

Statistical bulletin

Second Estimate of GDP: Q3 2014

The second quarterly estimate of GDP based on additional data but produced later than the preliminary estimate, providing a more precise indication of economic growth.



Contact:
Matthew Hughes
gdp@ons.gsi.gov.uk

Release date:
26 November 2014

Next release:
23 December 2014

Table of contents

1. [Key findings](#)
2. [What is GDP?](#)
3. [Headline GDP and selected components](#)
4. [Historical context](#)
5. [GDP analysed by output categories, chained volume measures, Tables B1 and B2](#)
6. [GDP analysed by expenditure categories, chained volume measures, Table C2](#)
7. [GDP implied deflator](#)
8. [GDP analysed by income categories at current prices, Table D](#)
9. [International comparisons for Q3 2014](#)
10. [GDP quarterly revisions](#)
11. [Background notes](#)

1. Key findings

- UK gross domestic product (GDP) in volume terms was estimated to have increased by 0.7% between Q2 2014 and Q3 2014, unrevised from the previous estimate of GDP published 24 October 2014
- Between Q3 2013 and Q3 2014, GDP in volume terms increased by 3.0%, unrevised from the previously published estimate
- GDP in current prices was estimated to have increased by 1.6% between Q2 2014 and Q3 2014

2. What is GDP?

GDP is an estimate of total economic activity in the UK. It is constructed by balancing the estimates from the output, income and expenditure approaches to measuring GDP, which in theory are all equal. For more information on how GDP is balanced see 'Balancing GDP' in the background notes section of this release.

Data in this release, unless otherwise stated, will have been seasonally adjusted (SA) with seasonal effects removed to allow comparisons over time. Estimates are given in chained volume measures (CVM), sometimes known as real terms, with the effects of inflation removed, or current prices (CP), sometimes known as nominal terms, without any adjustment for inflation.

Growth for GDP and its components is given between different periods. Latest year on previous year gives the annual growth between one calendar year and the previous. Latest quarter on previous quarter growth gives growth between one quarter and the quarter immediately before it. Latest quarter on corresponding quarter of previous year shows the growth between one quarter and the same quarter a year ago.

The Second Estimate of GDP for Q3 2014 includes initial estimates on the expenditure and income approaches to GDP, along with revisions to, and more detail on, the output approach. In line with national accounts revisions policy, the only period open for revision in this release is Q3 2014.

3. Headline GDP and selected components

Table 1: Q3 2014

	Current market prices		Chained volume measures		
	Gross domestic product	Compensation of employees	Gross domestic product	Household expenditure	Gross fixed capital formation
Seasonally adjusted					
Q3 2012	1.5	2.5	0.8	0.2	-0.9
Q4 2012	-0.1	-0.9	-0.3	0.7	1.1
Q1 2013	0.9	0.0	0.5	0.5	0.8
Q2 2013	1.1	3.0	0.7	0.2	0.5
Q3 2013	1.9	0.5	0.9	0.5	2.8
Q4 2013	0.7	-0.1	0.6	0.3	2.4
Q1 2014	0.8	-0.6	0.7	0.7	2.4
Q2 2014	1.9	1.5	0.9	0.6	1.3
Q3 2014	1.6	1.2	0.7	0.8	1.0

Source: Office for National Statistics

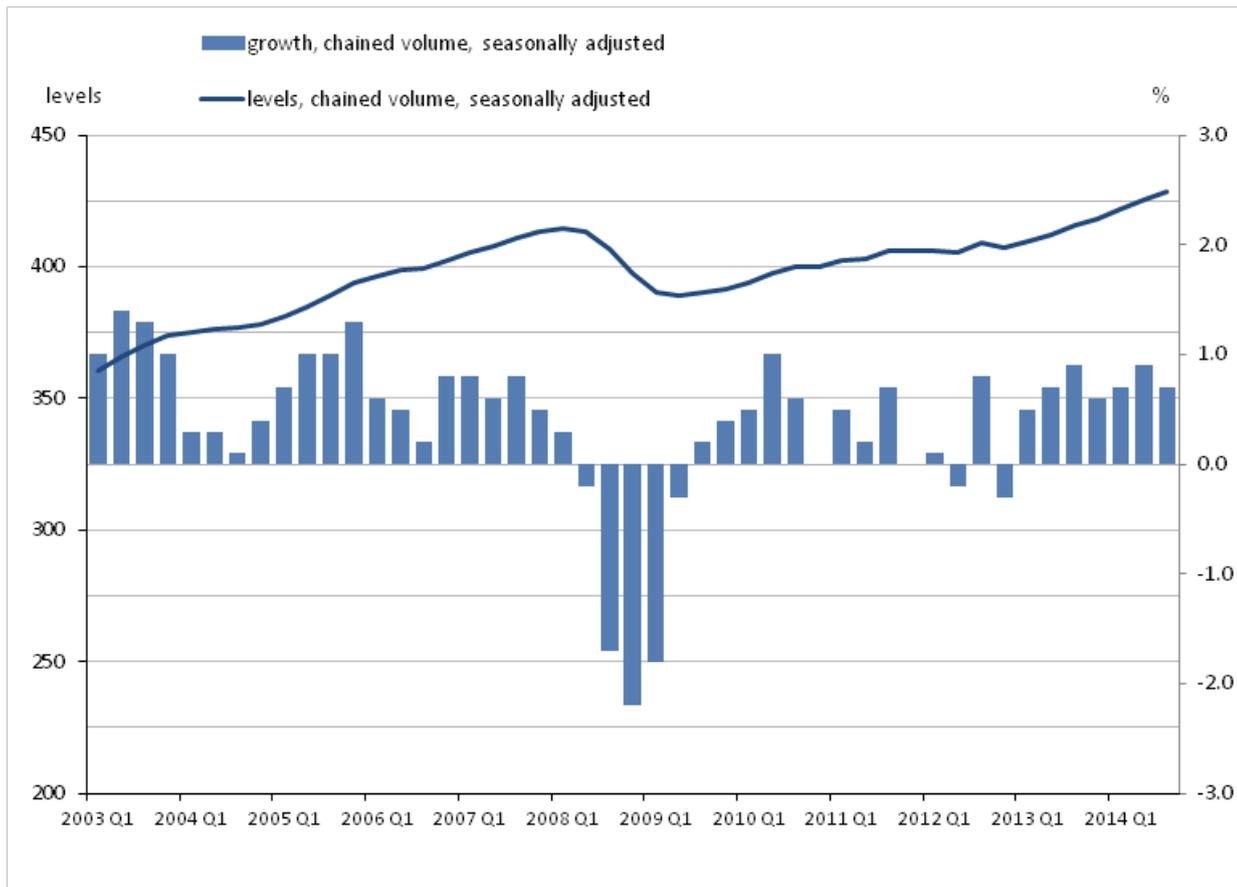
Notes:

1. Percentage change on previous quarter.

4. Historical context

Figure 1: Quarterly growth and levels of GDP, table A2

£ billion



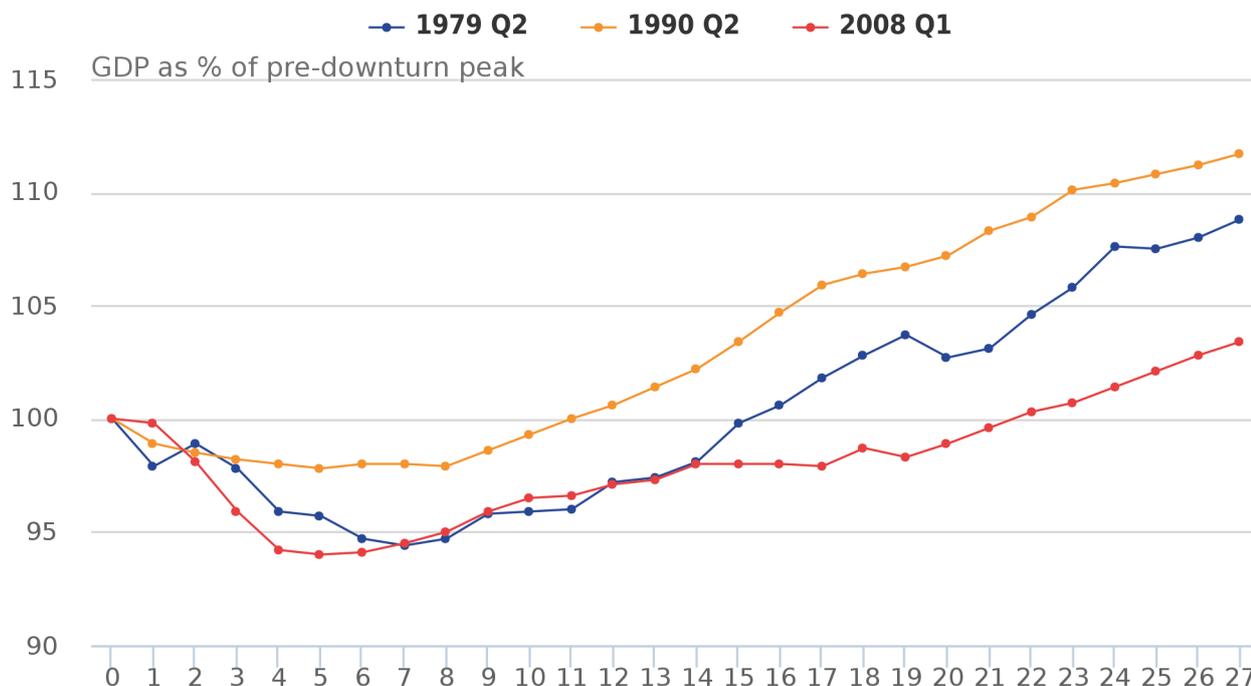
Source: Office for National Statistics

Figure 1 shows GDP in the UK grew steadily during the 2000s until a financial market shock affected UK and global economic growth in 2008 and 2009. Economic growth resumed towards the end of 2009, but typically at a slower rate than the period prior to 2008. Quarterly growth in this period was also erratic, with several quarters between 2010 and 2012 recording flat or declining GDP. This two-year period coincided with special events (for example severe winter weather in Q4 2010 and the Diamond Jubilee in Q2 2012) that are likely to have affected growth. Since 2013, GDP has grown steadily, exceeding its pre-downturn peak in Q3 2013.

Figure 2 makes a comparison of the most recent economic downturn and recovery, with the other two most recent recessions. The profile of each subsequent recovery indicates the rate of time for GDP to return to pre-recession levels.

From the peak in Q1 2008 to the trough in Q2 2009, GDP decreased by 6.0%. Previous economic downturns in the early 1980s and early 1990s saw lower levels of impact on GDP. In the early 1990s downturn, GDP decreased by 2.2% from the peak in Q2 1990 to the trough in Q3 1991. In the early 1980s downturn, GDP decreased by 5.6% from the peak in Q2 1979 to the trough in Q1 1981.

Figure 2: GDP quarter-on-quarter growth from peak for previous and latest economic downturns



Source: Office for National Statistics

5. GDP analysed by output categories, chained volume measures, Tables B1 and B2

[Annex A \(41 Kb Excel sheet\)](#) contains growth rates back to Q1 2013.

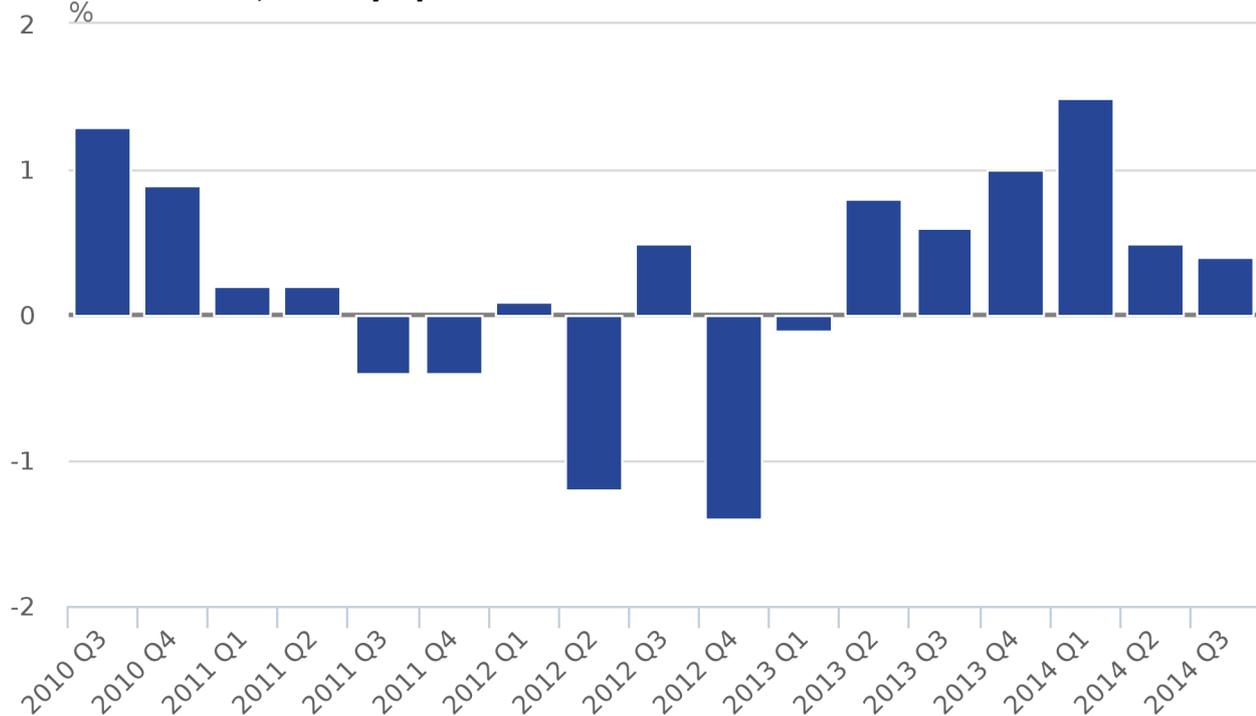
The output components of GDP show across-the-board increases in Q3 2014, with agriculture, forestry & fishing, production, construction and services all expanding in Q3 2014.

