

ECONOMY AND LABOUR MARKET

Scotland's Gross Domestic Product, Quarter 4 2016

5 April 2017

1. Main Points

- In the fourth quarter of 2016 the output of the Scottish economy contracted by 0.2%, after 0.1% growth in 2016 Q3. Equivalent UK growth this quarter was 0.7%.
- Scottish GDP per person contracted by 0.3% during the fourth quarter of 2016.
- In the fourth quarter of 2016 output in the services industry in Scotland was flat (0.0% change), while production contracted by 0.9% and construction contracted by 0.8%.
- Compared to the same period last year (i.e. 2016Q4 vs 2015Q4), the output of the Scottish economy was flat (0.0% change). Equivalent UK growth was 1.9%.
- Over the calendar year (i.e. 2016 vs 2015) Scottish GDP grew by 0.4%. Equivalent UK growth was 1.8%.

2. Understanding GDP

Change in gross domestic product (GDP) is the main indicator of economic growth in Scotland. When external commentators describe the growth or reduction in the size of the economy, it is the change in GDP that they are referring to.

There are three ways of calculating GDP. This publication uses the output approach which calculates GDP as the sum of all production activity within Scotland. This is estimated by measuring the output of each industry in Scotland and combining them together to form an estimate for the whole economy.

All data in this bulletin have been adjusted to allow for meaningful comparisons over time. Estimates are seasonally adjusted and have had the effect of price changes removed. This publication presents growth for GDP in the short and medium term. Short term change compares the most recent quarter with the previous quarter. Medium term change compares the most recent quarter with the same time the previous year.

This publication presents results for what is commonly referred to as the “onshore economy”, which means they exclude oil and gas extraction activity in the North Sea. UK headline figures contain this activity.

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3. Background Information

3.1 Background on this publication

The quarter 4 2016 figures cover October to December 2016.

Additional documents have been published alongside this publication:

- **Tables** which give more detail on the figures summarised in this publication
- Up to date information on the **methodology** behind this publication is
- A new **Frequently Asked Questions** document

These additional documents are available here:

<http://www.gov.scot/Topics/Statistics/Browse/Economy/PubGDP/GDP2016Q4/DOCS>

We thank users for their response to the Scottish Quarterly GDP user survey in March. A follow-up will be published with next quarters' figures covering Quarter 1 (January to March) 2017, which is due on 5th July 2017.

For further information on Scotland's Gross Domestic Product publication please contact Carrie Graham (gdp_stats@scotland.gov.scot).

3.2 Related publications

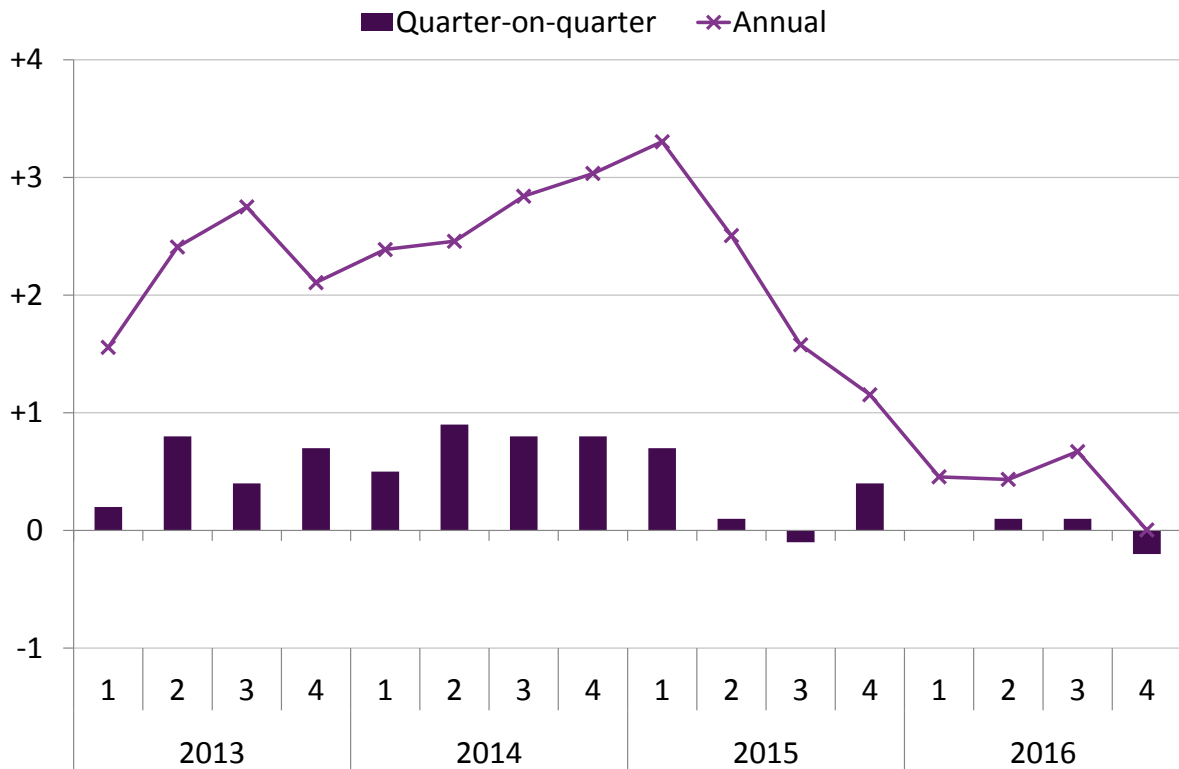
The data published here represents relative change of the economy. For **monetary value** and more information on the relative size of each industry, please refer to the Quarterly National Accounts publication (Q4 2016 figures will be published 10th May 2017 at <http://www.gov.scot/Topics/Statistics/Browse/Economy/SNAP/QNAS>).

