

Article

GDP revisions in Blue Book: 2025

Gross domestic product (GDP) revisions in annual and quarterly national accounts rounds, focusing on revisions in Blue Book 2025.

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1 . Main points

- We maintain a transparent approach in showing revisions to UK gross domestic product (GDP) estimates by publishing real-time estimates of GDP, alongside our data vintages, and by providing a timely assessment of these revisions.
- The mean absolute revision (MAR) to quarterly GDP from Quarter 1 (Jan to Mar) 2020 to Quarter 2 (Apr to June) 2025 in Blue Book 2025 was slightly larger than in recent Blue Books, at 0.66 percentage points, but this includes the whole coronavirus (COVID-19) pandemic period for the first time.
- However, the relative mean absolute revision (RMAR), which takes into account the revision to GDP in relation to the size of the initial estimate of growth, shows that the latest periods do not differ much from the pattern seen over the past three decades.
- As we first identified last year, there is some evidence that revisions are marginally statistically significant when looking at the final quarterly estimate of GDP across the entire time span from Quarter 2 1961 to Quarter 4 (Oct to Dec) 2024, compared with first estimates.
- The period from Quarter 1 2020 to Quarter 4 2024, during and after the pandemic period, does not show statistically significant revisions at either 3 months later or 36 months later, but initial revisions have been larger through the pandemic period.
- Over the entire available time span of the household saving ratio, from Quarter 2 2017 to the latest period, the average revisions have been unbiased.
- We introduce a first look at monthly GDP revisions and will build on this in future articles.
- This article also provides an update to the work we are undertaking around communicating GDP in response to the Office for Statistics Regulation (OSR) report on [Revisions of estimates of UK gross domestic product \(GDP\)](#).

2 . Overview of GDP revisions

There is a trade-off between the timeliness and accuracy of estimates of gross domestic product (GDP). As additional information becomes available, we have a more complete picture of economic activity in that period. This compilation cycle can take up to three years and naturally leads to revisions in our estimates of GDP. Our article on [Why GDP figures are revised](#) gives more details.

We also introduce major methodological improvements during the annual Blue Book process to ensure that changes are implemented in a consistent and co-ordinated way.

We can analyse revisions to our GDP estimates using three internationally recognised approaches, as outlined in the Organisation for Economic Co-operation and Development's (OECD's) [Revisions in quarterly GDP of OECD and key partner countries update \(PDF, 5.2MB\)](#).

These are:

- the mean absolute revision (MAR), which measures the absolute size of revisions so that upward revisions are not offset by downward revisions of the same magnitude
- the relative mean absolute revision (RMAR), which incorporates the size of the initial estimate in relation to the revision, as a large revision on a very large initial growth rate can have less of an impact than a large revision to a very small initial growth rate
- the mean revision (MR), which shows whether there is a systematic tendency for initial estimates to be revised upwards or downwards – the MRs for quarterly GDP can be seen in Table 1

This article analyses the revisions to our quarterly GDP estimates that were published in our [Blue Book 2025 publication in October 2025](#).

3 . Revisions in Blue Book 2025

Figure 1 shows the revisions to estimates of the quarterly change in real gross domestic product (GDP) as part of implementing our annual national accounts.

Blue Books 2021 and 2022 saw higher revisions during the coronavirus (COVID-19) pandemic period of 2020 and 2021, reflecting the expected higher levels of data uncertainty.

Blue Book 2024 saw very little revision to 2020 and 2021, with larger revisions in the 2022 pandemic recovery period.

Blue Book 2025 sees revisions across the time periods for the new data and methods to estimate research and development, and the implementation of the next phase of the globalisation work to improve estimates of multinational business. Blue Book 2025 also incorporated unplanned revisions because of the correction of [Producer Prices Indices and Services Producer Prices Indices](#) data, and the correction to the [Annual Business Survey dataset](#). These corrections will be part of the overall revisions package but are not separately identified in this article. The mean absolute revision (MAR) for Blue Book 2025, while lower than the long-term average at 0.08 percentage points, is in line with the average seen over the last 10 years.

Figure 1: Revisions to quarterly volume GDP in Blue Book 2025 were in line with recent historical revisions

Mean absolute revision to quarterly volume GDP, UK, Blue Book 2004 to Blue Book 2025

Figure 1: Revisions to quarterly volume GDP in Blue Book 2025 were in line with recent historical revisions

Mean absolute revision to quarterly volume GDP, UK, Blue Book 2004 to Blue Book 2025



Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

Notes:

1. The revisions in each Blue Book relate to the period from Quarter 1 (Jan to Mar) 1997 to the latest quarter available in that publication. For example, the Blue Book 2025 revisions reflect those between the August 2025 and September 2025 vintages of quarterly estimates of volume GDP – this includes up to Quarter 2 (Apr to June) 2025.
2. The x-axis refers to that Blue Book publication, reflecting the mean absolute revision (MAR) to quarterly volume estimates of GDP from Quarter 1 1997 onwards. Blue Book 2024 was an exception as there was not a fully open revisions period as part of this update of the UK National Accounts. The MAR only covers the period from Quarter 1 2020 to Quarter 2 2024.