Production output increased by 0.2% in Q3 2014 compared with Q2 2014. However, there was a mixed performance within sub-industries. Output from mining and quarrying including oil & gas extraction fell by 1.7%, the largest fall within production, while water supply & sewerage fell by 0.4% on the quarter. Manufacturing (the largest component of production) and electric, gas, steam & air industries both rose on the quarter, increasing by 0.4% and 2.6% respectively, with the former contributing most to the positive growth in production.

When comparing Q3 2014 with Q3 2013, production output rose by 1.9%. Manufacturing and electric, gas, steam & air contributed positively to this growth, increasing by 3.4% and 1.3% respectively (see Figure 3), while mining & quarrying and water supply & sewerage contracted by 2.3% and 3.0% respectively.

Figure 3: Manufacturing growth, quarter-on-quarter

chained volume measure, seasonally adjusted



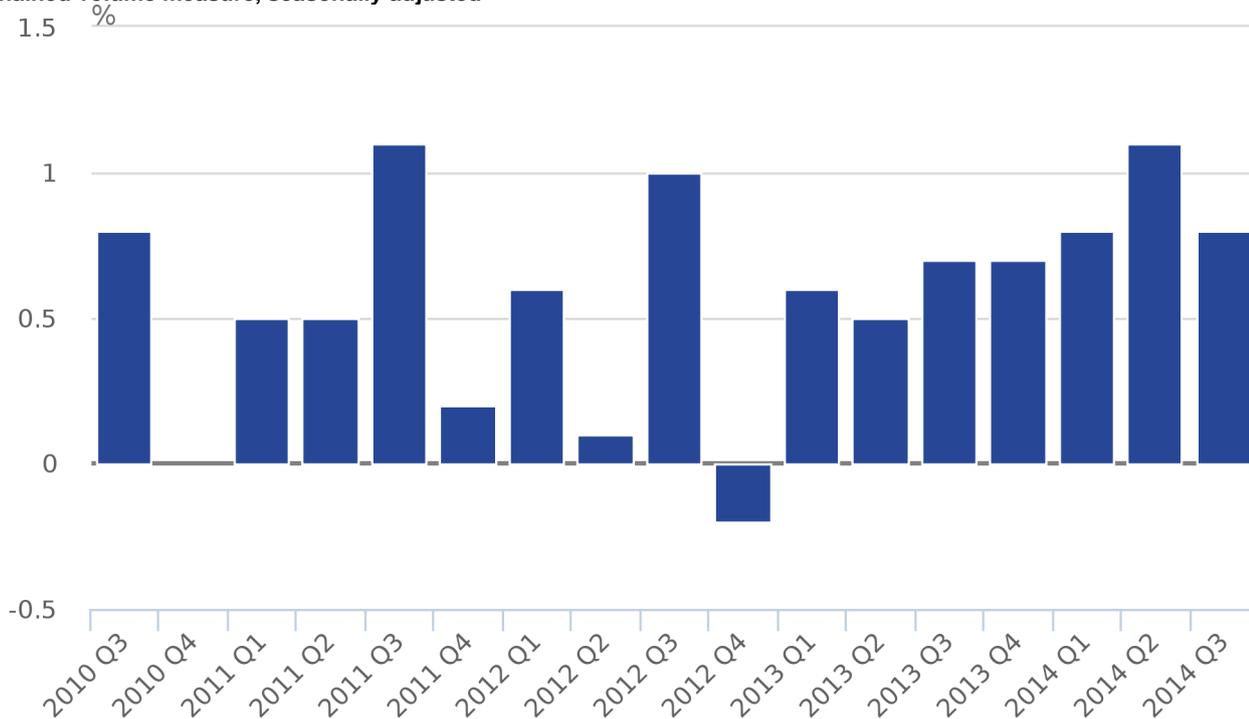
Source: Office for National Statistics

Construction output increased by 0.8% in Q3 2014 and has risen by 3.0% since Q3 2013.

The service industries grew by 0.8% in Q3 2014 (see Figure 4), revised up 0.1 percentage points from the previous estimate, marking the seventh consecutive quarter of positive growth. This follows a 1.1% increase in Q2 2014. The increase in the latest quarter was broad-based; the largest contributions coming from the business services & finance and transport, storage & communications industries, which grew by 1.1% and 1.3% respectively.

Figure 4: Services growth, quarter-on-quarter

chained volume measure, seasonally adjusted



Source: Office for National Statistics

Output of the distribution, hotels & restaurants industries rose by 0.7% in Q3 2014, revised up by 0.2 percentage points from the previous estimate. The 0.7% increase in the latest quarter was largely due to increases in wholesale trade, except of motor vehicles and motorcycles. In Q2 2014, distribution, hotels & restaurants industries output increased by 1.0%.

Output of the transport, storage & communication industries rose by 1.3% in Q3 2014 following a 1.5% increase in Q2 2014. The largest upward contribution to growth in Q3 2014 came from land transport services and transport services via pipelines, excluding rail and warehousing and support activities for transportation.

Business services & finance industries output rose by 1.1% in Q3 2014, following an increase of 1.5% in Q2 2014. The largest upward contribution to growth in Q3 2014 came from architectural and engineering activities; technical testing and analysis.

Output of government & other services rose by 0.2% in Q3 2014, following a 0.3% increase in Q2 2014. The increase in Q3 2014 was mainly due to human health activities and other personal service activities, including activities such as washing, dry-cleaning and hairdressing.

Further detail on the service industries lower level components can be found in the [Index of Services](#) statistical bulletin published on the same day as this release.

