

Article

# Impact of Blue Book 2021 changes on average quarterly gross domestic product

Methodological and data improvements that affect current price and chain volume measure of quarterly gross domestic product (GDP), 1997 to 2019. We also include indicative annual impacts on the services, production, and construction sectors and expenditure components contribution to revision.

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# 1 . Overview

In the UK National Accounts, fully balanced estimates of annual current price gross domestic product (GDP) have traditionally only been produced in a supply and use tables (SUT) framework. In Blue Book 2021, we will produce annual volume estimates of GDP in the SUT framework for the first time - including [the first published official estimates](#) of GDP applying double deflation along with improved reconciliation of current price and volume estimates. Blue Book 2021 will also improve the international comparability of the UK GDP estimates, with a package of improvements made in line with international best practice.

Additional information regarding changes for the [financial sector data](#) and [double deflation](#) was released on 28 June 2021. Further analysis will be published on 8 September, providing additional lower-level estimates of these indicative impacts and those to the institutional sector accounts ahead of the publication of Blue Book 2021.

## 2 . Scope of Blue Book 2021

There are important methodological improvements that will be incorporated into Blue Book 2021, impacting both current price and volume estimates of gross domestic product (GDP). There will be revisions to previously published estimates reflecting the improved reconciliation of current price and volume estimates in a supply and use tables (SUT) framework at a 114-product level, alongside changes to how deflation is applied.

For further information on these changes, please see [Impact of Blue Book 2021 changes on current price and volume estimates of gross domestic product](#) release.

As a result of changes to the level of annual GDP, the GDP quarterly path will also be revised to align to the [new annual levels](#).

## 3 . Impact of Blue Book 2021 on annual and quarterly average GDP

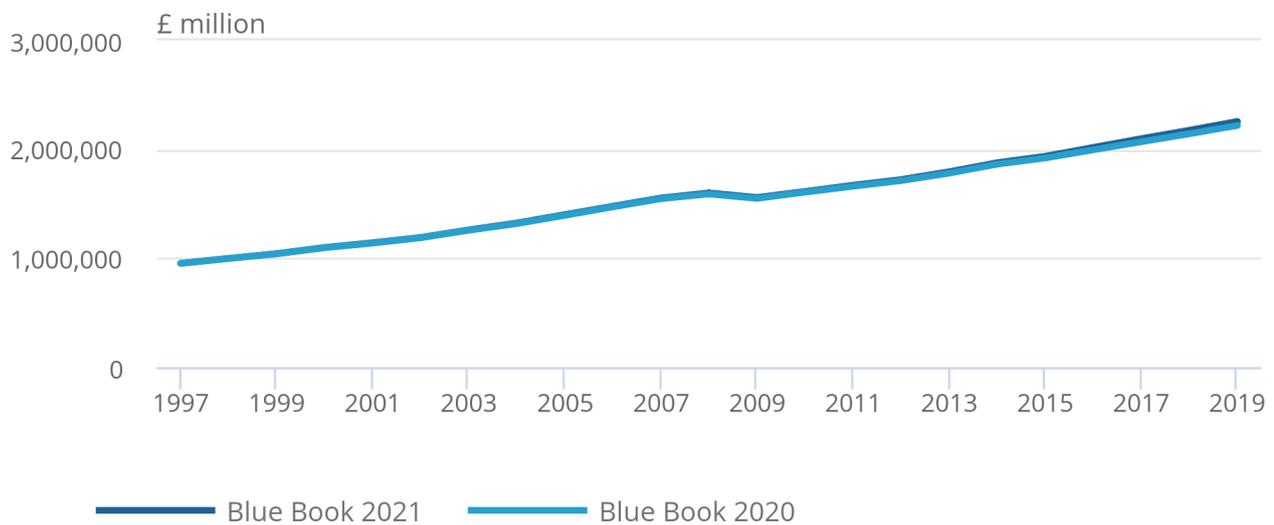
Figure 1 shows the indicative level of annual current price gross domestic product (GDP) from 1997 to 2019, comparing this with the latest available estimates. Annual growth in current price has been largely unrevised. The cumulative effects of the implementation of the new [Financial Services Survey](#), removal of [historical link factors](#), and new estimates of sea freight have contributed to the total revisions of the current price GDP level.