We can use our first estimate of quarterly GDP to compare with one that is published months later. Our focus is on those estimates published 3 months and 36 months after the first estimate of quarterly GDP, reflecting the three-year production cycle of UK GDP.

Table 1 shows there is a zero-mean revision (MR) at t plus 3 months over the period Quarter 2 (Apr to June) 1961 to Quarter 1 (Jan to Mar) 2025, implying that there is no tendency for the first estimate to be revised up or down. However, the size of revisions has not been constant over time; revisions have tended to be larger in earlier periods and around turning points in the economy, where uncertainty is likely to be more pronounced.

Table 1 shows that the MR is a little higher when comparing the first published quarterly estimate with the estimate published three years later. This analysis continues to show that while initial revisions (t plus 3 months) are not [statistically significant](#), those revisions that tend to reflect the SUTs balancing process (t plus 36 months) are marginally statistically significant over the full span.

Table 1: Revision analysis differs over time when selected time spans are considered
Revision information and t-test for statistical significance for quarterly GDP growth, UK, Quarter 2 (Apr to June)
1961 to Quarter 1 (Jan to Mar) 2025

| Timespan | T plus 3 | | | | T plus 36 | | | |
|-----------------------------------|--------------------|-----------------------------|------------------|----------------------------|--------------------|-----------------------------|------------------|----------------------------|
| | Mean revision (pp) | Mean absolute revision (pp) | T score [Note 3] | Statistically significant? | Mean revision (pp) | Mean absolute revision (pp) | T score [Note 3] | Statistically significant? |
| Q2 1961 to latest [Notes 1 and 2] | 0.0 | 0.2 | 1.9 | No | 0.1 | 0.5 | 2.6 | Yes |
| Q2 1961 to Q4 1969 [Note 1] | | | | | 0.1 | 0.8 | 0.4 | No |
| Q1 1970 to Q4 1979 [Note 1] | | | | | 0.3 | 1.0 | 1.3 | No |
| Q1 1980 to Q4 1989 | 0.1 | 0.3 | 1.6 | No | 0.2 | 0.7 | 1.4 | No |
| Q1 1990 to Q4 1999 | 0.0 | 0.1 | 0.4 | No | 0.1 | 0.2 | 2.6 | Yes |
| Q1 2000 to Q4 2009 | 0.0 | 0.1 | 0.2 | No | 0.0 | 0.3 | 0.0 | No |
| Q1 2010 to Q4 2019 | 0.0 | 0.1 | 1.6 | No | 0.1 | 0.2 | 1.8 | No |
| Q1 2020 to latest [Note 2] | 0.1 | 0.2 | 1.8 | No | 0.4 | 0.7 | 1.8 | No |

Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

Notes

1. Because of the GDP compilation process used at the time t plus 3 months has no revisions pre-1980.
2. The latest data point is the period ending Quarter 1 (Jan to Mar) 2025 for t plus 3 months analysis and Quarter 4 (Oct to Dec) 2022 for the t plus 36 months data.
3. Two tailed standard significance test at 95% confidence interval.
4. We do not have a t plus 36 months estimate yet for Quarter 3 (July to Sept) 2022 and Quarter 4 2022. However, our revisions policy is such that these current estimates will not be revised before we get to the t plus 36 months stage, so this has been inferred for these purposes. These data have gone through two supply and use tables balancing processes, which is the basis of the "final" estimate being chosen.
5. The significance test for the period from Quarter 1 2020 to Quarter 4 2022 may not contain sufficient data points to be reliable at this stage.

The quality of early quarterly estimates has improved substantially over time (Figure 2). There have been improvements to the measurement of GDP, with improved data coverage from both surveys and administrative data sources, although the challenges of measurement during the pandemic period has proven to be an exception.