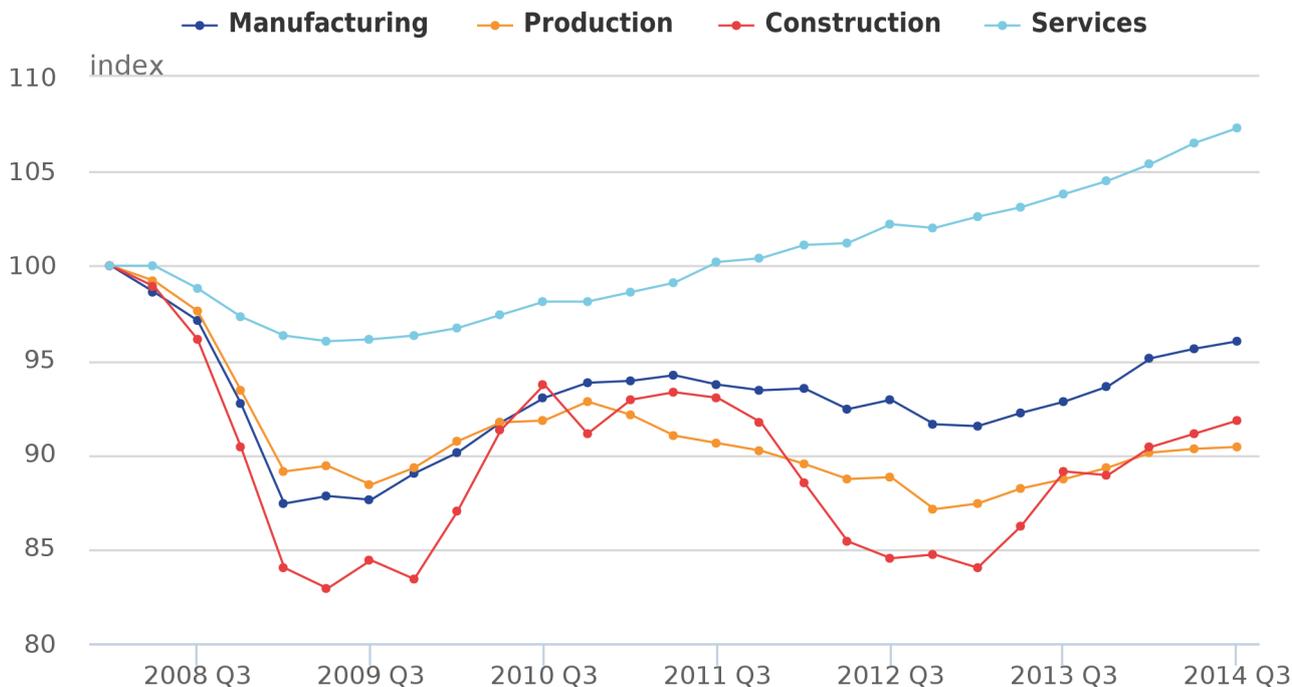
Gross value added excluding oil & gas extraction rose by 0.7% in Q3 2014, and by 0.9% in Q2 2014.

Figure 5 shows the path of GDP and its components (excluding agriculture), relative to their level of output achieved in Q1 2008. The construction, manufacturing and production industries were more acutely affected by the deterioration in economic conditions, falling from peak-to-trough by 17.1%, 12.6% and 11.6% respectively. In contrast, the service industry only fell by 4.0% in the same period.

Production activity began to grow again in 2010, with the manufacturing and construction industries showing particular strength, but neither industry sustained this growth. Production output fell in both 2011 and 2012, falling below levels seen at the height of the downturn in 2009. Construction output also decreased sharply in 2012, with output close to its 2009 trough after further contraction in Q1 2013. However, clear improvement in this industry can be observed throughout 2014. Although there has been widespread growth across all major output components of GDP since the start of 2013, the service industries remain the largest and steadiest contributor to economic growth and the only component of GDP where output has exceeded pre-downturn levels.

Figure 5: GDP output components growth, quarter-on-quarter

chained volume measure, seasonally adjusted, Q1 2008=100



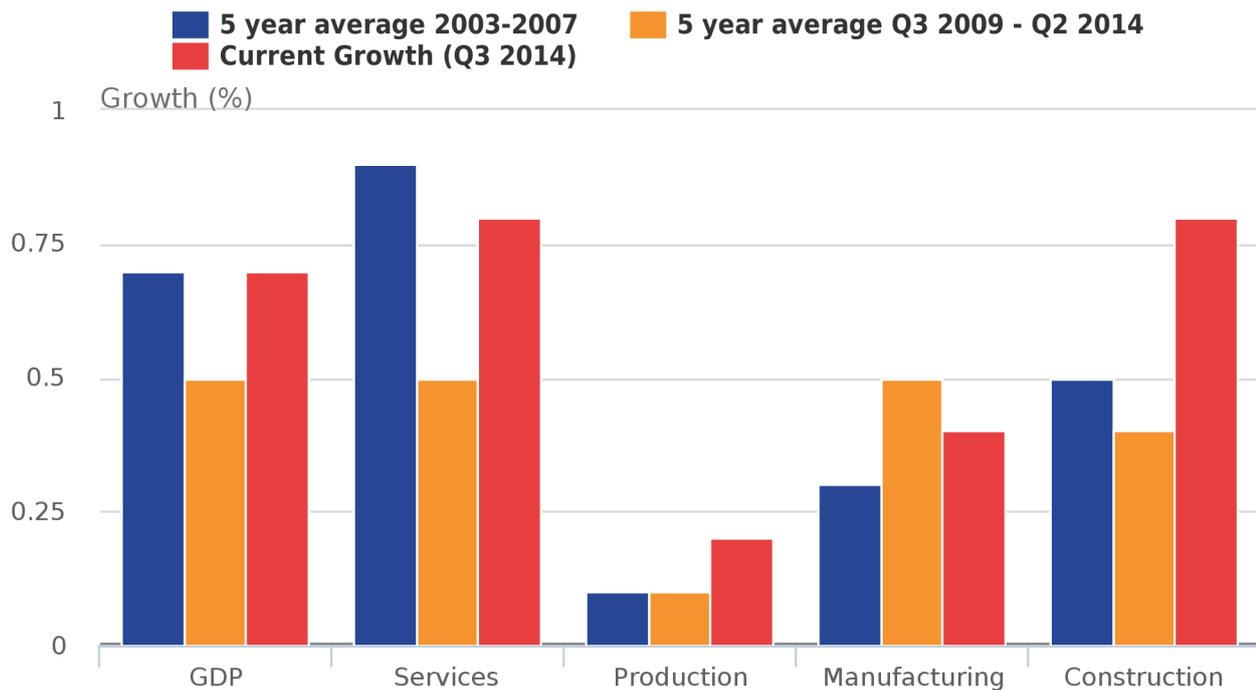
Source: Office for National Statistics

Figure 6 shows the average compound quarterly growth rates for the five years before the economic downturn beginning in Q1 2008; the average between Q3 2009 and Q2 2014 (five years following the downturn), and the current quarterly growth rate observed in Q3 2014. Compound average growth is the rate at which a series would have increased/decreased if it had grown/fallen at a steady rate over a number of periods. This allows the composition of growth in the recent economic recovery to be compared to the long run average.

