

Gross Domestic Product Preliminary Estimate, Q1 2014



Coverage: UK

Date: **29 April 2014**

Geographical Area: **UK and GB**

Theme: **Economy**

Key points

- Change in gross domestic product (GDP) is the main indicator of economic growth. GDP increased by 0.8% in Q1 2014 compared with growth of 0.7% in Q4 2013.
- Output increased in three of the four main industrial groupings within the economy in Q1 2014 compared with Q4 2013. In order of their contribution, output increased by 0.9% in services, 0.8% in production and 0.3% in construction. However, output decreased by 0.7% in agriculture.
- In Q1 2014 GDP was estimated to be 0.6% below the peak in Q1 2008. From peak to trough in 2009, the economy shrank by 7.2%.
- GDP was 3.1% higher in Q1 2014 compared with the same quarter a year ago.
- There was some evidence to suggest construction output was affected by the storms and high rainfall in January and February. However, over the quarter, the storms have not had a significant impact on GDP growth in Q1 2014 and ONS has not classified them as a statistical special event.
- The preliminary estimate of GDP is produced using the output approach to measuring GDP. At this stage, data content is less than half of the total required for the final output estimate. The estimate is subject to revision as more data become available, but these are typically small between the preliminary and third estimates of GDP. All figures in this release are seasonally adjusted.

Key Information

Table 1: Gross Domestic Product Preliminary Estimate key figures, Q1 2014

United Kingdom, 2012-2014

		Percentage change on previous quarter					
		GDP Index (2010=100)	GDP Agriculture	Manufacturing	Construction	Services	
			Weights 1000	7	152	63	778
2012	Q1	101.4	0.0	-1.7	-0.4	-4.4	0.3
	Q2	101.0	-0.4	-2.2	-1.0	-3.6	-0.1
	Q3	101.7	0.8	-0.3	0.2	-2.1	1.0
	Q4	101.5	-0.2	-0.2	-2.1	1.9	-0.1
2013	Q1	101.9	0.4	-4.8	0.4	-1.3	0.5
	Q2	102.7	0.8	2.0	0.7	2.3	0.5
	Q3	103.5	0.8	0.4	0.6	2.6	0.7
	Q4	104.2	0.7	0.2	0.5	-0.2	0.8
2014	Q1	105.1	0.8	-0.7	0.8	0.3	0.9

Table source: Office for National Statistics

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Change in GDP is the main indicator of economic growth. Further information on GDP can be found at paragraph 3 in the background notes. All data in this bulletin are seasonally adjusted estimates and have had the effect of price changes removed (in other words, the data are deflated). Further information on some of the key concepts (including seasonal adjustment and deflation) underlying the estimates can be found at paragraph 10 in the background notes.

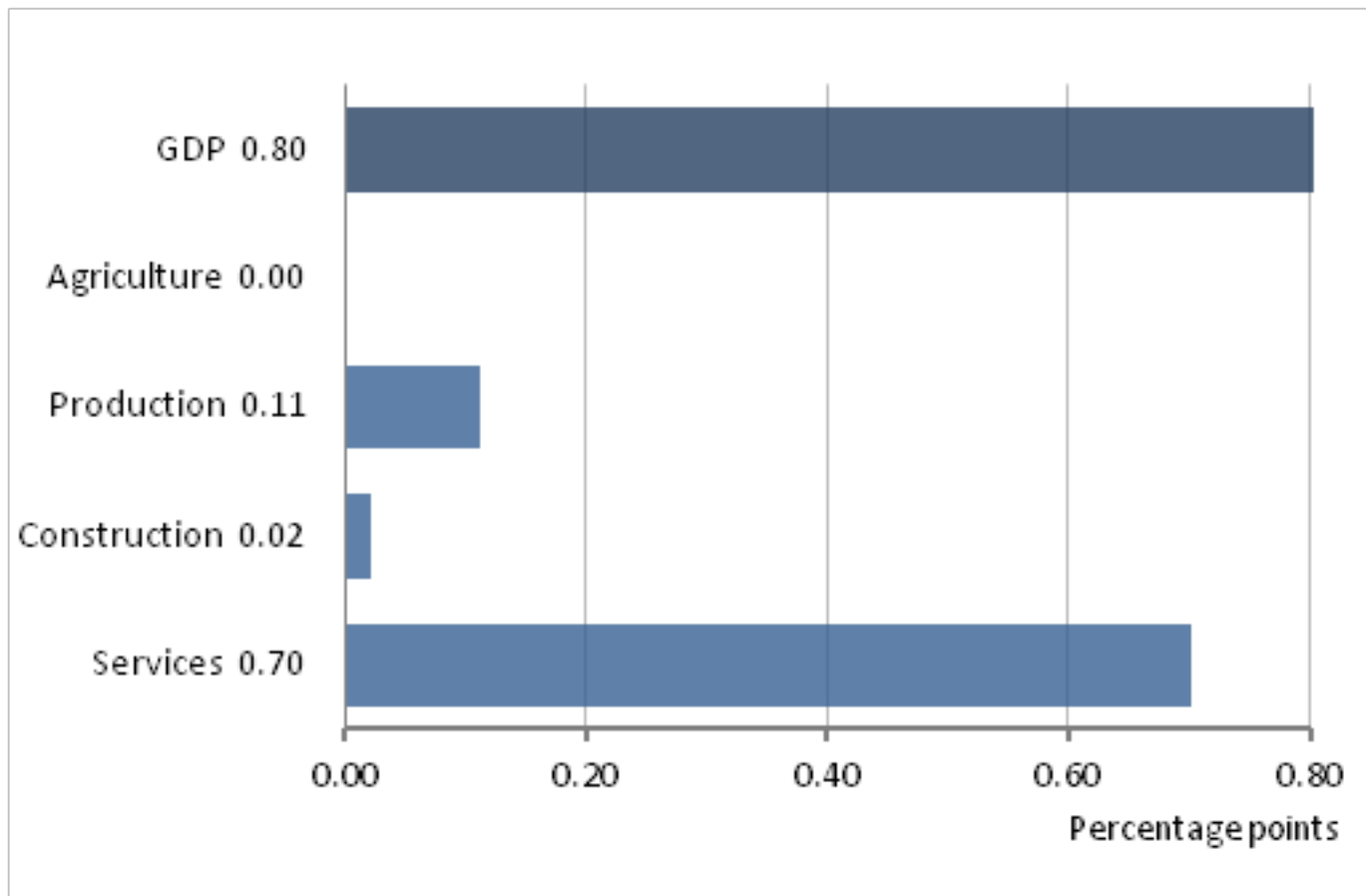
The preliminary estimate of GDP is produced around 25 days after the end of the quarter to provide a timely estimate of GDP. More information about data content for this release can be found in the Assumptions made for March 2014 section and the background notes. The estimate is subject to revisions as more data become available, but between the preliminary and third estimates of GDP, revisions are typically small (around 0.1 to 0.2 percentage points), with the frequency of upward and downward revisions broadly equal.