**Figure 1: Average current price GDP has largely been unrevised between 1997 and 2019**

UK, average current price GDP, 1997 to 2019

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UK, average current price GDP, 1997 to 2019



Source: Office for National Statistics - UK National Accounts

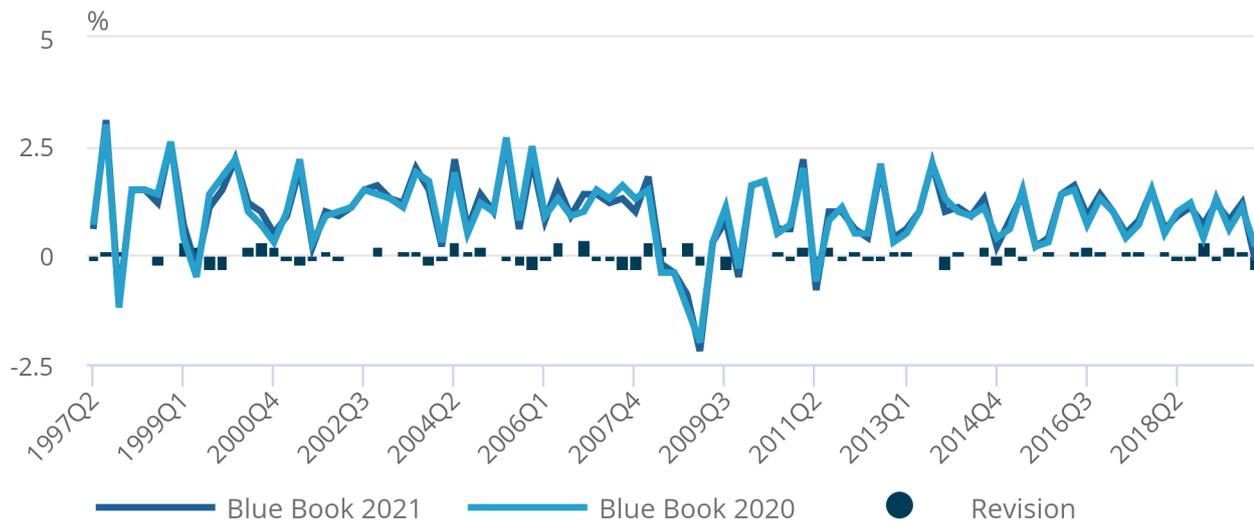
Figure 2 shows the revisions to the quarterly profile of current price GDP growth. These indicative estimates show that the average revision to quarter-on-quarter current price GDP introduced at this Blue Book is 0.01 percentage points over the period from Quarter 2 (April to June) 1997 to Quarter 4 (October to December) 2019.

**Figure 2: Average current price quarterly GDP growth has largely been unrevised between 1997 and 2019**

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

## Figure 2: Average current price quarterly GDP growth has largely been unrevised between 1997 and 2019

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



Source: Office for National Statistics - UK National Accounts

**Notes:**

1. Q1 refers to Quarter 1 (Jan to Mar), Q2 refers to Quarter 2 (Apr to June), Q3 refers to Quarter 3 (July to Sept) and Q4 refers to Quarter 4 (Oct to Dec).

Figure 3 shows the expenditure components contribution to revision to annual volume GDP growth. Over the entire series, the revisions to individual years range from negative 0.6 to 0.6 percentage points.

Net trade in particular contributed negative 0.5 percentage points to the 0.5 percentage points downward revision to GDP in 1998. These trade revisions are a result of improvements to estimates of freight services, improved estimates on transactions on second-hand ships, and new methods of approximating the import and export adjustments for ship repairs.

