

Article

# Fifty years of the preliminary estimate of UK GDP

The UK first published its provisional timely estimate of GDP in August 1972. This will look at the major milestones in how GDP has been compiled over the last 50 years and some of the future proposals which are being considered as part of Beyond GDP.

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## Table of contents

1. [Main points](#)
2. [Background](#)
3. [The origins of the preliminary estimate of GDP](#)
4. [A balanced estimate of GDP: reconciling output, expenditure, and income](#)
5. [Market and non-market output](#)
6. [Modern economy](#)
7. [Double deflation](#)
8. [Future developments](#)
9. [Data sources](#)
10. [Glossary](#)
11. [Related links](#)

# 1 . Main points

- In August 1972, a new preliminary estimate was published, which reflected the volume of gross value added (GVA) of all industries in the economy and is still the basis of our first estimate of gross domestic product (GDP) 50 years later.
- The average estimate of the three approaches to measuring GDP was the basis of the headline estimate of GDP until the early 1990s, when there was a shift to reconcile the three independent estimates, which underpins how we compile GDP today; in 1992, estimates of current price GDP were balanced for the first time in a Supply and Use Tables (SUTs) framework.
- There was a renewed interest in estimating non-market output in the 1990s, particularly giving more consideration to output-based indicators, while there was an improvement in the recording of the prices and output of the services industries in the early 2000s.
- Future research is being undertaken on "Beyond GDP", particularly around the extent to which we can capture economic wellbeing and sustainability in a broader National Accounts framework.

## 2 . Background

The first UK National Accounts were produced in 1941 by James Meade and Richard Stone but 1972 was an auspicious year as Charles Feinstein published his famous volume [National Income, Expenditure and Output of the United Kingdom 1855-1965](#). This provided the basis of much of our understanding of the British economy in the mid-19th Century. The year also marked the first ever "early estimate" of UK gross domestic product (GDP).

In the last 50 years, there have been many changes in how GDP is compiled. We have considered the trade-off between the timeliness and accuracy of early estimates; the theory and practice of balancing the three approaches to measuring GDP – production, expenditure, and income – and the international guidance [note 1]. The UK National Accounts has also been subject to comprehensive independent reviews – the recommendations of which underpin GDP today. We reflect on some of the key milestones, covering the past, present and future of GDP in the UK context.

### Notes for: Background

1. The 1968 System of National Accounts (SNA) covered 1979 to 1997, while the 1993 SNA was in place from 1998 to 2013. The 2008 SNA has been in effect in the UK National Accounts from 2014.

### 3 . The origins of the preliminary estimate of GDP

Quarterly estimates of UK gross domestic product (GDP) were introduced in the mid-1950s. This was firstly via the expenditure approach, followed closely by the income approach [note 2]. While a monthly Index of Production was initially compiled in 1948, the output approach for the whole economy was only compiled annually at the time.

It was not until 1966 that quarterly estimates of GDP were produced based on the output approach, which is considered a proxy of the production approach. This is based on the concept of gross value added (GVA), which captures the output of each industry adjusted for the intermediate goods and services that are consumed in production. An average estimate of the three approaches of GDP was first published about 12 weeks after the end of the reference quarter. However, a timelier output-based estimate of GDP had been produced for internal purposes.

In [August 1972](#), this new preliminary estimate was published around seven weeks after the reference quarter. There was initially some uncertainty around its reliability, specifically as at the time “there [had] been no fixed relationship between movements in the output-based estimates and those shown by the measures based on expenditure and on income, or with those in the average of all three which is regarded as giving the most reliable indicator of changes in GDP”. However, this timelier estimate was considered a reliable proxy that had historically provided good indications of the change in GDP.

This output-based estimate weights together the volume of gross value added (GVA) of all industries in the economy. However, in practice, the information required to measure volume GVA for each industry is only available after some time. That said, it is possible to use a range of more timely volume indicators to approximate early estimates of GVA, such as input indicators, proxies for the volume of gross output or deflated turnover.

Input indicators capture changes in production by using factors of production, such as labour, as a proxy for changes in output. Direct volume indicators are proxies of the output produced by that industry – for example, the number of treatments for healthcare for the health industry. Deflated turnover involves estimates of turnover in current prices deflated by an appropriate price deflator for that industry. These proxies are known as "[single extrapolation](#)" in that it implicitly assumes that the ratio of output to inputs for each industry does not change markedly in the short term.

