

Statistical bulletin

GDP, UK regions and countries: October to December 2021

Quarterly economic activity within the countries of the UK and the nine English regions.

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Next release:
17 November 2022

Notice

31 July 2026

We will be introducing substantial methods and data changes to our existing quarterly regional gross domestic product (GDP) outputs. We will introduce the changes in our [Update on reinstating quarterly regional GDP estimates for England and Wales article series](#). When we fully reinstate the output we will start a new series for statistical articles, datasets, and a quality and methodology guide.

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1 . Other pages in this release

- Regions of the UK (this page)
- [Methodology used to produce these estimates](#)
- Link to [subnational economic activity statistics: user guide](#)
- Link to [GDP in Scotland](#), published by the Scottish Government
- Link to [GDP in Northern Ireland](#), published by the Northern Ireland Statistics and Research Agency

2 . Main points

- In Quarter 4 (Oct to Dec) 2021, Wales, Scotland, England and Northern Ireland all showed positive quarter-on-quarter growth in gross domestic product (GDP) of 1.6%, 1.6%, 1.4% and 1.0%, respectively.
- Eight of the nine English regions grew between Quarter 3 (July to Sept) 2021 and Quarter 4 2021, only Yorkshire and The Humber fell, by 0.8%; the largest increase was London at 3.1%.
- In Quarter 4 2021, compared with the same quarter a year ago, Wales, Scotland, England and Northern Ireland all showed positive growth in GDP of 8.2%, 7.7%, 6.7% and 5.8%, respectively.
- Data are presented here from Quarter 1 (Jan to Mar) 2012 to Quarter 4 2021 and incorporate revisions that are aligned with the Blue Book 2021-consistent [regional accounts estimates](#) published on 30 May 2022; please see [Section 6](#) for more information.
- These estimates are produced using new methods for constraining to UK GDP, and this release incorporates a new time series dataset, which includes revisions to previous publications.
- Previous estimates of UK regions and countries GDP can be compared against the new estimates using the [revisions triangles dataset](#).

These estimates are designated as [Experimental Statistics](#) while they are still in development, and should be interpreted with some caution. Regional data can be volatile and quarterly movements should be considered alongside the long-term trend. To assist with this, quarter on same quarter a year earlier data are published alongside the latest quarter-on-quarter estimates.

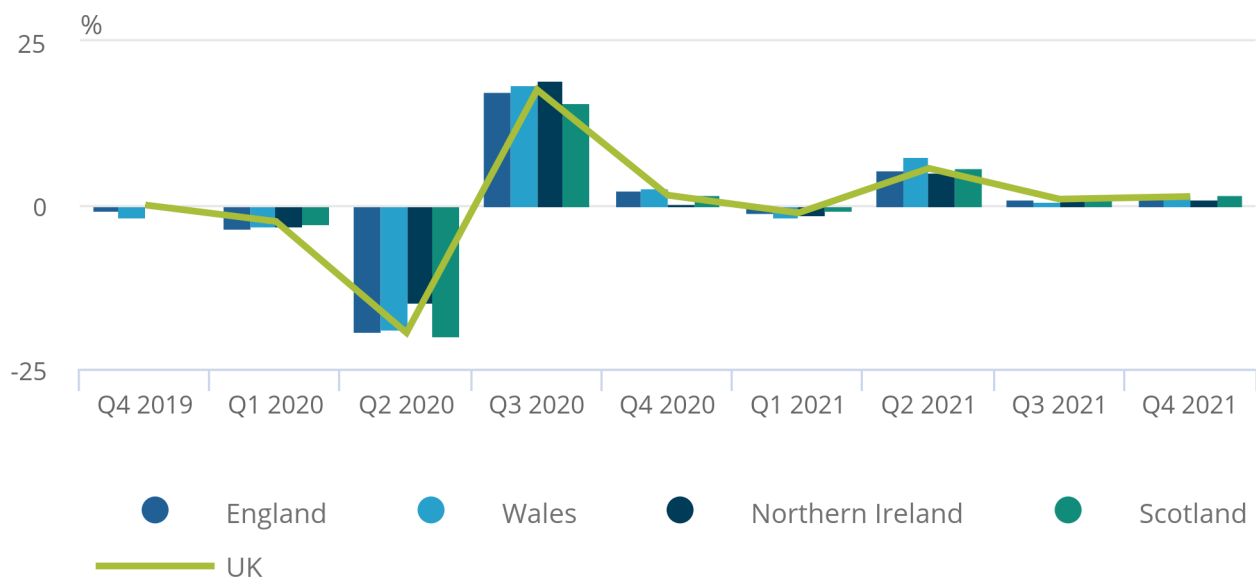
3 . Analysis of regional gross domestic product (GDP) growth

