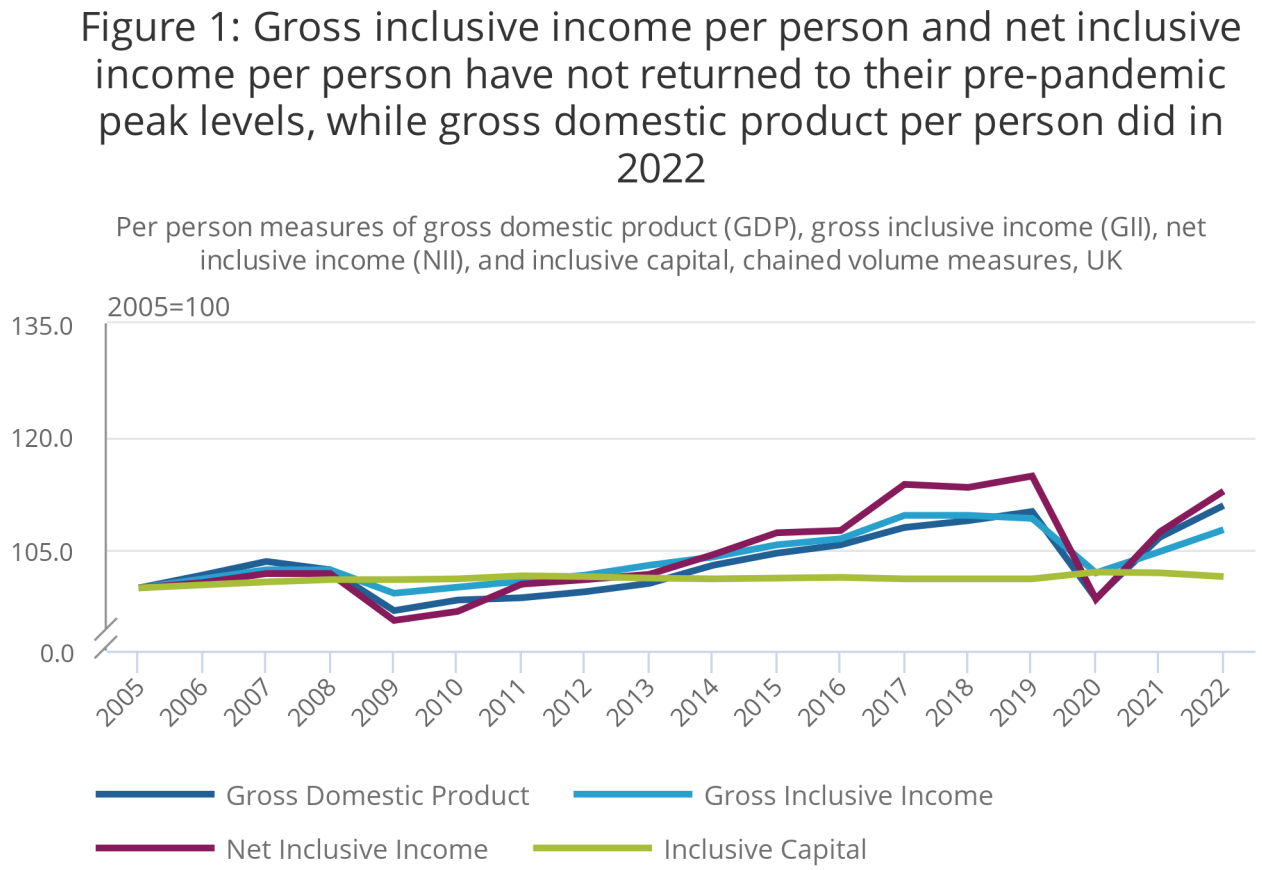
This article is an important step forward, but it is a work in progress, including some residual data gaps and some methodological improvements. If you would like to join our user group, or share any feedback on the data or publication, please get in touch with us at Inclusive.Wealth@ons.gov.uk.

