

ECONOMY AND LABOUR MARKET

GDP Quarterly National Accounts, Scotland

2023 Quarter 2 (April to June)

1 November 2023

This publication includes updated estimates of onshore GDP growth in real terms up to the second quarter of 2023, along with additional breakdowns of GDP by categories of income and expenditure and key household sector economic statistics which are used for economic forecasting and modelling.

Key results

- In 2023 Quarter 2, Scotland's onshore GDP is estimated to have fallen by an unrevised 0.3% compared to the previous quarter. This follows unrevised growth of 0.2% in 2023 Quarter 1.
- In the latest quarter, output fell by 0.1% in the services sector and fell by 1.9% in production sector, partially offset by growth of 0.8% in the construction sector.
- The household saving ratio is estimated at 4.9% in the latest quarter, up from 4.5% at the same point last year. The savings ratio has fallen back from higher levels in 2020 and 2021, and is now slightly below pre-pandemic levels.

Information About This Release

The coronavirus pandemic led to a number of challenges in collecting and processing the data to calculate GDP, as well as leading to large impacts on structures and behaviours in the economy. As a result, estimates for 2020 and 2021, in particular, are subject to more uncertainty than usual and may be more prone to revision over time.

International comparisons, and comparisons within the UK, should be made with appropriate caution for the levels of uncertainty and variations in methods in use by different statistical institutes around the world. The estimates of GDP from 2020 onwards are continuing to evolve as more data becomes available, and it is likely that these results, including comparative positions relative to pre-pandemic levels, will continue to change over the next several years.

Second quarterly estimate of onshore GDP growth for 2023 Quarter 2

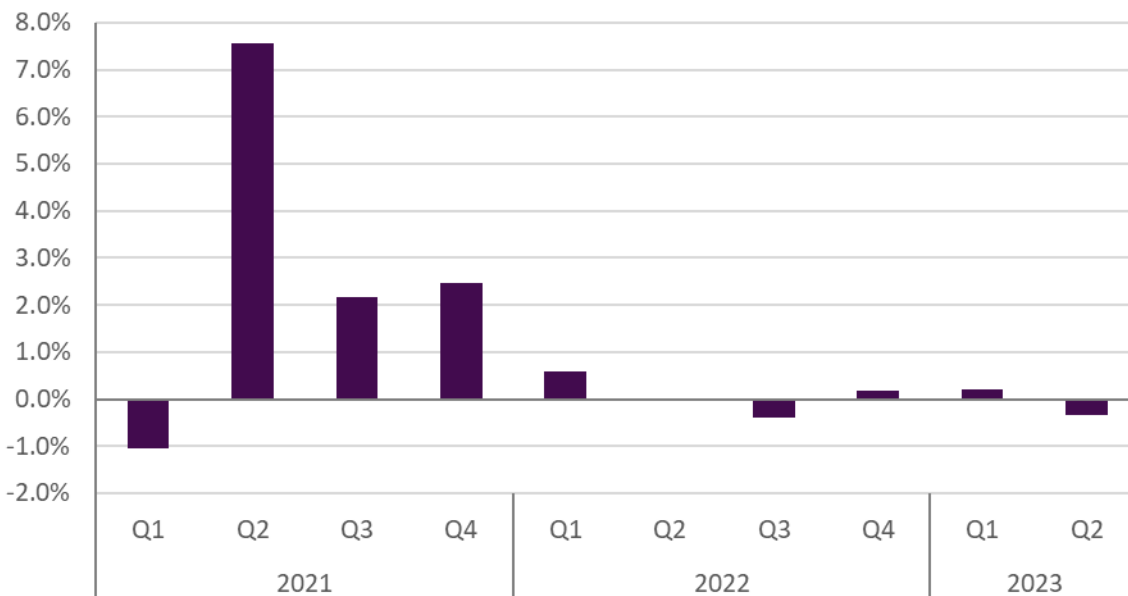
Headline quarterly GDP figures

Scotland’s onshore GDP (i.e. excluding offshore oil and gas) is estimated to have fallen by 0.3% during 2023 Quarter 2 (January to March), unrevised from the [first estimate for the quarter](#) published on 30 August. The increase in the latest quarter follows unrevised growth of 0.2% during 2023 Quarter 1 (January to March) and is the first decrease in quarterly output since the downwardly revised fall of 0.4% during Quarter 3 (July to September).