For information on the **relative size of industries** within the economy please refer to the Scottish Supply and Use Tables (most recent figures published July 2016 <http://www.gov.scot/input-output>).

4. Headline GDP, UK comparison, GDP per person

The information presented in section 4 is available in Tables 1 and 2 of the downloadable excel tables published alongside this report.

4.1 Scottish GDP, quarter-on-quarter and annual percentage change



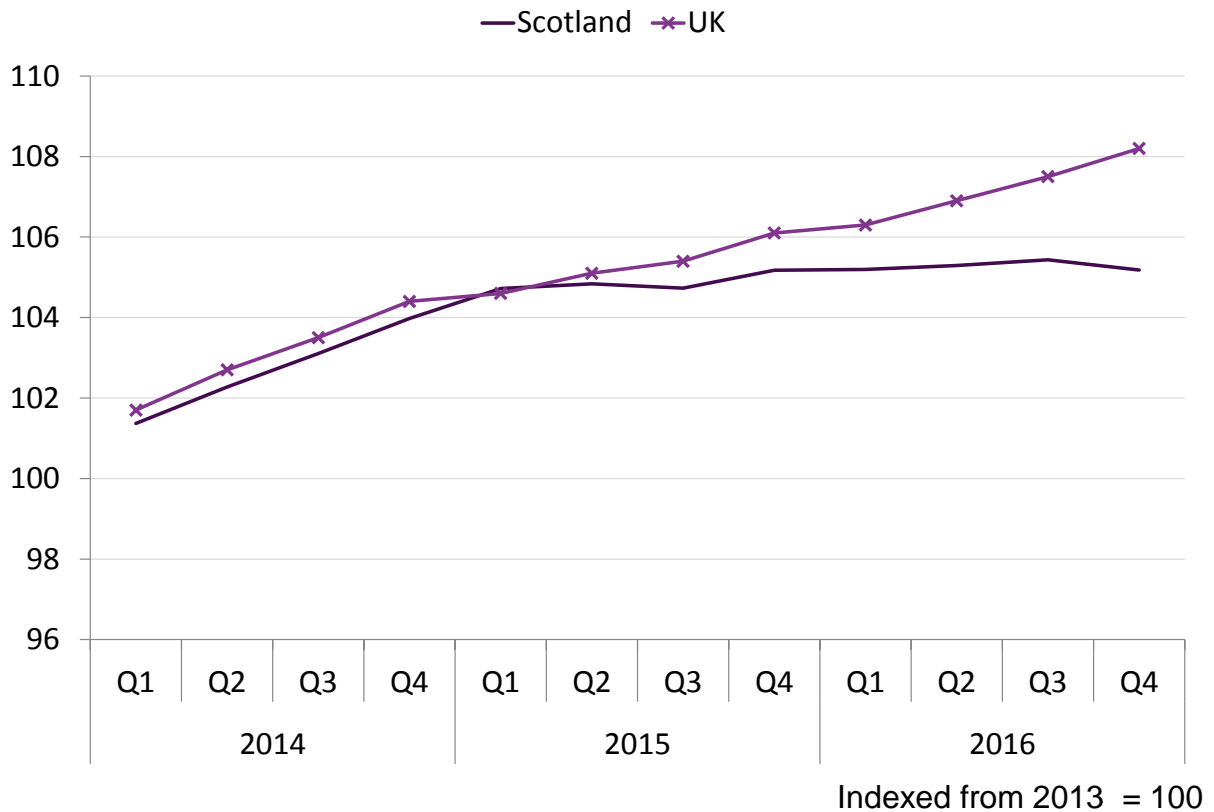
Short term (the last 3 months)

In the fourth quarter of 2016 the Scottish Economy contracted by 0.2% compared to the third quarter of 2016. Over the same period UK GDP grew by 0.7%. In Scotland contractions in the construction and production industries were not tempered by the services industry, which remained flat.