The preliminary estimate of GDP is based solely on the output approach to measuring GDP. The output approach measures gross value added (GVA) at a detailed industry level before aggregating to produce an estimate for the whole economy. Adding taxes and subtracting subsidies (both only available at whole economy level) to this estimate of GVA produces GDP as measured by the output approach.

At this stage there is no information available on taxes and subsidies, therefore the quarterly growth for output GVA is taken as a proxy for GDP growth. As taxes and subsidies are only available at the whole economy level any industry level estimates are GVA estimates.

In the Second Estimate of GDP and the Quarterly National Accounts the output GVA and GDP estimates are balanced with the equivalent income and expenditure approaches to produce headline estimates of GVA and GDP.

Figure 1: GDP contributions (1) to the quarter on quarter % change, Q1 2014



Source: Office for National Statistics

Notes:

1. Components may not sum due to rounding.

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The contribution an industry grouping makes to GDP quarterly growth is dependent on the change in that industry grouping and its weight within the output approach to measuring GDP. The current 2010 based weights are: services 77.8%; production 15.2%; construction 6.3% and agriculture 0.7%.

The preliminary estimate of GDP focuses on the growth in output between two consecutive quarters (in this release Q4 2013 and Q1 2014). GDP increased by 0.8% in the first quarter of 2014, with three of the four main industry groupings (construction, production and services) showing an increase.

The largest contribution to Q1 2014 GDP growth came from services; these industries increased by 0.9%, contributing 0.70 percentage points to the increase in GDP (as seen in Figure 1). This followed an increase of 0.8% in Q4 2013. In the latest quarter there was widespread growth, with increases in each of the four main services aggregates (distribution, hotels & restaurants; transport, storage & communication; business services & finance and government & other services). In Q1 2014 output from services was 2.0% above its previous peak in Q1 2008, prior to the economic downturn.

There was also an upward contribution (0.11 percentage points) from production; these industries rose by 0.8%, with manufacturing increasing by 1.3% following an increase of 0.6% in Q4 2013, and water & waste management increasing by 1.1% following an increase of 1.6% in Q4 2013. Partially offsetting these rises were decreases of 1.1% in mining & quarrying and 2.0% in energy supply. In Q1 2014 output from production was at its highest level since Q4 2011, but still remains 11.5% below its pre-economic downturn peak in Q1 2008.

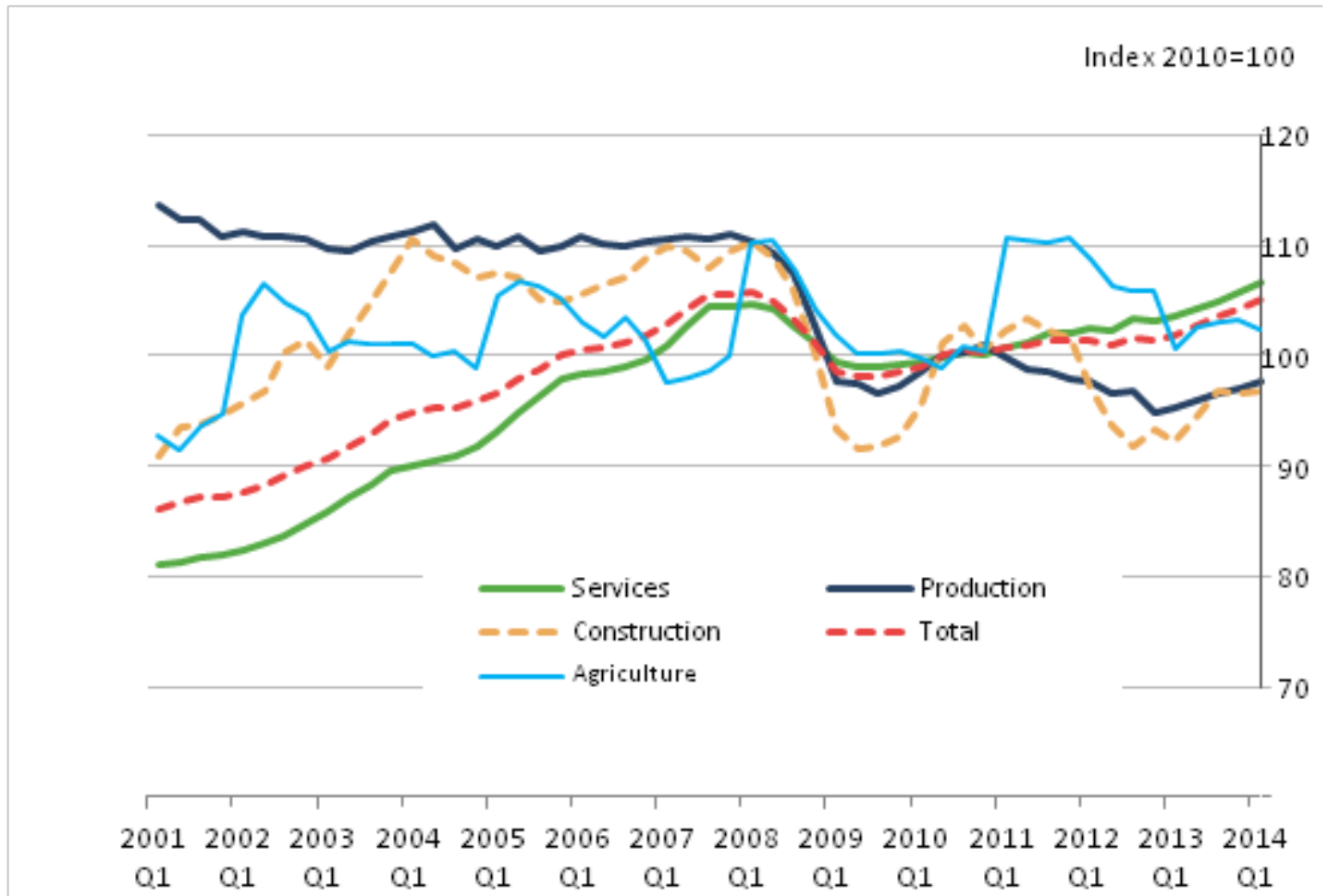
Construction output rose slightly in Q1 2014 when compared with Q4 2013, contributing 0.02 percentage points to the increase in GDP. The 0.3% growth in the quarter was despite a drag on quarterly output growth caused by a weak February. Early responses to the monthly business survey for March indicate a rise into March but not a return to the level of output witnessed in January 2014.