In 1972, our output estimate comprised 179 industries, although manufacturing industries accounted for 70% of the number of those industries back then. Given that non-market output is not prone to business cycle fluctuations, this made the Index of Production a much better indicator of the overall state of the economy than it would today.

The compilation of the Index of Production at the time was a legacy of wartime planning where the Central Statistical Office (CSO) – one of the precursors to the Office for National Statistics – had access to a vast range of high frequency volume indicators (Table 1). This was particularly in the manufacturing industries, where there was more detailed information available. Over the years, more focus was placed on capturing the output of the services industries, such as insurance, finance, and business services. For instance, legal services were estimated based on volume indicators for the number of mortgage advances; the number of cases tried in Magistrates' Courts; and the number of grants of probate applied for by solicitors.

Table 1: There has been a change in the industry coverage in the UK National Accounts

	1972		2022	
	Number	%	Number	%
<b>Agriculture, forestry and fishing</b>	3	2	3	3
<b>Production</b>	126	70	49	44
<b>Utilities</b>	4	2	6	5
<b>Construction</b>	2	1	3	3
<b>Services</b>	44	25	51	46
<b>Total</b>	179	100	112	100

Source: Source: Studies in Official Statistics No 17, Office for National Statistics

#### Notes

1. The preliminary estimate of GDP(O) when introduced in 1972 comprised 954 separate indicators, whereas the modern methodology is comprised of 498 indicators.

One of the challenges of volume indicators is that these do not pick up changes in the product mix of the output produced by firms. In the early 1970s, there was a move to survey-based data over administrative sources. The CSO started regular data collection of quarterly sales rather than quantity indicators. The objectives were to fill existing gaps, replace input-based methods and move to collecting data on a production basis, rather than on a delivery basis. The new surveys also looked at adjusting for changes in inventories.

Table 2 shows there has been a reduction in the use of input indicators and an increase in the use of deflated turnover. For example, in 1972, input indicators were in place to record 20% of UK GVA, but now only comprise 4% of UK GVA. In contrast, deflated turnover underpins almost three-fifths of measuring UK GVA today. These proportions are weighted by gross value added (GVA), which over time have skewed towards services and so service-based methods are now more heavily weighted in the total than they were in 1972.

Table 2: There has been a shift towards deflated turnover in compiling volume estimates of the output approach  
Type of Indicators

	1972	2022
<b>Gross value added</b>	3	1
<b>Volume indicator</b>	31	37
<b>Deflated turnover</b>	46	58
<b>Input indicator</b>	20	4
<b>Total</b>	100	100

Source: Office for National Statistics - GDP(O) data sources catalogue

#### Notes

1. These are the types of indicators to compile the output-based estimate which is based on their GVA weight.
2. For some industries, such as agriculture, information was collected on output and inputs, so it was possible to produce GVA estimates. For many market industries, turnover is a proxy of output, where changes in prices are captured so that we produce a volume estimate of output.

## Notes for: The origins of the preliminary estimate of GDP

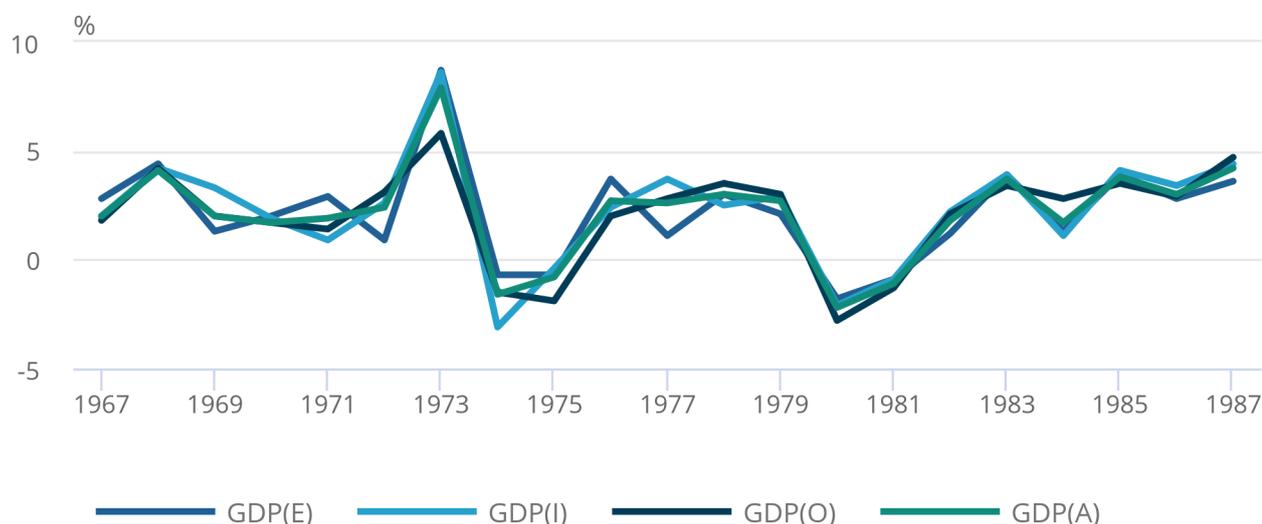
1. 'A Supplement on the Quarterly Estimate of National Expenditure' was published in January 1957, while 'Quarterly national income' and 'Quarterly estimate of personal income and expenditure' was published in January 1958.

