

Article

Blue Book 2025: advanced aggregate estimates

Annual and quarterly impacts on the 2025 UK National Accounts from recent methodological improvements, and new survey and administrative information.

Contact:
Blue Book Coordination team
blue.book.coordination@ons.gov.
uk
+44 1633 456103

Release date:
19 August 2025

Next release:
To be announced

Notice

30 September 2025

Our Blue Book 2025: advanced aggregate estimates release showed preannounced revisions to real business investment and gross fixed capital formation (GFCF) quarterly growth up to 2023. Business investment has further revised since that publication for all periods because of further reconciliation with other GFCF components; GFCF, however, is unchanged since those preannounced revisions, up to and including 2023.

Our [latest GDP release](#) therefore now includes revisions from 1997 onwards for business investment and from 2024 onwards for GFCF.

Table of contents

1. [Overview](#)
2. [Main impacts of our changes](#)
3. [Impact of Blue Book 2025 on current price GDP](#)
4. [Impact of Blue Book 2025 on volume GDP](#)
5. [Changes caused by rebasing and deflator revisions](#)
6. [Impacts on the production approach to measuring GDP](#)
7. [Impacts on the expenditure approach to measuring GDP](#)
8. [Impacts on the income approach to measuring GDP](#)
9. [Impact on labour productivity](#)
10. [Next steps](#)
11. [More information on how we bring together the three approaches to measuring GDP in 2023](#)
12. [Glossary](#)
13. [Related links](#)
14. [Cite this article](#)

1 . Overview

The 2025 annual UK National Accounts, also known as Blue Book 2025, will incorporate more recent survey and administrative information, together with methodological improvements to the full data time series. This includes a redevelopment of the systems used to estimate gross fixed capital formation and inventories.

In addition, Blue Book 2025 includes the corrected Producer Price Indices (PPIs) and Services Producer Price Indices (SPPIs). More information on the impact is available in [Section 5: Changes caused by rebasing and deflator revisions](#).

Further information on these changes is available in our [pre-announced changes article](#).

Data for 2023 will be estimated for the first time using the supply and use tables (SUTs) framework, and our estimates for 2021 and 2022 have been improved with updated data. The SUT framework looks at the supply of goods and services, how they are used in the economy, and their associated prices in detail. More information is available in [Section 11: More information on how we bring together the three approaches to measuring GDP in 2023](#).

This article will cover the annual and quarterly impacts resulting from these improvements.

2 . Main impacts of our changes

- The level of UK gross domestic product (GDP) in this year's annual UK National Accounts now includes improved research and development (R&D) data, and updates to how we measure the activities of large multinational pharmaceutical companies; these are summarised in an accompanying [blog and video](#).
- Overall, the changes in this blue book raise the level of nominal GDP over the time period, with the level now estimated to be 1.5% higher in 2023, where changes have fed through gradually before 2019.
- Data for 2023 have been estimated for the first time using the supply and use tables (SUTs) framework, and our estimates of 2021 and 2022 have been improved with updated data and sources.
- Average annual volume growth over the period 1998 to 2023 still remains at 1.8% and average quarterly growth remains at 0.5%.
- Cumulative volume growth from 1997 to 2023 is now estimated at 57.6%, revised up from the previous estimate of 57.0%, where upward revisions to real GDP growth are smaller than for nominal GDP largely because of an improved approach for measuring education output.
- Annual volume GDP growth in 2023 is revised down by 0.1 percentage points from 0.4% to 0.3%; this follows a 0.3 percentage point upward revision to 2022.
- We have also included the corrected Producer Price Indices (PPIs) and Services Producer Price Indices (SPPIs), where the impacts of this correction were more than offset by the wider improvements; more information is provided in [Section 5: Changes caused by rebasing and deflator revisions](#).
- We now estimate that at the end of 2023, the economy was 2.2% above its pre-coronavirus (COVID-19) pandemic peak (Quarter 4 (Oct to Dec) 2019), revised up from the previous estimate of 1.9%.
- Real GDP per head in Quarter 4 2023 is provisionally estimated to be 1.0% lower compared with pre-coronavirus Quarter 4 2019; this has been revised up from the previously published 1.4% below.

The next Quarterly national accounts release on 30 September 2025 will incorporate these revisions into our official estimates in line with our [National Accounts Revisions Policy](#).

The full [GDP revisions article to accompany this Blue Book](#) will be released on 31 October 2025.

3 . Impact of Blue Book 2025 on current price GDP

Annual revisions to current price GDP

Throughout this article, annual and quarterly data labelled “Blue Book 2024” have been taken from the latest [GDP first quarterly estimate](#). This is consistent with Blue Book 2024 in the years up to and including 2022.

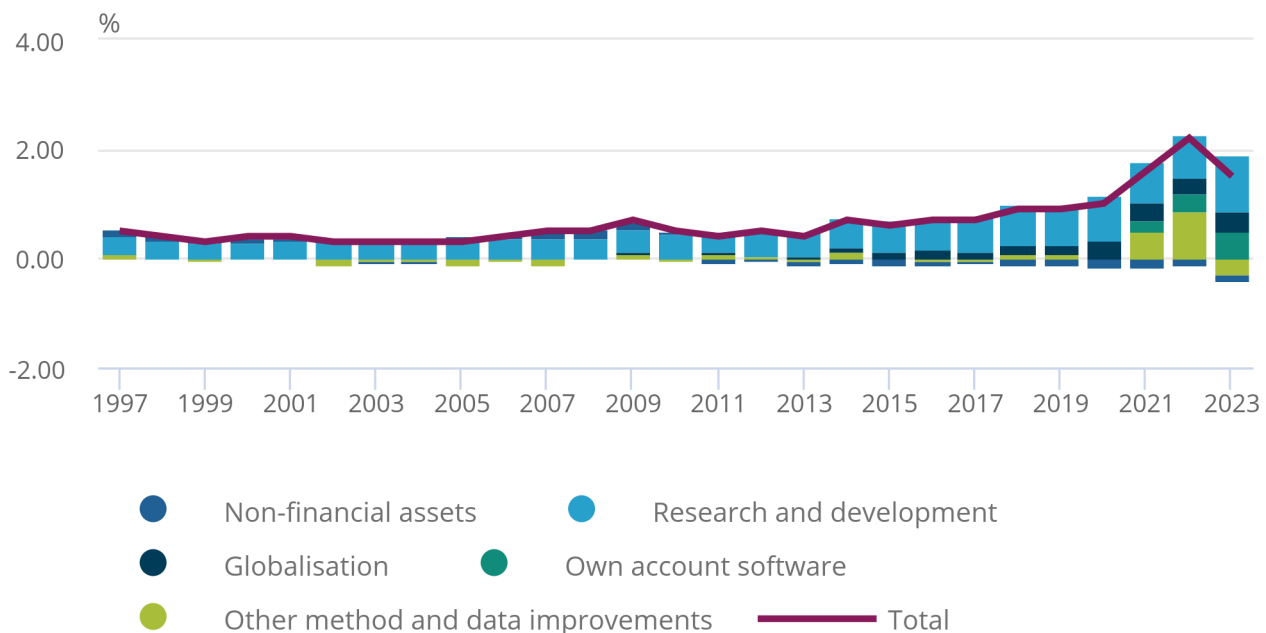
Figure 1 shows the revision to the annual current price level of gross domestic product (GDP) by methods change as a percentage of the level of GDP. In the years 2021 to 2023, new and revised annual survey and administrative data are included in the “other method and data improvements” category, which makes the largest contribution to the level of current price GDP revisions in these years.

Figure 1: Total current price GDP in 2023 is now estimated to be 1.5% higher

Revision to current price GDP level by change, UK, 1997 to 2023

Figure 1: Total current price GDP in 2023 is now estimated to be 1.5% higher

Revision to current price GDP level by change, UK, 1997 to 2023



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

In the years 1998 to 2023, the change to how we estimate research and development increased the level of GDP by at least 0.3% each year, with the largest revision in 2023 (1.0%). This is discussed in more detail in the “Impact of changes to research and development on current price GDP” section.

The next largest revision to GDP, particularly in later years, came from this year’s work on globalisation, focusing on multi-national enterprises in the pharmaceuticals industry. Pharmaceutical manufacturing directed and owned by UK businesses is now correctly reflected in the National Accounts, increasing pharmaceutical industry value added and exports. More details can be found in the article [Blue Book 2025: Globalisation](#).

In more recent years, new and revised data taken on from survey and administrative sources has led to revisions, particularly in 2022. Corporation tax data from HM Revenue and Customs becomes available later than most other sources, due to the time taken to file tax returns. The 2022 tax data are now available and indicate relatively strong growth in company profits in 2022, leading to an upward revision in the balanced GDP position. In addition, an update to the data used to estimate the value of software developed by companies on their own account has also led to upward revisions to the level of GDP from 2021 onwards.

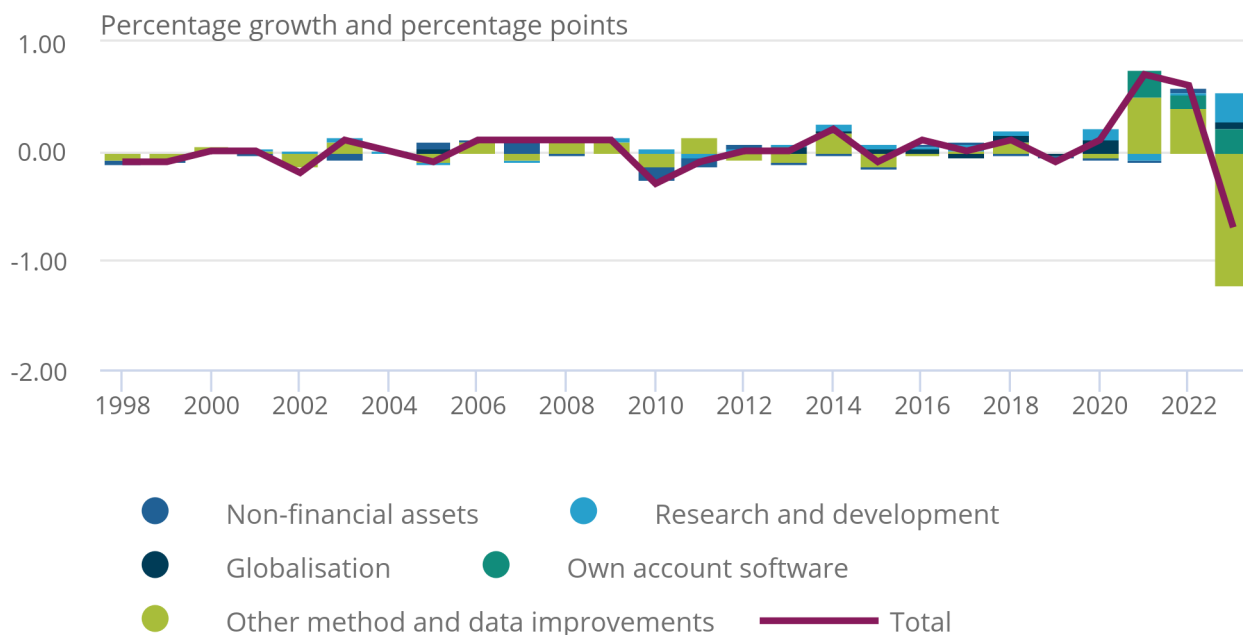
Figure 2 shows the revision to annual current prices gross domestic product (GDP) levels from 1997 to 2023.