The comparison with a year earlier shows much stronger growth than the quarter on quarter comparison with construction forecast to have increased 5.1% when compared with Q1 2013. This is the fourth consecutive quarter on a year ago increase, with growth beginning in Q2 2013 and coming after 5 consecutive quarters of year on year negative growth.

Economic Context

Figure 2: GDP and main components, Q1 2014

United Kingdom 2001-2014



Source: Office for National Statistics

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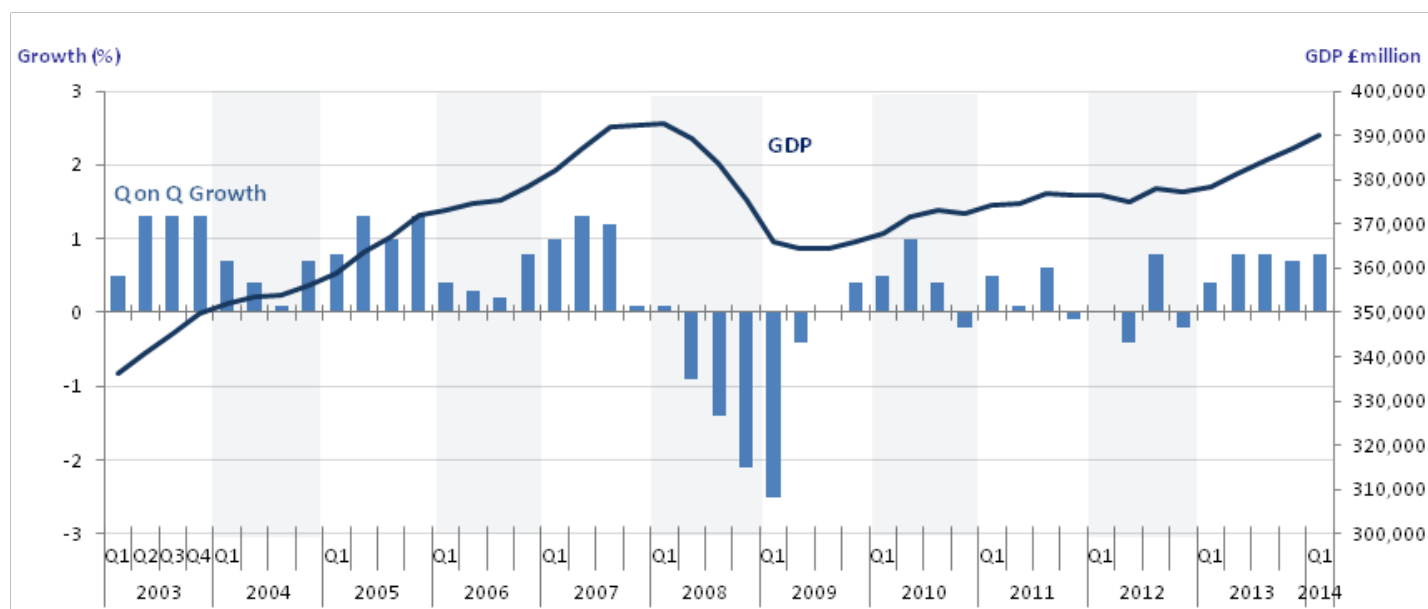
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GDP and all of its components are referenced to 2010, making the average index in 2010 equal to 100. It is for this reason that **Figure 2** shows all components converging in 2010.

Figure 3: GDP (£millions) and quarter on quarter growth, Q1 2014

United Kingdom 2003-2014



Source: Office for National Statistics

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GDP in the UK grew steadily from 2000 until early 2008, at which point a financial market shock affected UK and global economic growth. Up until that point, services in the UK had continued to grow steadily, while production output had been broadly flat over the same period. Construction activity grew strongly in the early part of the decade, and although there was a temporary decline in the mid-2000s, this was reversed by the end of 2007. The deterioration in general economic conditions during 2008/09 was more acute in the construction and production industries, but less pronounced in the services industries.

Economic growth resumed towards the end of 2009, but at a slower rate than the period prior to 2008. The services industries grew steadily, if slowly, during this period, and by Q3 2013 activity exceeded the level previously seen in early 2008. By contrast, production and construction activity grew in 2010 but did not sustain this growth, and as a result remain clearly below their pre-downturn peaks. Although there has been widespread growth since the start of 2013, the service industries remain the largest and steadiest contributor to economic growth (Table 1).

From the peak in Q1 2008 to the trough in Q2 and Q3 2009, GDP decreased by 7.2%. Previous economic downturns in the early 1980s and early 1990s did not see the same level of impact on GDP. In the early 1990s downturn, GDP decreased by 2.9% from the peak in Q2 1990 to the trough in Q3 1991. From Q2 1979 to Q1 1981, a period which included a quarter of positive growth, GDP decreased by 5.9%; over five consecutive quarters of falling GDP beginning in Q1 1980, GDP decreased by 4.6%.

The timeliness of the publication of the preliminary estimate of GDP in the UK means that it is one of the fastest in the world, and as a result, comprehensive cross country GDP comparisons cannot be made for Q1 2014 at this point in time.

However GDP data are widely available for most major economies up to the final quarter of 2013, and in a recent [article](#) ONS presented these data alongside UK GDP, drawing from a number of sources including [Eurostat](#), OECD and the IMF. The article also compared movements in headline output, income and expenditure components, with a particular focus on the economic downturn and recent recovery.

Industry Analysis

Agriculture

Agriculture output decreased by 0.7% in Q1 2014, following an increase of 0.2% in the previous quarter. Between Q1 2013 and Q1 2014, agriculture output increased by 1.8%.

Index of production

The index of production increased by 0.8% in Q1 2014, following an increase of 0.5% in the previous quarter. Manufacturing contributed the most to the increase, with growth of 1.3%. Between Q1 2013 and Q1 2014, production output increased by 2.5%.

Construction

Construction output increased by 0.3% in Q1 2014, following a decrease of 0.2% in the previous quarter. Between Q1 2013 and Q1 2014, construction output increased by 5.1%.

Distribution, hotels & restaurants

The index for distribution, hotels & restaurants increased by 1.5% in Q1 2014, following an increase of 0.5% in the previous quarter. Wholesale trade, except of motor vehicles & motorcycles made the largest positive contribution to the increase. Between Q1 2013 and Q1 2014, distribution, hotels & restaurants output increased by 4.9%.

Transport, storage & communication

The index for transport, storage & communication increased by 1.1% in Q1 2014, following an increase of 0.4% in the previous quarter. Computer programming, consultancy & related activities made the largest contribution to the increase. Between Q1 2013 and Q1 2014, transport, storage & communication output increased by 1.4%.