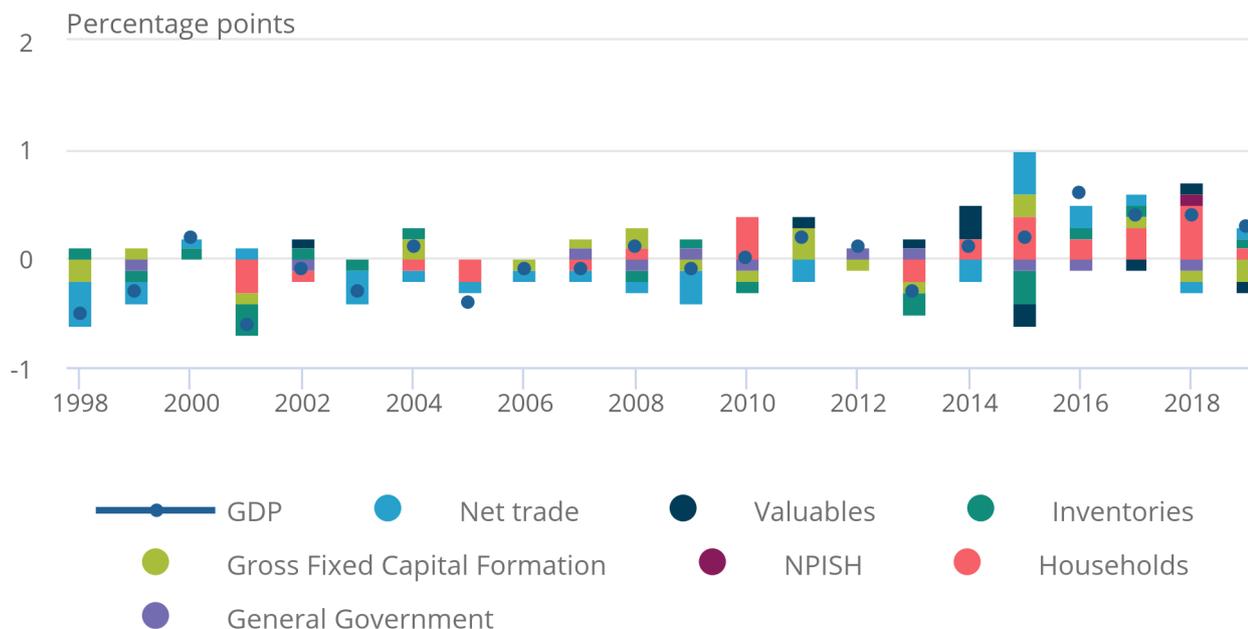
Household consumption also contributed to the revisions to annual GDP growth across the series, with the largest in 2018 where households contributed 0.5 percentage points to the 0.4 percentage points upward revision in GDP. This is mainly because of [improvements to the clothing deflator](#), impacting the Retail Sales Index and household expenditure.

**Figure 3: Average annual volume GDP growth sees modest revisions between 1998 and 2019, with the largest contributions from net trade and household consumption**

UK, components contribution to revision for annual GDP volume, 1998 to 2019

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UK, components contribution to revision for annual GDP volume, 1998 to 2019



Source: Office for National Statistics - UK National Accounts

Notes:

1. Components contribution may not sum to total because of rounding.

Figure 4 shows the revisions to the quarterly profile of volume GDP growth. These indicative estimates show that quarterly volume GDP growth sees minor revisions across 1997 to 2019.

These quarterly revisions are driven by revisions to the [annual growth](#) across these years. Over the entire data time series, the revisions to individual quarters range from negative 0.3 to 0.2 percentage points. This primarily reflects the impact of improvements to the deflators used and the introduction of double deflation.

Quarterly volume GDP growth over the period Quarter 2 1997 to Quarter 4 2007 sees an average 0.1 percentage point downward revision. For the period Quarter 1 (January to March) 2010 to Quarter 4 2019, quarterly volume GDP growth sees a 0.0 (0.04) percentage point upward revision.