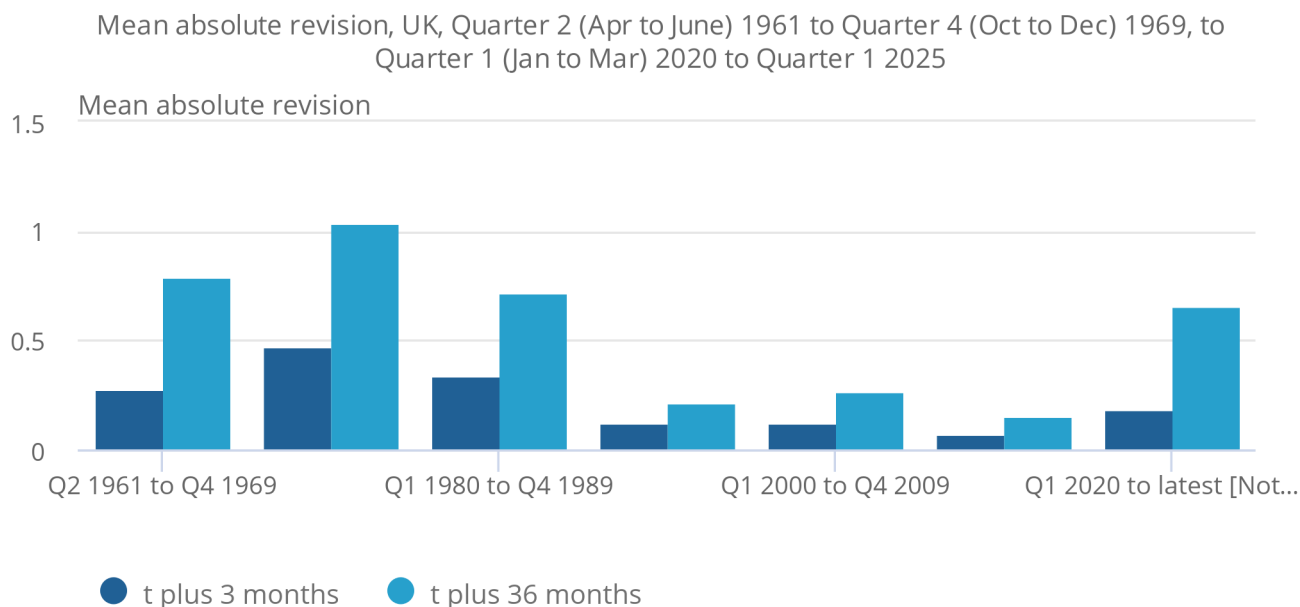
Figure 2 shows that the MAR is larger at the three-year horizon for each of the last six decades. As additional information becomes available, the revision increases between t plus 3 months and t plus 36 months, although there are other revision points on the way to t plus 36 months. These include the first annual dataset in the quarterly national accounts round in March each year, and the first supply and use balance at t plus 24 months.

However, the MAR is less in recent decades, including a reduction between these MAR revisions as later data are incorporated. One likely explanation is that these revisions reflect the [impact of balancing](#) our full range of information in a supply and use (SUTs) framework for the first time, and methodological improvements, which cannot be anticipated at the time of the first estimate.

Figure 2: The revision performance of early quarterly estimates of GDP has improved significantly over time although it is affected by the coronavirus (COVID-19) pandemic period in 2020

Mean absolute revision, UK, Quarter 2 (Apr to June) 1961 to Quarter 4 (Oct to Dec) 1969, to Quarter 1 (Jan to Mar) 2020 to Quarter 1 2025

Figure 2: The revision performance of early quarterly estimates of GDP has improved significantly over time although it is affected by the coronavirus (COVID-19) pandemic period in 2020



Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

Notes:

1. The latest data point is the period ending Quarter 1 (Jan to Mar) 2025 for t plus 3 months analysis and Quarter 4 (Oct to Dec) 2022 for the t plus 36 months data.
2. We do not have a t plus 36 months estimate yet for Quarter 3 (July to Sept) 2022 and Quarter 4 2022. However, our revisions policy is such that these current estimates will not be revised before we get to the t plus 36 months stage, so this has been inferred for these purposes. These have gone through two supply and use tables balancing processes, which is the basis of the "final" estimate being chosen.

We have included a separate revisions analysis for the period Quarter 1 (Jan to Mar) 2020 to Quarter 1 2025 on a t plus 3-month basis, as there are now over five years' worth of data making up this data point, while the t plus 36-month analysis now has three years of data.

Figure 2 shows that the MAR is larger for this latest period, which includes the effects of the pandemic period. However, it is useful to consider the size of the change in quarterly GDP in looking at the revisions, given the exceptional impacts of the pandemic on the economy through 2020 and 2021.

In 2023 the Office for Statistics Regulation (OSR) published a report on the [Revisions of estimates of UK gross domestic product \(GDP\)](#), which recommended looking at relative revisions as well as absolute revisions as "this contextualises the revision in the context of the growth rates, measuring the MAR in relation to the size of the growth rates".

Figure 3 shows how the relative mean absolute revision (RMAR) has varied through the same time periods, where we compare the revision between the first estimate and the "final" estimate three years later as a proportion of the first estimate.

Figure 3 also provides more context around the relative revision performance through the pandemic period of 2020 and 2021 and subsequent return to normality in 2022. The absolute revisions for these periods were larger (Figure 2), but Figure 3 implies that this in part reflected the size of the movements in GDP.