Medium term (the last year)

In Q4 2016 the output of the Scottish economy was flat (0.0%) compared to the same period in 2015. This was the result of growth in the services industry being balanced out by contractions in the construction and production industries (particularly manufacturing). Over the same period UK GDP grew by 1.9%.

4.2 UK comparison, quarterly growth in GDP



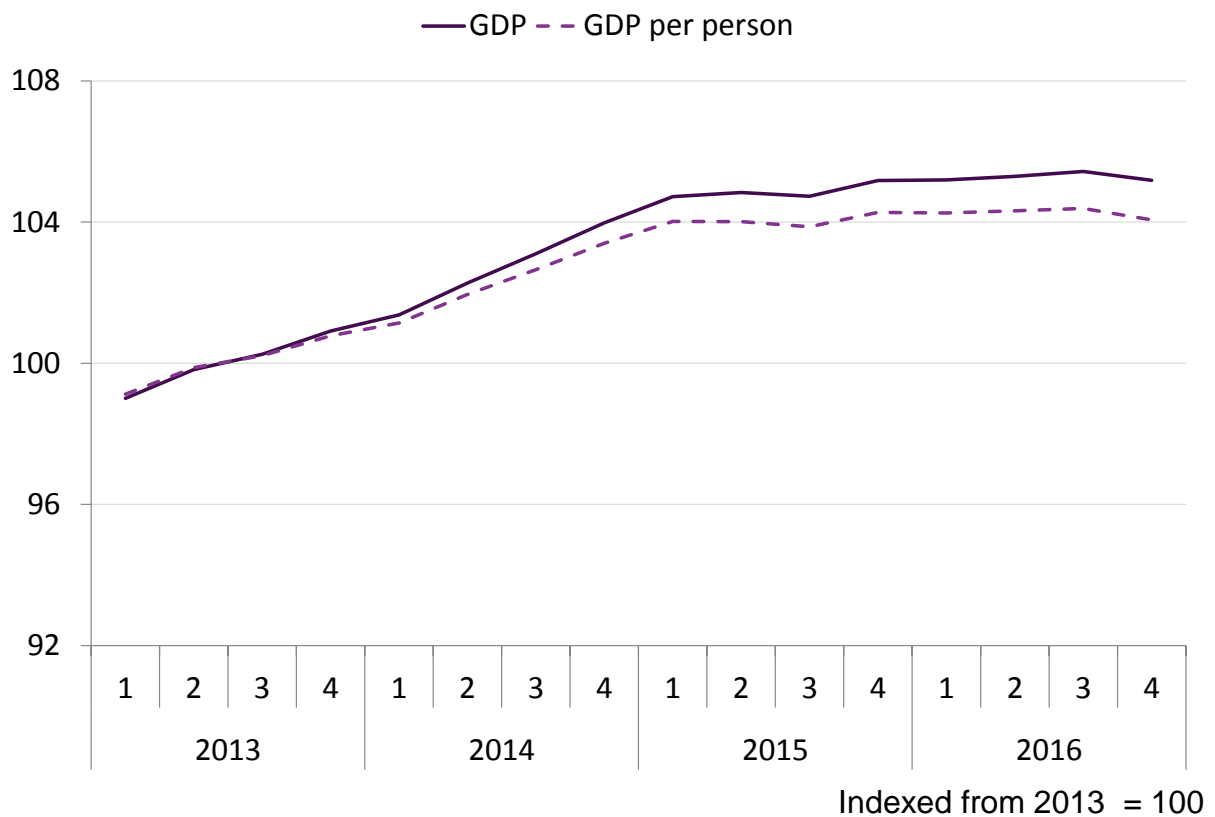
When considering short-term change over time, the UK and Scotland saw similar levels of growth in 2013 and 2014. The UK has seen stronger growth than Scotland in 2015 and 2016.

Average annual change

An alternative measure of change compares the average of the most recent four quarters with the average of the four previous quarters. This figure is less affected by short-term fluctuations, but the trade-off of this is that it is a less sensitive measure of short term change. Between the four quarters ending in Q4 2015 and the four quarters ending in Q4 2016 Scottish GDP grew by 0.4%. Over the same period, UK GDP grew by 1.8%.

This figure relates to the borrowing powers in the [Scottish Government's Fiscal Framework](#). From 1 April 2017, additional borrowing powers may be triggered for the Scottish Government under certain conditions when onshore Scottish GDP growth is less than 1% in absolute terms in rolling 4 quarters occurring after commencement, and 1 percentage point below UK GDP growth over the same period.

4.3 Scottish GDP and GDP per person comparison



Population growth helps drive GDP growth, meaning that some growth in GDP can be the result of an increase in population, rather than an increase in productivity. GDP per person shows economic growth after taking population changes into account.