## 4 . A balanced estimate of GDP: reconciling output, expenditure, and income

The average estimate of the three approaches was the basis of the headline gross domestic product (GDP) until the early 1990s. At the time, the UK was one of a small number of countries that published all three approaches. However, [The Economist](#) had highlighted the challenge of this transparency of explicitly publishing the three independent approaches as this was "one reason why British figures look less reliable than those of other countries". This explicitly showed the uncertainty around the "true" estimate of GDP, particularly around the turning points of the 1970s (Figure 1). The increasing divergence in the late 1980s might also explain the profile of revisions at that time, where early estimates showed there were periods of contraction, which were subsequently revised away.

**Figure 1: In the 1980s, there was concern about the uncertainty around the "true" estimate of GDP**

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Source: Pickford Review

One of the main recommendations of the Pickford Review (1989) was to produce balanced estimates of GDP at current prices in a Supply and Use Tables (SUTs) framework. This was first introduced in Blue Book 1992, which would change the focus from an average GDP to a single measure of GDP. This would also serve as a diagnostic tool for improving the quarterly estimates, including the concept of statistical adjustments to the initial estimates so that there was more effort to reconcile the three independent estimates. These were intended to anticipate revisions as further information became available and to reduce discrepancies between the expenditure, income, and output approaches to estimating GDP.

Given this improved coherence, average GDP was discontinued as part of Blue Book 1992. Adjustments were introduced to bring the three approaches within a tolerance limit for the years after SUTs balancing. From Blue Book 1992, references to four different measures of GDP – the output, expenditure, income, and average approaches – were dropped in favour of a single estimate of GDP, where there was more focus on a better reconciliation between these independent estimates of the three measures of GDP. The expenditure approach would be the basis of the annual level of volume GDP.

In April 1993, a provisional output-led estimate of GDP was published around 25 days after the end of the quarter ("Month 1"). After 55 days, the first estimates of balanced output, expenditure and income would be published, accompanied by any revisions to total GDP ("Month 2"). This would bring forward the first estimates of income and expenditure, which had previously first been published 85 days after the reference quarter. This would not be balanced in a SUTs framework but through [alignment adjustments and statistical discrepancies](#), which are applied to the levels and changes in quarterly GDP. The full National Accounts would then be published after 85 days, including the Institutional Sector Accounts and Balance of Payments ("Month 3").

There was a reconsideration of the balance between the timeliness and accuracy of GDP estimates in 2018, including whether it would also be feasible to develop a [monthly indicator of GDP](#). The provisional quarterly estimate of GDP was pushed back so that it was published around 40 days after the reference quarter – a less timely estimate but a more accurate one as this new first estimate would have higher data content in its output estimate. It would also now be a balanced estimate, which would include expenditure and income estimates that would help inform the balancing process.

This also enabled the production of [monthly GDP](#) for the first time [note 1], which was an output-based estimate on GDP, which includes the potential to pick up turning points in the economy, particularly if large movements in how much output is being produced is captured by higher-frequency estimates. Canada and Finland were among the only other countries that had a monthly indicator of GDP.

### **Notes for: A balanced estimate of GDP: reconciling output, expenditure, and income**

1. The National Institute had produced their own proxy monthly indicator since April 1998.

## **5 . Market and non-market output**

Policymakers are typically interested in the split between market and non-market output. A measure of market sector gross value added (GVA) is often more relevant for the assessment of demand pressures and productivity trends. In the mid-2000s, collaborative efforts with the [Bank of England](#) focused on producing such measures, which are now produced as standard in the National Accounts.