Over the year, compared to the same quarter in 2022, Scotland’s GDP has fallen by 0.4%. This has been revised down from the first estimate of a 0.2% fall. Looking at the data more widely, whether in quarterly or monthly terms, GDP has fluctuated from quarter to quarter but been broadly flat since the end of 2021.

Figure 1: Quarterly GDP growth has fluctuated from quarter to quarter, but been broadly flat since the end of 2021.

GDP percentage change compared to previous quarter, Scotland onshore



Annual GDP growth and comparisons to pre-pandemic levels

Annual GDP is now estimated to have grown by 5.2% in 2022, following growth of 9.2% in 2021 and a fall of 12.0% in 2020. These figures have been revised up for all three years.

The latest estimates show that, in 2023 Quarter 2, GDP in Scotland is now 0.5% above the pre-pandemic level in 2019 Quarter 4, revised up from the previous estimate of being 0.5% below. This change is due to upward revisions to GDP growth in 2021 and the early part of 2022, and is largely driven by updates based on the data drawn from [the latest comparable UK GDP statistics](#), which have been similarly [revised based on the results of the UK Blue Book 2023](#). Further information on the revisions to GDP is available in the later section of this publication.

Users should continue to be cautious about drawing conclusions based on comparisons between Scotland and the UK as a whole, or other countries, for the periods when the economy was most severely impacted by the coronavirus pandemic. The estimates of GDP from 2020 onwards are continuing to evolve as more data becomes available, and it is likely that these results will change again in future releases. A [recent blog by the National Statistician](#) has re-iterated the challenges of measuring GDP at this time.

Latest results by industry of output

In 2023 Quarter 2, output in the services sector fell by 0.1% overall compared to the previous quarter, with output falling in six of the fourteen subsectors. The largest negative contributions to overall growth came from financial and insurance services (-1.1%) and information and communication services (-1.6%).

Output in the production sector fell by 1.9% overall, with decreases in the output of all four subsectors. Within production, the fall of 1.8% in manufacturing making the most significant overall contribution to the fall in headline GDP, while output in the electricity and gas supply subsector fell by 2.4%.

Output in the construction sector grew by 0.8% during Quarter 2.

Estimates of GDP growth in real terms based on the expenditure approach to GDP (consumption, government expenditure, investment and trade) are also available in the downloadable data. These figures are currently designated as official statistics in development and are principally published for use by analysts, for example as inputs to economic forecasts.

The [Monthly GDP](#) estimates give a more detailed indication of the trends for each industry sector, and include results up to August 2023 at the time of release.

GDP in nominal terms

In 2022 as a whole, annual onshore GDP is estimated to have been £188.9 billion in total, or £34,457 per person. This increased by £19.1 billion, or 11.3% compared to 2021 due to the combination of real terms growth of 5.2% and an increase in the GDP deflator by 5.8% which reflects the high levels of price inflation experienced during 2022.

Including oil and gas extraction in Scottish waters, Scotland's GDP in 2022 is estimated to be £211.7 billion in total, or £38,622 per person. As well as the sharp rise in the nominal value of onshore GDP during 2022, the gross value added from oil and gas extraction in Scottish adjacent waters also increased strongly due to high oil prices and increased profitability during the year.

Although GDP statistics in real terms are available for the onshore economy only, estimates of GDP in nominal terms are produced for both the onshore and wider economy including oil and gas extraction. These are widely used for international comparisons and fiscal analysis. A range of other statistics on oil and gas activity in Scottish waters is available at <https://www.gov.scot/collections/economy-statistics/>.

Additional measures of economic activity

GDP (or GDP per person) is the most widely known indicator of economic activity and is frequently used to make comparisons between places or over time. There are also a range of other measures which can be used to indicate different aspects of economic activity and wellbeing.

Within this publication, Gross Disposable Household Income is the most comprehensive direct measure of the money earned by people in Scotland, including income earned in other parts of the UK or abroad, and accounting for transfers such as pensions, taxes and benefits.