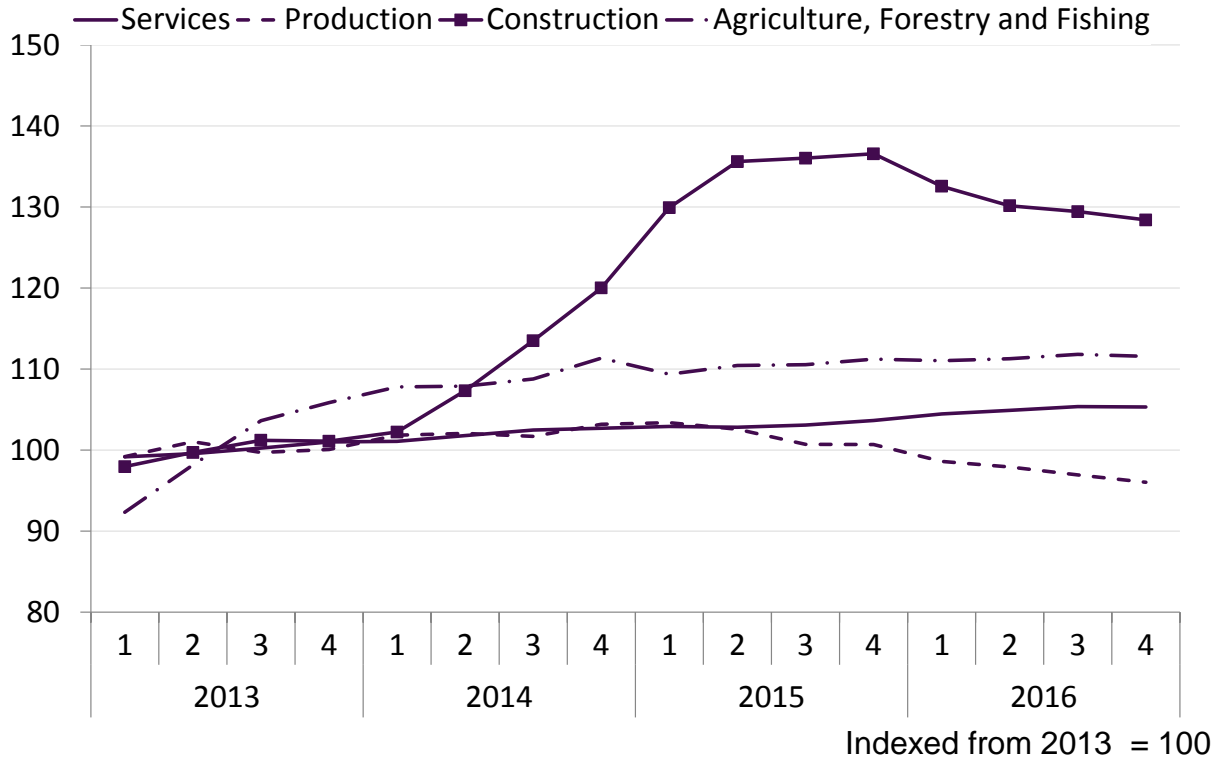
In the short term (Q4 2016 compared to Q3 2016) Scottish GDP per person decreased by 0.3%, while in the medium term (Q4 2016 compared to Q4 2015) Scottish GDP per person decreased by 0.2%.

GDP per person is calculated by dividing GDP in chained volume measures by the number of people in Scotland each year (indexing to 2013=100).

5. GDP analysed by industry sector

The information presented in section 5 is available in Tables 1, 3 and 4 of the downloadable excel tables published alongside this report.

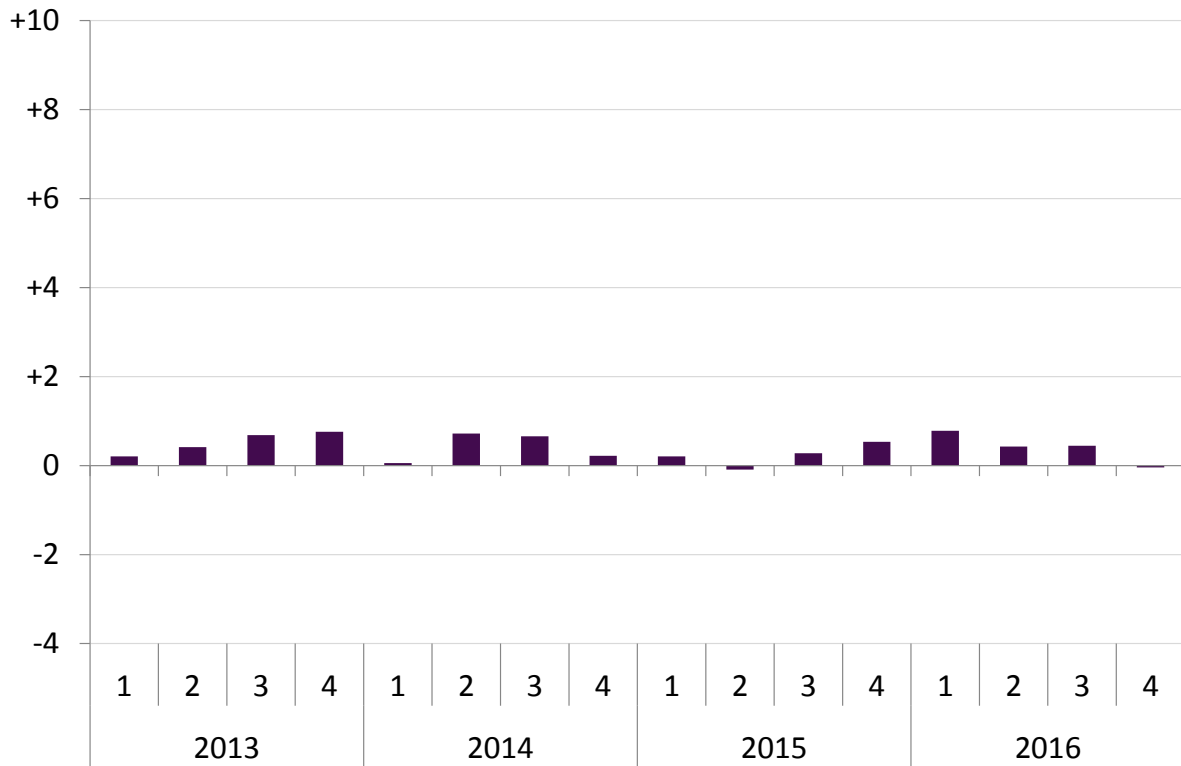
5.1 Scotland GDP output components growth, quarter-on-quarter