Figure 1: All four countries in the UK had positive growth for Quarter 4 2021

Seasonally adjusted quarter on quarter gross domestic product (GDP) growth for the UK and its countries, Quarter 4 (Oct to Dec) 2019 to Quarter 4 (Oct to Dec) 2021

Figure 1: All four countries in the UK had positive growth for Quarter 4 2021

Seasonally adjusted quarter on quarter gross domestic product (GDP) growth for the UK and its countries, Quarter 4 (Oct to Dec) 2019 to Quarter 4 (Oct to Dec) 2021



Source: Office for National Statistics – Regional GDP estimate; Scottish Government – GDP Quarterly National Accounts; Northern Ireland Statistics and Research Agency – Northern Ireland Composite Economics Index

UK gross domestic product (GDP) growth increased by 1.3% in Quarter 4 (Oct to Dec) 2021. All four countries in the UK had positive quarter-on-quarter growth in Quarter 4 2021. Scotland and Wales both increased by 1.6%, England increased by 1.4% and Northern Ireland increased by 1.0%.

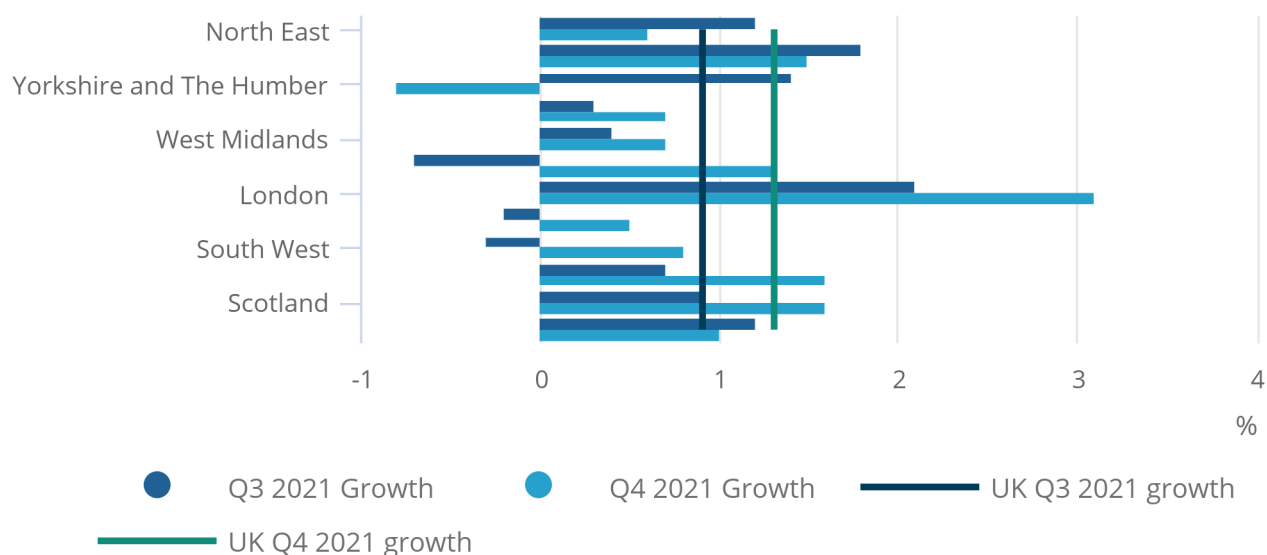
More information about the drivers for the changes in Scotland and Northern Ireland can be found in the data tables published by the [Scottish Government](#) and the [Northern Ireland Statistics and Research Agency](#).