The five years following the economic downturn have experienced slightly slower average compound GDP growth compared with the period before the downturn; this pattern is also reflected in the services and construction industries. In the most recent period (Q3 2014) the production and construction industry have both outperformed the pre-downturn long run average. It should be noted that the third column, current quarterly growth rate, is based on only one data point and users should use caution when making direct comparisons with the long run averages.

Figure 6: GDP quarterly average compound growth by industry grouping before and after the 2008-2009 economic downturns

United Kingdom, 2003-2007 and 2009-2014



Source: Office for National Statistics

6. GDP analysed by expenditure categories, chained volume measures, Table C2

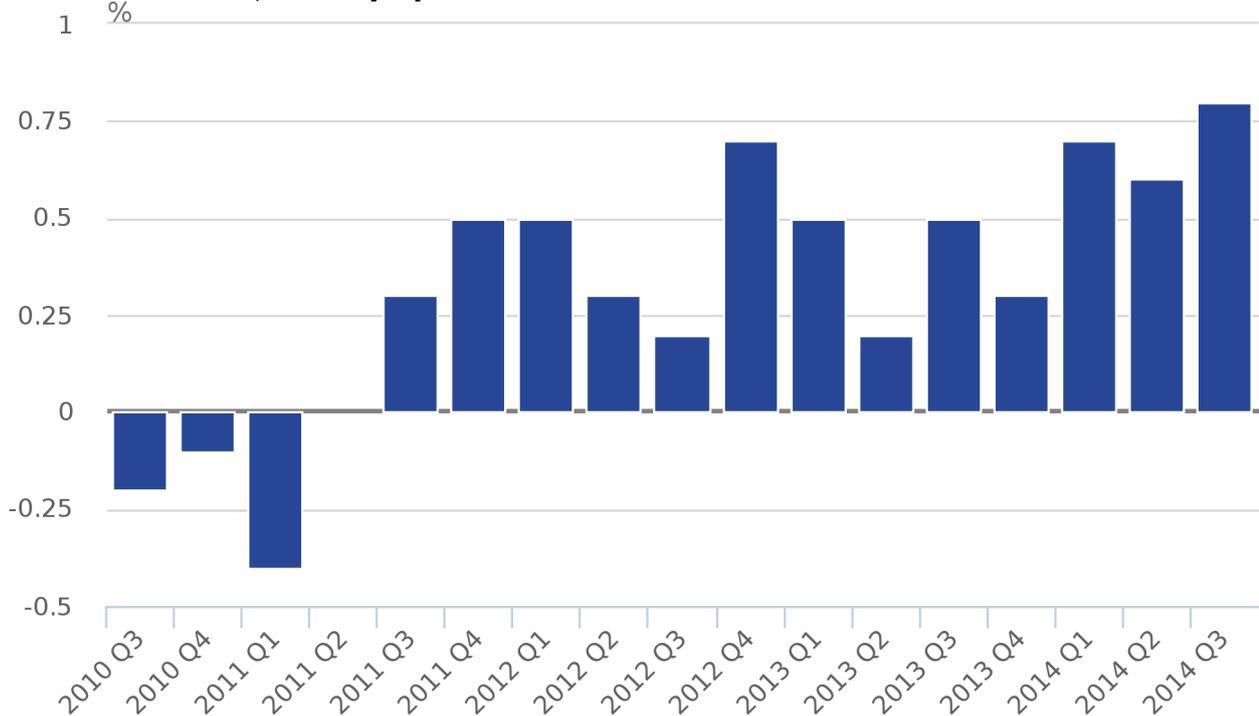
[Annex B \(38.5 Kb Excel sheet\)](#) contains expenditure component growth rates back to Q1 2013.

Gross domestic expenditure (the sum of all expenditure by UK residents on goods and services which is not used up or transformed in a productive process) rose by 1.2% in Q3 2014, following a 1.0% increase in Q2 2014.

Household final consumption expenditure rose by 0.8% in Q3 2014 and has increased for thirteen consecutive quarters (see Figure 7). Household final consumption expenditure, when compared with the same quarter a year ago, has been rising each quarter since Q4 2011 and was 2.4% higher in Q3 2014 than in the same period a year ago.

Figure 7: Household final consumption expenditure growth, quarter-on-quarter

chained volume measure, seasonally adjusted



Source: Office for National Statistics

Government final consumption expenditure increased by 1.1% in Q3 2014, following a 1.0% increase in Q2 2014. Between Q3 2013 and Q3 2014, government final consumption expenditure increased by 1.7%.

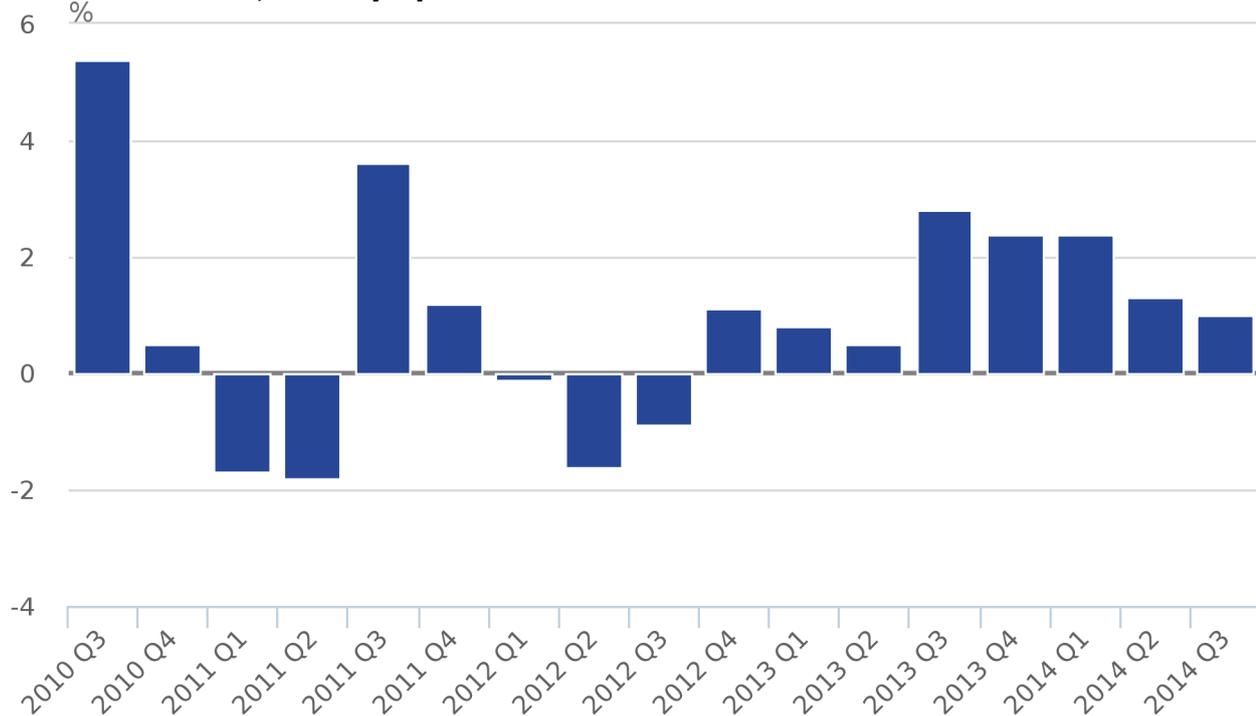
Non-profit institutions serving households (NPISH) final consumption expenditure increased by 0.4% in Q3 2014, following a 1.3% increase in Q2 2014. Between Q3 2013 and Q3 2014, NPISH final consumption expenditure increased by 1.0%.