Business services & finance

The index for business services & finance increased by 0.9% in Q1 2014, following an increase of 1.0% in the previous quarter. Activities of head offices; management consultancy activities made the

largest positive contribution to the increase. Between Q1 2013 and Q1 2014, business services & finance output increased by 3.6%.

Government & other services

The index for government & other services increased by 0.4% in Q1 2014, following an increase of 0.8% in the previous quarter. Human health activities made the largest positive contribution to the increase. Between Q1 2013 and Q1 2014, government & other services output increased by 1.5%.

Growth and Contributions to Growth – Output Components

Table 2: Growth, quarter-on-quarter percentage, for the output components of GDP

United Kingdom, 2013-2014

	Percent (%)				
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
Agriculture, forestry & fishing	-4.8	2.0	0.4	0.2	-0.7
Total Production	0.4	0.7	0.6	0.5	0.8
Mining & quarrying (Extraction)	4.5	1.8	0.5	-1.8	-1.1
Manufacturing	-0.2	0.6	0.8	0.6	1.3
Electricity, gas, steam & air (Utilities)	1.3	-2.1	-5.9	1.8	-2.0
Water supply, sewerage etc.	-0.6	2.9	5.0	1.6	1.1
Construction	-1.3	2.3	2.6	-0.2	0.3
Total Services	0.5	0.5	0.7	0.8	0.9
Distribution, hotels & restaurants	1.2	1.6	1.2	0.5	1.5
Transport, storage & communication	1.4	0.0	-0.1	0.4	1.1
Business services & finance	0.0	0.6	1.1	1.0	0.9
Government & other services	0.3	0.0	0.4	0.8	0.4

Table source: Office for National Statistics

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Table 3: Contributions to growth (1), quarter-on-quarter, for the output components of GDP (2)

United Kingdom, 2013-2014

	Percent (%)				
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
Agriculture, forestry & fishing	0.0	0.0	0.0	0.0	0.0
Total Production	0.1	0.1	0.1	0.1	0.1
Mining & quarrying (Extraction)	0.1	0.0	0.0	0.0	0.0
Manufacturing	0.0	0.1	0.1	0.1	0.1
Electricity, gas, steam & air (Utilities)	0.0	0.0	-0.1	0.0	0.0
Water supply, sewerage etc.	0.0	0.0	0.1	0.0	0.0
Construction	-0.1	0.1	0.2	0.0	0.0
Total Services	0.4	0.4	0.6	0.6	0.7
Distribution, hotels & restaurants	0.2	0.2	0.2	0.1	0.2
Transport, storage & communication	0.2	0.0	0.0	0.0	0.1
Business services & finance	0.0	0.2	0.3	0.3	0.3
Government & other services	0.1	0.0	0.1	0.2	0.1

Table source: Office for National Statistics**Table notes:**

1. Contributions are to output GVA and therefore may not sum to average GDP totals (see Key Information section)

2. Components may not sum to totals due to rounding.

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Table 4: Growth, quarter-on-same quarter a year ago, for the output components of GDP

United Kingdom, 2013-2014

	Percent(%)				
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
Agriculture, forestry & fishing	-7.4	-3.4	-2.8	-2.4	1.8
Total Production	-2.4	-0.7	-0.4	2.2	2.5
Mining & quarrying (Extraction)	-7.3	-3.0	-2.5	5.0	-0.7
Manufacturing	-2.8	-0.9	-0.6	1.8	3.4
Electricity, gas, steam & air (Utilities)	7.4	0.2	-3.5	-5.0	-8.0
Water supply, sewerage etc.	-1.2	3.1	8.0	9.2	11.0
Construction	-5.1	0.7	5.6	3.4	5.1
Total Services	1.2	1.9	1.6	2.5	3.0
Distribution, hotels & restaurants	2.1	3.9	3.3	4.5	4.9
Transport, storage & communication	0.1	1.5	1.7	1.8	1.4
Business services & finance	1.7	2.1	2.2	2.7	3.6
Government & other services	0.7	0.7	-0.2	1.4	1.5

Table source: Office for National Statistics

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Table 5: Contributions to growth(1), quarter-on-same quarter a year ago, for the output components of GDP(2)

United Kingdom, 2013-2014

	Percent (%)				
	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
Agriculture, forestry & fishing	0.0	0.0	0.0	0.0	-0.1
Total Production	-0.4	-0.1	-0.1	0.3	0.4
Mining & quarrying (Extraction)	-0.1	-0.1	0.0	0.1	0.0
Manufacturing	-0.3	-0.1	-0.1	0.2	0.3
Electricity, gas, steam & air (Utilities)	0.1	0.0	0.0	-0.1	-0.1
Water supply, sewerage etc.	0.0	0.0	0.1	0.1	0.1
Construction	-0.3	0.0	0.3	0.2	0.3
Total Services	1.0	1.5	1.3	2.0	2.3
Distribution, hotels & restaurants	0.3	0.5	0.5	0.6	0.7
Transport, storage & communication	0.0	0.2	0.2	0.2	0.2
Business services & finance	0.5	0.7	0.7	0.9	1.2
Government & other services	0.1	0.1	-0.1	0.3	0.3

Table source: Office for National Statistics**Table notes:**

1. Contributions are to output GVA and therefore may not sum to average GDP totals (see Key Information section)

2. Components may not sum to totals due to rounding.

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Table 6: Growth, year on year, for the output components of GDP

United Kingdom, 2009-2013

	Percent (%)				
	2009	2010	2011	2012	2013
Agriculture, forestry & fishing	-6.9	-0.7	10.6	-3.5	-4.0
Total Production	-9.5	2.8	-1.2	-2.4	-0.3
Mining & quarrying (Extraction)	-9.7	-2.4	-14.8	-8.7	-2.1
Manufacturing	-10.2	4.2	1.8	-1.7	-0.7
Electricity, gas, steam & air (Utilities)	-4.8	3.9	-5.9	-0.3	-0.3
Water supply, sewerage etc.	-8.3	-1.3	4.1	-0.5	4.8
Construction	-13.3	8.3	2.3	-8.1	1.1
Total Services	-3.9	0.8	1.5	1.3	1.8
Distribution, hotels & restaurants	-5.8	1.0	0.7	0.9	3.5
Transport, storage & communication	-7.2	3.0	1.6	0.0	1.3
Business services & finance	-4.8	0.4	2.5	2.1	2.2
Government & other services	0.4	0.3	0.5	1.1	0.6

Table source: Office for National Statistics

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Table 7: Contributions to growth (1), year on year, for the output components of GDP (2)

