

# Regional economic activity by gross domestic product, UK: 1998 to 2023

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)).

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Release date:  
17 April 2025

Next release:  
July 2026

## Correction

### 29 May 2025 12:00

We have discovered an issue with the regional gross domestic product (GDP) deflation method, whereby our use of gross value added (GVA) implied deflators introduces a divergence from UK GDP growth in 'real' volume terms, particularly when GDP and GVA do not follow similar paths. This only impacts GDP volume measures, but it will affect all levels of geography in this publication. No GVA estimates, nor GDP in current market prices, are affected by the issue.

We have now implemented an improved deflation method, which uses GVA implied deflators to deflate total GVA but separately deflates taxes (less subsidies) on products using a UK-level implied deflator, and then chain-links the two parts together to create a chained volume measure of regional GDP that is consistent with UK estimates.

This method change has revised all regional GDP volume estimates in Tables 8 to 13 of the GDP datasets for International Territorial Level (ITL) regions, city and enterprise regions, and local authorities. It has also revised the main points, text and numbers in Sections 2 and 3, and text in Section 7 of the statistical bulletin.

**10 October 2025 10:14**

We have corrected an error in the regional gross value added (GVA) deflation and chain-linking process used to compile “real” volume estimates at the International Territorial Level (ITL) 3 and local authority (LA) levels of geography. The error mainly affected the “mining and quarrying” industry, though there were also smaller errors in the “real estate” and “public administration” industries. Higher level industry aggregates that include these components were also affected to some extent, including the total economy measure.

Because the error affected the chained volume measures (CVM), it also affected the implied deflators derived from the CVM and current price data. Therefore, it fed through to the deflators used in our regional gross domestic product (GDP) volume estimates at the ITL3 and LA levels.

Estimates we publish for city and enterprise regions are built from LA level components. Volume estimates for these areas were also affected, as were the 15 new ITL2 regions introduced in this year’s publication. The error did not affect any GVA or GDP estimates published for the UK or for ITL1 countries and regions, nor any current price data at lower levels.

Although the error affected all areas at the ITL3 and LA levels, in most places the effect was relatively small. However, in a few specific places, the effect on the “mining and quarrying” industry was much larger. In these areas, the error distorted the total economy aggregate and gave a misleading picture of economic growth in the region.

We have now published replacement data tables for all areas affected. We have amended the main points, Table 2 and the accompanying text in the bulletin to reflect changes to the annual growth figures for combined authorities.

We apologise for any inconvenience caused.

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# 1 . Main points

- In 2023, real gross domestic product (GDP) for the UK increased by 0.3%; all International Territorial Level (ITL) 1 regions reported positive growth, with all four nations exceeding UK growth.
- Of the ITL1 regions, Northern Ireland experienced the largest increase in real GDP in 2023 at 2.1%; the smallest increase was seen in the South East at 0.0%.
- At the ITL1 level, London had the highest GDP per head in current market prices in 2023 at £69,077, while the North East had the lowest GDP per head at £28,583.
- Of the 15 English combined authorities, West of England showed the largest increase in real GDP in 2023 at 2.9%, while the largest decrease was registered in Tees Valley, and in Greater Lincolnshire, both at negative 1.3%.
- Of the combined authorities, West of England had the highest GDP per head in current market prices in 2023 at £47,961, while Tees Valley had the lowest GDP per head at £27,005.

## 2 . Gross domestic product by UK country and region

UK gross domestic product (GDP), in chained volume measures, was estimated to have increased by 0.3% in 2023.

Out of England, Northern Ireland, Scotland and Wales, the largest increase in real GDP in 2023 was in Northern Ireland at 2.1% (Table 1). The smallest increase in real GDP of 0.5% between 2022 and 2023 was in England.

The UK shows lower growth than all its constituent nations due to the effect of extra-regio, activity that cannot be assigned to a specific country or region, which decreased by 12.0% in 2023.