Figure 2: Current price GDP in 2023 is now estimated to be 0.7 percentage points lower than previously published

Revision to current price GDP growth by change, UK, 1998 to 2023

Figure 2: Current price GDP in 2023 is now estimated to be 0.7 percentage points lower than previously published

Revision to current price GDP growth by change, UK, 1998 to 2023



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

There are small revisions to current price annual growth from 1998 to 2019. During this period, revisions to the annual GDP growth rate ranged between negative 0.3 and positive 0.2 percentage points. The mean revision is negative 0.01 percentage points. There have been some larger revisions in more recent years. Growth in 2020 has been revised up 0.1 percentage points, and 2021 and 2022 current price GDP growth has been revised up by 0.7 and 0.6 percentage points respectively. GDP growth in 2023 is now estimated to have increased by 6.6%, a downward revision of 0.7 percentage points. These larger revisions mostly reflect new and revised data and the update to estimates of own account software production.

Impact of changes to R&D on current price GDP

This year's results see the first incorporation of improved data from the Business Enterprise Research and Development (BERD) Survey into the UK National Accounts. This has led to revisions to many aspects of the UK economy, including the amount of R&D, the size of the industries involved in R&D, and the value of the resulting assets. The changes are discussed in more detail in our article [Improvements to estimation of research and development within gross fixed capital formation and business investment](#).

To complete this work, the Office for National Statistics (ONS) initiated a business statistics transformation project, which ran from April 2022 to March 2025 as part of the corporate ARIES (Ambitious, Radical, Inclusive, Economic Statistics) programme. The project successfully delivered transformed R&D surveys and electronic questionnaires by July 2023, and transformed R&D statistics, published in 2024, are now included into the UK National Accounts estimates.

The R&D changes had the largest impact on the level of UK GDP of any change in the development programme for the 2025 annual UK National Accounts, adding 1.0% to the level of UK GDP in 2023.

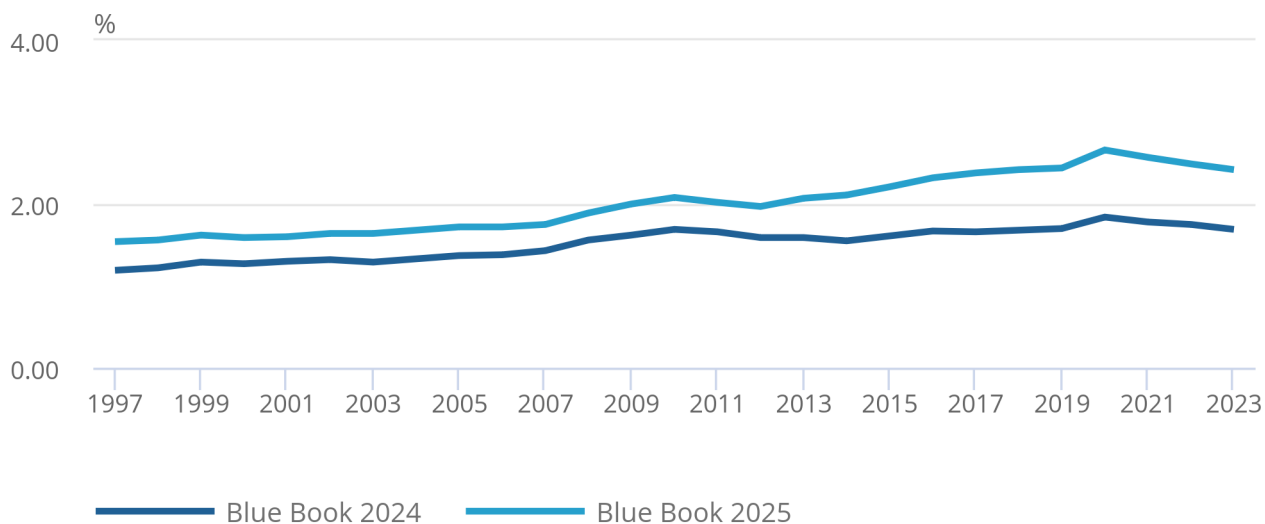
A common measure used to assess the amount a country is investing in R&D is the net value of R&D assets created, as a proportion of total GDP. Figure 3 shows how this has changed for the UK as a result of incorporating data from the redeveloped BERD Survey.

Figure 3: Research and development activities now account for a higher proportion of total GDP

R&D as a percentage of GDP, current prices, UK, 1997 to 2023

Figure 3: Research and development activities now account for a higher proportion of total GDP

R&D as a percentage of GDP, current prices, UK, 1997 to 2023



Source: UK National Accounts from the Office for National Statistics

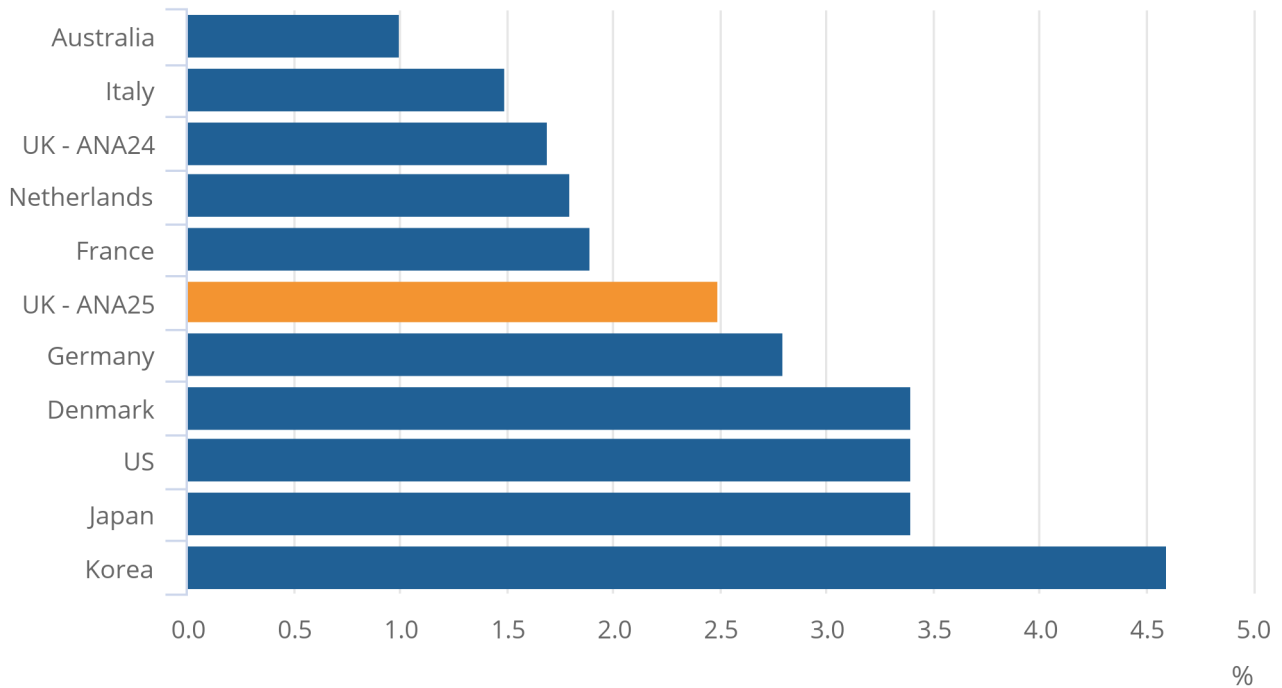
The proportion of R&D within GDP for the UK over the five years 2018 to 2022 is compared with that of other developed economies in Figure 4. Before the survey changes, UK investment in R&D was relatively low when compared with other countries, just above Italy but slightly below the Netherlands and France. The new survey data indicate UK investment in R&D is in fact higher than both these countries, but still lower than countries such as Germany, the United States and Japan.

Figure 4: Research and development activity in the UK is now higher than the Netherlands and France

R&D as a percentage of GDP, current prices, UK and selected countries, 2018 to 2022 average

Figure 4: Research and development activity in the UK is now higher than the Netherlands and France

R&D as a percentage of GDP, current prices, UK and selected countries, 2018 to 2022 average



Source: Organisation for Economic Co-operation and Development (OECD) and UK National Accounts from the Office for National Statistics

Notes:

1. Some figures marked provisional by OECD in later years.

Quarterly revisions to current price GDP

The revisions to the quarterly profile of current price GDP growth from Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019 are shown in Figure 5. Because of the larger movements during the coronavirus (COVID-19) pandemic, the 2020 to 2023 quarters have been shown separately in Table 1.

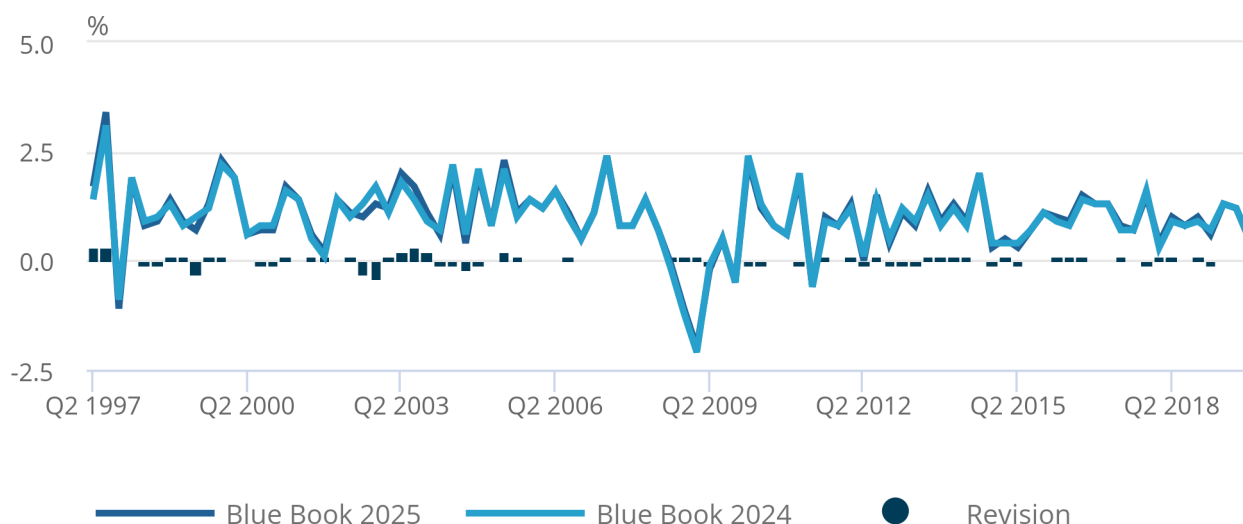
Over the time period Quarter 2 1997 to Quarter 4 2019, there is a mean revision of positive 0.01 percentage points.

Figure 5: Quarterly current price GDP growth sees minor revisions between 1997 and 2019

Current price GDP growth, UK, Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019

Figure 5: Quarterly current price GDP growth sees minor revisions between 1997 and 2019

Current price GDP growth, UK, Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Data labelled "Blue Book 2024" have been taken from the latest [GDP first quarterly estimate](#).

The revisions to the quarterly profile of current price growth for Quarter 1 2020 to Quarter 4 2023 are shown in Table 1. The nature of the pandemic, where there were particularly large quarterly movements in GDP, partly explains why absolute revisions were expected to be larger through this period. The effects of the pandemic also led to additional measurement challenges, which would be subject to higher levels of uncertainty.

Overall, the quarterly profile through the years is relatively little changed, with a mean revision of negative 0.02 percentage points.