Scotland's economy is broken down into four weighted industry categories. Services (75%), Production (18%), Construction (6%), and Agriculture, Forestry and Fishing (1%).

Services

5.2 Scotland services growth, quarter-on-quarter (percentage change)

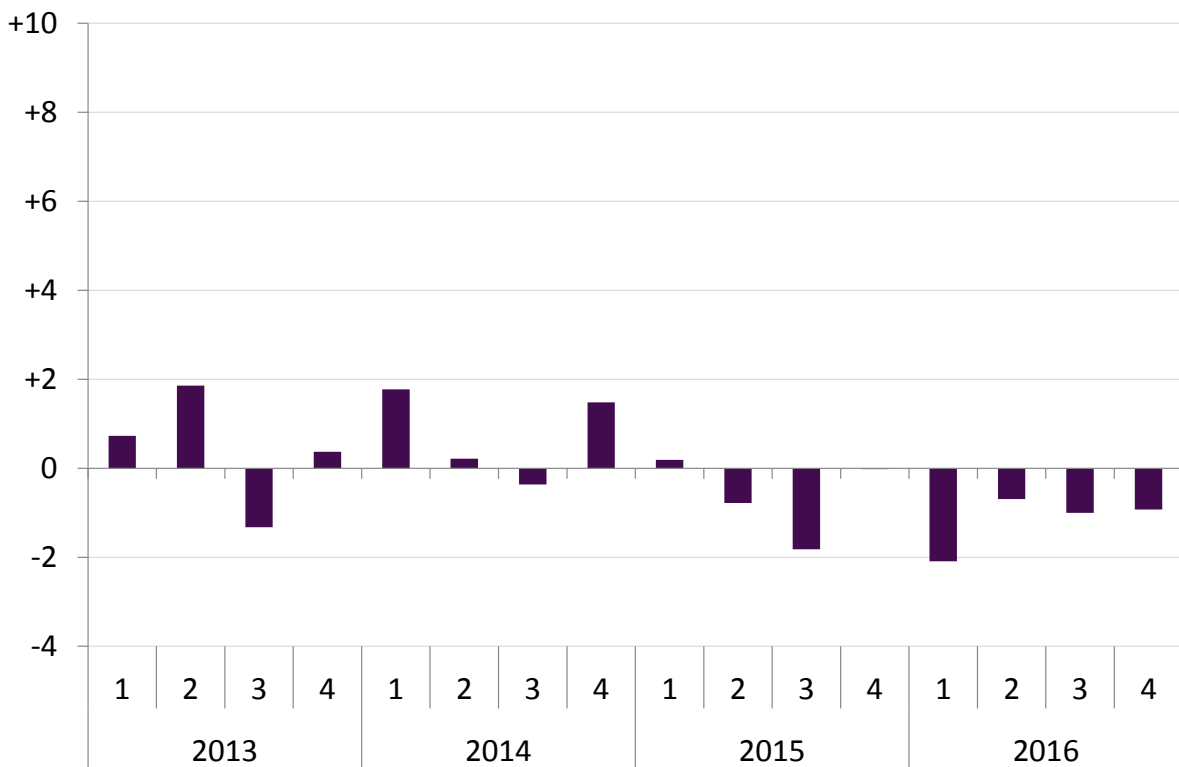


The services industry accounted for 75 per cent of the Scottish Economy in 2013 and includes industries such as shops, real estate, financial services and the public sector.