Figure 2: The largest positive growth in Quarter 4 (Oct to Dec) 2021 was London with 3.1%

Seasonally adjusted quarter on quarter gross domestic product (GDP) growth for the regions of England and countries of the UK for Quarter 3 (July to Sept) 2021 and Quarter 4 (Oct to Dec) 2021

Figure 2: The largest positive growth in Quarter 4 (Oct to Dec) 2021 was London with 3.1%

Seasonally adjusted quarter on quarter gross domestic product (GDP) growth for the regions of England and countries of the UK for Quarter 3 (July to Sept) 2021 and Quarter 4 (Oct to Dec) 2021



Source: Office for National Statistics – Regional GDP estimate; Scottish Government – GDP Quarterly National Accounts; Northern Ireland Statistics and Research Agency – Northern Ireland Composite Economics Index

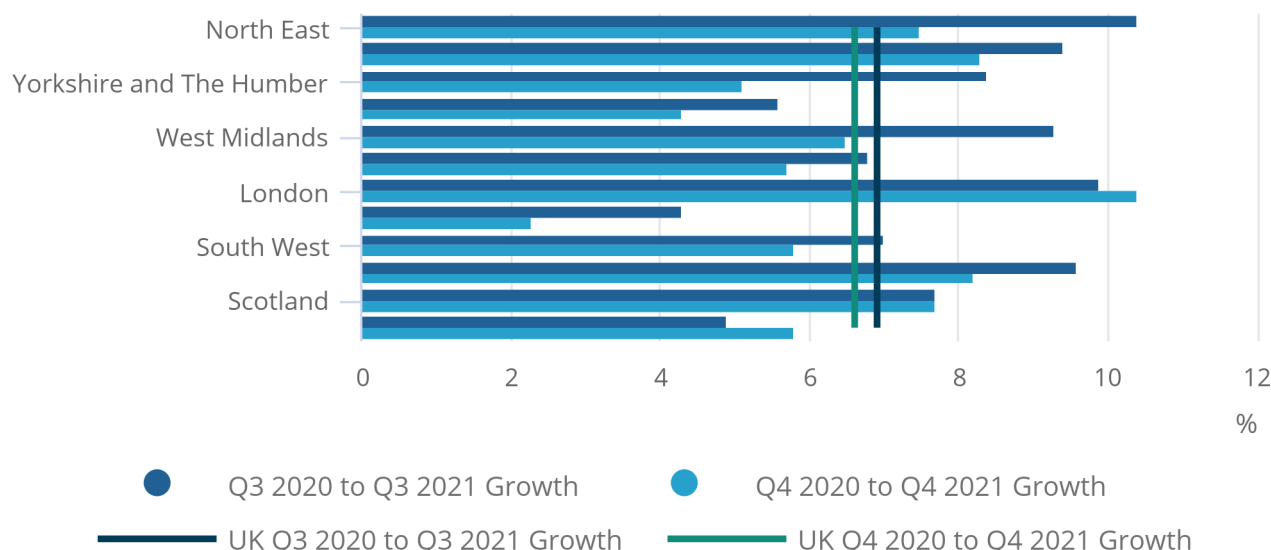
Eight of the nine English regions showed growth in Quarter 4 2021 compared with six of the nine English regions in the previous quarter. The largest increases in growth came from London at 3.1%, the North West at 1.5% and the East of England at 1.3%. Yorkshire and The Humber was the only region to fall in Quarter 4 2021, by 0.8%.

Figure 3: All regions and countries showed positive growth in gross domestic product (GDP) in Quarter 4 (Oct to Dec) 2021 when compared with the same quarter a year earlier

Seasonally adjusted quarter on same quarter a year earlier; GDP growth in the regions of England, Wales, Scotland and Northern Ireland for Quarter 4 (Oct to Dec) 2021

Figure 3: All regions and countries showed positive growth in gross domestic product (GDP) in Quarter 4 (Oct to Dec) 2021 when compared with the same quarter a year earlier

Seasonally adjusted quarter on same quarter a year earlier; GDP growth in the regions of England, Wales, Scotland and Northern Ireland for Quarter 4 (Oct to Dec) 2021



Source: Office for National Statistics – Regional GDP estimate; Scottish Government – GDP Quarterly National Accounts; Northern Ireland Statistics and Research Agency – Northern Ireland Composite Economics Index

Five regions and countries of the UK had growth in Quarter 4 2021 above the UK level when compared with the same quarter in 2020. These were London at 10.4%, the North West at 8.3%, Wales at 8.2%, Scotland at 7.7% and the North East at 7.5%. All other regions grew below the UK growth of 6.6%. The furthest below the UK level was the South East with 2.3%.