Table 1: Summary of gross domestic product statistics for selected countries and regions, 2023

|   | Population<br>(million) | GDP at<br>current<br>market<br>prices<br>(£ million) | GDP per<br>head at<br>current<br>market<br>prices<br>(£) | Annual<br>growth in<br>'real' GDP<br>(percentage) | Annual<br>growth in<br>'real' GDP<br>per head<br>(percentage) |
|---|-------------------------|--|--|---|---|
| <b>UK</b>                               | 68.3                    | 2,720,029  | 39,403   | 0.3   | -0.5  |
| <b>England</b>                          | 57.7                    | 2,329,630  | 40,382   | 0.5   | -0.5  |
| <b>North East</b>                       | 2.7                     | 77,498   | 28,583   | 1.7   | 0.6   |
| <b>North West</b>                       | 7.6                     | 270,833  | 35,635   | 1.1   | 0.0   |
| <b>Yorkshire<br/>and The<br/>Humber</b> | 5.6                     | 182,509  | 32,625   | 0.2   | -0.8  |
| <b>East<br/>Midlands</b>                | 5.0                     | 156,953  | 31,446   | 0.1   | -1.1  |
| <b>West<br/>Midlands</b>                | 6.1                     | 195,208  | 32,077   | 1.1   | -0.1  |
| <b>East</b>                             | 6.5                     | 229,264  | 35,442   | 0.9   | -0.2  |
| <b>London</b>                           | 8.9                     | 617,915  | 69,077   | 0.2   | -0.6  |
| <b>South East</b>                       | 9.5                     | 391,807  | 41,319   | 0.0   | -1.0  |
| <b>South West</b>                       | 5.8                     | 207,643  | 35,731   | 0.2   | -0.6  |
| <b>Wales</b>                            | 3.2                     | 92,767   | 29,316   | 0.6   | -0.4  |
| <b>Scotland</b>                         | 5.5                     | 204,188  | 37,192   | 0.7   | -0.1  |
| <b>Northern<br/>Ireland</b>             | 1.9                     | 63,265   | 32,944   | 2.1   | 1.6   |
| <b>Extra-Regio</b>                      | n/a                     | 30,180   | n/a  | -12.0   | n/a   |

Source: Regional economic activity by gross domestic product from the Office for National Statistics

Notes:

1. Figures may not sum because of rounding in totals; per head (pounds) figures are rounded to the nearest pound.
2. 2023 data are provisional.
3. Population estimates are sourced from [Population Estimates for UK release](#).
4. 'Real GDP' is GDP in chained volume measures.
5. Per head figures exclude Extra-Regio as it comprises activity that cannot be assigned to regions.
6. n/a stands for not applicable.

At the International Territorial Level (ITL) 1, the largest increase in real GDP in 2023 was in Northern Ireland at 2.1%, followed by the North East at 1.7%. The smallest increase in 2023 was in the South East at 0.0%, followed by the East Midlands at 0.1%.

### **Figure 1: All UK countries and regions saw positive growth in real GDP between 2022 and 2023**

#### **Notes:**

1. GDP in chained volume measures.
2. This chart shows annual growth rates to one decimal place. There may be instances where growth in a region is showing no change to one decimal place. However, there may be movements in the underlying data.

### 3 . Combined authorities

This year we have adopted the 2025 update to the International Territorial Levels (ITL) geography framework. This is the first major update since the introduction of the ITL in 2021, to replace the Nomenclature of Units for Territorial Statistics (NUTS) classification following the UK leaving the European Union.

The new ITL classification is unchanged at the ITL1 level (countries and regions) but includes considerable changes at both ITL2 and ITL3 levels. Of particular interest, the ITL2 level has been realigned to match as far as possible the emerging combined authorities with elected mayors, making it more relevant to current areas of economic interest.

In a departure from our usual commentary, this year we include a focus on the 15 currently agreed combined authorities, 12 of which match ITL2 subregions, and the other three are included in our supplementary tables for city and enterprise regions (CER).