The measurement of non-market output in the National Accounts has also been a challenge, given that this captures the provision of goods and services that is supplied free or at prices that are not economically significant. Direct measures of non-market output have been a long-standing feature of the UK National Accounts. The [methodology published in 1970](#) shows that a wide range of output-based indicators were already being used to measure non-market output.

The following shows the percentage of non-market output produced, which were measured by direct volume indicators in 1972, by industry. GVA weight is provided as parts per thousand of total GVA.

### **Educational services (34.8 per thousand)**

- 18.8 weighted index of teachers in maintained schools
- 5.4 number of other local authority employees in education departments
- 2.4 number of full-time teaching staff at universities

### **Medical and dental services (24.6 per thousand)**

- 15.4 Index of hospital staff, based on staff costs
- 0.5 Ante-natal, post-natal and child welfare clinics: number of patients
- 0.4 Home-nursing: number of patients
- 0.2 Health visits: number of patients
- 0.3 Midwives: number of home confinements and early discharges
- 0.8 Ambulance service: patients carried
- 0.4 Mental health services: number of cases
- 0.5 School medical service: number of children inspected
- 2.8 Number of doctors on the Executive Council services list representing general practice
- 1.1 Weighted average of number of dental treatments
- 2.2 Number employed in other medical services

## **Public administration and defence (56.0 per thousand)**

### **National government service (37.9 per thousand)**

1. 18.0 Armed Forces and Women's Services – weighted index of strength
2. 16.0 Non-industrial civil servants – weighted index of staff
3. 3.9 Industrial civil servants – number employed

## Local government service (18.1 per thousand)

4. 4.3 Police – weighted index of strength
5. 1.1 Fire service – weighted index of strength
6. 12.7 Other local government service – number employed

Please note that values may not sum to the totals because only a percentage of the output produced by these industries is based on these direct volume indicators.

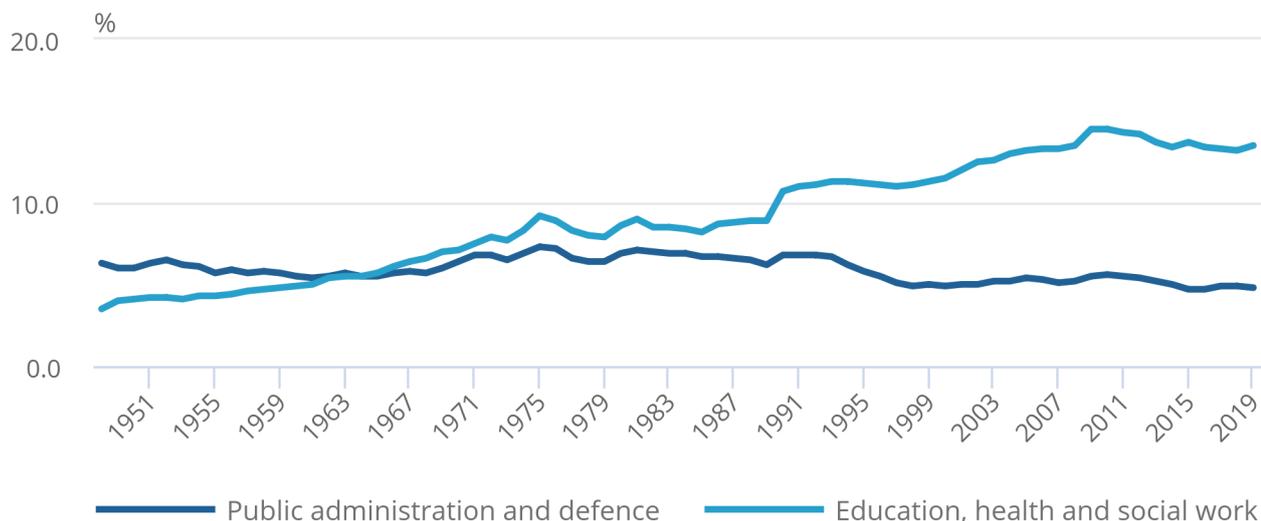
This shows that the CSO had adopted a range of input- and output-based volume indicators, though one feature is that these were more input-based in 1972. The output equals input convention was in place for much of non-market output, where the volume of its output is measured by the volume of its input.

There was a renewed interest in this area in the 1990s, particularly giving more consideration to output-based indicators, as the relative share of education, health and social work increased significantly, particularly compared with the stable public administration and defence (Figure 2). In [Blue Book 1998](#), there was a transformation in how non-market output was recorded, including for health, education, and social security. This was based on a range of performance indicators, such as a cost-weighted activity index for hospital output; pupil and student numbers for education; and numbers of benefit claims for social security.