Table 1: Current price quarterly GDP growth in 2020 to 2023
 Current price GDP growth, UK, Quarter 1 (Jan to Mar) 2020 to Quarter 4 (Oct to Dec) 2023

	Blue Book 2025 (%)	Blue Book 2024 (%)	Revision (percentage points)
Q1 2020	-2.0	-1.7	-0.3
Q2 2020	-14.0	-14.3	0.3
Q3 2020	12.3	12.1	0.2
Q4 2020	0.6	0.7	-0.1
Q1 2021	0.2	0.1	0.1
Q2 2021	5.8	5.7	0.1
Q3 2021	2.8	2.3	0.5
Q4 2021	2.6	2.6	0.0
Q1 2022	2.4	2.2	0.2
Q2 2022	2.6	2.5	0.1
Q3 2022	1.7	1.8	-0.1
Q4 2022	2.8	2.8	0.0
Q1 2023	1.6	1.8	-0.2
Q2 2023	1.5	1.8	-0.3
Q3 2023	0.5	0.9	-0.4
Q4 2023	-0.4	0.0	-0.4

Source: UK National Accounts from the Office for National Statistics

Notes

1. Estimates for Blue Book 2025 are based on the latest available information and are subject to revision as firmer data become available.
2. Data labelled "Blue Book 2024" have been taken from the latest GDP first quarterly estimate.

4 . Impact of Blue Book 2025 on volume GDP

Annual revisions to volume GDP growth

Revisions to average volume growth over the period 1998 to 2019 are in the range of negative 0.3 to positive 0.3 percentage points, with a mean revision of negative 0.005 percentage points.

Average volume gross domestic product (GDP) growth in 2020 was revised up by 0.3 percentage points to a 10.0% fall, growth in 2021 was revised down by 0.1 percentage points to 8.5%, and growth in 2022 was revised up by 0.3 percentage points to 5.1%.

Volume GDP growth for 2023 is now estimated to have increased by 0.3%, revised down from the previous estimate of 0.4%. As explained in our most [recent GDP release](#), there can be differences in the three approaches to measuring GDP in 2023 at that earlier stage in the production cycle, with annual volume growth estimated in a range of 0.3% to 0.5%. This is the first time that data for 2023 have now been confronted through the supply and use tables (SUTs) framework. In addition, we have also incorporated richer annual data across a number of GDP components for 2023.

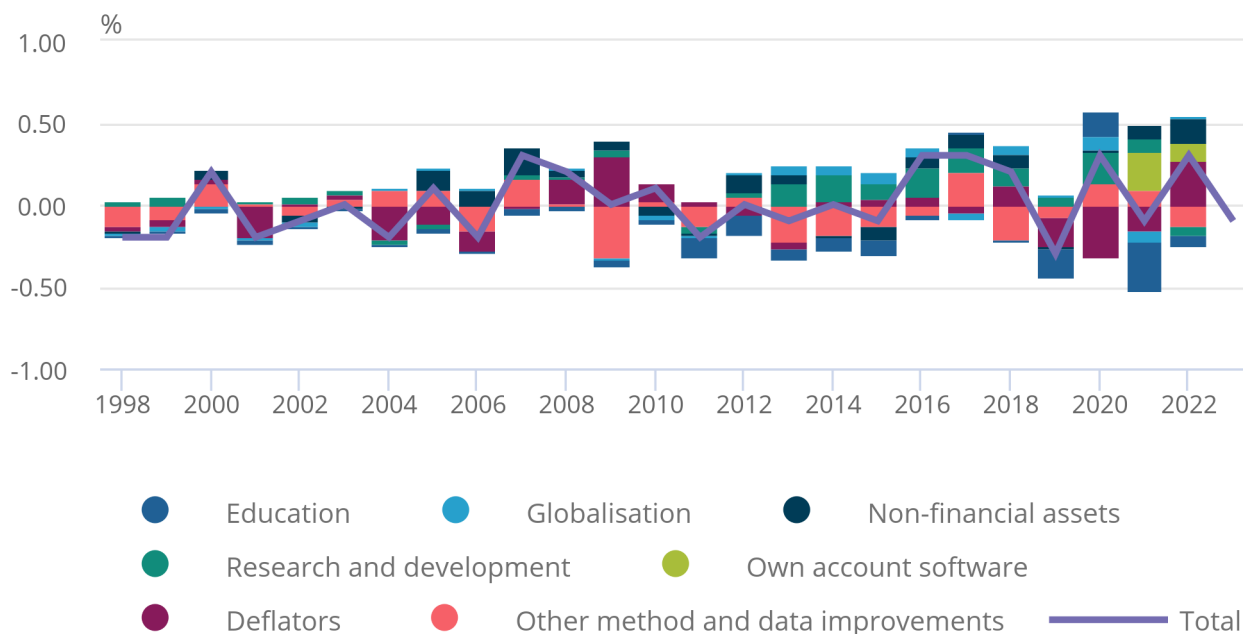
The decomposition of the change to the volume GDP growth rate is shown in Figure 6. These revisions reflect changes to current price estimates but also the effects of updates to how price changes have been accounted for. The deflators category excludes the improved volume measure for education (shown separately) and the research and development (R&D) investment deflator changes, which are included in the R&D change. In this analysis, due to the timing of implementation the effect of the corrected producer price indices and associated price indices is included in the "other method and data improvements" category; please see [Section 5: Changes caused by rebasing and deflator revisions](#) for further details.

Figure 6: Annual volume GDP is now estimated to have increased by 0.3% in 2023, a revision down of 0.1 percentage points

Revision to volume GDP growth by change, UK, 1998 to 2023

Figure 6: Annual volume GDP is now estimated to have increased by 0.3% in 2023, a revision down of 0.1 percentage points

Revision to volume GDP growth by change, UK, 1998 to 2023



Source: UK National Accounts from the Office for National Statistics

Notes:

1. The disaggregation by cause of revision cannot be calculated for 2023 because of the way that changes to sources and methods are processed in volumes.
2. Component contributions may not sum to total growth because of rounding.

The R&D change is positive to GDP growth in most years but it is a more significant contributor to the growth rate revision in volume terms than in current prices. This is because the volume change attributed to R&D also includes an update to the deflator used to estimate R&D in volume terms. The new deflator indicates prices have risen more slowly than previously thought, which increases the amount volumes have grown over time. More detail is available in our article [Deflator improvements to the UK National Accounts: Blue Book 2025](#).

In volume terms, the change to the education output measure is in most years a negative contributor to the GDP growth rate revision. In the 2010s, the change results in lower growth in education output, through improvements to the measurement of secondary schools in England that converted to academies. In the 2020s, improvements to the way absence rates are handled mean that the drop in education volumes in 2020 is not as severe (boosting GDP growth), but the subsequent recovery in 2021 is also therefore not as strong. Further details are available in our article [Improvements to the volume output of education in the national accounts: Blue Book 2025](#).

The cumulative impact of all changes in Blue Book 2025 is an increase in total volume GDP growth between 1997 and 2023 of 0.6 percentage points.

Quarterly revisions to volume GDP

Over the time period Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019, the revision to volume growth for individual quarters ranges from negative 0.2 to positive 0.3 percentage points, with a mean revision of positive 0.004 percentage points (Figure 7).

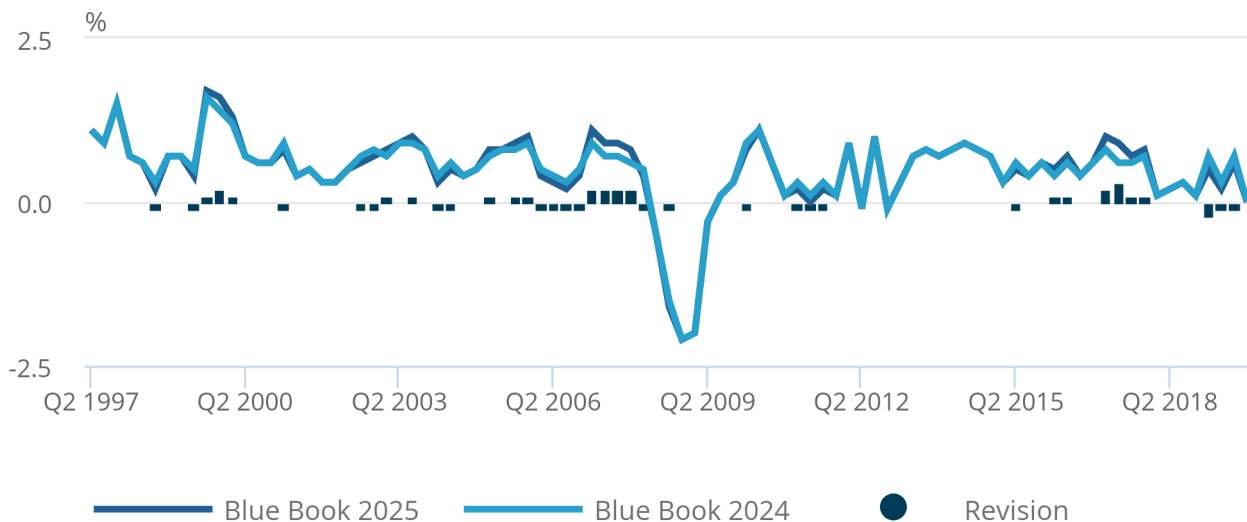
The peak-to-trough (as explained in our [Communicating the UK Economic Cycle methodology](#)) of the 2008 to 2009 economic downturn is unrevised from Blue Book 2024 and is still estimated at 6.4%. The peak-to-trough quarters (Quarter 1 (Jan to Mar) 2008 to Quarter 2 2009) are unchanged. GDP returned to the pre-economic downturn levels in Quarter 3 (July to Sept) 2013, unrevised from a previous estimate of Quarter 3 2013.

Figure 7: Quarterly volume GDP growth sees minor revisions between 1997 and 2019

Volume GDP growth, UK, Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019

Figure 7: Quarterly volume GDP growth sees minor revisions between 1997 and 2019

Volume GDP growth, UK, Quarter 2 (Apr to June) 1997 to Quarter 4 (Oct to Dec) 2019



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Data labelled "Blue Book 2024" have been taken from the latest [GDP first quarterly estimate](#).

Because of the large movements during the coronavirus (COVID-19) pandemic, the 2020 to 2023 quarters have been shown separately in Table 2. The revision to volume GDP across this time period follows directly from the changes to current price growth described earlier in this article, but also reflects any changes to price deflators.

Overall, the quarterly profile through the years is relatively little changed, with a mean revision of positive 0.03 percentage points.

Table 2: Volume quarterly GDP growth in 2020 to 2023
Volume GDP growth, UK, Quarter 1 (Jan to Mar) 2020 to Quarter 4 (Oct to Dec) 2023

	Blue Book 2025 (%)	Blue Book 2024 (%)	Revision (percentage points)
Q1 2020	-2.7	-2.7	0.0
Q2 2020	-19.9	-20.3	0.4
Q3 2020	17.0	16.8	0.2
Q4 2020	1.4	1.4	0.0
Q1 2021	-1.1	-1.0	-0.1
Q2 2021	7.0	7.3	-0.3
Q3 2021	1.7	1.7	0.0
Q4 2021	1.4	1.5	-0.1
Q1 2022	1.0	0.7	0.3
Q2 2022	0.6	0.3	0.3
Q3 2022	0.1	0.1	0.0
Q4 2022	0.3	0.3	0.0
Q1 2023	0.1	0.1	0.0
Q2 2023	0.0	0.0	0.0
Q3 2023	-0.2	-0.1	-0.1
Q4 2023	-0.3	-0.2	-0.1

Source: UK National Accounts from the Office for National Statistics

Notes

1. Estimates for Blue Book 2025 are based on the latest available information and are subject to revision as firmer data become available.
2. Data labelled "Blue Book 2024" have been taken from the latest GDP first quarterly estimate.

The peak-to-trough of the coronavirus (COVID-19) pandemic is estimated at 22.1% (previously 22.4%).