Table 2: Combined authorities ranked by gross domestic product per head, 2023

| Combined Authority              | Geocode   | ITL code | GDP per head at current market prices (£) | Annual growth in 'real' GDP per head (percentage) | GDP at current market prices (£ million) | Annual growth in 'real' GDP (percentage) |
|---------------------------------|-----------|----------|---|---|--|--|
| West of England                 | E47000009 | TLK5     | 47,961                                    | 1.6   | 47,109                                   | 2.9                                      |
| Cambridgeshire and Peterborough | E47000008 | TLH4     | 40,723                                    | 0.9   | 37,428                                   | 2.2                                      |
| York and North Yorkshire        | E47000012 | TLE2     | 38,005                                    | 0.6   | 31,711                                   | 1.4                                      |
| Greater Manchester              | E47000001 | TLD3     | 37,357                                    | 0.0   | 110,152                                  | 1.3                                      |
| West Yorkshire                  | E47000003 | TLE4     | 33,836                                    | -0.6  | 81,279                                   | 0.5                                      |
| Lancashire                      | n/a       | TLD4     | 31,167                                    | -0.9  | 48,944                                   | 0.3                                      |
| Liverpool City Region           | E47000004 | TLD7     | 31,016                                    | -0.2  | 49,196                                   | 0.9                                      |
| West Midlands                   | E47000007 | TLG3     | 31,012                                    | -0.1  | 92,443                                   | 1.0                                      |
| East Midlands                   | E47000013 | TLF1     | 30,841                                    | -1.7  | 69,443                                   | -0.8                                     |
| Hull and East Yorkshire         | n/a       | CER      | 30,325                                    | -0.4  | 18,864                                   | 0.8                                      |
| Devon and Torbay                | n/a       | CER      | 30,212                                    | -1.4  | 29,393                                   | -0.6                                     |
| Greater Lincolnshire            | n/a       | CER      | 29,712                                    | -1.9  | 33,017                                   | -1.3                                     |
| North East                      | E47000014 | TLC4     | 29,131                                    | 1.8   | 58,624                                   | 2.8                                      |
| South Yorkshire                 | E47000002 | TLE3     | 28,187                                    | -1.3  | 39,661                                   | -0.1                                     |
| Tees Valley                     | E47000006 | TLC3     | 27,005                                    | -2.7  | 18,875                                   | -1.3                                     |

Source: Regional economic activity by gross domestic product from the Office for National Statistics

Notes:

1. Data for all ITL2 subregions are included in our dataset [Regional gross domestic product: all ITL regions](#); data for CER areas are included in our dataset [Regional gross domestic product: city and enterprise regions](#).
2. GDP at current market prices is on a workplace basis.
3. Figures may not sum because of rounding in totals; per head (pounds) figures are rounded to the nearest pound sterling.
4. 2023 data are provisional.
5. Per head figures exclude Extra-Regio as it comprises activity that cannot be assigned to regions.
6. 'Real GDP' is GDP in chained volume measures.
7. n/a stands for not available; some of the newest Combined Authorities have not yet been assigned geocodes.

When ordered by gross domestic product (GDP) per head in current market prices, the highest combined authority areas in 2023 were West of England at £47,961, followed by Cambridgeshire and Peterborough at £40,723.

The lowest combined authority areas in 2023 were Tees Valley at £27,005, and South Yorkshire at £28,187.

In real terms, 10 of the 15 combined authority areas experienced an increase in GDP between 2022 and 2023. The largest increases were in West of England (2.9%), North East (2.8%), and Cambridgeshire and Peterborough (2.2%).

The West of England saw considerable growth in manufacturing between 2022 and 2023, particularly in transport equipment. In the services sector it grew strongly in telecommunications and financial services.

Of the five combined authority areas that saw decreases in real GDP in 2023, the largest decreases were in Tees Valley (negative 1.3%), Greater Lincolnshire (negative 1.3%), and East Midlands (negative 0.8%).

While GDP per head can be a useful way of comparing regions of different size, comparisons can be affected by commuting flows into or out of the region. Therefore, [our figures should be used with caution](#). For such areas, it is advisable to refer to our [regional and subregional labour productivity articles](#) for a direct measure of economic performance.

## 4 . Gross domestic product per head for UK local authorities, 1998 to 2023

Figure 2 allows users to explore how gross domestic product per head in current market prices has varied among local authorities between 1998 and 2023.

### Figure 2: Gross domestic product per head for UK local authorities, 1998 to 2023

#### Notes:

1. The City of London and Westminster are not shown on the map because their GDP per head are large outlier values.
2. Natural breaks have been used to classify the data into ranges.
3. Figures for Northern Ireland in 2023 are not yet available because of a delay in the production of population estimates.

## 5 . Data on regional economic activity

### [Regional gross domestic product: all ITL regions](#)

Dataset | Released 17 April 2025

Annual estimates of balanced UK regional gross domestic product (GDP). Current price estimates and chained volume measures for UK countries, ITL1, ITL2 and ITL3 regions.

### [Regional gross domestic product: city and enterprise regions](#)

Dataset | Released 17 April 2025

Annual estimates of balanced UK regional gross domestic product (GDP). Current price estimates, chained volume measures and implied deflators for combined authorities, city regions, and other economic and enterprise regions.