This was further reinforced by the recommendations of the [Atkinson Review \(2005\)](#), which was commissioned "to advance methodologies for the measurement of government output, productivity and associated price indices in the context of the National Accounts". This advocated the use of direct measures of government output including accounting for quality change.

**Figure 2: There was a renewed interest in the measurement of non-market output in the 1990s, particularly given the relative increase in education, health, and social work output**

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Source: Bank of England, Office for National Statistics

Notes:

1. Estimates of Education, Health and Social Work will include market and non-market output, although market output is small for this industry.

One topic that is still of interest is the extent to which quality change is reflected in non-market output. Atkinson concluded that estimates of non-market output should take account of quality change in theory, although recognising that this would not be straightforward in practice.

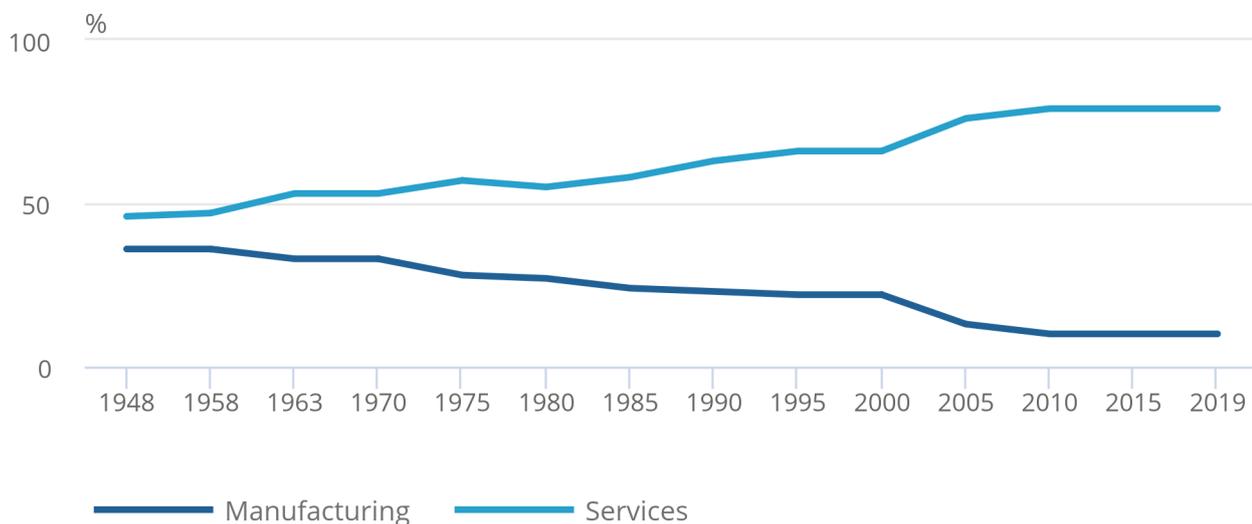
## 6 . Modern economy

The next milestone came in the early 2000s with the introduction of the monthly Index of Services. One of the main recommendations of the [Allsopp Review \(2004\)](#) has been around having better and more coverage of the services industries, so that the National Accounts was keeping pace with the changing structure of the UK economy [note one].

Based on historical estimates, Figure 3 shows how the service and manufacturing industries have tracked over time. In 1948, the services economy comprised less than half of the UK economy by share of gross value added (GVA). However, services are just under four-fifths of the economy by 2019.

**Figure 3: The UK has become a services economy over the last 50 years**

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**Source: Bank of England, Office for National Statistics**

**Notes:**

1. Over time, there have been some definitional changes to manufacturing and services, which would have some impact on these real-time estimates. For example, in 2005, publishing moved from manufacturing to services, while recycling moved from services to manufacturing.
2. It is not only manufacturing that has experienced a decline over time. There has been a structural decline in the agriculture industry, which comprised 6% of UK GVA in 1948 and is now less than 1%. There has been a similar decline in the mining and quarrying industry, although these movements have been more volatile over time, including a peak in the early 1980s.