The level of quarterly GDP in Quarter 4 2023 is now estimated to be 2.2% above its pre-coronavirus level (Quarter 4 2019); this was previously estimated as 1.9% above. There is no change to Quarter 4 2021 being the first quarter during which the UK exceeded its pre-coronavirus level.

GDP per head (or per capita), which divides UK GDP by the total UK population, is one proxy indicator of welfare, rather than production. As the UK population might not be changing at the same rate as GDP, this means that growth in GDP per head can show a different trend to growth in headline GDP. Table 3 shows the revisions to GDP per head as a result of the revisions to GDP only.

Real GDP per head in Quarter 4 (Oct to Dec) 2023 is now estimated to be 1.0% lower compared with pre-coronavirus Quarter 4 2019. This has been revised up from the previously published 1.4% below. GDP per head is subject to revision as we obtain revisions to population data, in particular in the latter years where projections are replaced by mid-year estimates. An [update to UK population estimates is currently planned for September to October](#), which may affect final Blue Book 2025 GDP per head figures for the latter years.

Table 3: Volume quarterly GDP per head growth in 2020 to 2023
Volume GDP per head growth, UK, Quarter 1 (Jan to Mar) 2020 to Quarter 4 (Oct to Dec) 2023

	Blue Book 2025 (%)	Blue Book 2024 (%)	Revision (percentage points)
Q1 2020	-2.8	-2.7	-0.1
Q2 2020	-19.9	-20.4	0.5
Q3 2020	16.9	16.7	0.2
Q4 2020	1.3	1.3	0.0
Q1 2021	-1.2	-1.1	-0.1
Q2 2021	6.9	7.2	-0.3
Q3 2021	1.4	1.4	0.0
Q4 2021	1.1	1.2	-0.1
Q1 2022	0.8	0.5	0.3
Q2 2022	0.3	0.1	0.2
Q3 2022	-0.2	-0.2	0.0
Q4 2022	-0.1	0.0	-0.1
Q1 2023	-0.3	-0.3	0.0
Q2 2023	-0.3	-0.3	0.0
Q3 2023	-0.5	-0.3	-0.2
Q4 2023	-0.6	-0.5	-0.1

Notes

1. Estimates for Blue Book 2025 are based on the latest available information and are subject to revision as firmer data become available.
2. Data labelled “Blue Book 2024” have been taken from the latest GDP first quarterly estimate.

5 . Changes caused by rebasing and deflator revisions

Update of PPIs and SPPIs in the 2025 Annual National Accounts

On 21 March 2025, we announced [a pause to our publication of Producer Price Indices \(PPIs\) and Services Producer Price Indices \(SPPIs\)](#) because of an issue with the method used to chain-link these indices. These indices, and related indices such as Export Price Indices and Import Price Indices, are used to deflate current price economic data and estimate changes in UK volume GDP.

During the 2025 annual UK National Accounts production round, new deflators with the chain-linking issue fixed became available, as announced in our [update article](#). These indices, and related indices such as Export Price Indices and Import Price Indices, are used to deflate current price economic data and estimate changes in UK volume GDP. They will have an impact on producing double deflated estimates of gross value added – that is, removing the price effect for output and intermediate consumption at the industry level – but also on some expenditure components, such as volume estimates of investment and trade.

Some further changes are anticipated to PPIs and SPPIs in the 2026 Annual National Accounts. During investigations, it was determined that the price-updating of index weights also needed to be improved. This second improvement was not available in time for inclusion into the 2025 Annual National Accounts.

Nature of the impact of PPI and SPPI changes on annual GDP estimates

To reach a balanced estimate of GDP in volume terms, we deflate each product and transaction by the best available deflator, and then confront the deflated supply of each product with deflated uses. These will often not reconcile naturally, and so one or more deflators are adjusted to reach a balance. Further details can be found in our article [Double deflation and the supply and use framework in the UK National Accounts](#).

In addition, some transactions that are not affected by the PPI issue (such as household expenditure, which is deflated using components of the Consumer Prices Index) are highly robust and not usually adjusted in the balancing process. As a result, the overall impact of updating PPIs and SPPIs on volume estimates is complex and difficult to isolate.

Assessment of the impact of PPI and SPPI changes and wider impact on the GDP implied deflator

We have made an assessment of the approximate impact of bringing through the revised PPIs and SPPIs. This assessment also includes rebasing effects arising from moving the last base year from 2022 to 2023, which mostly reflect updating the output and expenditure weights for more recent periods in producing volume estimates of GDP.

The impact of these changes on volume growth rates to gross value added by industry group is shown in Table 4. Revisions are relatively small in the period 1998 to 2013, where PPI and SPPI growth rates have not been revised and the changes can be ascribed to rebasing effects. Revisions are also small in the period 2014 to 2019 (though slightly larger in the agriculture and production industries), where PPI and SPPI changes do happen but are relatively small.

Revisions are largest in the period 2020 to 2023, amounting to an average upward revision of 0.01 percentage points at the whole economy level and an average absolute revision of 0.08 percentage points. There is more variation in these revisions at the industry level, with agriculture, production, and professional and support services seeing slight upward revisions and most other service industries seeing slight downward revisions.

In summary, the updates to PPIs and SPPIs (including the impact of rebasing) are estimated to have most impact on whole economy gross value added in 2022 (negative 0.11 percentage points) and 2023 (positive 0.15 percentage points), with the impacts on GDP estimated to be slightly smaller (negative 0.07 percentage points in 2022 and positive 0.11 percentage points in 2023).

In addition to the PPI and SPPI revisions, in Blue Book 2025 there are additional methods improvements as well as the incorporation of recent survey and administrative information that have driven revisions to the GDP implied deflator. The impact of these changes has more than offset the updated PPI and SPPI data described.

Table 4: Analysis of GVA annual growth revisions by industry group and time period because of rebasing and deflator revisions
Percentage points

	Average revision			Average absolute revision		
	1998-2013	2014-2019	2020-2023	1998-2013	2014-2019	2020-2023
Whole economy	-0.01	0.02	0.01	0.02	0.02	0.08
Agriculture	0.10	0.42	0.28	0.15	0.57	0.32
Production	0.13	0.20	0.12	0.14	0.23	0.38
Construction	-0.01	-0.02	-0.07	0.03	0.04	0.13
Distribution, transport, hotels and restaurants	0.02	0.03	-0.14	0.03	0.03	0.17
Information and communication	0.02	0.04	-0.04	0.04	0.06	0.21
Finance and insurance activities	-0.19	-0.06	-0.07	0.19	0.06	0.10
Real estate activities	-0.03	-0.01	-0.04	0.06	0.06	0.12
Professional and business support services	0.02	0.00	0.26	0.04	0.05	0.26
Government, health and education	-0.10	-0.04	0.02	0.10	0.04	0.09
Other services	-0.16	-0.10	-0.11	0.16	0.10	0.11

Source: UK National Accounts from the Office for National Statistics

The annual average growth of the implied deflator between 1998 and 2019 will remain at 2.0%, unchanged from the Blue Book 2024 average. There have been some larger revisions to the average GDP implied deflator from 2020 and 2023, mainly reflecting changes to deflators, education and own account software. See Figure 6 for details.

Compared with the same quarter a year earlier, the quarterly GDP implied deflator is on average unrevised between Quarter 1 (Jan to Mar) 1998 and Quarter 4 (Oct to Dec) 2019. However, some quarters see revisions between negative 0.7 and positive 0.6 percentage points (Figure 8).

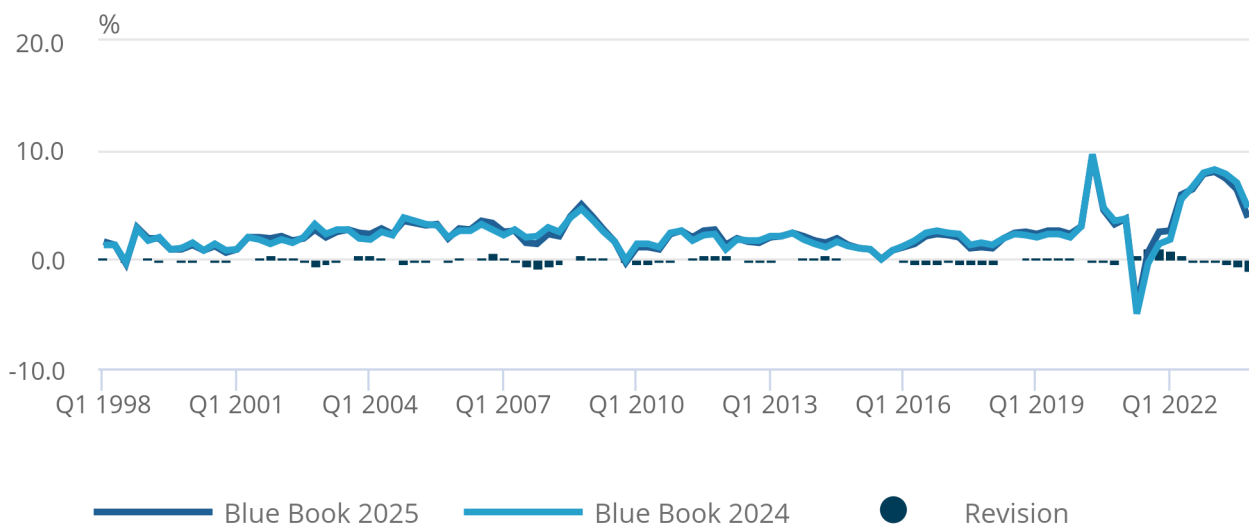
The average revision to the GDP implied deflator compared with the same quarter a year ago is 0.1 percentage points for periods Quarter 1 2020 to Quarter 4 2023.

Figure 8: The GDP implied deflator growth is on average unrevised from 1998 to 2023

GDP implied deflator quarter-on-quarter a year ago growth, UK, Quarter 1 (Jan to Mar) 1998 to Quarter 4 (Oct to Dec) 2023

Figure 8: The GDP implied deflator growth is on average unrevised from 1998 to 2023

GDP implied deflator quarter-on-quarter a year ago growth, UK, Quarter 1 (Jan to Mar) 1998 to Quarter 4 (Oct to Dec) 2023



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Data labelled "Blue Book 2024" have been taken from the latest [GDP first quarterly estimate](#).

6 . Impacts on the production approach to measuring GDP

Overview

The production approach to gross domestic product (GDP) is the sum of gross value added (GVA) across all industries, plus net taxes on production.

Of the overall downward revision to GDP in 2023 of 0.1 percentage points, the services sector makes an overall positive contribution, with the strongest upward contributions coming from human health and social work, and information and communication.

The energy and construction industries make negative contributions in 2023.

Manufacturing sees relatively small revisions in 2023 but larger revisions in 2020 to 2022. GVA in manufacturing in 2020 now shows a small volume fall compared with Blue Book 2024, which showed a modest rise.