In comparison, eight regions and countries of the UK had growth in Quarter 3 (July to Sept) 2021 above the UK level when compared with the same quarter in 2020. The region with the largest growth over this period was the North East with 10.4%. It should be noted, however, that the estimates here are likely to still be reflecting effects of the coronavirus (COVID-19) pandemic.

4 . GDP, UK regions and countries data

[Quarterly country and regional GDP](#)

Dataset | Released 1 September 2022

Quarterly economic activity within Wales and the nine English regions (North East, North West, Yorkshire and The Humber, East Midlands, West Midlands, East of England, London, South East, and South West).

[Regional GDP Data Sources Catalogue](#)

Dataset | Released 1 September 2022

A breakdown of all the data sources that feed into the measure of Quarterly country and regional GDP.

[Revisions triangles for quarterly country and regional GDP](#)

Dataset | Released 1 September 2022

Comparison of quarterly country and regional GDP estimates from our last published time series against estimates published in this release.

5 . Glossary

GDP

Gross domestic product (GDP) measures the value of goods and services produced in the UK. It estimates the size of and growth in the economy.

6 . Measuring the data

The main data source for these estimates is turnover data from approximately 1.9 million Value Added Tax (VAT) returns. Information from the Inter-Departmental Business Register (IDBR) on workplace employment allows us to apportion the VAT turnover for each business based on their employment share within a region. More information can be found in our [Quality assurance of administrative data \(QAAD\) report for Value Added Tax turnover data methodology](#).

Other volume measure data are used where appropriate, or where VAT data has insufficient coverage. A full list of other data sources is included in the [data sources catalogue](#).

This publication includes a time series of growth rates and indices, from 2012 to 2020, consistent with the regional accounts estimates published in May 2022. From 2021 onwards, UK growth is consistent with quarterly national accounts. The next release in November 2022 will incorporate further revisions to estimates. At this point, the underlying current prices data and the year of 2020 will be aligned with the new [GDP quarterly national accounts](#) to be published in September 2022. Indicative estimates are provided in our [Impact of Blue Book 2022 changes on average quarterly gross domestic product article](#).

In this release, revisions back to 2012 reflect statistical improvements and ongoing changes to methods used as we develop these [Experimental Statistics](#). We aim to continue to improve our regional GDP estimates and gain National Statistics status in due course.

Data are presented in this release for Quarter 1 (Jan to Mar) 2012 onwards.

We welcome feedback and comments on this publication, including on presentation and further development of other data sources at regionalgdp@ons.gov.uk.

New method for constraining to national totals

As part of our ongoing commitment to continuously improve the accuracy and reliability of our statistics, the ONS has been undertaking a full methods review of these estimates with a view to better understand, and improve coherence with, other data sources. Subsequently, data from this release are produced using a new method of constraining to national totals. Details of the previous constraining methods used to estimate quarterly country and regional GDP are provided in our [Introducing GDP for the countries of the UK and the regions of England methodology](#).

Calculation of the regions of quarterly GDP

We have calculated the GDP of Scotland and Northern Ireland using data and methodology consistent with the nine English regions and Wales (primarily VAT). Although we do not intend to publish ONS estimates for Scotland and Northern Ireland, we have collaborated with the Scottish Government and the Northern Ireland Statistics and Research Agency (NISRA) on data sources to enhance these regional estimates and will continue this work. The benefits of this method include:

- it allows consistency, creating a complete matrix of UK regions by industry using the same VAT-based methodology
- we can compare regions with the Devolved Administrations outputs and identify where we can make future improvements

Constraining to quarterly UK GDP

We have constrained the regions by industry at current prices to quarterly UK gross value added (GVA) at current prices by two-digit Standard Industrial Classification (SIC) industries from Quarter 1 2012.