Given the measurement challenges of the output and prices of the services industries, there had been an investment in its data collection in the 1990s. Historically, estimates of services output had relied on input indicators or deflated turnover, which in turn required productivity assumptions and appropriate price deflators to be readily available, which provided challenges. The aim was to improve the data sources and methods to bring it in line with the methods used in the Index of Production, which led to a series of improvements to the quality and timeliness of its measurement. This would also cover "new" phenomena that would become of increasing importance to the UK economy, including the recording of financial services, the shift towards the intangible economy and the effects of digital services – see [Bean Review \(2016\)](#).

One of the most important impacts was the improvement in the quality of deflation. The [Eurostat Handbook on Price and Volume](#) provides countries with guidance on the recommended methods for calculating volume indicators and provides an assessment framework.

- "A methods" are the methods that approximate the ideal as closely as possible – an example would be deflation using a price index reflecting the specific product, measures price change of the right concept, is valued on the right price basis and reflects changes in quality.
- "B methods" are acceptable alternatives, which are further away from the ideal but still provide an acceptable approximation – an example would be using direct volume indicators or deflation with a price index that does not meet one of the criteria above.
- "C methods" are too far away from the ideal to be acceptable, which would generate too great a bias or would simply measure the wrong concept – typically this would include methods based on inputs or a price index that does not meet the criteria of an A method at all.

We have carried out an indicative review of the 1972 methodology and compared it with the published 2000 and 2022 position, which has been weighted by GVA (Table 3). There has been an improvement in how we record the output and prices of the services industries over the last 20 years. The increase in C methods between 1972 and 2000 is mostly accounted for by the relative increase of the services industries where measuring price and volume is much more challenging, rather than a deterioration in the methods used.

Table 3: There has been a recent improvement in how we record the output and prices of the services industries  
Price and Volume Assessment of GDP(O), 1972, 2000 and 2022

	1972	2000	2022
<b>A</b>	10	3	34
<b>B</b>	73	44	54
<b>C</b>	17	53	12
<b>Total</b>	100	100	100

Source: Central Statistical Office - The index of industrial production and other output measures 1970

#### Notes

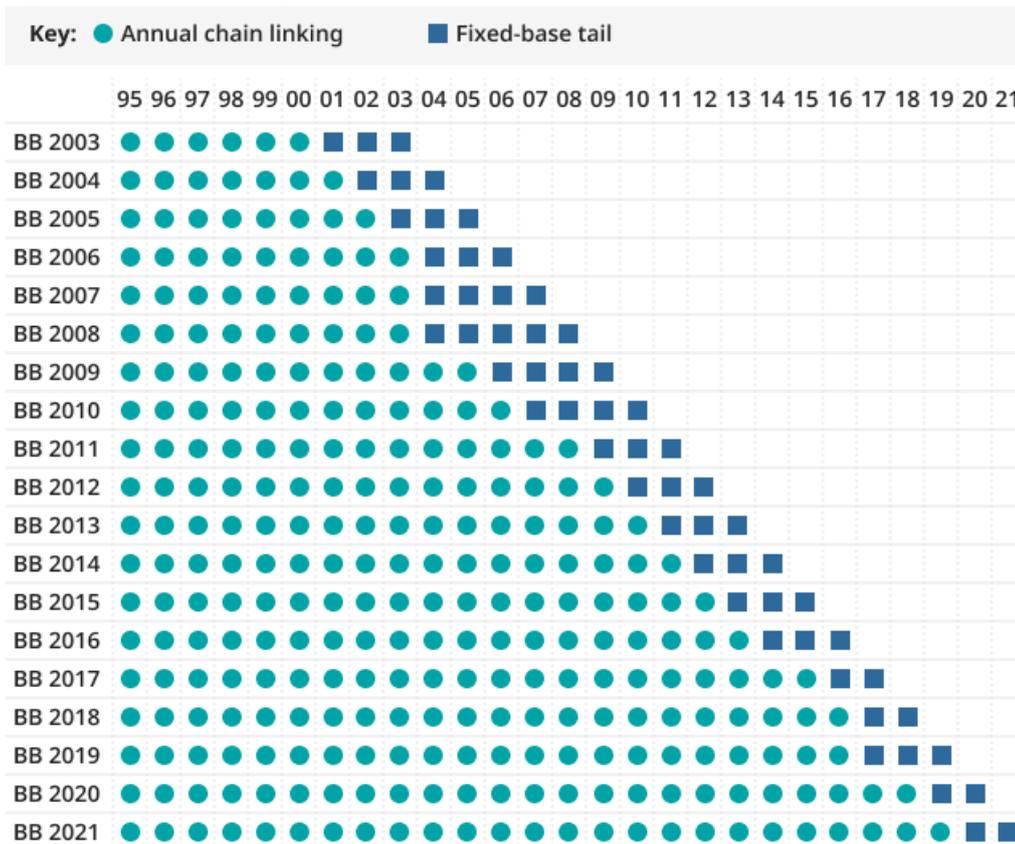
1. These are the split of "A methods"; "B methods" and "C methods" in how deflation is carried out weighted by their GVA shares.