3 . Inclusive wealth and income summary

Both gross inclusive income (GII) and net inclusive income (NII) per person grew in 2022, by 2.8% and 5.0%, respectively. In contrast, inclusive wealth, as measured by inclusive capital per person, fell slightly by 0.4%. Figure 1 shows the trends in these series since 2005, alongside gross domestic product (GDP) per person.

Figure 1: Gross inclusive income per person and net inclusive income per person have not returned to their pre-pandemic peak levels, while gross domestic product per person did in 2022

Per person measures of gross domestic product (GDP), gross inclusive income (GII), net inclusive income (NII), and inclusive capital, chained volume measures, UK



Source: Office for National Statistics

All four series have generally grown over the past 18 years. However, they have responded differently to economic events, which reflects the different ways they measure economic activity. We discuss the various factors affecting these measures, particularly during the coronavirus (COVID-19) pandemic, in more detail in Section 4: Gross inclusive income per person, Section 5: Net inclusive income per person, and Section 6: Inclusive wealth.

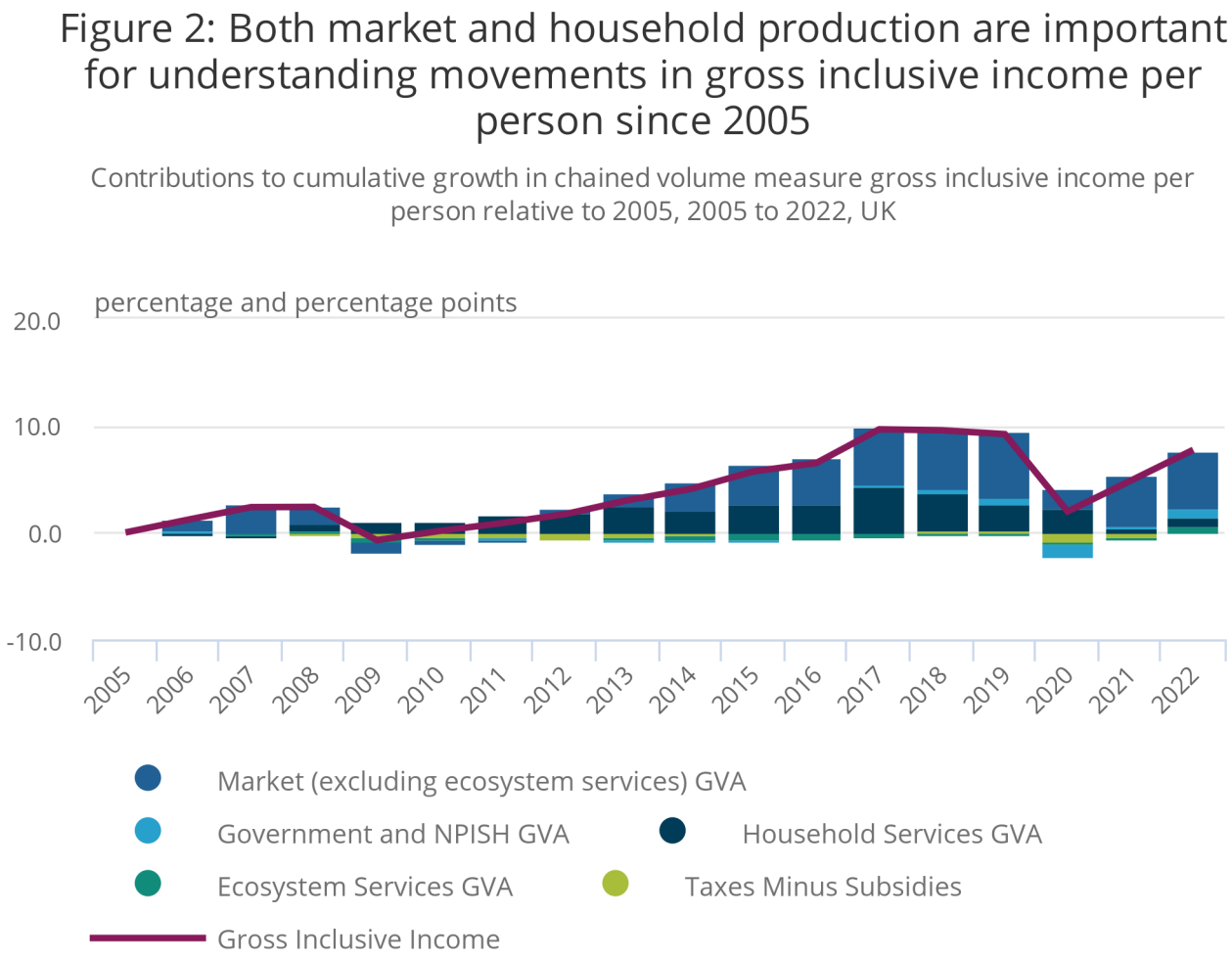
4 . Gross inclusive income per person

Gross inclusive income (GII) per person grew by 0.4% a year on average between 2005 and 2022, using a compound average growth rate. This includes 2.8% growth between 2021 and 2022. Figure 2 shows the contributions to this growth since 2005.

Declines in household services in 2018 and 2019, particularly nutrition and adult care, caused GII to fall slightly. GII then fell more substantially in 2020, reflecting declines in both market and non-market production. GII had recovered by 2022, although not back to its level in 2019, primarily because of an increase in market activity.

Figure 2: Both market and household production are important for understanding movements in gross inclusive income per person since 2005

Contributions to cumulative growth in chained volume measure gross inclusive income per person relative to 2005, 2005 to 2022, UK



Source: Office for National Statistics

Notes:

1. “GVA” stands for gross value added

2. “Market (excluding ecosystem services) GVA” includes gross value added for the market sector, as defined in the national accounts and gross domestic product. This is added to the value (in volume terms) of investment in intangible capitals not capitalised in the national accounts, like branding, design, organisational capital, firm-specific training, and financial product innovation. We then subtract the value of ecosystem services that contribute to market GVA, called provisioning services.