Gross National Income (GNI) is a measure which accounts for income flows between countries or territories for all sectors of the economy, such as outflows of profits generated by foreign owned companies. [Experimental estimates of GNI and primary income flows for Scotland up to 2021](#) are available.

[Labour productivity statistics](#), which report GDP per job or per hour worked are available up to 2022.

Looking beyond GDP and the economy, Scotland's National Performance Framework (NPF) includes a range of economic, social and environmental indicators which give a wider indication of national wellbeing. Further information can be found at nationalperformance.gov.scot.

Gross Disposable Household Income (GDHI)

Gross Disposable Household Income (GDHI) is a measure of how much money the population has for spending or saving after earnings and transfers such as pensions, taxes and benefits are accounted for. GDHI includes income earned in other areas of the UK or from abroad (for example, offshore workers' income or income from overseas investments) which are not part of onshore GDP.

In 2023 Quarter 2, GDHI is estimated to have increased by 6.8% in nominal terms (without adjusting for inflation) over the year compared to 2022 Quarter 2. The largest part of GDHI is income from employment, which is up by 7.1% over the year. In the latest quarters there has also been a sharp increase in the value of social benefits received due to rises in line with inflation.

Household Savings Ratio

The household saving ratio was 4.9% in the latest quarter, up from 4.5% at the same point last year. This upward movement was driven by increases in the total value of social benefits and earned income, leading to the total value of resources available for spending or saving increasing by 7.7%. This has outstripped the estimated 7.2% increase in the value of household expenditure, which means that savings have increased. Whilst the savings ratio has risen over the last year, it has fallen back from much higher levels in 2020 and 2021 when expenditure was constrained, and is now slightly below pre-pandemic levels.

The household saving ratio represents funds which are available for adding to savings, including in pension funds, or paying off debt. It is not a measure of actual deposits made to savings accounts, or of savings accounts balances, but is a useful indicator of trends in overall household finances, and has been strongly impacted during the coronavirus pandemic.

Revisions

In this release, Scotland's onshore GDP has been open for revision back to 2020 Q1. Estimates up to 2019 are constrained to the latest annual supply and use tables. Revisions have been largely driven by updates based on the data drawn from [the latest comparable UK GDP statistics](#), which have been similarly [revised based on the results of the UK Blue Book 2023](#).

In particular, we have made revisions to the industry series which are estimated based directly on the equivalent results for the UK. For example where output in Scotland is provisionally estimated to grow in line with GVA for the UK as a whole (e.g. public sector health output or mining support services), or where output in Scotland is provisionally based on a share of UK GVA derived from employment (e.g. construction, insurance and pensions) or some other measure of activity (e.g. financial services). There is a [sources guide](#) available with information on the data sources used for each industry.

This is the first time that quarters earlier than 2023 have been open to revision since the estimates for 2022 Quarter 4. Other revisions are due to more routine updates to survey data and other sources, including late responses, additional quality assurance and data cleaning, and updated seasonal adjustment and deflators. These impacts can extend all the way back to 2020.

The scale of revisions to quarters and years since 2020 Q1 can be seen in the table below. There are relatively large upward revisions to growth in 2021 in particular. Overall, GDP in volume terms is now estimated to be higher relative to the pre-pandemic level in 2019 Quarter 4 than it was in the previous estimate. The largest contribution to this revision comes from health services, where output in Scotland is provisionally estimated to move in line with the UK as a whole for the years after the latest supply and use tables for 2019. Growth in the latest three quarters is unrevised at the headline level.

In other components of GDP, there are also revisions back to the start of 2021. In many cases these revisions also reflect equivalent updates in the latest UK national accounts where we base our estimates on a top-down share of the UK estimates, or where these components are linked to the results of the output approach to GDP. The estimates for Household final consumption expenditure have been also been revised due to updated data from the Living Costs and Food Survey published in the ONS Family Spending release, and a review of the apportionments of UK results based on this data. There are also revisions to the RUK imports and changes in inventories components due to the balancing adjustments to ensure that estimates of total supply and demand for each type of product in the economy remain consistent with each other in all quarters.