In [Blue Book 2003](#), chain-linking was introduced in the UK National Accounts to produce volume estimates of GDP, which better captured the effects of the evolving nature of the modern economy. This is the process by which the value shares of output or expenditure in the economy are updated on an annual basis so that the latest structure of the UK economy is always reflected in volume estimates of GDP (Figure 4). A more [comprehensive interactive version](#) is also available.

This replaced the fixed-based approach that had been in place where these weights are only updated every five years, which led to over- and under-weighting of the output produced by industries, depending on how the economy had changed compared with that base year.

- For Blue Books 1948 to 1958, the last base year was 1948.
- For Blue Books 1959 to 1961, the last base year was 1954.
- For Blue Books 1962 to 1968, the last base year was 1958.
- For Blue Books 1969 to 1972, the last base year was 1963.
- For Blue Books 1973 to 1977, the last base year was 1970.
- For Blue Books 1978 to 1982, the last base year was 1975.
- For Blue Books 1983 to 1987, the last base year was 1980.
- For Blue Books 1988 to 1992, the last base year was 1985.
- For Blue Books 1993 to 1997, the last base year was 1990.
- For Blue Books 1998 to 2002, the last base year was 1995.

**Figure 4: Chain-linking was introduced in the UK National Accounts in 2003**



Source: Office for National Statistics

For the 2003 Blue Book, the period covered by:

- annual chain linking was up to 2000
- fixed-based tail was 2001 to 2003

For the 2004 Blue Book, the period covered by:

- annual chain linking was up to 2001
- fixed-based tail was 2002 to 2004

For the 2005 Blue Book, the period covered by:

- annual chain linking was up to 2002
- fixed-based tail was 2003 to 2005

For the 2006 Blue Book, the period covered by:

- annual chain linking was up to 2003
- fixed-based tail was 2004 to 2006

For the 2007 Blue Book, the period covered by:

- annual chain linking was up to 2003
- fixed-based tail was 2004 to 2007

For the 2008 Blue Book, the period covered by:

- annual chain linking was up to 2003
- fixed-based tail was 2004 to 2008

For the 2009 Blue Book, the period covered by:

- annual chain linking was up to 2005
- fixed-based tail was 2006 to 2009

For the 2010 Blue Book, the period covered by:

- annual chain linking was up to 2006
- fixed-based tail was 2007 to 2010

For the 2011 Blue Book, the period covered by:

- annual chain linking was up to 2008
- fixed-based tail was 2009 to 2011

For the 2012 Blue Book, the period covered by:

- annual chain linking was up to 2009
- fixed-based tail was 2010 to 2012

For the 2013 Blue Book, the period covered by:

- annual chain linking was up to 2010
- fixed-based tail was 2011 to 2013

For the 2014 Blue Book, the period covered by:

- annual chain linking was up to 2011
- fixed-based tail was 2012 to 2014

For the 2015 Blue Book, the period covered by:

- annual chain linking was up to 2012
- fixed-based tail was 2013 to 2015

For the 2016 Blue Book, the period covered by:

- annual chain linking was up to 2013
- fixed-based tail was 2014 to 2016

For the 2017 Blue Book, the period covered by:

- annual chain linking was up to 2015
- fixed-based tail was 2016 to 2017

For the 2018 Blue Book, the period covered by:

- annual chain linking was up to 2016
- fixed-based tail was 2017 to 2018

For the 2019 Blue Book, the period covered by:

- annual chain linking was up to 2016
- fixed-based tail was 2017 to 2019

For the 2020 Blue Book, the period covered by:

- annual chain linking was up to 2018
- fixed-based tail was 2019 to 2020

For the 2021 Blue Book, the period covered by:

- annual chain linking was up to 2019
- fixed-based tail was 2020 to 2021

## Notes for: Modern economy

1. There have also been changes to the Standard Industrial Classification (SIC) over time. The first was SIC 1948, which covered 1948 to 1958. The latest is SIC 2007, which has been in effect in the UK National Accounts since 2011.