### [Regional gross domestic product: local authorities](#)

Dataset | Released 17 April 2025

Annual estimates of balanced UK regional gross domestic product (GDP). Current price estimates and chained volume measures for local authority districts, London boroughs, unitary authorities and Scottish Council areas.

### [Regional gross value added \(balanced\) by industry: all ITL regions](#)

Dataset | Released 17 April 2025

Annual estimates of balanced UK regional gross value added (GVA(B)). Current price estimates, chained volume measures and implied deflators for UK countries, ITL1, ITL2 and ITL3 regions, with a detailed industry breakdown.

### [Regional gross value added \(balanced\) by industry: city and enterprise regions](#)

Dataset | Released 17 April 2025

Annual estimates of balanced UK regional gross value added (GVA(B)). Current price estimates, chained volume measures and implied deflators for combined authorities, city regions, and other economic and enterprise regions, with a detailed industry breakdown.

## 6 . Glossary

### **Chained volume measures (CVM)**

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

### **Constant price (KP) series**

These series have the effects of inflation removed by holding prices throughout the series at the level in a chosen base year (also known as "real terms" series).

### **Current price (CP) series**

These series include the effects of inflation.

### **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.

## Gross value added (GVA)

The value generated by any unit engaged in production and the contributions of individual sectors or industries to gross domestic product.

## ITL

The [International Territorial Levels \(ITL\)](#) are part of the new UK geographies classification system. This has superseded the Nomenclature of Units for Territorial Statistics (NUTS) classification system.

# 7 . Data sources and quality

## Methodology information

Various [guidance and methodology publications relating to regional gross value added](#): balanced (GVA(B)), income (GVA(I)) and production (GVA(P)) are available. Our [Regional accounts methodology guide: June 2019](#) provides an overview of the methodology used to compile regional accounts outputs.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Regional economic activity by gross domestic product Quality and Methodology Information](#).

Other historical guidance, methodology and update documents are also available in [Section 7: Measuring the data of our Regional economic activity by gross domestic product, UK: 1998 to 2018 bulletin](#).

## Revisions

Gross regional product (GDP) and GVA estimates show revisions for the period 1998 to 2022.

All estimates, by definition, are subject to statistical error. However, in this context the word refers to the uncertainty in any process or calculation that uses sampling, estimation or modelling. Most revisions reflect either the adoption of new statistical techniques or the incorporation of new information, which allows the statistical error of previous estimates to be reduced.

This year we have adopted the 2025 update to the International Territorial Levels (ITL) geography framework. This is the first major update since the introduction of the ITL in 2021, to replace the Nomenclature of Units for Territorial Statistics (NUTS) classification following the UK leaving the European Union.

The new ITL classification is unchanged at the ITL1 level, still comprising Wales, Scotland, Northern Ireland and the nine English regions. There is also a 13th "region", called "extra-regio", which contains activity that cannot be assigned to a mainland region of the UK (North Sea oil and gas extraction, UK embassies and armed forces posted overseas).

At the ITL2 level, there are now 46 subregions (formerly 41), with new subregions in Wales, Scotland, and the North East, South West and East of England.

At the ITL3 level, there are now 182 local areas (formerly 179), with new areas in all countries and regions except Northern Ireland, the North East, East Midlands and West Midlands.

At the local authority district (LAD) level, we have updated to the 2024 boundaries, giving a total of 361 local authority districts, unitary authorities, metropolitan districts, London boroughs and Scottish Councils.

With so many geography changes, we have reviewed and updated the industry groupings necessary to avoid disclosure of confidential information at each level of ITL geography.

- At the ITL1 level, there is one extra industry, splitting out 36 to 37 into 36 (water supply) and 37 (sewerage).
- At the ITL2 level, there are two extra industries, splitting 36 to 39 into 36 to 37 and 38 to 39 (waste management), and splitting 59 to 60 into 59 (TV and film production) and 60 (broadcasting).
- At the ITL3 level, there is one fewer industry, splitting 31 to 33 into 31 to 32 (other manufacturing) and 33 (installation and repair), but combining 64 to 66 (finance and insurance), and combining 74 to 75 (other scientific activities, including vets).
- At the LAD level, there are three extra industries, splitting 01 to 09; 35 to 39 (ABDE) into 01 to 09 (AB) and 35 to 39 (DE), splitting 16 to 23 into 16 to 18 (paper, wood and printing) and 19 to 23 (oil, chemicals and minerals), splitting 24 to 30 into 24 to 25 (metal and metal products) and 26 to 30 (electrical products and machinery), and splitting 58 to 63 into 58 to 60 (publishing and broadcasting) and 61 to 63 (telecoms and computing), but combining 86 to 88 (human health and social work).