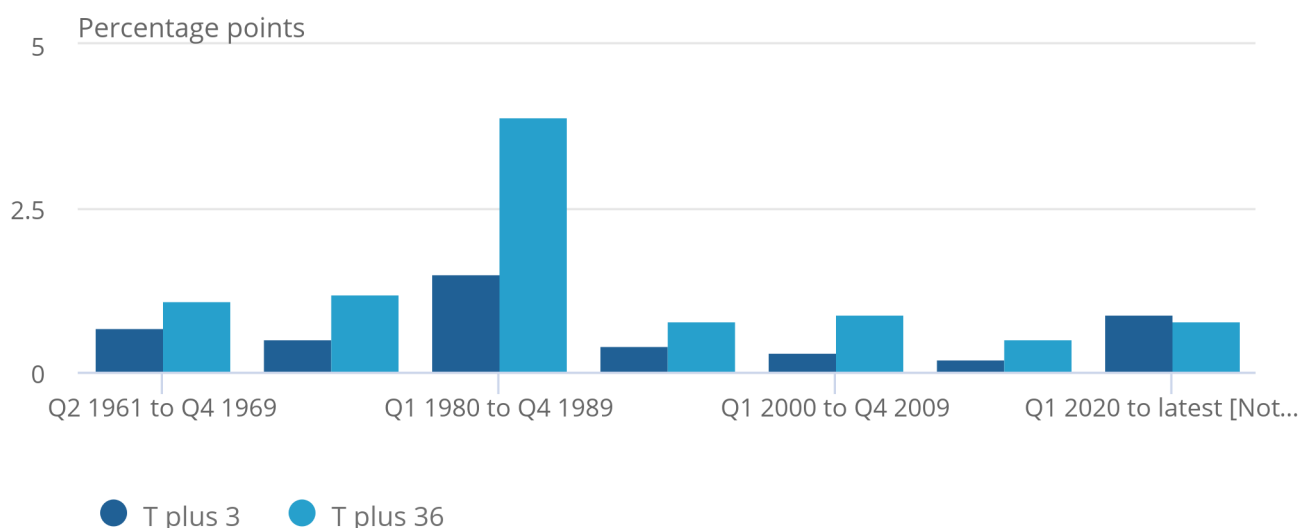
The RMAR for 2020 to 2022 was not out of line with earlier time periods, once we consider how much the economy expanded or contracted, although it is worth noting that the t plus 3 months RMAR in the latest periods is larger than the t plus 36 months RMAR. This will in part reflect that the earliest estimates of GDP growth during the pandemic were particularly uncertain and prone to revision, but also the t plus 36 months RMAR is based on a very small set of periods at the moment.

Figure 3: Relative mean absolute revisions to quarterly GDP growth have behaved similarly in the coronavirus (COVID-19) pandemic period of 2020 and 2021 to earlier periods

Relative mean absolute revisions to quarterly GDP growth, UK, between first quarterly estimate and both three months and three years later as a proportion of the first estimate

Figure 3: Relative mean absolute revisions to quarterly GDP growth have behaved similarly in the coronavirus (COVID-19) pandemic period of 2020 and 2021 to earlier periods

Relative mean absolute revisions to quarterly GDP growth, UK, between first quarterly estimate and both three months and three years later as a proportion of the first estimate



Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

Notes:

1. The latest data point is the period ending Quarter 1 (Jan to Mar) 2025 for t plus 3 months analysis and Quarter 4 (Oct to Dec) 2022 for the t plus 36 months data.
2. We do not have a t plus 36 months estimate yet for Quarter 3 (July to Sept) 2022 and Quarter 4 2022. However, our revisions policy is such that these current estimates will not be revised before we get to the t plus 36 months stage, so this has been inferred for these purposes. These have gone through two supply and use tables balancing processes, which is the basis of the "final" estimate being chosen.
3. The relative mean absolute revision (RMAR) is recommended by the Office for Statistics Regulation as providing more context around the cyclical performance of revisions, specifically considering the size of the quarterly change in GDP as part of the revision between the first and "final" estimate.

Household saving ratio

The household saving ratio is the proportion of the total resources of households that are saved rather than being used for consumption expenditure. Last year, we introduced the [Household saving ratio revisions triangles](#) and produced some analysis of the household saving ratio during the pandemic.

Estimates of the household saving ratio are subject to frequent revision, in part reflecting the size and complexity of the measurement of income, consumption and saving. This has been particularly so through the pandemic, where there were large changes in household behaviours. For example, the latest estimates show that there has been lower household consumption expenditure in recent quarters than previously estimated.

One feature of the pandemic was the impact on the household saving ratio, including the concept of [forced savings](#). The revisions triangle enables us to compare how this picture of income, savings and consumption has changed over time.

Figure 4 shows that "forced" savings has been a phenomenon through the pandemic in each Blue Book vintage, most notably at the time of public health restrictions through 2020 and 2021. Recent vintages show that there has been a consistent picture of household saving behaviours through the pandemic. Real-time estimates also show that household savings have been elevated in more recent periods, where there has been additional uncertainty in the last two Blue Books for savings and consumption through the years 2022 and 2023.