The services sector

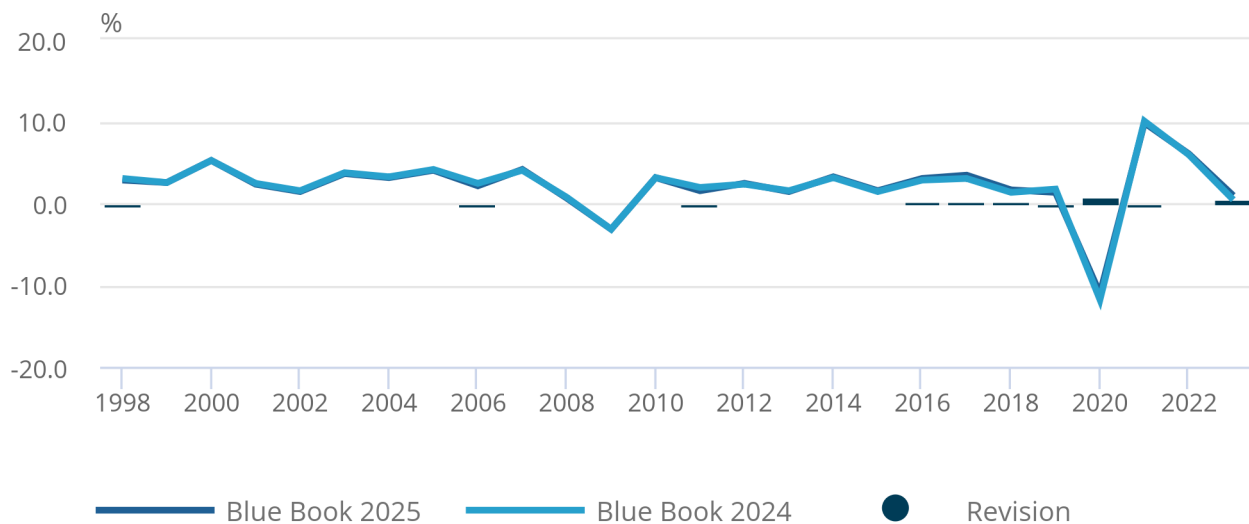
The services sector has consistently contributed over 70% of the UK's GVA since 1998 and currently contributes around 80%. In Blue Book 2025, annual volume growth in services for 2023 is now estimated at 0.9%, revised up by 0.5 percentage points from the previous Blue Book, as shown in Figure 9.

Figure 9: Annual volume estimates of services see higher output in 2022 and 2023

Annual volume growth in services, UK, 1998 to 2023

Figure 9: Annual volume estimates of services see higher output in 2022 and 2023

Annual volume growth in services, UK, 1998 to 2023



Source: UK National Accounts from the Office for National Statistics

The largest contributions to growth in services sector GVA in 2023 were from the human health and social work, and information and communication industries.

In human health and social work, the volume of output is continuing to grow, while intermediate consumption is continuing to fall, having been very high during the coronavirus (COVID-19) pandemic.

In information and communication, annual survey data indicated higher levels of output and value added in 2023 than the short-term surveys, particularly in the computer services industry.

The public administration and defence industry sees slightly higher output growth and less rapid intermediate consumption growth, both of which combine to give higher growth in GVA.

The largest negative contribution to growth in the services sector came from finance and insurance. Annual survey data indicate that intermediate consumption by the industry is rising more quickly than output, which squeezes the value added by these industries.

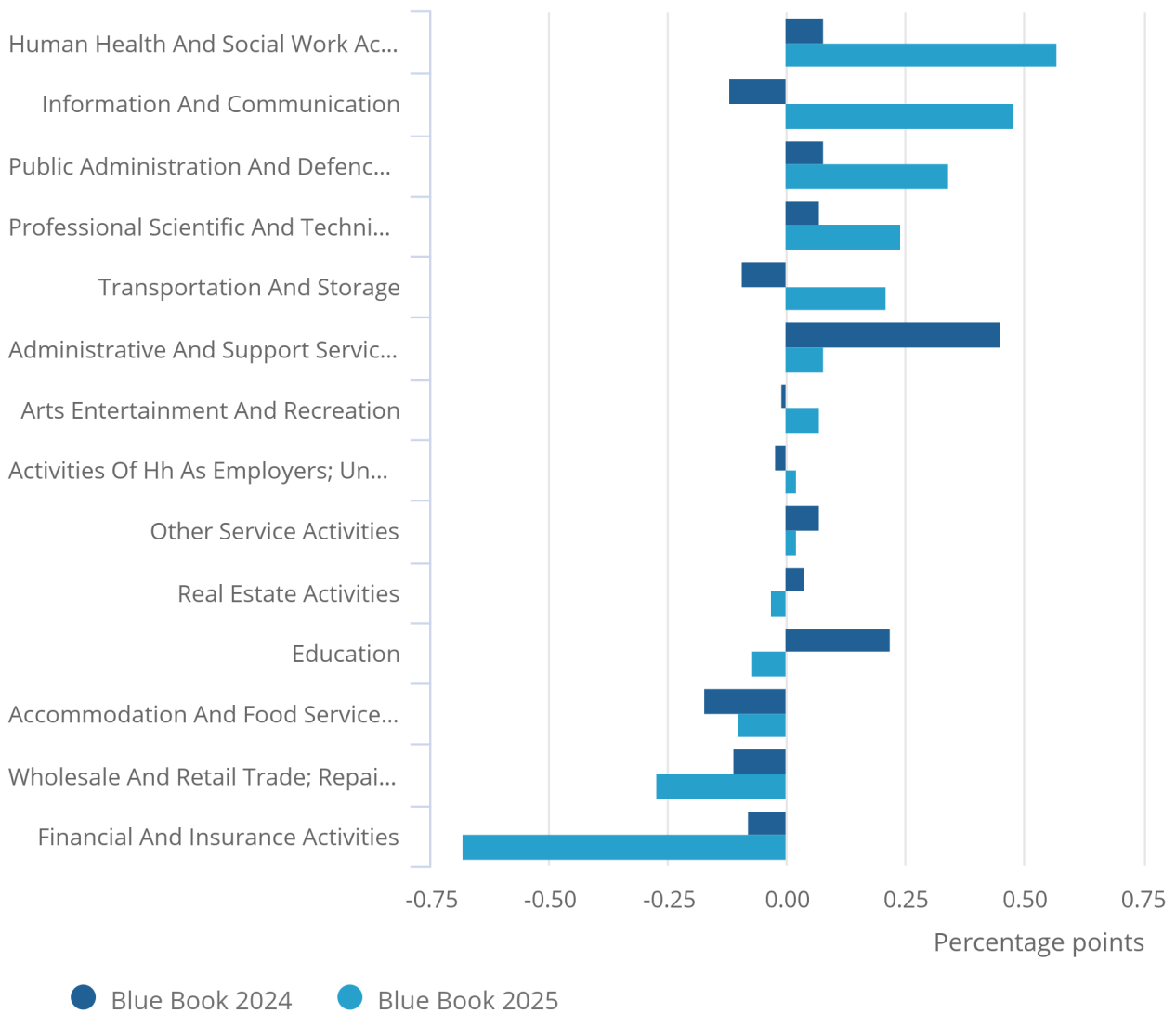
New data for education (in part informed by the updates to output volumes described in [Section 4: Impact of Blue Book 2025 on volume GDP](#).) are only slightly weaker in 2023 than previously published, but the size of the sector is such that the industry makes a substantial negative contribution to services sector growth. The administrative and support services industry group remains a positive contributor to services sector growth overall, but less so than the previously published position. This is mainly because of the other business support services industry (Standard Industrial Classification: SIC 82), where the annual data indicate weaker growth than the short-term estimates had.

Figure 10: Volume GVA growth contributions varied across service industries in 2023

Volume contributions to service sector growth in 2023, UK, Blue Book 2025 compared with Blue Book 2024

Figure 10: Volume GVA growth contributions varied across service industries in 2023

Volume contributions to service sector growth in 2023, UK, Blue Book 2025 compared with Blue Book 2024



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

The agriculture and production sector

The agriculture and production sector has seen the largest revisions to growth in the years 2020 to 2023. This sector comprises agriculture, forestry and fishing; manufacturing; mining and quarrying; electricity, gas, steam and air conditioning supply; and water supply, sewerage waste management and remediation activities.

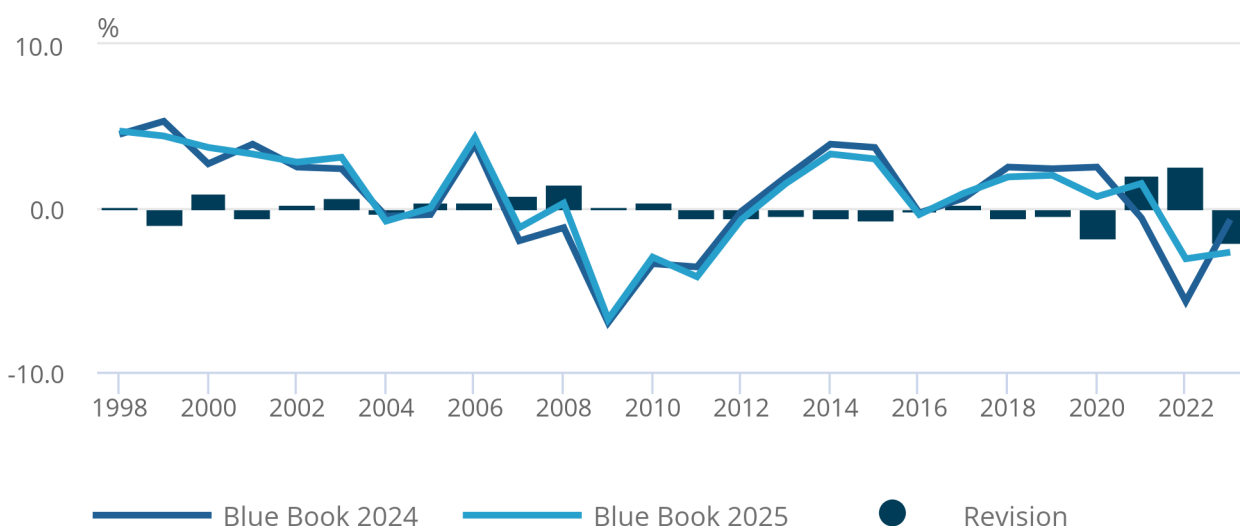
In the last four years, the average revisions to GVA growth for this sector were an increase of 0.2 percentage points. The largest increase was 2.6 percentage points in 2022. Volume GVA growth for agriculture and production in 2023 is now estimated to be 2.0 percentage points lower than previously published, revised downwards from negative 0.7% to negative 2.7%, as shown in Figure 11.

Figure 11: Volume of agriculture and production GVA decreased in 2023 by 2.7%

Annual volume growth of gross value added (GVA) in production and agriculture, UK, 1998 to 2023

Figure 11: Volume of agriculture and production GVA decreased in 2023 by 2.7%

Annual volume growth of gross value added (GVA) in production and agriculture, UK, 1998 to 2023



Source: UK National Accounts from the Office for National Statistics

Revisions across the production sector from 1998 to 2010 reflect methodological improvements, particularly improved reconciliation of the use of crude oil and natural gas by the energy industries. The average revision to GVA growth of the combined production and agriculture sector from 1998 to 2019 was 0.0 percentage points, however, the largest revision to GVA was an increase of 1.5 percentage points in 2008.

The growth rate contribution from manufacturing to agriculture and production in 2023 has been revised up from 0.62 to 1.19 percentage points, as shown in Figure 12. The largest positive contribution comes from the food, beverages and tobacco manufacturing sector, as shown in Figure 13.

Manufacturing GVA growth saw a downward revision in 2020 and upward revisions in 2021 and 2022. The car industry is a contributor to all these revisions. As a consumer of basic metals, the car industry is affected by the improvements made to the [measurement of trade prices](#) of these products using unit value indices. It is also affected by the research and development (R&D) change; car manufacturers are now thought to do less R&D on their own account and this reduces their output and GVA.

Pharmaceutical companies are generally a positive contributor to revisions in this period, particularly in 2020 (where they partly offset the general downward revision to manufacturing) and 2022 (where they contribute towards the overall upward revision). Pharmaceutical manufacturing is revised upwards because of better capturing output that UK-based multinationals control outside the UK; in most years, this increases the industry's contribution to the growth rate as well.