United Kingdom 2009-2013

	Percent (%)				
	2009	2010	2011	2012	2013
Agriculture, forestry & fishing	0.0	0.0	0.1	0.0	0.0
Total Production	-1.6	0.4	-0.2	-0.4	-0.1
Mining & quarrying (Extraction)	-0.3	0.0	-0.3	-0.2	0.0
Manufacturing	-1.1	0.4	0.2	-0.2	-0.1
Electricity, gas, steam & air (Utilities)	-0.1	0.1	-0.1	0.0	0.0
Water supply, sewerage etc.	-0.1	0.0	0.0	0.0	0.1
Construction	-0.9	0.5	0.1	-0.5	0.1
Distribution, hotels & restaurants	-0.8	0.1	0.1	0.1	0.5
Transport, storage & communication	-0.8	0.3	0.2	0.0	0.1
Business services & finance	-1.5	0.1	0.8	0.6	0.7
Government & other services	0.1	0.1	0.1	0.2	0.1

Table source: Office for National Statistics

Table notes:

1. Contributions are to output GVA and therefore may not sum to average GDP totals (see Key Information section)
2. Components may not sum to totals due to rounding.

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Assumptions made for March 2014 in the Q1 2014 Gross Domestic Product Preliminary Estimate

Background

The methods for producing the preliminary GDP estimate use monthly data for the first two months in the quarter and forecasts for estimating the third month. The forecasts are reinforced by early responses to the ONS Monthly Business Survey (MBS) but the monthly response rate is generally lower at this stage (typically between 30-50% at this point in time).

Each of the first two months includes monthly data from the MBS of 44,000 businesses, covering the production, manufacturing, services, retail and construction industries.

The forecasts for March use the standard ONS method of fitting an autoregressive integrated moving average (ARIMA) model with adjustments made for Easter, trading days and outliers. The forecasts are calculated for each individual industry level series (for example, food & beverage services).

Purpose of this section

This section provides details of the assumptions made for March 2014 for each of the main components of the output approach to measuring GDP: services, production and construction.

Table 8: Monthly Index of Services (CVM, seasonally adjusted) month on month growth rates

United Kingdom 2008-2014

	Percent (%)						
	2008	2009	2010	2011	2012	2013	2014
January	-0.4	-1.2	-0.9	0.3	0.2	0.3	0.3
February	0.6	-0.1	1.1	0.6	-0.7	0.6	0.2
March	-0.4	-0.5	0.5	0.8	0.9	0.0	* 0.3
April	0.1	0.4	-0.5	-1.0	-0.5	0.2	
May	-0.7	-0.9	0.2	1.4	0.8	0.2	
June	-0.2	-0.1	0.3	-0.3	-1.3	0.0	
July	-0.7	0.6	0.2	0.9	1.3	0.4	
August	-0.1	-0.3	-0.1	-0.3	0.7	0.3	
September	-0.8	0.3	0.3	0.3	-0.3	0.3	
October	-0.5	0.0	-0.3	-0.7	0.1	0.1	
November	-0.8	0.1	0.1	0.9	-0.2	0.4	
December	0.1	0.3	-0.7	0.0	-0.2	0.3	

Table source: Office for National Statistics

Table notes:

- * based on forecasts and early responses to the March Monthly Business Survey.

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It was estimated that there was a 0.3% rise in the output of the services industries between February and March 2014.

At the more detailed level, it was estimated that distribution, hotels & restaurants rose by 0.4%, transport, storage & communication rose by 0.3%, business services & finance rose by 0.4%, and government & other services was flat.

The services data for February and March 2014 used in the calculation of the Q1 2014 gross domestic product preliminary estimate are consistent with the data contained in the [February 2014 Index of Services](#) release published on 29 April 2014.

Table 9: Monthly Index of Production (CVM, seasonally adjusted) month on month growth rates

United Kingdom, 2008-2014

	Percent (%)						
	2008	2009	2010	2011	2012	2013	2014
January	0.0	-2.7	0.0	0.3	-0.7	-0.9	0.0
February	0.3	-0.7	0.9	-1.9	0.0	1.0	0.9
March	-1.6	-0.9	2.0	0.0	-0.4	0.1	* -0.2
April	1.1	1.4	0.1	-1.3	-0.6	-0.1	
May	-1.3	-1.4	0.2	1.0	0.9	0.0	
June	-0.7	0.7	-0.5	0.4	-2.3	1.3	
July	-1.1	0.2	-0.2	-0.6	2.8	0.1	
August	0.9	-2.1	0.7	-0.5	-0.7	-1.0	
September	-0.7	0.8	0.4	0.1	-2.7	0.8	
October	-2.2	0.6	0.2	-0.6	-0.7	0.2	
November	-3.0	0.7	0.2	-0.2	0.6	-0.2	
December	-0.8	-0.3	-0.3	0.7	0.6	0.5	

Table source: Office for National Statistics

Table notes:

- *based on forecasts and early responses to the March Monthly Business Survey.

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It was estimated that there was a decrease of 0.2% in output of the production industries between February and March 2014.

At the more detailed level, it was estimated that there was an increase of 0.6% in manufacturing and 1.8% in energy supply. It was estimated that mining & quarrying fell by 4.7% and water & waste management fell by 2.4%.

Small revisions (following revised seasonal factors allowing for the addition of March data) to the January and February 2014 estimates, published in the latest [Index of Production \(IoP\)](#) release on 8 April 2014, have been used in the calculation of the Q1 2014 gross domestic product preliminary estimate. To retain coherence between the published monthly and quarterly indices for Q1 2014, small adjustments have been made to the monthly growth rates for March 2014 for total production,

mining & quarrying, energy supply and water & waste management. This ensures that if the monthly growth rates for March are applied to the published February 2014 indices for total production and the main components (and then an average taken of the January, February and March 2014 indices), the results are consistent with the published quarterly indices.

Table 10: Output in the construction industry (CVM, seasonally adjusted) month on month growth rates

United Kingdom, 2011-2014

	Percent (%)			
	2011	2012	2013	2014
January	1.6	-5.8	1.4	2.1
February	0.0	-1.8	0.0	-2.8
March	2.7	-1.1	-3.3	* 0.5
April	-1.0	-2.3	4.8	
May	-0.9	2.7	-0.1	
June	2.9	-5.4	-0.4	
July	-2.7	2.0	2.8	
August	-0.2	-0.6	0.2	
September	0.9	-2.5	0.0	
October	-3.2	4.3	1.9	
November	1.4	0.5	-4.1	
December	3.9	-2.5	2.0	

Table source: Office for National Statistics

Table notes:

- * based on forecasts and early responses to the March Monthly Business Survey.

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Monthly data for the construction industries are only available from January 2010.