In Q3 2014, gross fixed capital formation was estimated to have increased by £0.7 billion (1.0%) since the previous quarter, to £73.2 billion (see Figure 8). This is its highest level since Q4 2007. Business investment is estimated to have fallen by an estimated £0.3 billion (-0.7%) since Q2 2014. However, it increased by 6.3% compared with the same quarter a year ago, and is still £2.6 billion higher than the pre-downturn peak in Q2 2008. The greatest contributor to the fall in business investment was from intellectual property products (IPP), and in particular the software component of this asset. Software investment has grown steadily since 1997 and reached a peak in Q2 2014.

More detail on gross fixed capital formation is available in the [Business Investment](#) statistical bulletin published on the same day as this release.

Figure 8: Gross fixed capital formation growth, quarter-on-quarter

chained volume measure, seasonally adjusted

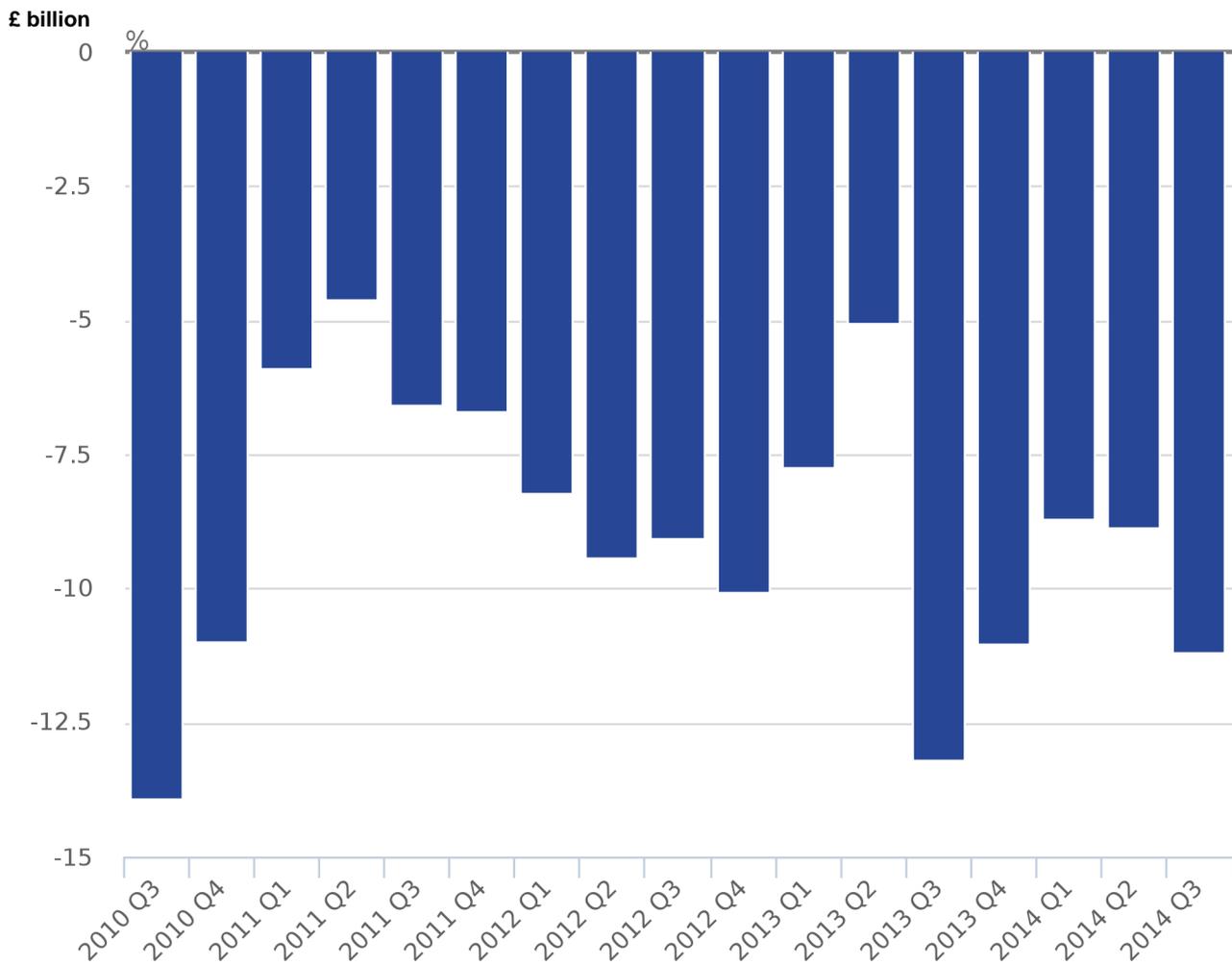


Source: Office for National Statistics

Including the alignment adjustment, the level of inventories increased by £4.5 billion in Q3 2014, following an increase of £3.0 billion in Q2 2014.

The trade balance deficit widened from £8.9 billion in Q2 2014 to £11.2 billion in Q3 2014 (see Figure 9). The trade position reflects exports minus imports. Following a 0.4% decrease in Q2 2014, exports fell by 0.4% in the latest quarter, while imports increased by 1.4%. With exports contracting and imports increasing, the net trade balance worsened when compared to the previous quarter.