As a result of these changes, growth in manufacturing GVA in 2020 to 2022 sees revisions. Growth in 2020 has been revised from modest growth (positive 2.2%) to a small fall (negative 0.8%). Manufacturing GVA growth in 2021 is revised up by 1.6 percentage points to positive 5.4% in 2021, and up by 4.8 percentage points in 2022 to negative 2.6%.

The contribution of the energy industries to total GVA has been revised down in 2023. The mining and quarrying sector (dominated by crude oil and natural gas extraction) was revised down as the annual data indicated increasing intermediate consumption by the sector, squeezing GVA. There was a similar effect in the energy distribution industries. Annual electricity and gas volumes data in 2023 both indicated a fall in output and hence GVA, although the industry remains volatile, with high input costs and significant subsidies affecting the results.

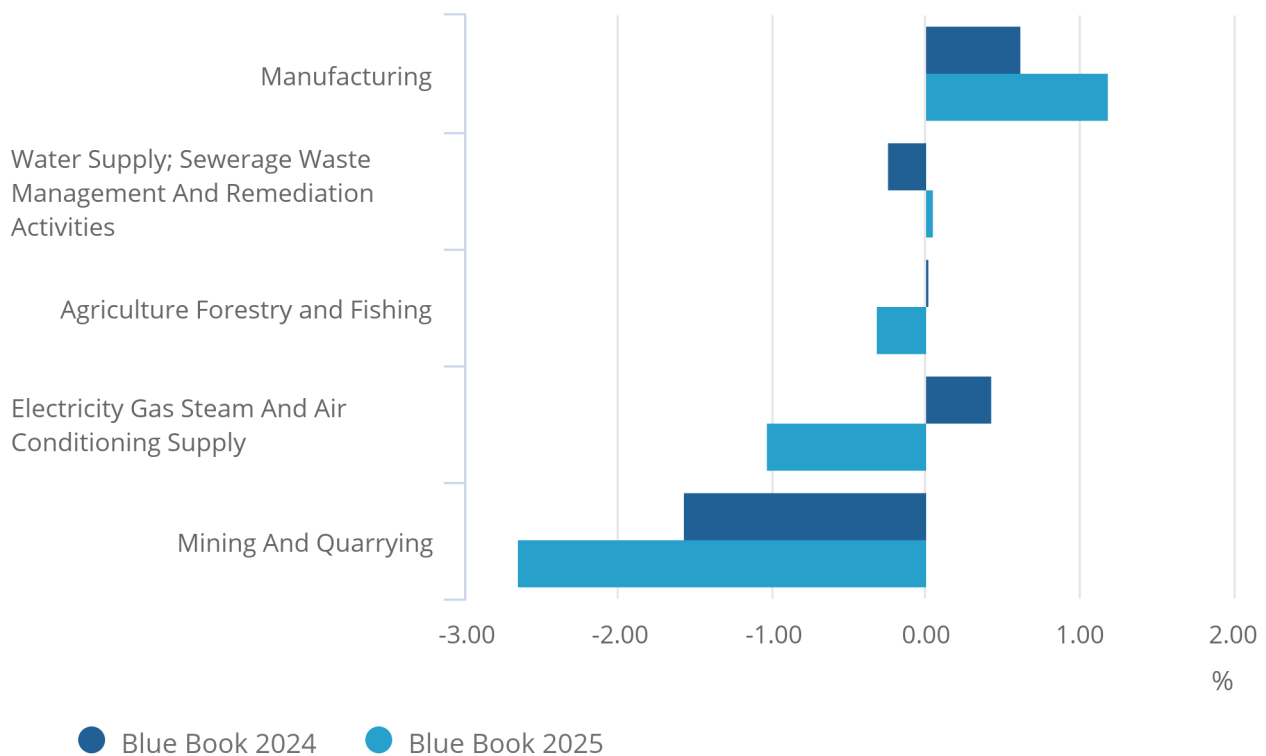
The energy industries have also seen revisions through the data time series. The unit value index method has improved the accuracy of import and export prices of crude oil, natural gas and petroleum products, and changes in inventories of these products were re-evaluated.

Figure 12: Volume GVA growth contributions varied across agriculture and production industries in 2023

Industry contributions to growth in agriculture and production sector gross value added (GVA) in 2023, UK, Blue Book 2025 compared with Blue Book 2024

Figure 12: Volume GVA growth contributions varied across agriculture and production industries in 2023

Industry contributions to growth in agriculture and production sector gross value added (GVA) in 2023, UK, Blue Book 2025 compared with Blue Book 2024



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

In 2022, revised data showed that the volume of agriculture output was particularly high. Food manufacturers were largely responsible for consumption of that additional output, leading to a downward revision in volume value added by those industries in 2022. 2023 saw a reduction in agricultural output, leading to a recovery in food manufacturing GVA, as shown in Figure 13. Manufacturing growth in 2023 is revised up 0.8 percentage points, from 1.0% to 1.8%.

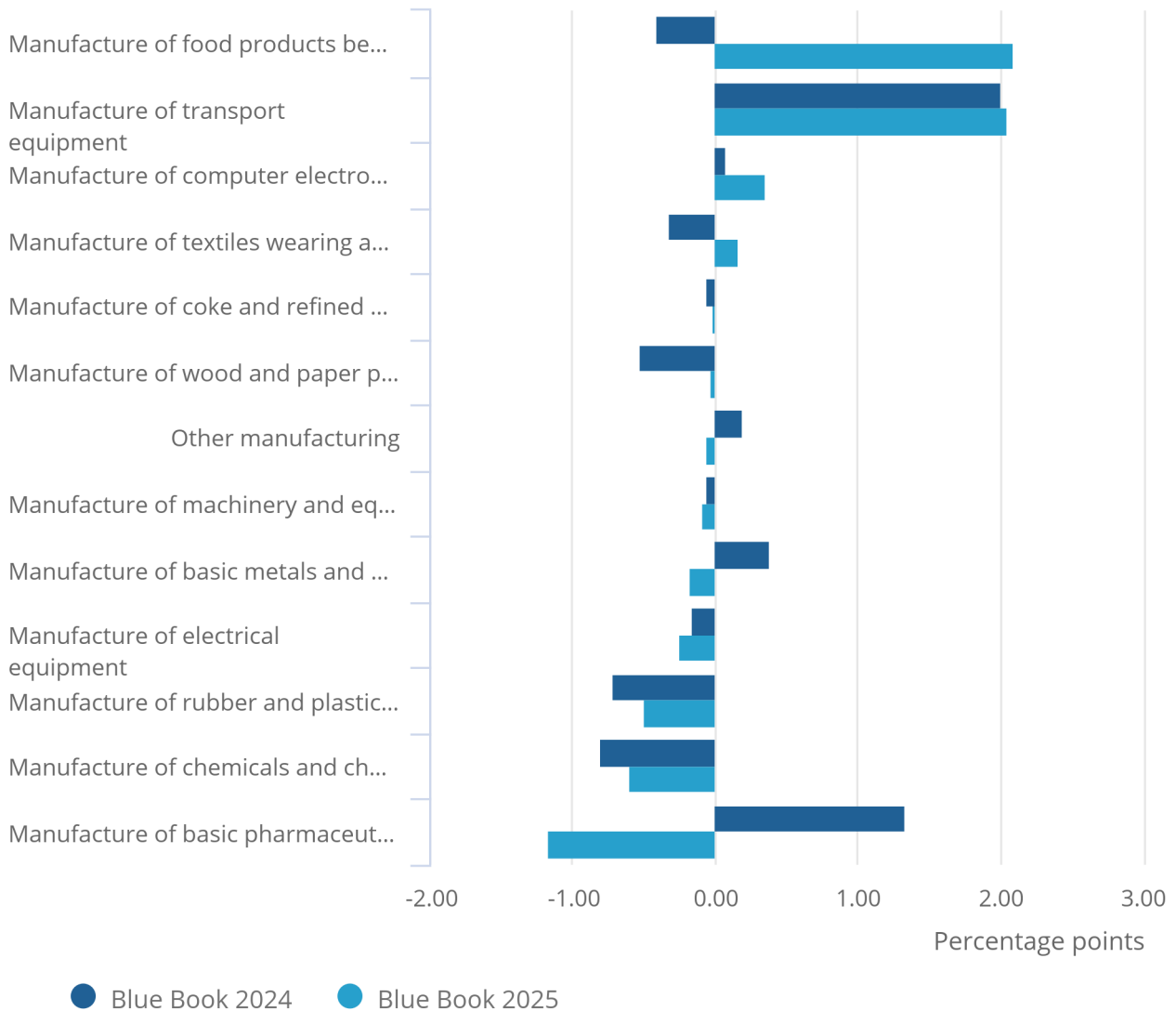
The biggest negative contribution to manufacturing growth in 2023 came from the pharmaceuticals industry, which reflects both a stronger 2022 position and an increase in the volume of intermediate consumption, shown in annual data in 2023.

Figure 13: The food, beverages and tobacco manufacturing subsector was the largest contributor to the upward revision in manufacturing growth in 2023

Components contribution to the revision of annual manufacturing volume growth in 2023, UK, Blue Book 2025 compared with Blue Book 2024

Figure 13: The food, beverages and tobacco manufacturing subsector was the largest contributor to the upward revision in manufacturing growth in 2023

Components contribution to the revision of annual manufacturing volume growth in 2023, UK, Blue Book 2025 compared with Blue Book 2024



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

The construction sector

Revisions to the annual growth rate of GVA by the construction industries are shown in Figure 14. Modest revisions occur throughout the data time series. Improvements to the [repair and maintenance construction deflator](#) had a relatively modest impact on construction growth, with the main driver of historical revisions being improvements to the way changes in inventories are processed in Blue Book 2025.

The revisions in the latest years are modest and reflect somewhat weaker data overall from new and revised survey returns. Construction GVA has historically mirrored economic cycles. In Blue Book 2025, volume GVA for construction in 2023 shows weaker growth compared with 2022, following a revised increase of 0.8% in 2023 (down 1.5 percentage points) and a downward revision in 2022 from 7.3% to 5.9%.

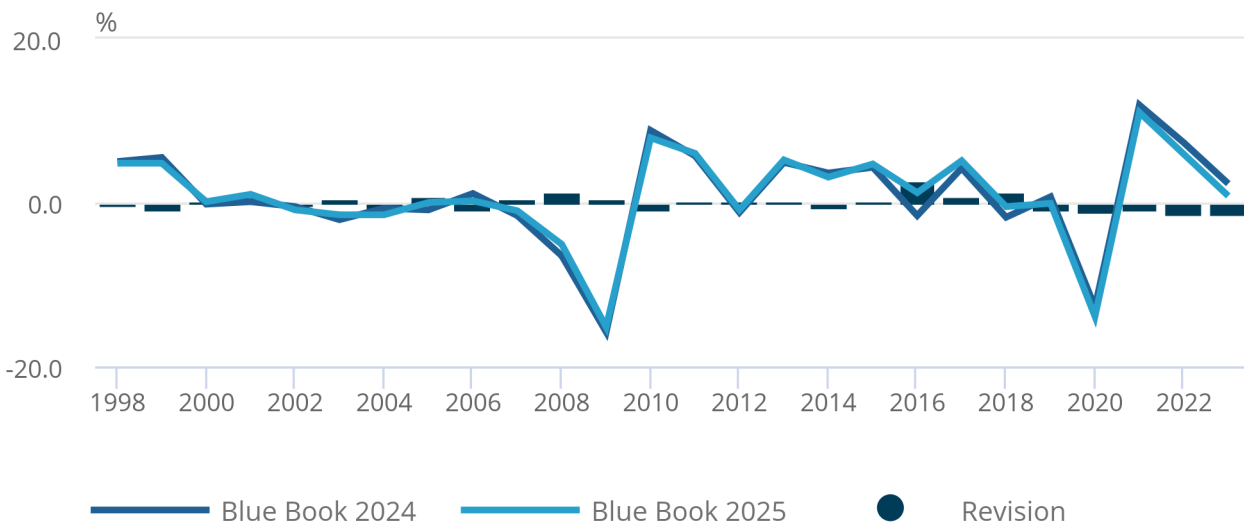
The largest negative contribution to growth in the construction sector in 2023 came from specialised construction activities (negative 3.3 percentage points). This was somewhat offset by an upward contribution of 1.7 percentage points from the construction of buildings industry.