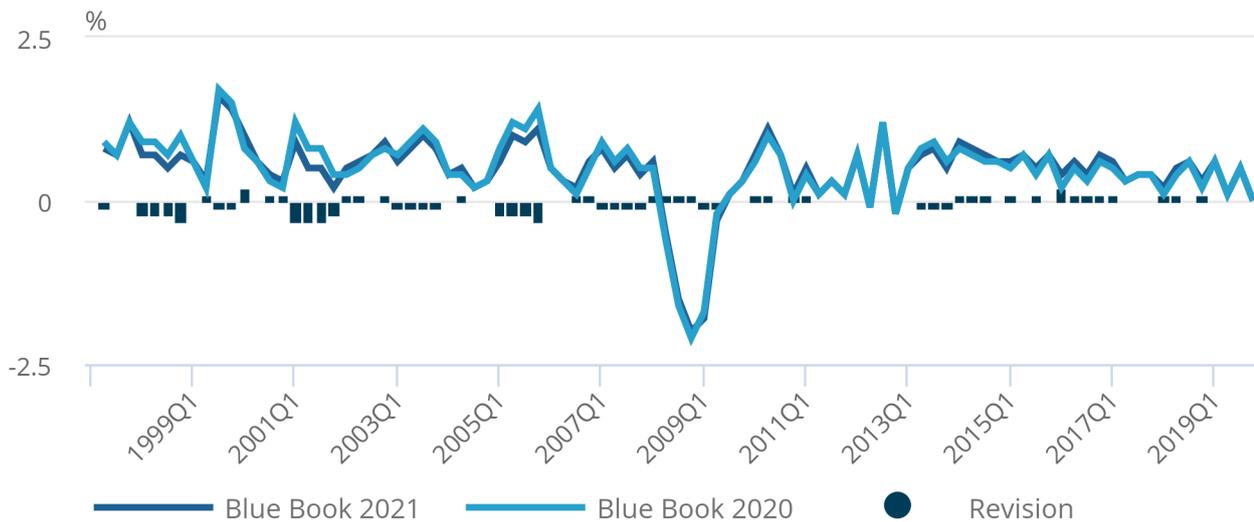
The peak to trough of the 2008 to 2009 economic downturn has been provisionally unrevised at negative 5.9%. The peak to trough quarters (Quarter 1 2008 to Quarter 2 2019) are provisionally unchanged and so is when GDP returned to pre-economic downturn levels, in Quarter 2 2013.

**Figure 4: Average quarterly volume GDP growth sees minor revisions between 1997 and 2019**

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

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Source: Office for National Statistics - UK National Accounts

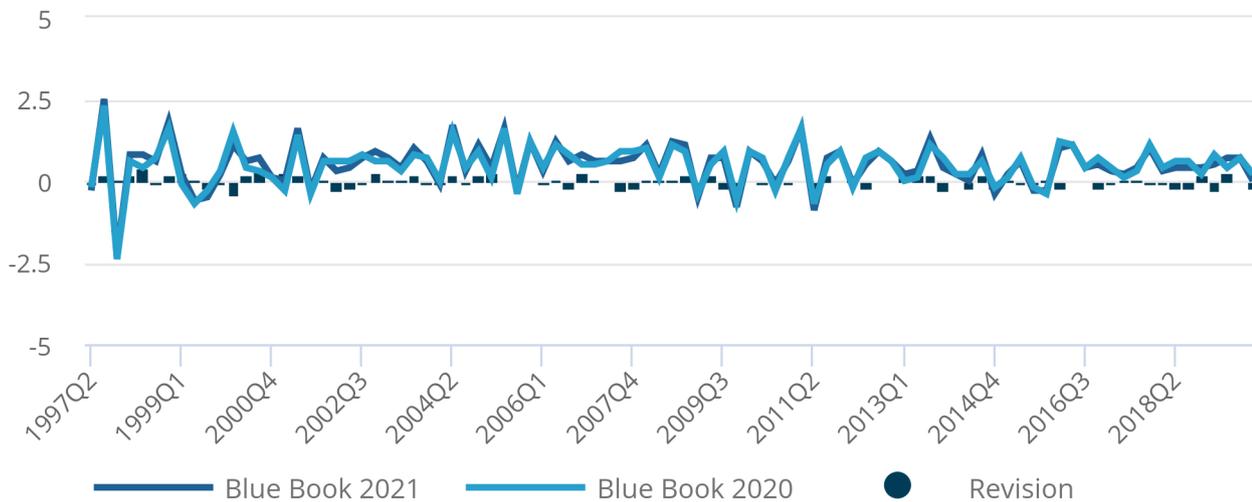
Figure 5 shows the indicative profile of quarterly growth to the GDP implied deflator in Blue Book 2021, which is derived by these revised current price and volume estimates. The GDP implied deflator represents the broadest measure of inflation on the economy. These revisions include the impacts of the improvements to the telecoms and clothing deflators.