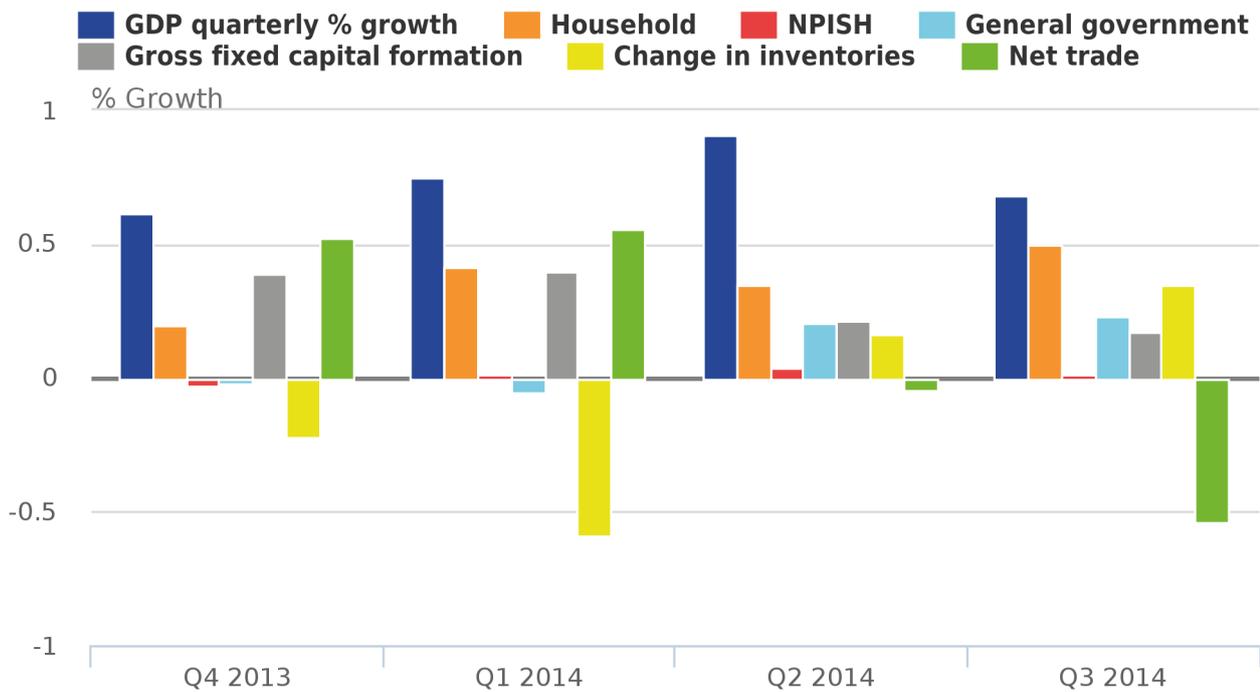
Figure 9: Trade balance



Source: Office for National Statistics

Figure 10 shows the quarterly contribution of the expenditure components to the growth of GDP in chained volume measures. The largest contribution to growth came from household final consumption expenditure, which contributed 0.5 percentage points to GDP, while gross fixed capital formation made a smaller contribution of 0.2 percentage points. Changes in inventories contributed 0.3 percentage points. With exports falling and imports increasing this quarter, net trade's contribution was minus 0.5 percentage points.

Figure 10: Expenditure components percentage contribution to GDP growth, quarter-on-quarter



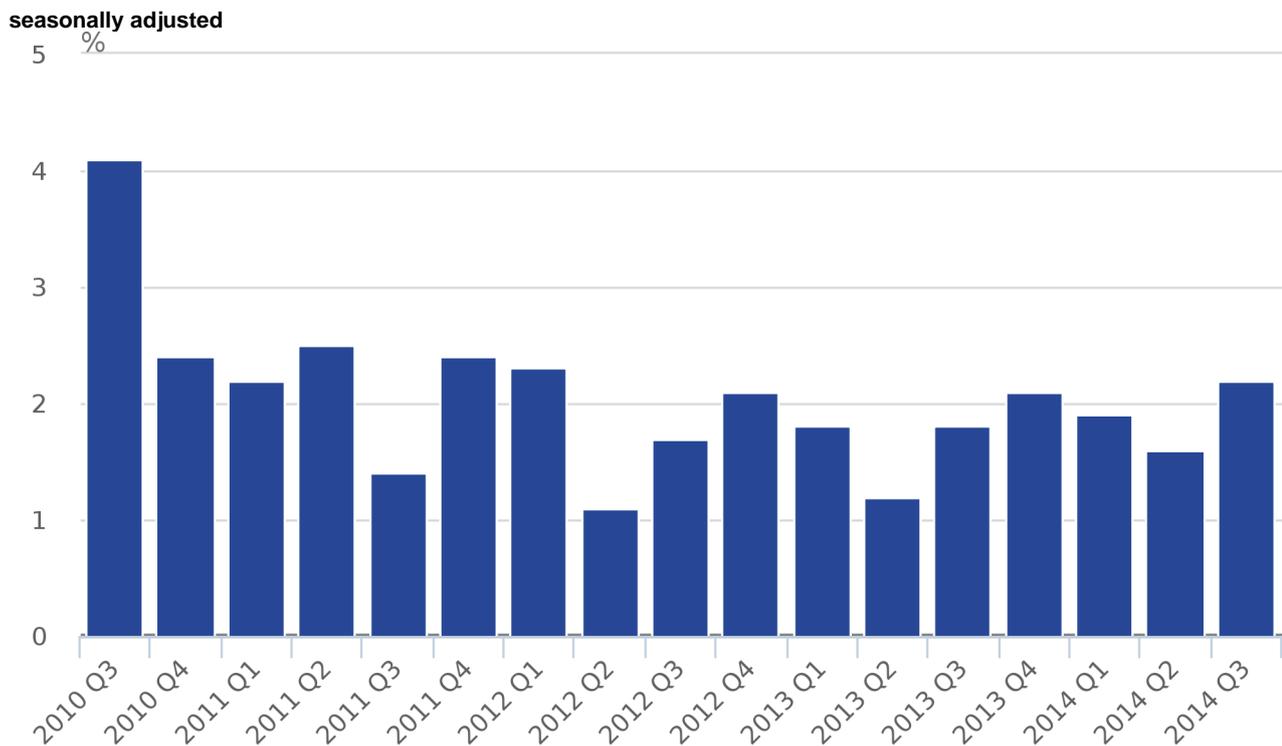
Source: Office for National Statistics

7. GDP implied deflator

[Annex D \(36.5 Kb Excel sheet\)](#) contains implied deflator component growth rates back to Q1 2013.

The gross domestic product implied deflator at market prices for Q3 2014 is 2.1% above the same quarter of 2013 (see Figure 11). The GDP implied deflator is calculated by dividing current price (nominal) GDP by chained volume (real) GDP and multiplying by one hundred to convert to an index. It is not used in the calculation of GDP; the deflators for expenditure components, which are the basis for the implied GDP deflator, are used to calculate nominal GDP not real GDP.