Figure 14: There are modest revisions to the construction sector from 1998 to 2023

Annual volume growth in gross value added (GVA) in construction, UK, 1998 to 2023

Figure 14: There are modest revisions to the construction sector from 1998 to 2023

Annual volume growth in gross value added (GVA) in construction, UK, 1998 to 2023



Source: UK National Accounts from the Office for National Statistics

Measuring GVA and the importance of intermediate consumption

One of the main advantages of the annual approach over short-term estimates is that we can measure industry GVA more precisely, using data from structural annual data surveys and other sources. As we explained in [last year's advanced aggregate estimates article](#), one source of revisions between quarterly and annual estimates is the degree to which the volume of goods and services used as inputs – intermediate consumption – has varied since the previous year. This can be tracked by looking at changes in the ratio of intermediate consumption to output.

The ratio of intermediate consumption to output was 0.482 in 2023, compared with 0.487 in 2022. Changes in this ratio at an industry level were broadly in line with the previous year, which in turn were lower than during the coronavirus (COVID-19) pandemic and recovery. In some industries, intermediate consumption changes are a driver of revisions; this has been noted in the commentary for those industries.

7 . Impacts on the expenditure approach to measuring GDP

The expenditure approach is the sum of all final expenditures within the economy, that is, all expenditure on goods and services that are not used up or transformed in the production process. The expenditure method of calculating gross domestic product (GDP) sums household consumption, spending by government and the not-for-profit sector, investment and net exports.

The expenditure approach to GDP benefits from significant additional data sources not available when the quarterly estimates are compiled. These include:

- benchmark data for many products purchased by households, including the Annual Business Survey (ABS) covering retail sales of many goods
- benchmark data for GFCF and changes in inventories, also from the ABS
- results from the Annual International Trade in Services (ITIS) Survey
- data for non-profit institutions serving households, including from the Higher Education Statistics Agency (HESA) and the National Council for Voluntary Organisations (NCVO)
- more detailed benchmark data on the volume of government output, for example, covering public sector health services

The contributions to volume GDP revision by expenditure component in 2023 are shown in Figure 15. Throughout most of the data time series (1997 to 2019), revisions are relatively modest in both directions.

We redeveloped our system for measuring change in inventories as part of the annual UK National Accounts 2025. In most years, the impact this had on GDP was modest (contained within "other" in Figure 15). The system redevelopment also updated the way the chained volume measure for changes in inventories is formed. These changes are more substantial than the impact on overall GDP, however, they now ensure a more coherent relationship in current price and previous years' prices.

Revisions are somewhat larger in 2020 and 2021. Government spending was revised up in 2020 and down in 2021, with a large contribution coming from the updated measure of education output. In 2021, this fall is offset by an increase in the contribution from GFCF, where improved estimates of own account software development led to higher growth this year.

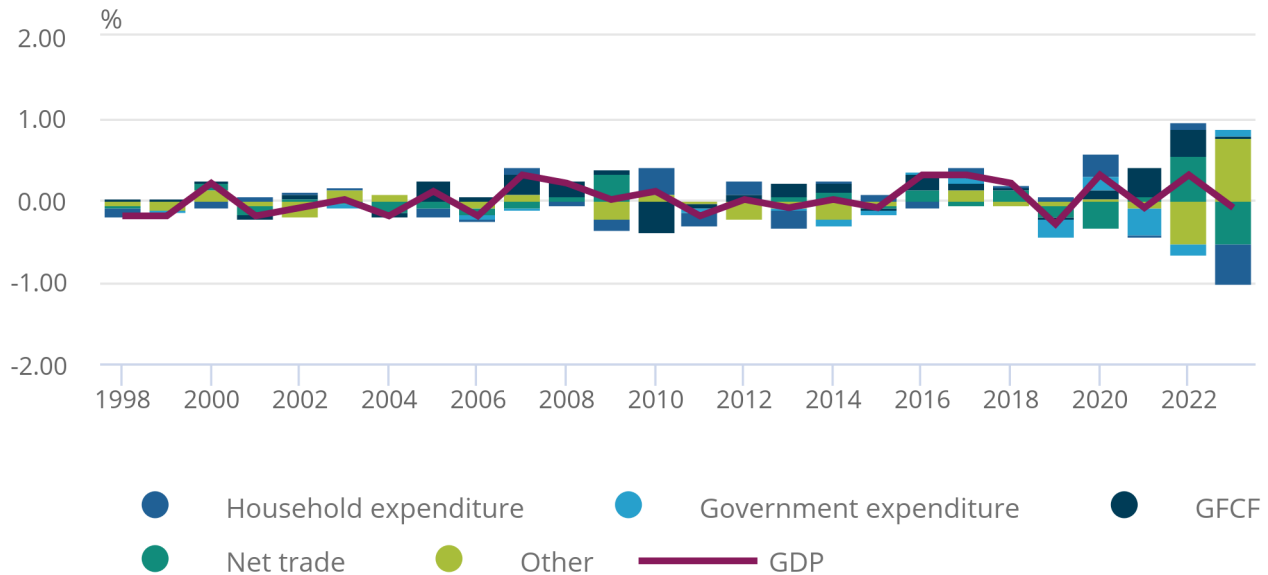
The individual impacts are larger in 2022 and 2023 but continue to broadly offset each other. Increases in GFCF and net trade more than offset a fall in change in inventories (contained within the "other" category) in 2022, with the lower contribution from inventories caused by late and revised survey data. In 2023, a similar effect operates in reverse, where the contribution to growth from inventories is revised up (again because of the 2022 survey revision) but offset by lower contributions to growth from net trade and households.

Figure 15: Revisions in 2023 were mainly driven by household consumption and net trade

Expenditure chained volume revisions to contributions to growth in 1998 to 2023, UK, Blue Book 2025 compared with Blue Book 2024

Figure 15: Revisions in 2023 were mainly driven by household consumption and net trade

Expenditure chained volume revisions to contributions to growth in 1998 to 2023, UK, Blue Book 2025 compared with Blue Book 2024



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.
2. "Other" includes final expenditure by not-for-profit enterprises, change in inventories, valuables and (in 2023 only) the resolution of the statistical discrepancy present in the quarterly expenditure GDP estimate.

Import Price Indices (IPIs) and Export Price Indices (EPIs) have been corrected as part of the same programme of work as Producer Price Indices (PPIs) and Services Producer Price Indices (SPPIs), which in turn affected our volume estimates of imports and exports. Tables 5 and 6 give the mean and mean absolute revisions to imports and exports, respectively, caused by new deflators (as well as impacts from rebasing, as discussed in [Section 5: Changes caused by rebasing and deflator revisions](#) of this article).

Table 5: Analysis of imports growth revisions by product group and time period because of rebasing and IPI deflator revisions
Percentage points

	Average revision			Average absolute revision		
	1998-2013	2014-2019	2020-2023	1998-2013	2014-2019	2020-2023
All imports	0.02	-0.04	-0.02	0.02	0.04	0.03
Agriculture	0.05	-1.12	0.16	0.05	1.4	0.63
Production	0.02	-0.03	-0.04	0.02	0.04	0.04
Construction	0.06	0.09	0.09	0.57	0.21	0.11
Distribution, transport, hotels and restaurants	0.02	0.02	-0.13	0.02	0.03	0.25
Information and communication	0.07	0.04	0.07	0.07	0.04	0.08
Finance and insurance activities	-0.13	0.01	0.01	0.18	0.02	0.01
Real estate activities	0.03	0.02	0.05	0.17	0.17	0.05
Professional and business support services	0.02	-0.02	0.21	0.02	0.05	0.23
Government, health and education	0.01	0.02	0.02	0.04	0.03	0.05
Other services	0.16	-0.02	-0.16	0.16	0.26	0.23

Source: UK National Accounts from the Office for National Statistics

The net revision to total imports attributable to IPIs and rebasing is small. The largest revisions, in terms of the impact on the percentage growth rate, are on agriculture imports, although this is a relatively small product group.

Outside of agriculture and other services (another product group with low imports), the largest revisions were to the distribution, transport, hotels and restaurants product group (on average revised down in 2020 to 2023) and professional and business support services (on average revised up in 2020 to 2023). The production industries see a relatively small average revision to growth; revisions are larger at the more detailed product level but tend to even out across the broader product group.

Table 6: Analysis of exports growth revisions by product group and time period because of rebasing and EPI deflator revisions
Percentage points

	Average revision			Average absolute revision		
	1998-2013	2014-2019	2020-2023	1998-2013	2014-2019	2020-2023
All exports	0.00	0.00	0.04	0.04	0.02	0.06
Agriculture	0.14	-0.46	-0.93	0.15	0.68	1.17
Production	0.03	0.01	0.05	0.03	0.04	0.05
Construction	0.30	0.03	0.10	0.38	0.04	0.18
Distribution, transport, hotels and restaurants	0.02	0.01	-0.46	0.03	0.08	0.49
Information and communication	0.05	0.04	0.09	0.05	0.05	0.15
Finance and insurance activities	-0.22	0.00	0.00	0.24	0.01	0.01
Real estate activities	0.13	0.09	0.07	0.13	0.11	0.07
Professional and business support services	0.02	-0.02	0.18	0.02	0.05	0.24
Government, health and education	0.01	0.01	0.01	0.05	0.03	0.02
Other services	0.18	-0.04	-0.18	0.18	0.25	0.26

Source: UK National Accounts from the Office for National Statistics

The pattern of revisions to exports growth rates is similar to imports. The overall impact is small but slightly positive in 2023 (on average positive 0.04 percentage points a year). Agriculture again sees the largest revisions to growth rate, but volumes of agriculture exports are relatively small. Distribution, transport, hotels and restaurants exports are revised down in 2020 to 2023, and professional and business support services exports are revised up. Again, the impact on exports of the production industries is modest.

8 . Impacts on the income approach to measuring GDP

The income approach adds up all income generated by production in the form of gross operating surplus (GOS) (profits), compensation of employees (CoE) (income from employment), mixed income (self-employment income) and taxes on products and production less subsidies for the whole economy. The income approach is used to estimate current price gross domestic product (GDP); it is not used for volume estimates.

As with the other approaches to GDP, the income approach also benefits from additional annual data that only become available some time after the time period being measured. The source of much of this additional data is tax data provided by HM Revenue and Customs. This includes employee compensation data from the Pay As You Earn system, mixed income data from Self-Assessment tax returns, and profits data informing GOS from Corporation Tax returns.

Self-Assessment and Corporation Tax data are available one year later than other sources, meaning that 2021 includes actual data, while forecasts of mixed income and GOS for 2022 are updated based on the data received before going through the supply and use balancing process.

In the years 1998 to 2022, revisions to income GDP growth are primarily driven by the GOS and mixed income component (Figure 16). Most source and method changes mainly affect GOS in the income approach to GDP, and 2022 is revised upwards because of profits data from Corporation Tax returns being higher than forecast.