Table 1: Revisions to percentage growth rates compared to the first estimate for Quarter 2

Period	Latest estimate	Previous estimate	Revision* (percentage points)
2020 Q1	-3.2%	-3.1%	-0.1
2020 Q2	-22.1%	-22.1%	+0.1
2020 Q3	17.1%	16.8%	+0.4
2020 Q4	1.8%	1.7%	+0.2
2020 Annual	-12.0%	-12.2%	+0.1
2021 Q1	-1.1%	-1.0%	0.0
2021 Q2	7.6%	7.1%	+0.5
2021 Q3	2.2%	2.0%	+0.1
2021 Q4	2.5%	2.2%	+0.2
2021 Annual	9.2%	8.4%	+0.8
2022 Q1	0.6%	0.6%	0.0
2022 Q2	0.0%	0.0%	0.0
2022 Q3	-0.4%	-0.3%	-0.1
2022 Q4	0.2%	0.2%	0.0
2022 Annual	5.2%	4.9%	+0.2
2023 Q1	0.2%	0.2%	0.0
2023 Q2	-0.3%	-0.3%	0.0

*Revisions may appear different to the calculated result due to rounding in the results

Measurement of GDP and consistency with results for the UK as a whole

GDP has been open for revision back to the start of 2020. Due to our data sources and methods being similar to, or in some case directly derived from, the UK statistics produced by the ONS, there are some changes to the recent trends in Scotland which mirror the latest UK statistics published on 29 September, including the upward revisions to GDP growth in 2021 in particular.

However, there are differences between the estimates for Scotland and the UK after 2019 due to the faster timescales for methodology updates at UK level. This means that not all industries can be compared with the UK on a like for like basis at this time. While the level of output in some industries and in total GDP are still broadly comparable to the UK as a whole, for many industries those comparisons should be made with caution. For example, estimates for manufacturing made a significant downward contribution to revisions at UK level in 2021, while retail and wholesale made a significant upward contribution, but neither of these revisions are reflected in the estimates for Scotland at this time.

Specifically, whilst the UK statistics for real terms GDP growth are based on double deflated gross value added (GVA) for 2020 and 2021 (that is, the prices of both outputs and inputs are separately accounted for), the estimates for Scotland are only double deflated up to 2019 and the estimates for 2020 onwards are based on output only.

Learning from the experience at UK level, where the introduction of double deflated estimates for 2020 in September 2022 led to large downward revisions to GDP, which were then largely reversed by large upward revisions when double deflated estimates were introduced in September 2023, we plan to wait until we can produce double deflated estimates for both years before introducing them into our time series at the same time. This development is intended to maintain stability in the estimates for Scotland, but at the expense of some comparability with the figures for the UK as a whole. On current timescales, we are likely to introduce double deflated GDP for 2020 and 2021 in the release for 2024 Quarter 3, following the production of Supply and Use tables for 1998-2021 (autumn 2024) based on the ONS Regional GDP statistics for the same period (summer 2024) which are derived from the ONS Blue Book 2023 statistics released on 31 October 2023.

Users should continue to be cautious about drawing conclusions based on comparisons between Scotland and the UK or other countries for the periods when the economy was most severely impacted by the coronavirus pandemic.

The estimates of GDP from 2020 onwards are continuing to evolve as more data becomes available, and it is likely that these results will change again in future releases.