3. Ecosystem services include provisioning, regulating, and cultural services provided by natural capital.

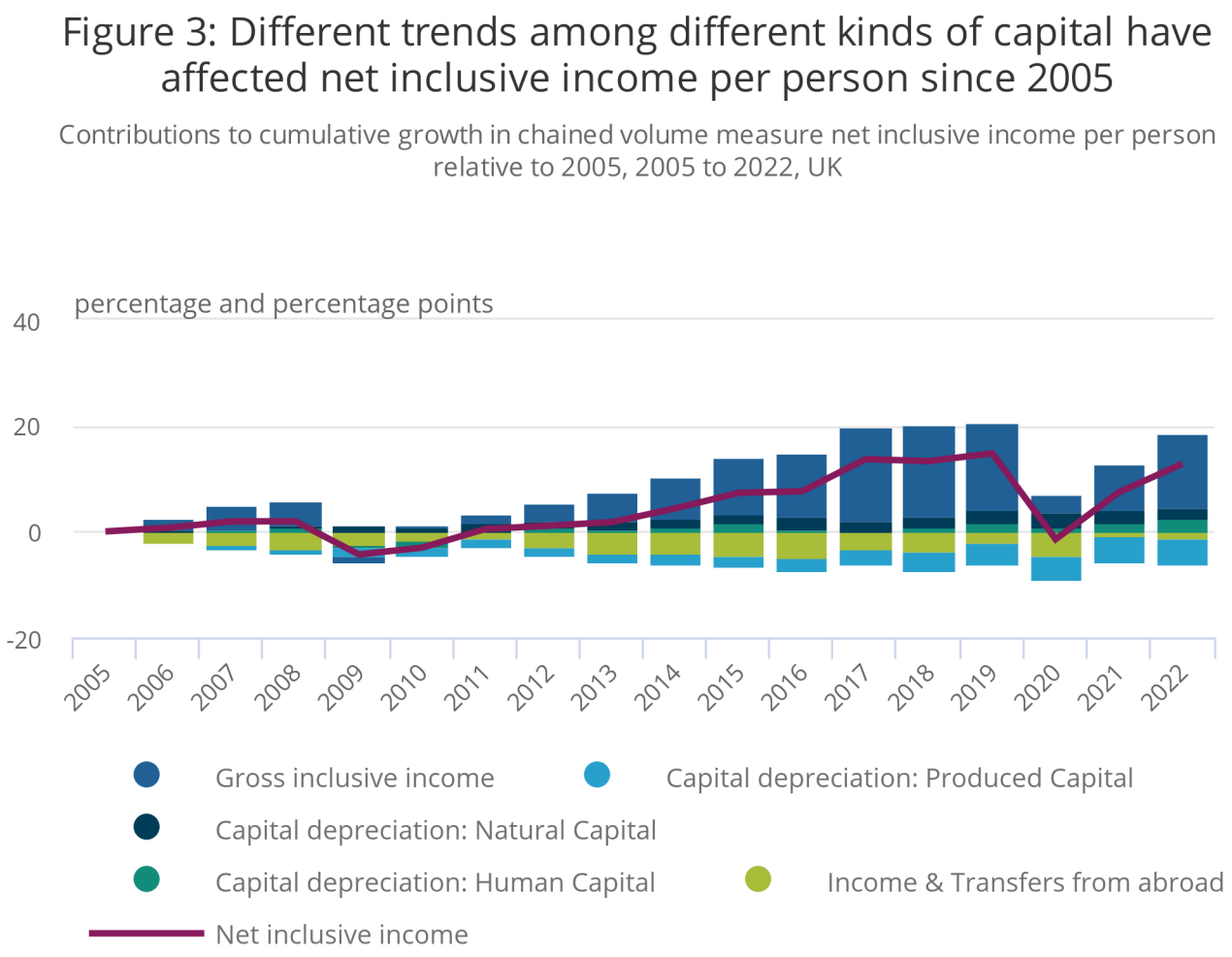
4. “NPISH” stands for non-profit institutions serving households.

5 . Net inclusive income per person

Net inclusive income per person (NII) grew by 0.7% per year on average between 2005 and 2022, using a compound average growth rate, and 5.0% between 2021 and 2022. Figure 3 shows contributions to NII growth since 2005. An important feature of NII growth is the long-term trends in the depreciation of different kinds of capital. This reflects their evolving use in economic production and the resulting effect on NII over time.

Figure 3: Different trends among different kinds of capital have affected net inclusive income per person since 2005

Contributions to cumulative growth in chained volume measure net inclusive income per person relative to 2005, 2005 to 2022, UK