The forecast for construction is calculated slightly differently to production and services due to the shorter time span of monthly turnover data. More weight is placed on early responses to the MBS for March. Responses from businesses were the starting point to inform the forecasts; this was then adjusted (using information collected in previous months) in recognition that these early responses

from businesses tend to be lower than later responses. This approach led to an estimated 0.5% rise between February and March 2014.

The construction data for January and February 2014 used in the calculation of the Q1 2014 gross domestic product preliminary estimate are consistent with the data contained in the [Construction Output, February 2014](#) release published on 11 April 2014.

Background notes

1. What do you think?

As a user of our statistics we would welcome your feedback on this publication. If you would like to get in touch please contact us via email: ios.enquiries@ons.gsi.gov.uk.

2. What's new?

The [GDP\(O\) low level aggregates spreadsheet \(586.5 Kb Excel sheet\)](#) is available on the release page for the Preliminary Estimate of GDP, Q1 2014, published 29 April 2014. The spreadsheet has been moved from the Published ad hoc data and analysis area of the ONS website in order to improve accessibility for users. It contains annual and quarterly low level aggregates of output gross value added (GVA) on a constant and current price basis, in an index and pounds million format.

3. Preliminary Estimate of GDP

The preliminary estimate of GDP is produced using the output approach to measuring GDP and is published less than four weeks after the end of the quarter to which it relates. At this stage the data content of this estimate is around 44% of the total required for the final output based estimate. This includes good information for the first two months of the quarter, with an estimate for the third month which takes account of early returns to the monthly business survey of 44,000 businesses (which typically has a response rate of between 30-50% at this point in time). The estimate is therefore subject to revisions as more data become available, but between the preliminary and third estimates of GDP, revisions are typically small (around 0.1 to 0.2 percentage points), with the frequency of upward and downward revisions broadly equal.

4. Continuous Improvement of GDP: sources, methods and communication

An article providing an overview of current and planned continuous improvement work in relation to producing estimates of quarterly and annual GDP can be found in the [Guidance and Methodology area](#).

5. Upcoming seminars

ONS is hosting two seminars on 19 June in Queen Elizabeth II Conference Centre, Westminster, London. The first will provide an update on progress with the GDP(O) Improvement programme and the second will provide attendees with an opportunity to discuss the forthcoming changes to ONS Construction Price Indices, with particular emphasis on the

new methodology and the timetable for implementation. To facilitate a good discussion at these seminars, ONS welcomes attendance from a broad range of users. Please note that places are limited and should be booked by 12 June 2014. To receive further information on these seminars or to book a place please contact: anna.donabie@ons.gsi.gov.uk

6. Special Events

ONS maintains a list of candidate special events in the [Special Events Calendar](#). There were several special events in 2012. There was some evidence to suggest that construction output was affected by the storms and high rainfall in January and February 2014. However, over the quarter, the storms have not had a significant impact on GDP growth in Q1 2014 and ONS has not classified them as a statistical special event. In addition, ONS is keeping the effects of the weather in January and February 2014 under review in line with the [ONS Special Events policy](#). More information can be found in the report on [Adverse weather conditions in December 2013 and January and February 2014](#) published 27 March 2014. As explained in ONS's Special Events policy, it is not possible to separate the effects of special events from other changes in the series.

7. Understanding the data

Short guide to GDP

Gross domestic product (GDP) is an integral part of the UK national accounts and provides a measure of the total economic activity in the UK. GDP is often referred to as one of the main 'summary indicators' of economic activity and references to 'growth in the economy' invariably refer to the growth in GDP during the latest quarter.

In the UK three different but equivalent approaches are used in the estimation of GDP:

- GDP from the output or production approach - GDP(O) measures the sum of the value added created through the production of goods and services within the economy (our production or output as an economy). This approach provides the first estimate of GDP and can be used to show how much different industries (for example, services) contribute within the economy.
- GDP from the income approach - GDP(I) measures the total income generated by the production of goods and services within the economy. The figures breakdown income into, for example, income earned by companies (corporations), employees and the self employed.
- GDP from the expenditure approach - GDP(E) measures the total expenditures on all finished goods and services produced within the economy.

8. Short guide to National Accounts

The national accounts provide an integrated description of all economic activity within the economic territory of the UK, including activity involving both domestic units (i.e. individuals and institutions resident in the UK) and external units (those resident in other countries). In

addition to being comprehensive, the accounts are fully integrated and internally consistent. More information can be found in [UK national accounts: a short guide](#).

9. Interpreting the data

Figures for the most recent quarter are provisional and subject to revision in light of (a) late responses to surveys and administrative sources, (b) forecasts being replaced by actual data and (c) revisions to seasonal adjustment factors which are re-estimated every quarter and reviewed annually.

Data for the retail industry are broadly comparable with the Retail Sales Index published on 25 April 2014. However, the two series operate under different revisions policies meaning there can be timing differences in the updating of the two series. Also, adjustments to the data within the IoS release are sometimes made at the time of the Blue Book to improve the coherence of the three approaches to measuring GDP. Therefore, inconsistencies between the two series are not unusual but tend to be small. There are also conceptual and coverage differences between retail sales and retail output which can lead to apparent inconsistencies.

10. Definitions and explanations

Definitions found within the main statistical bulletin are listed here:

Index number

An index number is a number which indicates the change in magnitude relative to the magnitude at a specified point, the latter usually taken as 100. For example, the level of GDP for Q1 2014 is given in Table 1 as 105.1. This means that GDP was 5.1% higher than in the reference period, which is currently 2010.

Seasonal adjustment

The index numbers in this statistical bulletin are all seasonally adjusted. This aids interpretation by removing annually recurring fluctuations, for example, due to holidays or other regular seasonal patterns. Unadjusted data are also available.

Seasonal adjustment removes regular variation from a time series. Regular variation includes effects due to month lengths, different activity near particular events such as shopping activity before Christmas, and regular holidays such as the May bank holiday.

Some features of the calendar are not regular each year, but are predictable if we have enough data - for example the number of certain days of the week in a month may have an effect, or the impact of the timing of Easter. As Easter changes between March and April we can estimate its effect on time series and allocate it between March and April depending on where Easter falls. Estimates of the effect of the day of the week and Easter are used respectively to make trading day and Easter adjustments prior to seasonal adjustment.

Deflation

It is standard practice to present many economic statistics in terms of 'constant prices'. This means that changes or growth, are not affected by changes in price. The process of removing

price changes is known as deflation and the resulting series is often described as volume (as opposed to value). The index numbers in this bulletin are volumes.

Chained volume

The indices in this bulletin are 'chained volume'. This means that successive volume estimates are linked (or chained) together. The process of annual chain-linking was introduced in 2003. More information on chain-linking can be found in the [Tuke and Reed \(2001\) \(92.8 Kb Pdf\)](#) article.