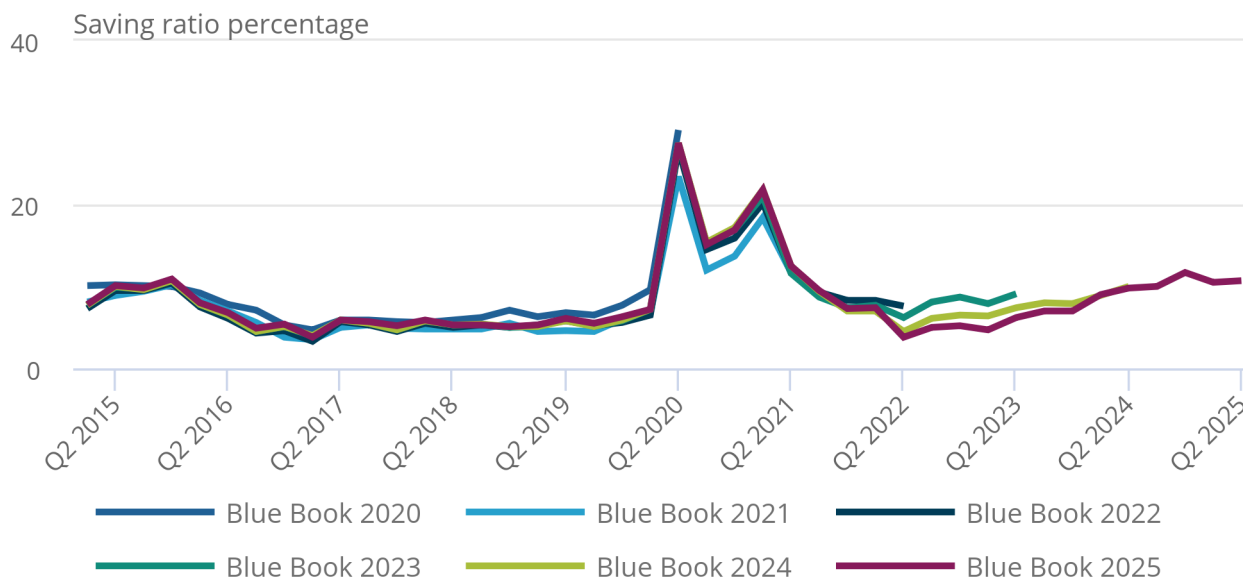
In Blue Book 2024, we estimated that households were saving less in more recent periods, reflecting stronger consumption expenditure at this time. In Blue Book 2025, we estimate that there has been higher consumption expenditure through 2023 as well. This helps explain the lower savings ratio through 2023 in the latest Blue Book. However, there have been fewer revisions to the household saving ratio through 2024 and 2025, with it continuing to increase in the latest periods to be above where it was before the pandemic. Our latest estimates imply that there is still elevated saving, which might reflect higher levels of precautionary savings. We will continue to track how these estimates change in real time as part of our public communications.

Figure 4: Consecutive Blue Books have incorporated downward revisions to the household saving ratio since the end of 2021

Real-time estimates of the saving ratio, UK, Quarter 1 (Jan to Mar) 2015 to Quarter 2 (Apr to June) 2025

Figure 4: Consecutive Blue Books have incorporated downward revisions to the household saving ratio since the end of 2021

Real-time estimates of the saving ratio, UK, Quarter 1 (Jan to Mar) 2015 to Quarter 2 (Apr to June) 2025



Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

We have provided some indicative estimates of the revision performance to the saving ratio. That said, we would advise some caution, given the short sample period and how much of this is affected by heightened revisions through the pandemic.

Over the entire available time span of the household saving ratio, from Quarter 2 2017 to the latest period, the average revisions to the household saving ratio have both been unbiased. Both the T plus 3-month vintage and the T plus 36-month vintage have t-scores below the threshold for statistical significance and both mean revisions are slightly negative, meaning that we have tended to marginally revise down the first estimate of the saving ratio on average in subsequent releases.

The T plus 3-month revision is actually more negative than the T plus 36-month vintage, but this is influenced by a couple of important periods during the pandemic period, when there were some large negative revisions in the early estimates, which were subsequently revised up when the more detailed data became available by T plus 36 months. We will continue to monitor the revision performance as we collect more real-time estimates.