## Figure 5: There have been modest revisions to the implied GDP deflator growth

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

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



Source: Office for National Statistics - UK National Accounts

## 4 . Indicative industry impacts for annual volume estimates

Figure 6 shows the indicative impacts of these Blue Book 2021 improvements to annual industry-level volume gross value added (GVA) growth, compared with that previously published. Quarterly estimates for the detailed industries will be published on 8 September 2021.

The production sector sees larger revisions to growth, and this is because of our new supply and use table (SUT) approach where volume estimates of production are reconciled at a detailed product by industry level.

The construction sector sees revisions to volume growth across the years. This is because of new volume estimates at the annual level on GVA. Previously, annual volume growth was inferred from output, using data from the [Construction output release](#). In the new approach in Blue Book 2021, balanced estimates of GVA now account for both the outputs produced and inputs consumed by the industry. There are also some [coverage differences given the use of the Annual Business Survey](#) in their compilation. As a result, GVA estimates published in the [GDP releases](#) will be different from the construction output release.

The services sector also sees revisions to annual volume growth, driven by our new SUT approach where annual volume estimates of services GVA are reconciled at a detailed product by industry level. The services sector also sees revisions because of updated data from the [Financial Services Survey](#) and the update of the [telecoms deflator](#).

## Figure 6: Volume growth in the production sector has seen larger revisions across the years than in the services sector

[Download the data](#)

## 5 . Future developments

Blue Book 2021 signifies further stages in our transformation of the UK National Accounts towards international best practice. Producing volume estimates of gross domestic product (GDP) in a supply and use tables (SUT) framework has led to improvements in the balancing of current price and volume GDP estimates, including the implementation of double deflation. Further changes to specific data sources and the introduction of new methods in some components of the national accounts have also provided improved estimates.

As a result of these improvements introduced in Blue Book 2021, this has also impacted on productivity. Indicative estimates on [labour productivity](#) were published on 28 June 2021 and the [quarterly productivity estimates](#) released in October 2021 will reflect these changes.

We will publish further indicative impacts of Blue Book 2021 on 8 September 2021. This will provide a more in-depth insight into how we expect the components of the production, income, and expenditure measures of GDP to be revised, while also including a view of the new quarterly profile of volume estimates of GDP at an industry level. We will also publish indicative annual impacts on the [sector and financial accounts](#) and the [balance of payments estimates](#).

## 6 . Related links

[Impact of Blue Book 2021 changes on current price and volume estimates of gross domestic product](#)

Methodology article | Released 28 June 2021

Methodological and data improvements that affect current price and chain volume measure of gross domestic product (GDP), 1997 to 2019.

[Financial services sector methods changes: 1997 to 2019](#)

Methodology article | Released 28 June 2021

Improvements in calculating financial services estimates for other financial institutions by basing the calculation of output and intermediate consumption of other financial institutions (in NACE 64.2 to 64.9), and financial auxiliaries (in NACE 66) on the industry-specific data, and applying output valuation for the financial services that these units provide.

[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.

[Impact of Blue Book 2020 changes on current price and volume estimates of gross domestic product](#)

Article | Released 20 July 2020

Methodological and data improvements that impact on current price and chain volume measure of GDP for the period 1997 to 2018.