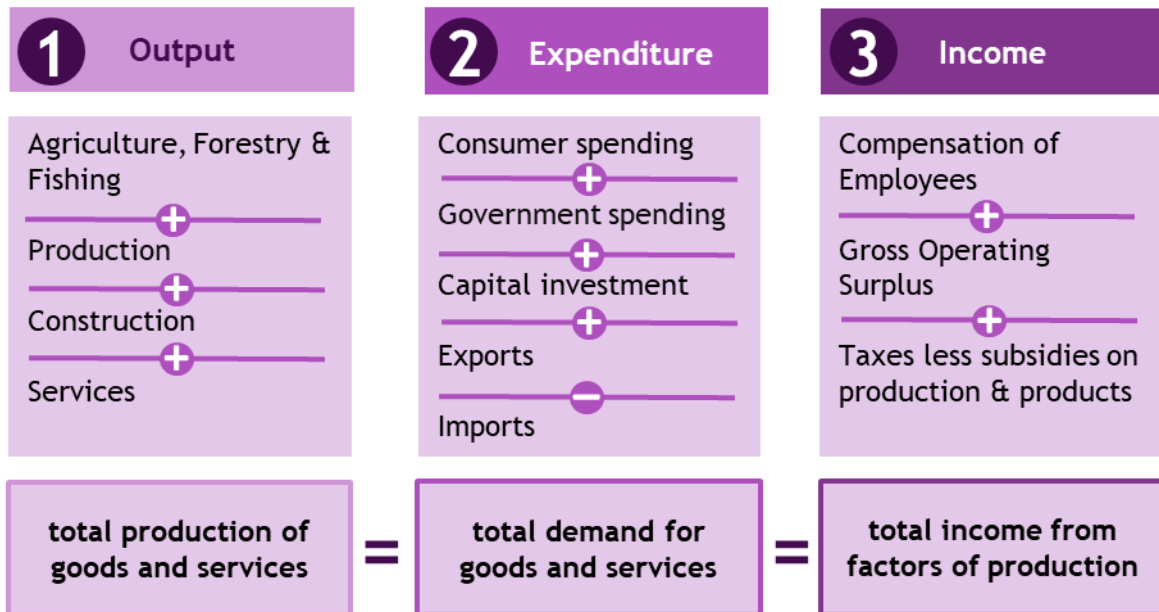
About the GDP Quarterly National Accounts

This publication includes the second estimate of onshore GDP growth for 2023 Quarter 2 (April to June), which uses additional data released since the Quarterly GDP First Estimate published on 30 August 2023. The results in this release are broadly comparable to the UK Quarterly National Accounts for Quarter 2 published on 29 September 2023.

In addition to the second estimate of onshore growth in real terms, the GDP Quarterly National Accounts also includes:

- Total GDP in nominal (cash) terms for the onshore economy and also the wider economy including offshore activities
- Onshore GDP in nominal terms broken down using all three of the output, expenditure and income approaches
- Experimental statistics estimates of the expenditure approach to GDP in real terms
- Household Sector income and expenditure accounts for Scotland, including Gross Disposable Household Income (GDHI) and the Household Savings Ratio
- Public sector revenues.

Gross domestic product (GDP) is the main indicator of economic activity in Scotland. There are three ways to measure GDP which should all produce the same result. Each of these approaches allows GDP to be broken down into different categories.



The GDP Quarterly National Accounts covers all three approaches to GDP and their breakdowns in **current prices** (cash terms, unadjusted for inflation) for the onshore economy. Estimates of onshore GDP in **real terms** are available using the output approach, and are now also available for the expenditure approach as experimental statistics.

The GDP Quarterly National Accounts also includes estimates of total GDP in current prices for the wider Scottish economy including an illustrative share of UK extra-regio (offshore and overseas) economic activity.

Development Plan

The Scottish Fiscal Commission publishes an annual Statement of Data Needs ([link](#)). These outline the data the SFC requires for its forecasts and highlights priorities for new or improved data. Information on the plans relating to these priorities is available [here](#).

Next publications

GDP Monthly Estimate (experimental statistics), September 2023	29 November 2023
GDP First Quarterly Estimate (national statistics), 2023 Quarter 3	29 November 2023
GDP Monthly Estimate (experimental statistics), October 2023	20 December 2023
GDP Quarterly National Accounts (national statistics), 2023 Quarter 3	31 January 2023

A National Statistics publication for Scotland

Quarterly National Accounts for Scotland was assessed by the Office for Statistics Regulation (OSR) and designated as National Statistics in January 2014, signifying compliance with the Code of Practice for Statistics. Assessment Report 272 can be found at <https://www.statisticsauthority.gov.uk/publication/quarterly-national-accounts-scotland/>.

Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Since the assessment there has been a programme of continuous improvement to the Quarterly National Accounts, including to the data used for capital investment and household earnings, and improved communication of the results. Some developments are ongoing and are clearly identified as experimental statistics in the release.

Correspondence and enquiries

For enquiries about this publication, please contact:

John Dowens,
National Accounts Unit,
Office of the Chief Economic Adviser

e-mail: john.dowens@gov.scot
or economic.statistics@gov.scot

For general enquiries about Scottish Government statistics please contact:
Office of the Chief Statistician, Telephone: 0131 244 0442,
e-mail: statistics.enquiries@gov.scot

Complaints and suggestions

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