Source: Office for National Statistics

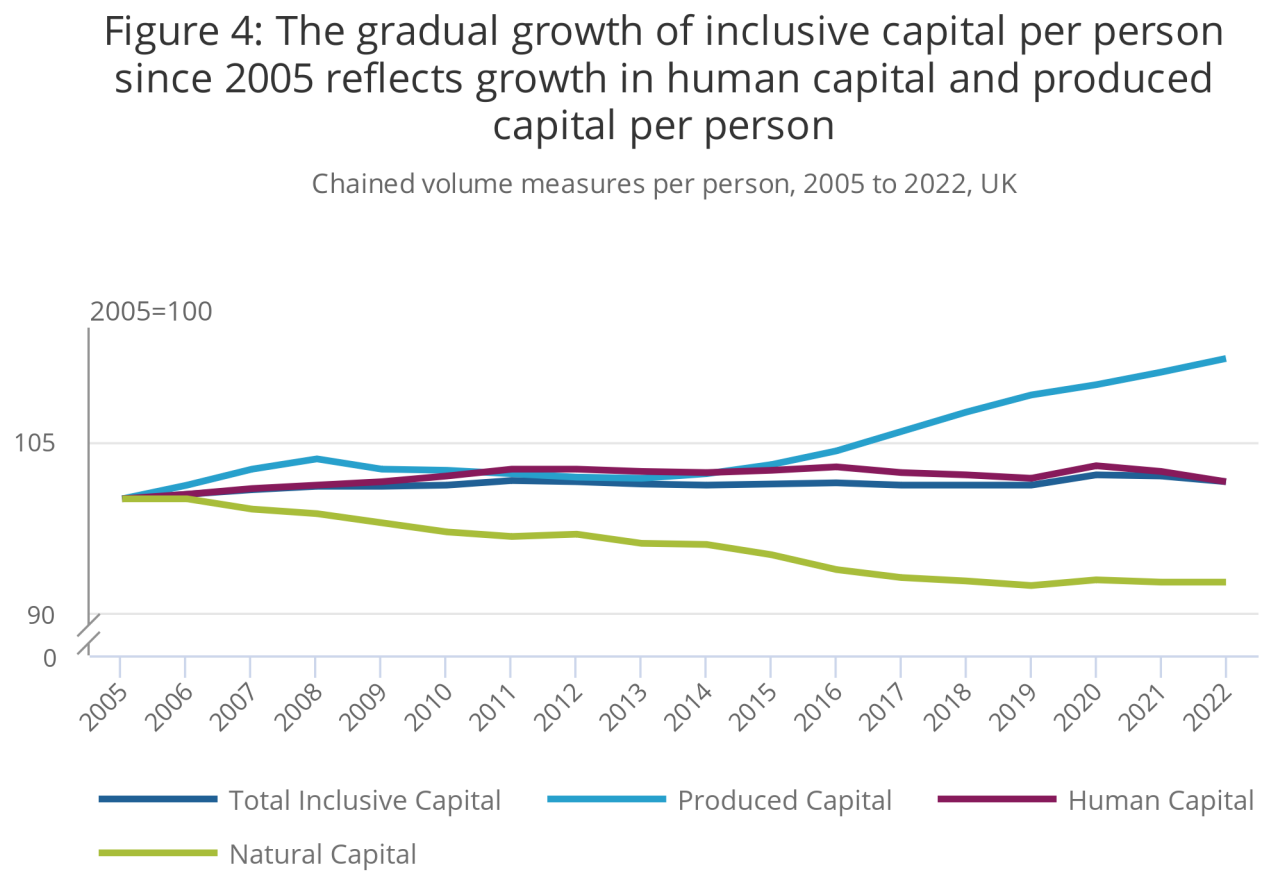
The volume of produced capitals used in production has increased over time on a per-person basis, while the volume of human and natural capital have decreased. The decrease in natural capital used in production is primarily influenced by a decrease in the depletion of the atmosphere as a carbon sink. This reflects reductions in the UK's greenhouse gas emissions since 2005.

6 . Inclusive wealth

Inclusive wealth, as measured by inclusive capital per person, was £592,298 in 2022 in current price terms. Produced capital made up £94,142 of inclusive wealth, natural capital made up £120,361, and human capital made up £377,795. Inclusive capital per person fell by 0.4% in volume terms between 2021 and 2022 because of a fall in human capital. Figure 4 shows growth in inclusive capital, as well as its constituent capitals.

Figure 4: The gradual growth of inclusive capital per person since 2005 reflects growth in human capital and produced capital per person

Chained volume measures per person, 2005 to 2022, UK



Source: Office for National Statistics

Inclusive capital per person has grown very slightly by 1.5% over the longer term, between 2005 and 2022. Underlying this slow but gradual growth in inclusive capital are divergent trends in its constituent capitals.

Produced capital per person has grown by 12.3% since 2005, while natural capital per person has fallen by 7.3%. The fall in natural capital is mainly caused by land. The volume of land, excluding land improvements, has remained constant since 2005, but the population has risen, causing the volume per person to fall.

7 . Data on inclusive income

Inclusive wealth and income accounts data
Dataset | Released 13 November 2024
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.

8 . Glossary

Production boundary

Under the System of National Accounts 2008, the production boundary is 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".