Gross Value Added Industry Weights Dataset

An update to the annual weights used within the output approach of GDP has been included in our [dataset](#). These weights have been used since the Quarterly National Accounts, published on 27 June 2013 and are consistent with the data used in the Blue Book 2013 dataset, published on 31 July 2013. All weights are given in parts per thousand.

Sample sizes and data content

This is the first estimate of GDP, based on preliminary information for the quarter. Although based on a significant number of returns from businesses, there is still a lot of information to come in, particularly for December.

The amount of data available at this stage is about 44% of the total data that will be available in one year's time. The estimates in this release are, however, based on a large amount of information returned by businesses across the whole of the economy. Information on activity (more specifically, turnover or sales) is available from about 44,000 businesses for each of the first two months of the quarter and from about 20,000 businesses for the third month. In addition, the ONS collects price information on nearly 200,000 individual products each month from around 30,000 businesses. This information is used to remove the effect of price changes from the estimates.

11. Quality

Basic Quality Information

All estimates, by definition, are subject to statistical 'error' but in this context the word refers to the uncertainty inherent 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 statements to be reduced. Only rarely are there avoidable 'errors' such as human or system failures, and such mistakes are made quite clear when they do occur.

Expectations of accuracy and reliability in early estimates are often too high. Revisions are an inevitable consequence of the trade off between timeliness and accuracy. Early estimates are based on incomplete data.

Quality and methodology report

A [quality and methodology report](#) for the Gross Domestic Product Preliminary Estimate release is provided on the National Statistics website.

This report describes, in detail the intended uses of the statistics presented in this publication, their general quality and the methods used to produce them.

12. National Accounts revisions policy

In accordance with the [National Accounts revision policy \(41.6 Kb Pdf\)](#), there are no periods open for revision in this release.

This release includes information available up to 17 April 2014.

13. Revisions Triangles

Spreadsheets giving revisions triangles (real time databases) of estimates from 1992 to date are available to download. They can be found under the section [Revisions triangles for gross value added at basic prices, chained volume measure](#).

The revisions triangles for the components of GDP have been temporarily removed following the move to the new Standard Industrial Classification (SIC2007) in October 2011. The revisions triangles for total GDP are still available and the services industry analysis is separately available on a monthly basis via the Index of Services dataset.

Revisions to data provide one indication of the reliability of key indicators. **Tables 11** and **12** show summary information on the size and direction of the revisions which have been made to data covering a five year period. A statistical test has been applied to the average revision to find out if it is statistically significantly different from zero. The result of the test is that the average revision is not statistically different from zero.

Table 11: Revisions to early estimates of GVA growth

Revisions to GVA growth	GVA Growth in the latest period %	Revisions between early estimates of GVA growth (quarterly, CVM)	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
Between M1 and M2	0.8	0.04	0.06
Between M2 and M3	0.8	-0.05	0.09

Table source: Office for National Statistics

Download table**XLS** [XLS format](#)

(26.5 Kb)

Table 11 shows the revisions between the early estimates of gross value added (GVA). The analysis of revisions between month 1 and month 2 uses month 2 estimates published from April 2009 (2009 Q1) to January 2014 (2013 Q4). The analysis of revisions between month 2 and month 3 uses month 3 estimates published from May 2009 (2009 Q1) to February 2014 (2013 Q4).

Table 12: Revisions to GVA growth between the estimate published three months after the end of the quarter and the equivalent estimate three years later

Revisions to GVA growth	GVA Growth in the latest period %	Revisions between early estimates of GVA growth (quarterly, CVM)	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
GVA growth (quarterly CVM)	0.8	-0.03	0.38

Table source: Office for National Statistics

Download table**XLS** [XLS format](#)

(26.5 Kb)

Table 12 shows the revisions to GVA growth between the estimate published three months after the end of the quarter and the equivalent estimate three years later. The analysis uses month 3 estimates first published from June 2009 (2006 Q1) to March 2014 (2010 Q4).

An article titled '[Understanding the quality of early estimates of Gross Domestic Product](#)' (122.9 Kb Pdf), which was first published in December 2009, is available on the National Statistics website.

This article presents an analysis of revisions to the early estimates of GDP based on a long period database of real time GDP back to 1955. This database is regularly updated and is available on the ONS website.

ONS published an article titled '[Revisions to GDP and components](#)' which updates analysis undertaken previously on GDP revisions as well as launching a real time £ million database for all the components of both the expenditure and income approaches to measuring GDP.

14. Following ONS

You can follow ONS on [Twitter](#), [Facebook](#) or view the latest podcasts on [YouTube](#)

15. Publication policy

Details of the policy governing the release of new data are available from the press office. Also available is a [Pre release Access List](#) of those given pre-publication access to the contents of this release:

Accessing data

The data presented in the tables of this statistical bulletin are also available to download from the [data section](#) of this publication. A completed run of data is available as a [time series dataset](#) on the ONS website.

16. Code of Practice for Official Statistics

National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

[Code of Practice](#)

The UK 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 broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

17. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

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Analysis by categories of output ²															
	Production						Services						Gross domestic product at market prices ^{4,5}	Gross value added exc oil & gas	
	Agriculture, forestry and fishing	Mining & quarrying	Manu- facturing	Electricity gas, steam and air	Water supply, sewerage etc	Total IOP	Constru- tion	Distribution, hotels and restaurants	Transport, storage and commu- cation	Business services and finance	Govern- ment and other services	Total Services			
2010 Weights	7	23	104	13	12	152	63	138	108	307	225	778	1000	981	
Index numbers															
	L2KL	L2KR	L2KX	L2MW	L2N2	L2KQ	L2N8	L2PZ	KI8M	KI8O	KI8Q	L2NC	YBEZ	KLH7	
2009	100.7	102.5	96.0	96.2	101.3	97.2	92.3	99.0	97.1	99.6	99.7	99.2	98.4	98.2	
2010	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
2011	110.6	85.2	101.8	94.1	104.1	98.8	102.3	100.7	101.6	102.5	100.5	101.5	101.1	101.6	
2012	106.7	77.7	100.1	93.8	103.5	96.5	94.0	101.6	101.5	104.7	101.6	102.8	101.4	102.1	
2013	102.4	76.1	99.4	93.6	108.4	96.1	95.0	105.1	102.8	106.9	102.2	104.7	103.1	104.0	
2010	Q3	100.8	99.8	100.9	96.2	100.4	100.3	102.8	100.5	100.6	100.5	100.3	100.4	100.5	100.6
	Q4	100.4	96.3	101.7	102.3	100.4	101.0	100.6	99.7	100.9	100.2	100.0	100.1	100.3	100.4
2011	Q1	110.8	90.8	101.9	96.5	103.7	99.9	102.2	100.3	100.4	101.0	100.4	100.7	100.8	100.9
	Q2	110.5	84.1	102.2	93.2	104.2	98.8	103.3	100.8	101.2	101.7	100.4	101.1	100.9	101.3
	Q3	110.3	83.1	101.8	95.6	103.1	98.5	102.2	101.1	102.7	103.4	100.5	102.1	101.5	102.0
	Q4	110.6	82.7	101.4	91.3	105.4	98.0	101.6	100.6	102.0	103.9	100.7	102.1	101.4	102.0
2012	Q1	108.7	81.1	101.3	90.8	104.4	97.6	97.2	101.0	102.6	103.9	101.2	102.4	101.4	102.0
	Q2	106.3	78.9	100.0	95.2	102.8	96.6	93.7	100.9	101.3	104.1	101.2	102.3	101.0	101.7
	Q3	106.0	78.9	100.5	93.1	103.2	96.8	91.7	102.7	101.0	105.0	102.5	103.3	101.7	102.5
	Q4	105.8	72.0	98.6	96.3	103.7	94.8	93.4	101.9	101.3	105.6	101.6	103.2	101.5	102.4
2013	Q1	100.7	75.2	98.4	97.5	103.1	95.2	92.2	103.1	102.7	105.6	101.9	103.7	101.9	102.8
	Q2	102.6	76.6	99.1	95.5	106.1	95.9	94.4	104.8	102.8	106.3	101.8	104.2	102.7	103.6
	Q3	103.0	76.9	99.8	89.9	111.4	96.5	96.8	106.1	102.7	107.4	102.2	105.0	103.5	104.4
	Q4	103.2	75.6	100.5	91.5	113.2	97.0	96.6	106.6	103.1	108.4	103.0	105.8	104.2	105.2
2014	Q1	102.5	74.8	101.8	89.7	114.5	97.7	96.9	108.2	104.2	109.4	103.4	106.7	105.1	106.1
Preliminary Estimate															
2014	Q1	102.5	74.8	101.8	89.7	114.5	97.7	96.9	108.2	104.2	109.4	103.4	106.7	105.1	106.1
Percentage changes: annual and latest quarter on previous quarter															
	L3BB	L3BH	L3BN	L3DM	L3DQ	L3BG	L3DW	L3GP	KI8L	KI8N	KI8P	L3E2	IHYQ	KLH8	
2009	-6.9	-9.7	-10.2	-4.8	-8.3	-9.5	-13.3	-5.8	-7.2	-4.8	0.4	-3.9	-5.2	-5.4	
2010	-0.7	-2.4	4.2	3.9	-1.3	2.8	8.3	1.0	3.0	0.4	0.3	0.8	1.7	1.8	
2011	10.6	-14.8	1.8	-5.9	4.1	-1.2	2.3	0.7	1.6	2.5	0.5	1.5	1.1	1.6	
2012	-3.5	-8.7	-1.7	-0.3	-0.5	-2.4	-8.1	0.9	-	2.1	1.1	1.3	0.3	0.6	
2013	-4.0	-2.1	-0.7	-0.3	4.8	-0.3	1.1	3.5	1.3	2.2	0.6	1.8	1.7	1.8	
2010	Q3	1.8	-2.5	1.2	-4.4	-0.2	0.1	1.7	0.3	1.3	0.6	0.1	0.5	0.4	0.6
	Q4	-0.4	-3.5	0.8	6.3	-	0.7	-2.2	-0.7	0.4	-0.3	-0.3	-0.3	-0.2	-0.2
2011	Q1	10.4	-5.7	0.2	-5.7	3.3	-1.0	1.6	0.6	-0.5	0.9	0.5	0.5	0.5	0.5
	Q2	-0.3	-7.4	0.2	-3.4	0.6	-1.1	1.0	0.5	0.7	0.7	-	0.4	0.1	0.4
	Q3	-0.2	-1.2	-0.4	2.6	-1.1	-0.3	-1.1	0.3	1.5	1.7	0.1	1.0	0.6	0.7
	Q4	0.2	-0.5	-0.4	-4.5	2.2	-0.6	-0.6	-0.5	-0.7	0.4	0.2	-	-0.1	-
2012	Q1	-1.7	-1.9	-0.1	-0.5	-0.9	-0.4	-4.4	0.4	0.6	-	0.5	0.3	-	-
	Q2	-2.2	-2.7	-1.3	4.9	-1.5	-1.0	-3.6	-0.1	-1.3	0.2	-	-0.1	-0.4	-0.3
	Q3	-0.3	-	0.5	-2.3	0.3	0.2	-2.1	1.7	-0.3	0.9	1.3	1.0	0.8	0.8
	Q4	-0.2	-8.8	-1.8	3.4	0.5	-2.1	1.9	-0.7	0.3	0.5	-0.9	-0.1	-0.2	-
2013	Q1	-4.8	4.5	-0.2	1.3	-0.6	0.4	-1.3	1.2	1.4	-	0.3	0.5	0.4	0.4
	Q2	2.0	1.8	0.6	-2.1	2.9	0.7	2.3	1.6	-	0.6	-	0.5	0.8	0.7
	Q3	0.4	0.5	0.8	-5.9	5.0	0.6	2.6	1.2	-0.1	1.1	0.4	0.7	0.8	0.8
	Q4	0.2	-1.8	0.6	1.8	1.6	0.5	-0.2	0.5	0.4	1.0	0.8	0.8	0.7	0.7
2014	Q1	-0.7	-1.1	1.3	-2.0	1.1	0.8	0.3	1.5	1.1	0.9	0.4	0.9	0.8	0.8
Preliminary Estimate															
2014	Q1	-0.7	-1.1	1.3	-2.0	1.1	0.8	0.3	1.5	1.1	0.9	0.4	0.9	0.8	0.8
Percentage changes: latest quarter on corresponding quarter of previous year															
	L3ZZ	L427	L42D	L44C	L44G	L426	L44M	L47F	KI12	KI19	KI18	L44Q	IHYR	KLH9	
2014	Q1	1.8	-0.7	3.4	-8.0	11.0	2.5	5.1	4.9	1.4	3.6	1.5	3.0	3.1	3.2

1 Estimates are not accurate to the last digit shown

2 Weights may not sum to the totals due to rounding

3 Components of output are valued at basic prices which excludes subsidies on products, whereas GDP is valued at market prices

4 Includes an implicit discrepancy compared with the sum of the previous columns, because the GDP aggregate takes account of other information based on income and expenditure

5 In this, the preliminary estimate of GDP, series YBEZ (GDP chained volume indices) appears alongside GVA industry components as output is the sole contributor to GDP change for the latest quarter at this stage

6 A complete run of data is available on the ONS website as a [Time series dataset](#)