Table 2: Revision analysis of the household saving ratio shows no significance to the revisions
Revision information and t-test for statistical significance for household saving ratio growth, UK, Quarter 2 (Apr to June) 2017 to Quarter 1 (Jan to Mar) 2025

| | T plus 3 months | | | | T plus 36 months | | | |
|-----------------------------------|---------------------------|------------------------------------|-------------------------|----------------------------------|---------------------------|------------------------------------|-------------------------|----------------------------------|
| | Mean revision (pp) | Mean absolute revision (pp) | T score [Note 2] | Statistically significant | Mean revision (pp) | Mean absolute revision (pp) | T score [Note 2] | Statistically significant |
| Q2 2017 to latest [Note 1] | -0.3 | 0.7 | -1.5 | No | -0.1 | 1.0 | -0.1 | No |

Source: GDP revisions in Blue Book: 2025 from the Office for National Statistics

Notes

1. The latest data point is the period ending Quarter 1 (Jan to Mar) 2025 for t plus 3 months analysis and Quarter 2 (Apr to June) 2022 for the t plus 36 months data.
2. Two tailed standard significance test at 95% confidence interval.

GDP per head

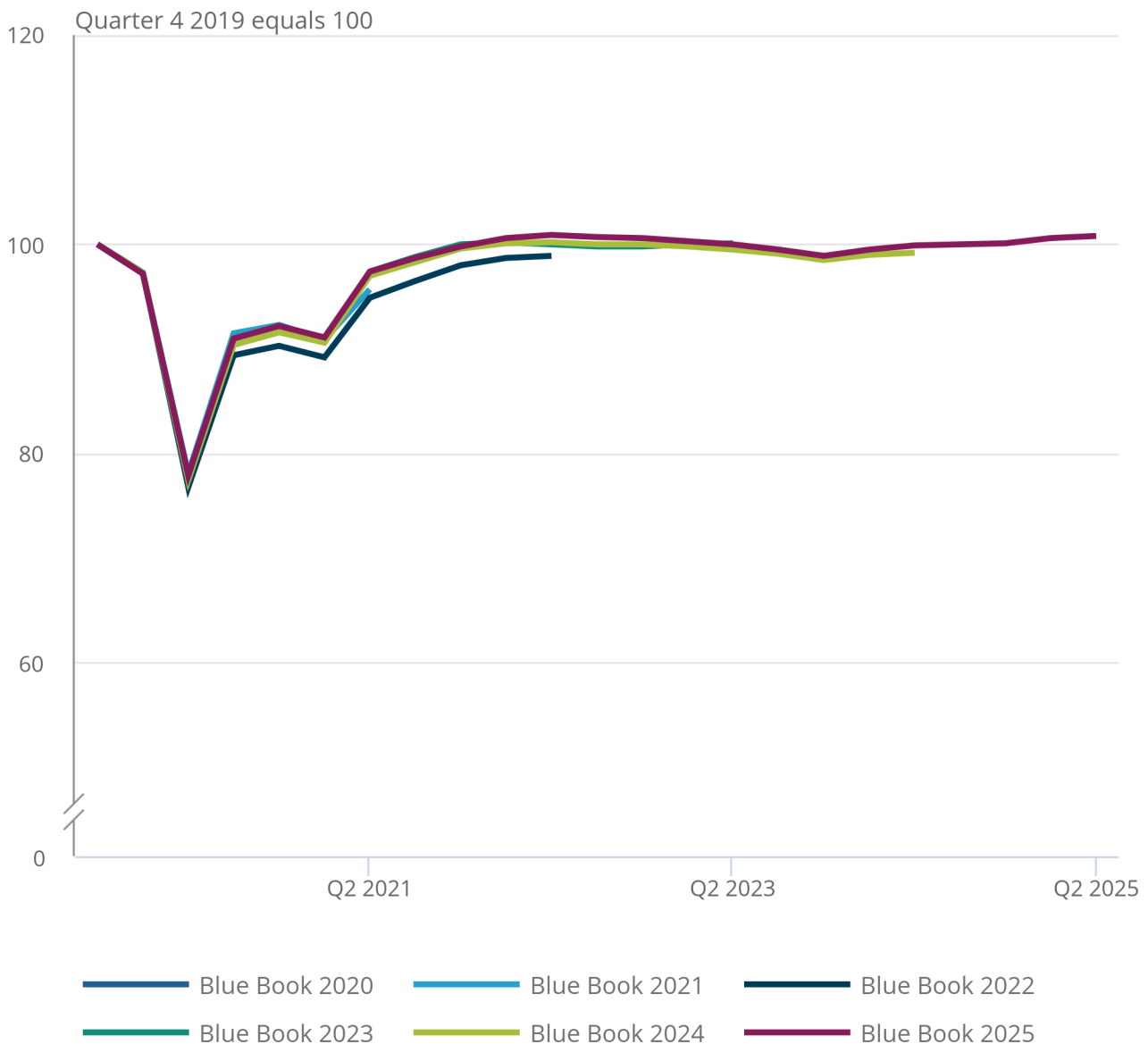
Figure 5 shows real-time estimates of the level of real GDP per head in recent years, which include the known revisions to GDP through the pandemic. GDP per head is a welfare indicator, which captures a country's living standards. There is not only uncertainty in measuring GDP, but also around the size of the UK population. Revisions to population estimates reflect changes in our understanding of the number of births, deaths and net immigration.