Between Quarter 3 and Quarter 4 2016, the output of the Services industry remained flat (0.0%). Services increased by 1.6% between Quarter 4 2015 and Quarter 4 2016.

Production

5.3 Scotland production growth, quarter-on-quarter (percentage change)

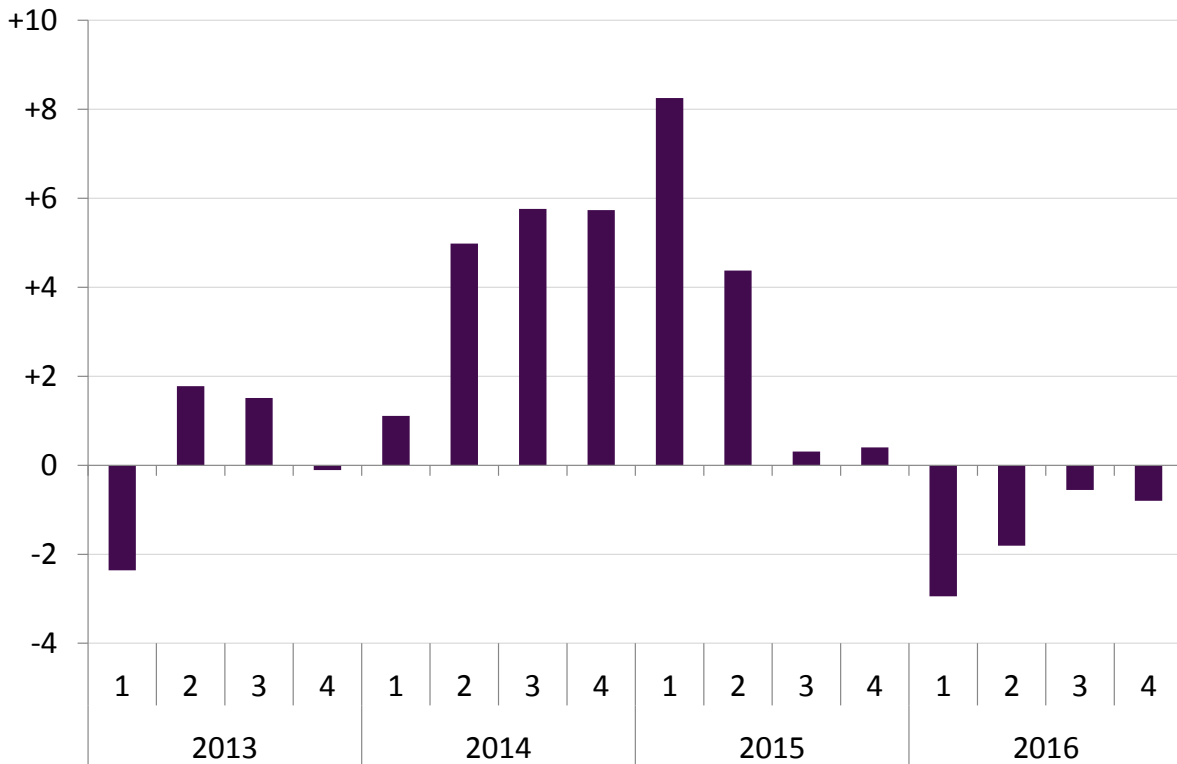


The production industry accounted for 18 per cent of the Scottish Economy in 2013 and includes industries such as manufacturing, energy and mining.

Between Quarter 3 and Quarter 4 2016, Production in volume terms contracted by 0.9%. Production contracted by 4.6% between Quarter 4 2015 and Quarter 4 2016.