Since Blue Book 2021, ONS publishes GDP(O) current prices consistent with chain volume measure (CVM) in our [GDP output approach – low-level aggregates dataset](#). Annual totals are in line with regional accounts until they are updated. Otherwise, the quarterly path will be aligned to UK GDP. The benefits of this method include:

- constraining at current prices allows us to align with national totals by industry from 2012 onwards
- reliance on automated balancing tools has been minimised at chained volume measures

Revisions to the data and reduced dataset

In line with the [National Accounts Revisions Policy](#), the dataset incorporates revisions back to Quarter 1 2012. Revisions to the data within this release arise from a variety of sources.

- These data are estimated using our new constraining methods and are now aligned with the Blue Book 2021-consistent regional accounts estimates that were published on 30 May 2022.
- In order to ensure and improve accuracy of our statistics, a [seasonal adjustment](#) review was carried out prior to the current release and as a result, some changes were made to historical data in the time series.
- Our estimates use data on employment from the [Inter-Departmental Business Register](#) (IDBR), which breaks VAT turnover down into regions. The IDBR implements an annual turnover update. Changes from this update may lead to revisions in regional GDP estimates.
- Revisions made to the VAT data underlying the calculation of regional GDP estimates, for example because of late tax returns, will lead to revisions within our data.

This is the first release to publish the quarterly country and regional GDP data time series back to Quarter 1 2012 since the release for [Quarter 3 \(July to Sept\) 2020](#) and we have improved the methodology to constrain to quarterly GDP at current prices and by industry for all periods. We constrain to regional accounts when available, but to national accounts for the more recent quarters. As part of the usual GDP cycle, revisions will be published to UK GDP in September 2022. As we will then realign regional GDP to this for the next release of quarterly country and regional GDP, there will be further revisions to the quarterly path. As a result of these imminent changes to UK GDP, this release incorporates a reduced version of the data, providing GDP estimates by region but not by industry. Industry breakdown of quarterly country and regional GDP will resume in the next release, to be published on 4 November 2022. Further information on the challenges with producing regional statistics can be found in our [Subnational economic activity statistics: user guide](#).

The revisions triangles dataset compares the new quarterly country and regional GDP estimates with those published previously.

As part of our commitment to improving the accuracy of our estimates, extra-regio data have not been published with this release while we review the data sources and methods used in their calculation. Publication of extra-regio data will resume following further quality assurance.

7 . Strengths and limitations

These data are designated as [Experimental Statistics](#). These are statistics that are in the testing phase. We will continue to develop these statistics and seek users' views on their uses and needs for these data. We welcome feedback to help inform our development work at regionalgdp@ons.gov.uk.

While the data sources and methods used in both our regional and national estimates of gross domestic product (GDP) are broadly similar, there are some clear differences. For example, in the extent to which VAT data are used in the compilation of these estimates. These estimates aim to produce the best estimates at a subnational level.

8 . Related links

[GDP monthly estimate, UK: June 2022](#)

Bulletin | Published 12 August 2022

Gross domestic product (GDP) measures the value of goods and services produced in the UK. It estimates the size of and growth in the economy.

[Regional economic activity by gross domestic product, UK: 1998 to 2020](#)

Bulletin | Published 30 May 2022

Annual estimates of economic activity by UK country, region and local area using gross domestic product (GDP). Estimates are available in current market prices and in chained volume measures and include a full industry breakdown of balanced regional gross value added (GVA(B)).

[GDP first quarterly estimate: 2022 Quarter 2 \(April to June\)](#)

Statistical publication | Published 31 August 2022

Gross domestic product (GDP) statistics measure the output of the economy in Scotland. The GDP first quarterly estimate is a national statistics publication for Scotland.

[NI Composite Economic Index](#)

Release | Published 7 July 2022

The NICEI is an experimental quarterly measure of the performance of the NI economy based on available official statistics.

[Short-term output indicators: January to March 2022](#)

Release | Published 28 July 2022

Data showing the short term movements in the output of industries in the production, construction and market services sectors for January to March 2022.

9 . Cite this statistical bulletin

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