Figure 5: Real GDP per head revisions reflect both GDP and population revisions

Real-time estimates of the levels of real GDP per head, UK, Quarter 4 (Oct to Dec) 2019 to Quarter 2 (Apr to June) 2025; Quarter 4 2019 equals 100

Figure 5: Real GDP per head revisions reflect both GDP and population revisions

Real-time estimates of the levels of real GDP per head, UK, Quarter 4 (Oct to Dec) 2019 to Quarter 2 (Apr to June) 2025; Quarter 4 2019 equals 100



Source: GDP quarterly estimate from the Office for National Statistics

One further consideration is that estimates of GDP per head also rely on population projections, if no estimates are yet available. However, these projections will not always materialise, given that these rely on the population changing in line with recent historical trends.

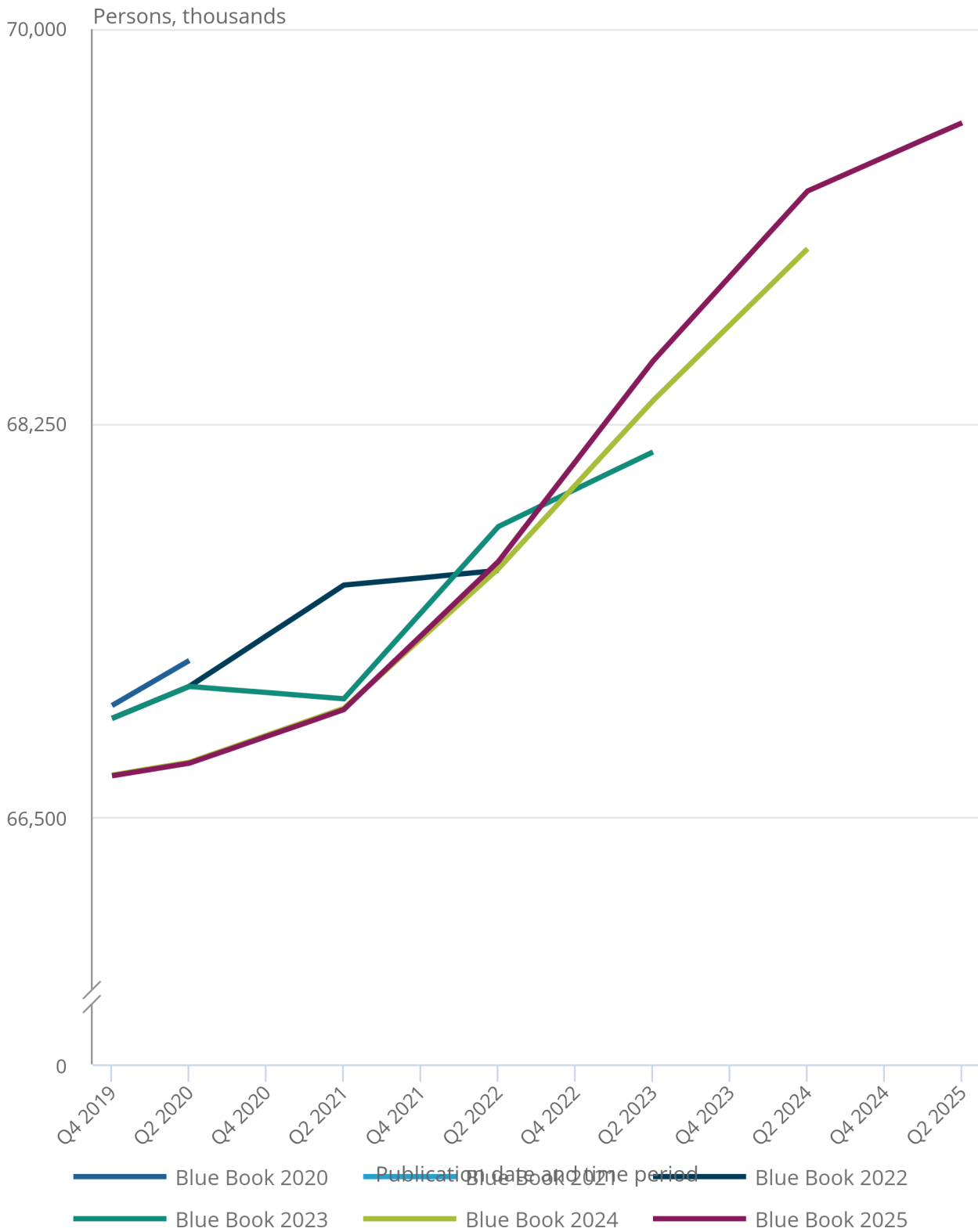
Blue Book 2025 incorporates the latest population projections published in January 2025, specifically the migration category variant, which reflects our current best understanding of net migration flows. Figure 6 shows how much these population estimates have changed as part of feeding into these Blue Books. Further work is being undertaken to improve the transparency of the impact of revisions to GDP and population estimates.