## 7 . Double deflation

Double deflation is the process by which volume estimates of gross value added (GVA) are produced, where the current price estimate of the output of an industry is deflated by a price index for output and separately the current price estimate of that industry's inputs is then deflated by an input price index. This is widely recognised as the best approach to producing volume estimates of industry-level GVA, correcting for a known bias, which reflects the relative change in output and input prices. This can be particularly pronounced when there are exchange rate shocks and/or oil and commodity price shocks.

Headline estimates of UK GVA had been implicitly produced by double deflation, given that volume estimates that have been fully balanced are led by the expenditure approach. Double deflation was implemented in the UK National Accounts in [Blue Book 2021](#), which was enabled by producing volume estimates of GVA in a SUTs framework for the first time. This brought more coherence between the volume estimates of output and expenditure. The expansion of the SUTs framework to current price and volume estimates of gross domestic product (GDP) led to more coherent estimates on industry-level GVA. This development also allowed for reconciliation of volume estimates to take place within the SUTs framework, where it was now possible to confront volume estimates of production and expenditure at a lower industry and product level.

## 8 . Future developments

Over the last 50 years of gross domestic product (GDP) measurement in the UK, there have been important milestones in how we compile the UK National Accounts. There will continue to be new phenomena that need to be considered as part of the production boundary in the future. There are also research topics to continue improving the quarterly GDP estimates.

The first is the reintroduction of a [Commodity Flow Model](#) to aid balancing quarterly GDP. These were originally introduced in the 1970s and redeveloped in the late 1990s, which provides a framework for more detailed data confrontation to help in balancing quarterly GDP and to maintain the coherence across the three approaches.

The second is to explore where the output indicator is a reasonable proxy for gross value added (GVA), under the current process of single extrapolation to compile early estimates of GDP. There are reasons why this might not be the case, particularly around turning points. Research is currently underway to assess whether the current methodology can be improved to align it better to the true GVA concept.

The third is the potential wider use of higher-frequency data in compiling the UK National Accounts. In the last few years, we have introduced monthly GDP as well as the publishing of real-time indicators. As more information becomes available, there is scope to look at introducing monthly data into the expenditure and income components of GDP. This is an area that was highlighted in the Bean Review and could lead to more data content in the earlier estimates, as well as open the possibility of a broader monthly indicator.

Future research is being undertaken on "Beyond GDP", particularly around the extent to which we can capture economic wellbeing and sustainability in a broader National Accounts framework. These research areas are also in scope of the upcoming [System of National Accounts revision](#), which is to be finalised by 2025. This would allow us to better understand the latest economic, social, and environmental trends. The next 50 years promises to have as many challenges and opportunities as the last 50 years.

## 9 . Data sources

[GDP output approach – low-level aggregates](#)

Dataset | Released on 30 June 2022

Annual and quarterly low-level aggregates of UK output gross value added (GVA) on a constant- and current-price basis.

## 10 . Glossary

### Gross domestic product (GDP)

A measure of the economic activity produced by a country. There are three approaches used to measure GDP:

- the output approach
- the expenditure approach
- the income approach

### Chained volume estimates (CVM)

These time series have the effects of inflation removed by considering changes in quantity between consecutive periods, holding prices from previous periods constant.

### Alignment adjustments

This has the purpose to adjust the quarterly paths of income and expenditure measures, so that it reflects the path of the output measure for the latest two quarters. In earlier quarters, these alignment adjustments help to bring the quarterly change in expenditure and income into a target range, compared with our average measure of GDP.

### Statistical discrepancies

There can be small discrepancies in the annual levels of the three measures of GDP. It ensures that each approach to measuring GDP equals the average on an annual basis.

## 11 . Related links

### [UK National Accounts, The Blue Book: 2021](#)

Compendium | Released on 29 October 2021

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

### [GDP quarterly national accounts, UK: January to March 2022](#)

Bulletin | Released 30 June 2022

Revised quarterly estimate of gross domestic product (GDP) for the UK. Uses additional data to provide a more precise indication of economic growth than the first estimate.

### [Chain-linking methods used within the UK National Accounts](#)

Methodology | Last revised 10 October 2016

This is a technical reference article, which describes unchaining and chain-linking methodology used in the production of volume measures within the UK.

### [ESCoE – National Accounts Historical Data](#)

Website

Contains historical national accounts data stretching back to 1086 covering both unofficial and unofficial sources. This includes a complete set of Blue Books back to 1941, other statistical releases, articles and sources and methods documentation.