There will be a small amount of industry suppression at the LAD level, where we have extreme outliers such as the Isles of Scilly and the Scottish island councils, or to avoid secondary disclosure of Arran and Cumbrae in Scotland, as there is a slight mismatch between the ITL geography and the Scottish Council areas of Argyll and Bute, and North Ayrshire.

We have improved the method used to deflate estimates of regional GDP to remove the effect of price inflation. Previously we used regional GVA implied deflators to deflate GDP at subnational levels, but this has been found to result in a divergence from UK GDP when GVA and GDP are moving at different rates of growth. Our new method uses GVA implied deflators to deflate total GVA but separately deflates taxes (less subsidies) on products using a UK-level implied deflator, and then chain-links the two parts together to create a chained volume measure of regional GDP that is consistent with UK estimates.

We have published revisions triangles for GVA:

- [revisions triangles: regional gross value added \(balanced\) in current basic prices](#)
- [revisions triangles: regional gross value added \(balanced\) in chained volume measures](#)

## Accredited official statistics

Data included in this release are designated as [accredited official statistics](#), which means they have been independently assessed by the Office for Statistics Regulation (OSR) and confirmed to comply with the standards of trustworthiness, quality and value in the [Code of Practice for Statistics](#).

## Quality information

Figures for 2023 are provisional as national estimates have not been through supply and use balancing at the time of this publication. Regional industry estimates for the components of income and production in 2023 have been calculated by applying growth in gross domestic product (output) industry figures and then constraining these to sum to the income and production component totals. The figures used in this process are consistent with those published in the [UK National Accounts, The Blue Book: 2024](#).

During work to improve the Producer Price Index (PPI) and the Services Producer Price Indices (SPPI), a problem was identified with the methods used to calculate these indices. Work is under way to address this problem, however, no notable changes in recent economic trends are expected to result from this issue.

Users should be aware that the problem affects gross domestic product (GDP) deflator values going back several years. These are used to calculate regional gross value added (GVA) in chained volume measures and once the problem has been addressed there may be some revisions to both national and regional volume estimates. For further information see our statement about the [Pausing of Producer Prices publications](#).

Following Census 2021 in England and Wales, we now have rebased population estimates for the intercensal years 2012 to 2020. Population data for Northern Ireland are also complete up to 2022, though we do not yet have a breakdown of Northern Ireland to ITL3 and local authority level for 2023. Population data for Scotland are subject to additional delay as their census was itself delayed by a year. We do not yet have population estimates for the further breakdown of Scottish Councils needed to produce some ITL2 and ITL3 regions of Scotland, for the intercensal years 2012 to 2021 or for 2023. We have therefore suppressed any estimates of gross domestic product (GDP) per head for affected areas of Scotland and Northern Ireland from this publication.

## 8 . Related links

### [Small area gross value added estimates, UK: 1998 to 2022](#)

Article | Released 21 August 2024

Breaking down local authority level gross value added to lower levels of geography. These are official statistics in development.

### [Regional gross disposable household income, UK: 1997 to 2022](#)

Bulletin | Released 4 September 2024

Annual estimates of regional gross disposable household income (GDHI) for the UK International Territorial Level (ITL) regions, local and combined authorities, and other economic regions.

### [Development of regional household expenditure measures](#)

Article | Released 12 March 2025

Further developments to our estimates of household spending and saving in the countries, regions and subregions of the UK. These are official statistics in development.

### [Country and regional public sector finances, UK: financial year ending 2023](#)

Article | Released 7 June 2024

Public sector revenue, expenditure and net fiscal balance on a country and regional basis.

### [Regional and subregional labour productivity, UK: 2022](#)

Bulletin | Released 17 June 2024

Regional and subregional output per hour and output per job performance levels.

# 9 . Cite this statistical bulletin

Office for National Statistics (ONS), released 17 April 2025, ONS website, statistical bulletin, [Regional economic activity by gross domestic product, UK: 1998 to 2023](#)