Figure 6: Revisions to population estimates used at each Blue Book

Estimates of the levels of population, real-time revisions to population levels, UK, Quarter 4 (Oct to Dec) 2019 to Quarter 2 (Apr to June) 2025

Figure 6: Revisions to population estimates used at each Blue Book

Estimates of the levels of population, real-time revisions to population levels, UK, Quarter 4 (Oct to Dec) 2019 to Quarter 2 (Apr to June) 2025



Notes:

1. Quarterly population estimate vintages used in GDP can be found in the UK resident population mid-year real-time database.

4 . Spotlight on MGDP

As part of our commitment to transparency of the revision performance of gross domestic product (GDP), we also publish revisions triangles for monthly gross domestic product (MGDP). These were first published in July 2018 as part of a package of improvements to how we publish GDP.

We have provided some preliminary analysis of these revision properties, noting that there is only a limited sample for these real-time vintages but also that much of this period covers the coronavirus (COVID-19) pandemic. These revisions should not be considered as indicative of what is expected to be the typical revision performance.

Figure 7 shows the real-time snapshots of the level of GDP in every MGDP release from January 2022 to July 2025, with data points starting from January 2022 to provide some indication of data uncertainty as the UK recovered from the pandemic.

There are level changes in the 2022 and 2023 periods reflecting the impact of previous Blue Book revisions in which there was a benchmarking to new fully balanced levels of GDP. This was a period where there were known higher levels of uncertainty as part of the recovery from the pandemic, which had been communicated at the time. This dispersion has narrowed for early estimates through 2024, which might provide some indication of lower data uncertainty. However, we recognise there have been fewer vintages produced for this period, while we have not fully balanced these levels yet for January 2024 onwards.

Figure 7: The levels of monthly GDP through 2022 and 2023

Real-time estimates of the levels of monthly GDP, UK, January 2022 to July 2025

We are committed to produce further real-time insights for monthly GDP, where we will produce a fuller analysis in time as and when more vintages are available. We will continue to track the revision performance over time, including an update on these real-time levels once we have fully balanced more years.

In addition to this article, we have also released a more detailed revisions article for [Business investment revisions in Blue Book 2025](#).

5 . The OSR review of GDP revisions – update to the ONS response

In November 2023, the Office for Statistics Regulation (OSR) published a report on [Revisions of estimates of UK gross domestic product \(GDP\)](#). The report outlined eight requirements for improvement in the way we produce and communicate estimates of GDP.

Requirements 1 to 4 focused on how the Office for National Statistics (ONS) should communicate uncertainty in GDP estimates, and in helping users to understand revisions. Requirements 5 to 8 focused on improving the data content for the three measures of GDP in the short-term (monthly and quarterly) estimates.

We implemented a number of improvements to how we communicate GDP estimates, which are detailed in our [update to the OSR on GDP estimates in January 2024](#). In October 2024, we published [information on the areas of focus for improving GDP data quality](#), and how they aligned to the three approaches to measuring GDP. Although many of these improvements will take time to research, test and analyse, we have committed to them as part of [the ONS's plan for economic statistics](#).

In this section we provide an update on the progress being made against the first four requirements outlined in the OSR's review. We will publish a separate note on progress towards requirements 5 to 8 by the end of 2025.

Communicating GDP

From September 2025, we have reverted our commentary on the [monthly GDP release](#) to focus on the 3-month on 3-month movements, as it was in the pre-coronavirus (COVID-19) pandemic period. This helps to smooth the series, removing some of the volatility and noise seen in the monthly series, making it a more reliable indicator of underlying GDP movements. This presentational change to our monthly GDP release was accompanied by a [blog post on GDP: Getting the best insight each month](#), which provided some background and context for our users.

We continue to share commentary around the data content, uncertainty and revisions of our short-term GDP estimates in our regular statistical bulletins and articles, and seek opportunities to improve this on an ongoing basis.

More broadly, we are undertaking a website transformation programme to enhance content delivery and modernise its technology. Updated content will begin rolling out from early 2026, with stakeholder [website previews already available](#). The main improvements include redesigned statistical bulletins and updated methodology pages, and replacing existing quality and methodology information reports (QMIs), all aimed at helping users better understand and interpret our statistics.

6 . 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

A more detailed [glossary of terms used within the national accounts](#) is available.

7 . Data sources and quality

More information about strengths and limitations of national accounts data used in the Blue Book can be found in our [GDP quality and methodology information \(QMI\)](#).

8 . Related links

[UK National Accounts, The Blue Book: 2025](#)

Compendium | Released 31 October 2025

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

9 . Cite this article

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