In 2023, lower annual data on CoE is the main cause of the downward revision to GDP growth. This is somewhat offset by the statistical discrepancy from the quarterly GDP estimates being resolved once the annual data become available. More information is provided in [Section 11: More information on how we bring together the three approaches to measuring GDP in 2023](#).

Figure 16: Downward revisions in 2023 current price GDP are mainly because of weaker data on compensation of employees

Income current price revisions to contributions to growth in 1998 to 2023, UK, Blue Book 2025 compared with Blue Book 2024

Figure 16: Downward revisions in 2023 current price GDP are mainly because of weaker data on compensation of employees

Income current price revisions to contributions to growth in 1998 to 2023, UK, Blue Book 2025 compared with Blue Book 2024



Source: UK National Accounts from the Office for National Statistics

Notes:

1. Component contributions do not sum to total because of rounding.

9 . Impact on labour productivity

The Blue Book 2025 includes minor revisions in output per hour, our headline measure of productivity, and output per worker.

Output per hour annual growth is now estimated to have fallen by 0.39% in 2023, revised up from the previous estimated fall of 0.42%, shown in Figure 17. This is as published in the [output per hour dataset](#) as part of our [Productivity flash estimate and overview, UK: April to June 2025 and January to March 2025](#).

Annual output per worker growth is now estimated to have fallen by 0.80% in 2023, revised up from our [published estimate fall of 0.83%](#).

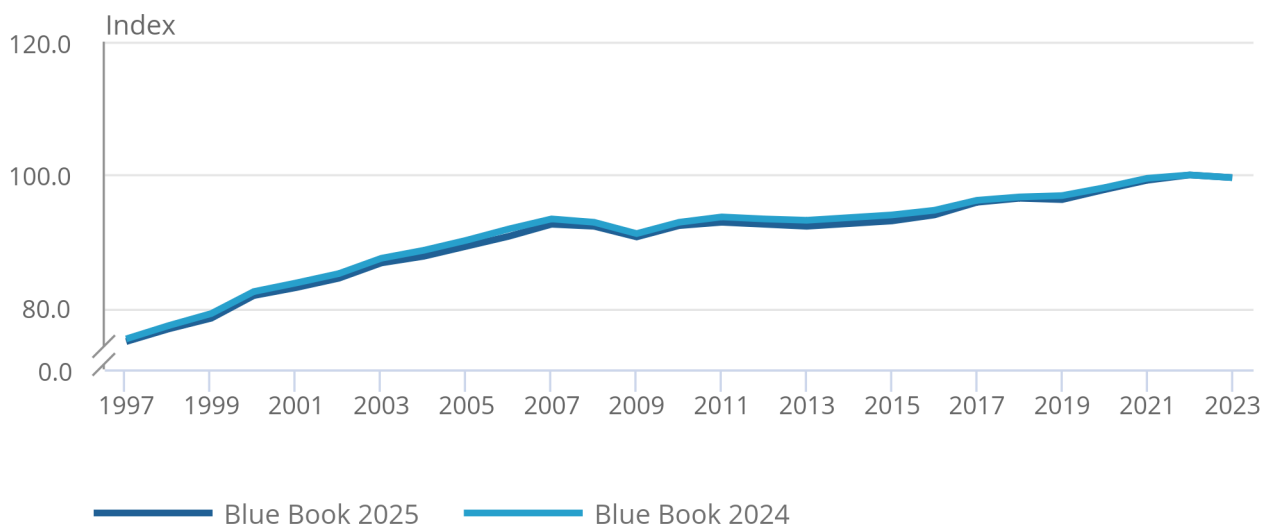
The updated Blue Book 2025 changes will be fully reflected in the November 2025 publication of our Productivity flash estimate and overview.

Figure 17: There have been minor revisions to output per hour worked from 1997 to 2023

Output per hour worked, UK, 1997 to 2023

Figure 17: There have been minor revisions to output per hour worked from 1997 to 2023

Output per hour worked, UK, 1997 to 2023



Source: UK productivity from the Office for National Statistics

10 . Next steps

Publication and addition of 2024 to 2025 data

The 2025 annual UK National Accounts, also known as Blue Book 2025, will incorporate a number of methodological changes, along with the addition of more recent survey, administrative information, and the correction to Producer Price Indices (PPI) and Services Producer Price Indices (SPPI) data. We have now estimated 2023 data for the first time using the supply and use tables (SUTs) framework, as well as improved the estimates of 2021 with the latest data. Additionally, we have updated the base year to 2023.

The next Quarterly national accounts release on 30 September 2025 will incorporate these revisions into our official estimates in line with our [National Accounts Revisions Policy](#). This will incorporate the Blue Book 2025 methodological changes, improved source data and additional updated data as would happen in all quarterly national accounts releases. We will take on further data updates to expenditure and income components across 2024 and 2025 quarters to form the average gross domestic product (GDP) estimates.

Within our output measure of GDP, we will also bring in new Value Added Tax (VAT) turnover data for Quarter 4 (Oct to Dec) 2024 and Quarter 1 (Jan to Mar) 2025, any updated source data received since our previous publication, and complete a full seasonal adjustment review, which could cause revisions to growth in these quarters when we publish the Blue Book 2025-consistent dataset.

Data timeliness and impact on our estimates

Our annual estimates of GDP benefit from a wider range of data sources and the data confrontation involved in supply and use balancing. However, revisions to these data can and do happen, for the following reasons:

- in the latest supply-use year (2023), some data sources are still not yet available for us to use; these include tax data informing the gross operating surplus and mixed income transactions, the activities of some non-profit institutions serving households, and more detailed government benchmark data informing public sector output of products such as human health services
- responses to the major structural surveys such as the Annual Business Survey (ABS) are still being received and queried; 2023 data are likely to contain some revisions when the 2026 annual estimates are compiled next year
- new and updated data also has an indirect effect through supply and use balancing; a revision to one transaction leads to a reassessment of the relevant product and industry balances, and may lead to the best estimate of other transactions changing to accommodate the new data
- For these reasons, the latest balanced year (2023) is likely to see at least some revision when we publish the 2026 annual UK National Accounts. The year before (for example, 2022 in this context) tends to see smaller revisions as it has now been through this supply-use process twice, and almost all of the main data sources have been received.

In addition, our ongoing programme of continuous improvement work to the UK National Accounts leads to revisions throughout the data time series, not just in the latest three years. The work programme for 2026 will be published in due course, and we will communicate the outcomes of these improvements during 2026.

Our article [GDP revisions in Blue Book: 2024](#) published last year analyses the revisions performance of GDP in more detail, and [revisions for 2025](#) will be updated on 31 October 2025.

Consideration of the impact of the ABS processing error on 2023 data

On 25 June 2025, the Office for National Statistics (ONS) announced a processing error affecting the 2023 annual data from the ABS ABS ([Non-financial business economy, UK \(Annual Business Survey\): 2023 results](#)). This error had no impact on the previously published GDP estimates, which were driven by other data sources.

In supply and use balancing, the production data from the ABS is confronted with other data sources to produce a consistent estimate of annual GDP growth. The 2023 balanced estimate of GDP is therefore underpinned by many data sources, of which the ABS is only one. Because of this confrontation process, we judge that the impact of the processing error on the whole economy estimate of GDP in 2023 to be minimal. The corrected and latest ABS results will form part of our usual update covering new and revised data in the 2026 annual UK National Accounts.

11 . More information on how we bring together the three approaches to measuring GDP in 2023

In the [national accounts](#), gross domestic product (GDP) is measured by the production, income and expenditure approaches, where these are balanced to produce one coherent estimate of GDP.

In the UK, we use the [supply and use tables \(SUTs\) framework](#) as the basis for producing annual estimates of GDP. We use comprehensive information to fully reconcile how the economy performs across 112 industries and products. The SUTs reconciliation is first completed around 18 to 24 months after the reference period.

For those periods that have not yet been through the supply and use process, we use a [transparent framework](#) to manage this balancing process at an aggregate level, whereby we apply adjustments to GDP components. These adjustments reflect the relative strengths and weaknesses of the components and the information available at that time.

Each quarter, we publish the latest estimates for the economy within our [GDP quarterly estimate publication](#). Currently this means that:

- only data up to the last supply and use balanced year (2022) have been fully reconciled using the annual SUTs framework, covering up to the end of 2022
- data from Quarter 1 (Jan to Mar) 2023 to Quarter 2 (Apr to June) 2024 are balanced from all three approaches to produce an average – that is, the headline GDP figure reflected the average growth rates of the output (a variant of the production approach), income and expenditure measures
- data for Quarter 3 (July to Sept) 2024 onwards are led by the output approach with expenditure and income balanced to produce headline GDP – the headline GDP figure reflects the output growth rate, to which income and expenditure are balanced

As explained in our [most recent GDP release](#), because of different data content and quality of the three approaches for 2023 at that stage in the production cycle, growth was estimated to be in a range of 0.3% to 0.5%.

The differences in these approaches may be for various reasons. The three approaches rarely reconcile completely in the quarterly estimates – we are not able to measure all concepts precisely in the short term, and statistical surveys always have a degree of variability associated with them. The differences in the annual levels of the three measures of GDP is called the statistical discrepancy, and its purpose is to ensure that each approach to measuring GDP equals the average on an annual basis.

This statistical discrepancy will exist in the years following the last supply-use balance. When the data are confronted through the SUTs framework, the statistical discrepancy will be removed as all three measures will now be equal.

The prevailing economic circumstances in 2023 – a period of higher inflation – increase the scope for different approaches to GDP giving different results.

As part of Blue Book 2025, we now have brought together the three approaches to measuring GDP in 2023 for the first time using the SUTs framework such that, in the September 2025 quarterly national accounts:

- data up to the last supply and use balanced year (2023) will now be reconciled using the annual SUTs framework – so there is now one single estimate for all periods that have been fully balanced, which covers up to the end of 2023
- data from Quarter 1 (Jan to Mar) 2024 to Quarter 4 (Oct to Dec) 2024 will be balanced from all three approaches to produce an average – that is, the headline GDP figure reflects the average growth rates of the output, income and expenditure approaches
- data for Quarter 1 2025 onwards will be led by the output approach, with expenditure and income balanced to produce headline GDP – the headline GDP figure reflects the output growth rate, to which income and expenditure are balanced

The GDP quarterly and monthly path will also be revised to ensure alignment to the new annual levels.

12 . Glossary

13 . Related links

[Impact of double deflation on industry chain volume measure annual estimates 1997 to 2018: Blue Book 2021](#)

Article | Released 28 June 2021

Indicative impacts of a new framework which will be implemented in Blue Book 2021, including the first official estimates of double-deflated gross domestic product.

[Chain-linking in the UK National Accounts: Blue Book 2022](#)

Article | Released 20 June 2022

An explanation of the impacts the coronavirus (COVID-19) pandemic has had on the output and expenditure structures of the UK economy over this period. These affect how we compile volume estimates of gross domestic product (GDP) through chain-linking. Includes proposed changes we will be making to Blue Book 2022 in response to these impacts.

[Blue Book 2025: globalisation](#)

Article | Released 19 August 2025

Outline of the impact of the globalisation pharmaceutical industry review on the 2025 UK annual National Accounts.

[Blue Book and Pink Book 2025: UK trade impact estimates](#)

Article | Released 19 August 2025

Impact of methods changes to Blue Book and Pink Book on UK trade estimates, measured by comparing with estimates in the latest quarterly national accounts.

14 . Cite this article

Office for National Statistics (ONS), released 19 August 2025, ONS website, article, [Blue Book 2025: advanced aggregate estimates](#)