Construction

5.4 Scotland construction growth, quarter-on-quarter (percentage change)

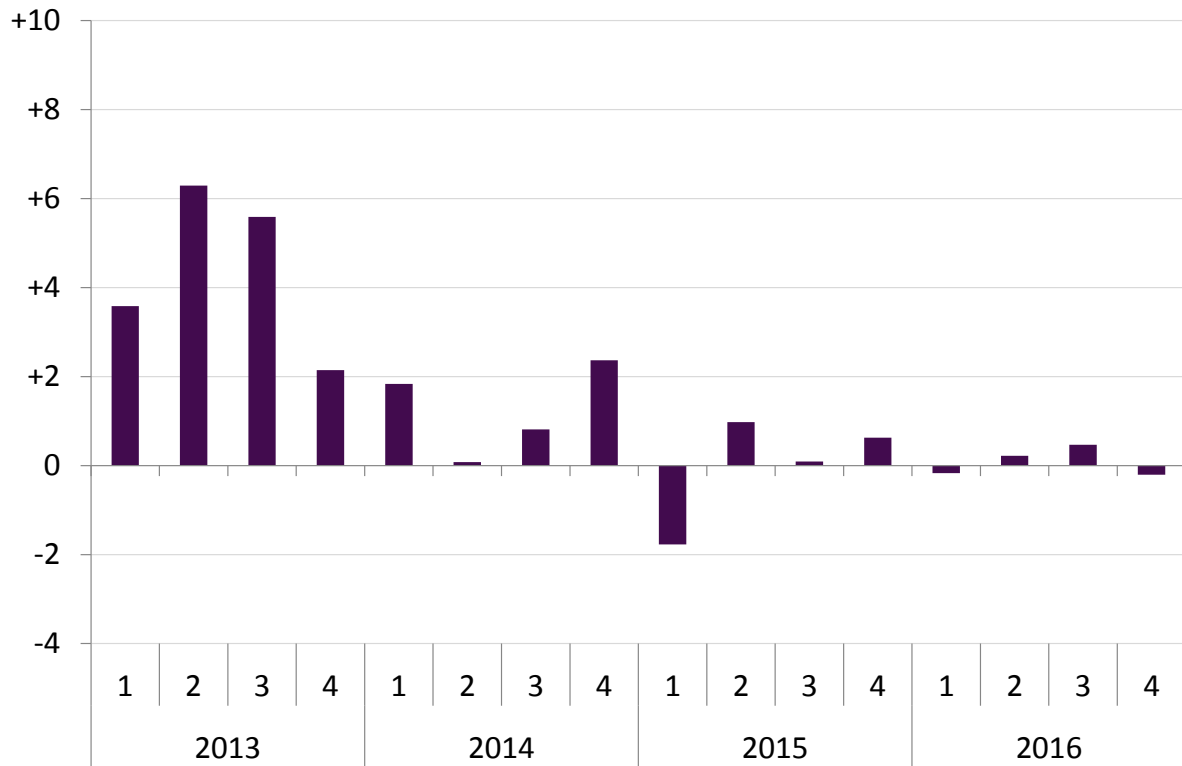


The construction industry accounted for 6 per cent of the Scottish Economy in 2013. The construction industry saw extremely strong growth during 2014 and early 2015, which tailed off at the end of 2015. In 2016 the construction sector has contracted.

Between Quarter 3 and Quarter 4 2016, Construction in volume terms contracted by 0.8%. Construction contracted by 6.0% between Quarter 4 2015 and Quarter 4 2016.

Agriculture, forestry and fishing

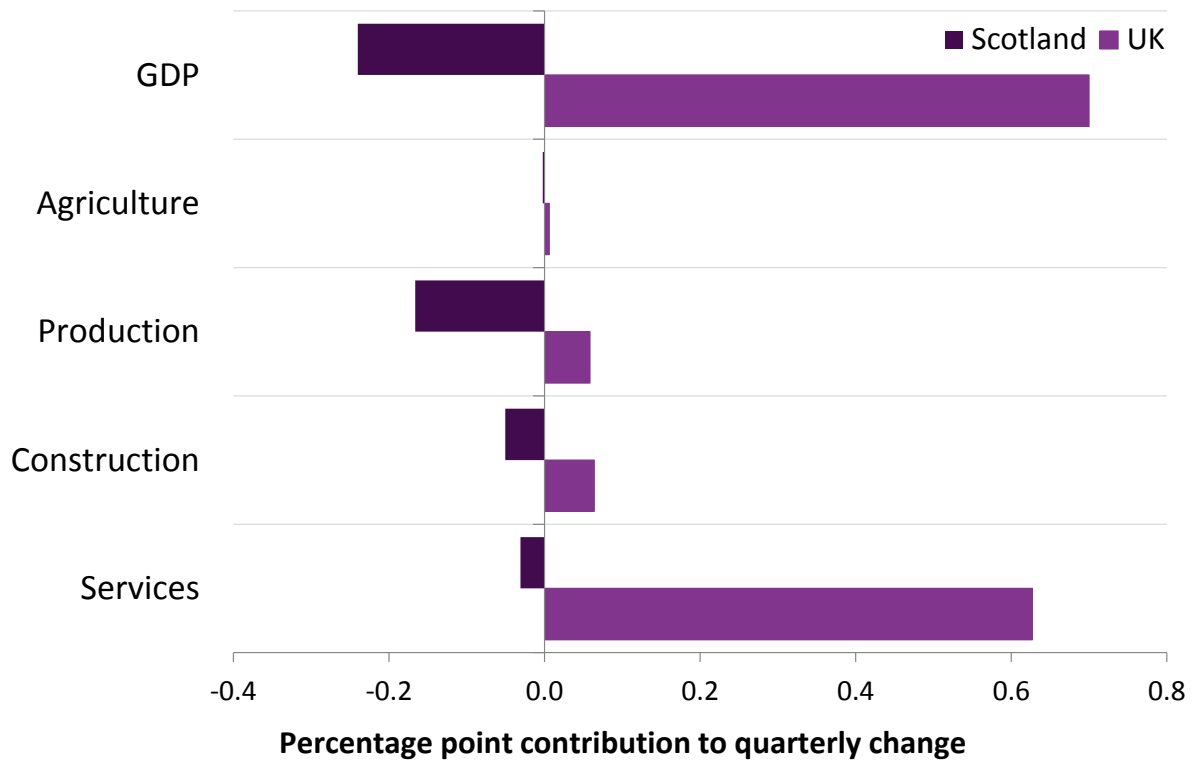
5.5 Scotland agriculture, forestry and fishing growth quarter-on-quarter (percentage change)



The agriculture, forestry and fishing industry accounted for 1 per cent of the Scottish Economy in 2013.