9 . Data sources and quality

Methodological developments

Detailed information about the methodologies and concepts underlying the measures in this article, as well as their development over time, can be found in our Inclusive income methodology, the Economic Statistics Centre of Excellence's Gross domestic product (GDP) and Welfare: Empirical Estimates of a Spectrum of Opportunity article, and our previous UK inclusive income articles.

There are three main areas of methodological changes and development introduced in this article:

- the development of current price (CP) and chained volume measure (CVM) inclusive wealth series
- the incorporation of depletion of the atmosphere as an asset
- accounting for missing intangibles and public service quality data in 2022

The most substantial development in this article is the inclusion of data on inclusive wealth, building on our previous work in this area, as described in our Inclusive capital stock, UK: 2019 to 2020 article. Inclusive wealth data in this publication are designed to be as comparable and consistent as possible with their inclusive income counterparts and to comprise a consistent set of accounts.

Development of current price and volume estimates of inclusive wealth

Input data for both current price and volume estimates of inclusive wealth (inclusive capital and inclusive net worth) come from several sources.

Produced capital

- Dwellings, other buildings and structures come from our National balance sheet estimates for the UK.
- Information and communications technology (ICT) and transport equipment come from our National balance sheet estimates for the UK.
- Inventories come from our National balance sheet estimates for the UK.
- Intellectual property products already capitalised in national accounts come from our National balance sheet estimates for the UK.
- Intellectual property products not currently capitalised in national accounts come from our Investment in intangible assets in the UK.
- Household durables used in unpaid household production come from our Supply and use tables.

Natural capital

- Land, land improvements, and cultivated biological resources come from our National balance sheet estimates for the UK.
- Natural capitals providing provisioning services come from our UK natural capital accounts.
- Natural capitals providing regulating services come from our UK natural capital accounts.
- Natural capitals providing cultural services come from our UK natural capital accounts.

Human capital

- Human capital comes from our Human capital stocks estimates in the UK.

Financial assets and liabilities

- Financial assets and liabilities come from our National balance sheet estimates for the UK.

Leases, contracts, and licences

- Leases, contracts and licences come from our National balance sheet estimates for the UK.

Depletion of atmosphere as an asset

The second-most substantial development in this article is the incorporation of estimates of depletion of the atmosphere associated with greenhouse gas emissions. This accompanies estimates of degradation of the atmosphere associated with greenhouse gas emissions.

Depletion of the atmosphere accounts for the role of the atmosphere as a carbon sink, and the "using up" of this carbon sink over time. Economic units, such as companies and households, can emit greenhouse gases into the atmosphere, rather than using some alternate technology like renewable energy or carbon capture to avoid these emissions. However, practically, this is a finite resource. Economic units can reasonably emit only so much carbon into the atmosphere. When economic units emit greenhouse gases, they are using a finite natural resource to do so. They are depleting the atmosphere's capacity as a carbon sink.

The volume of this depletion can be measured by the UK's carbon emissions, as described in our Estimates of quarterly greenhouse gas emissions (residence basis), UK bulletins. The price applied per unit of carbon is the opportunity cost of not emitting carbon, rather than emitting it - this is the "abatement cost". For this, we use the carbon abatement costs in the UK government's Green Book supplementary guidance.

The approach developed in this article has benefited from discussions with the French national statistics institute, the National Institute of Statistics and Economic Studies. They have recently published analysis using a similar approach in their Can the climate be accounted for in the National Accounts publication.

Missing intangibles and public service quality data

Intangible capital investment data, for intangible capital not yet capitalised in the national accounts, are not yet available for 2022. We have applied growth rates for investment in intangible capital included in the national accounts to estimate 2022 values.

Data for public service quality are also not yet published for 2022, so a 0% public service quality growth has been assumed.

10 . Related links

Inclusive Income methodology
Methodology | Last updated 11 November 2022
An introduction to the concepts underlying two new measures being developed by the Office for National Statistics (ONS), gross inclusive income and net inclusive income.

11 . Cite this article

Office for National Statistics (ONS), released 13 November 2024, ONS website, article, UK inclusive wealth and income accounts: 2005 to 2022