Between Quarter 3 and Quarter 4 2016, Agriculture, Forestry and Fishing in volume terms contracted by 0.2%. Agriculture, Forestry and Fishing grew by 0.3% between Quarter 4 2015 and Quarter 4 2016.

6. Drivers of change



Industries which represent a larger proportion of the economy or which have big quarterly changes have the most impact on overall GDP. We calculate the contribution different industries make to the overall change in GDP by multiplying their quarterly change by the proportion of the economy they represent.

The industry which has had the greatest contribution to change in the output of the Scottish economy in quarter 4 2016 is Production (which accounted for 0.2 percentage points of contraction).

7. Revisions

The tables below give summary information on the extent to which the Scottish GDP growth estimates have been revised in recent years. The first table below looks at how much the first estimate of GDP growth for each quarter tends to be revised in the next release three months later (short term revisions). The second table looks at how much the first estimate of GDP growth for each quarter tends to be revised 12 months after its initial release (medium terms revisions). It shows this by measuring:

- The **average revision** is the average amount growth rates have been revised over the last five years. It can be used as an indicator of consistent over- or under-estimation in the initial estimates of GDP.
- The **average absolute revision** is the average amount growth rates have been revised over the last five years without regard to sign. It gives an indication of how much users might expect the initial estimate to be revised up or down in future publications.

Short term revisions (one quarter after initial release) ¹

	Average revision	Average absolute revision
Average short-term revision	-0.01	0.09

¹ Based on growth rates for 2011 Q4 – 2016 Q3

Medium term revisions (four quarters after initial release) ²

	Average revision	Average absolute revision
Average medium-term revision	0.04	0.23

² Based on growth rates for 2011 Q1 – 2015 Q4

Sources of revision

Tables RT1 to RT4 of the downloadable excel tables published alongside this report show the percentage point change to previously published data. In this release the main sources of revision are routine updates to business survey data and the associated re-estimation of seasonal adjustment factors. Such revisions can be applied back to the first quarter after the reference year (2014 Quarter 1), but mostly relate to late or revised survey responses in the most recent quarters only.

Results in this release will not be revised further in the upcoming Quarterly National Accounts Scotland for 2016 Quarter 4, planned for publication on 10 May 2017.

Upcoming developments and revisions

The next release of the Scotland's GDP publication is planned for 5th July 2017. This will include a first estimate of GDP growth for 2017 Quarter 1, based on the current

2013 weights, and will not include revisions to growth for any previous quarters. A second estimate of GDP growth for the quarter will be published in the Quarterly National Accounts Scotland for 2017 Quarter 1, planned for August 2017. This second estimate of GDP will include a number of methodology and data source updates, and revisions to growth will be possible in all periods back to 1998 Quarter 1. This new approach to the annual updates differs from previous years and more closely reflects the production processes at ONS.

The main updates planned for QNAS 2017 Q1 are:

- Annual update of industry weights and associated benchmarking factors from the Supply and Use Tables, with latest results for 1998-2014, planned for publication in August 2017
- Updates to annual data sources for GDP growth, such as agriculture, health and education data.
- A change to the chainlinking methodology used to calculate growth in GDP, in line with an upcoming development being implemented by ONS to comply with international best practice. Further information on this development can be found [on the ONS website](#). Following this update the GDP reference year will move forward to 2014=100, and the latest industry weights will relate to provisional estimates for 2016 from the Quarterly National Accounts Scotland data.

Future publication schedule for Scotland's GDP statistics

Scottish GDP statistics are available in two quarterly publications. Initial figures for GDP growth are published in Scotland's GDP around 100 days after the end of a quarter, and more detailed figures including the cash value of GDP are published in Quarterly National Accounts Scotland (QNAS) around four to six weeks later. Until now there has been no revision to Scotland's GDP growth rate between these two releases. We are currently investigating how we might make the initial release of Scotland's GDP growth rate more timely.

A National Statistics publication for Scotland

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

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.

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How to access background or source data

The data collected for this statistical bulletin may be made available on request, subject to consideration of legal and ethical factors. Please contact gdp_stats@scotland.gov.scot for further information

Complaints and suggestions

If you are not satisfied with our service or have any comments or suggestions, please write to the Chief Statistician, 2W, St Andrews House, Edinburgh, EH1 3DG, Telephone: (0131) 244 0302, e-mail statistics.enquiries@scotland.gsi.gov.uk.

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