Figure 11: GDP at market prices implied deflator, quarter on same quarter of previous year



Source: Office for National Statistics

8. GDP analysed by income categories at current prices, Table D

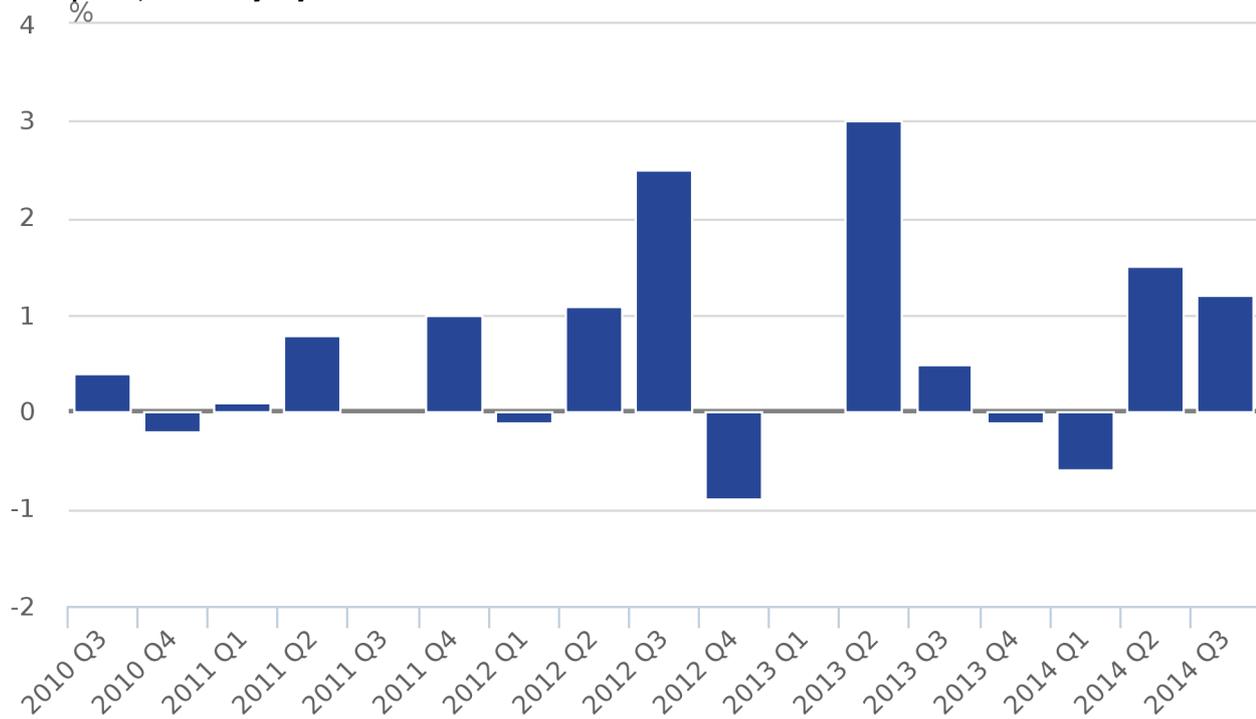
[Annex C \(32 Kb Excel sheet\)](#) contains income component growth rates back to Q1 2013.

GDP at current market prices rose by 1.6% in Q3 2014, following a 1.9% increase in Q2 2014. GDP at current market prices rose by 5.1% when compared to Q3 2013.

Compensation of employees which includes both wages & salaries and pension contributions - increased by 1.2% in Q3 2014, following an increase of 1.5% in Q2 2014 (see Figure 12).

Figure 12: Compensation of employees growth, quarter-on-quarter

current prices, seasonally adjusted

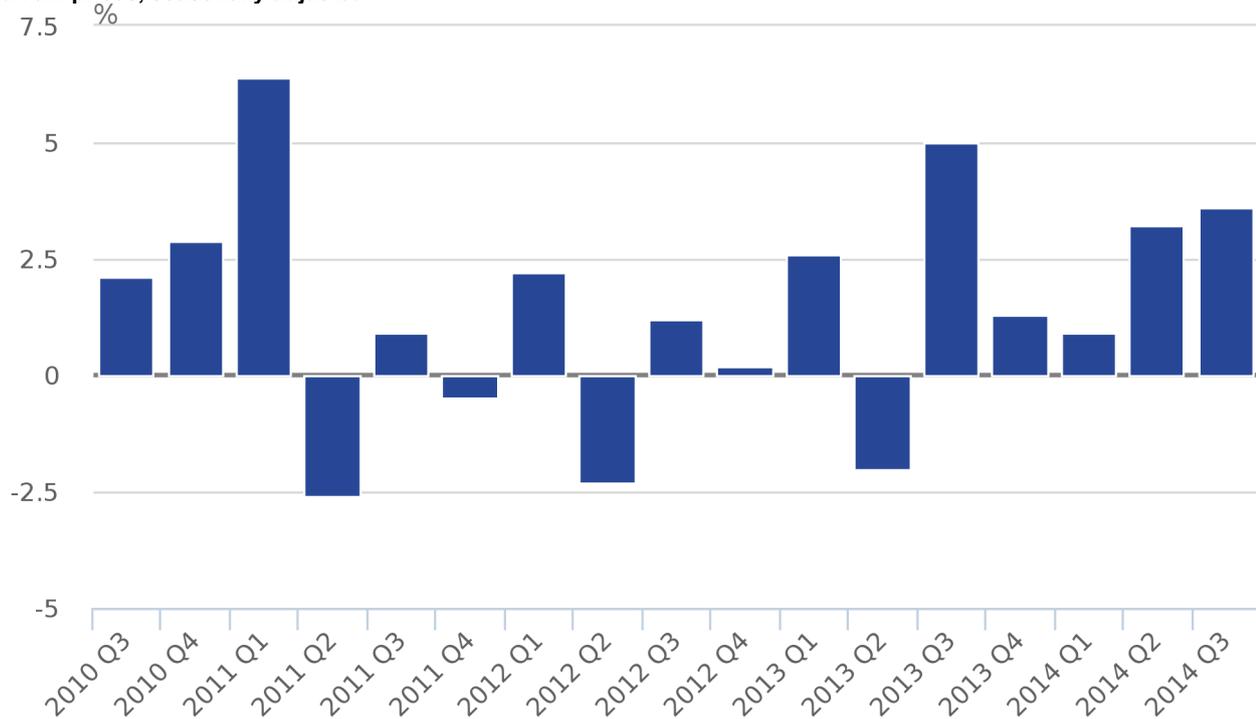


Source: Office for National Statistics

The gross operating surplus of corporations – effectively the profits of companies operating within the UK – including the alignment adjustment, rose by 3.6% in Q3 2014 compared with the previous quarter; this follows an increase of 3.2% in Q2 2014 (see Figure 13).

Figure 13: Gross operating surplus of corporations' growth, quarter-on-quarter

current prices, seasonally adjusted

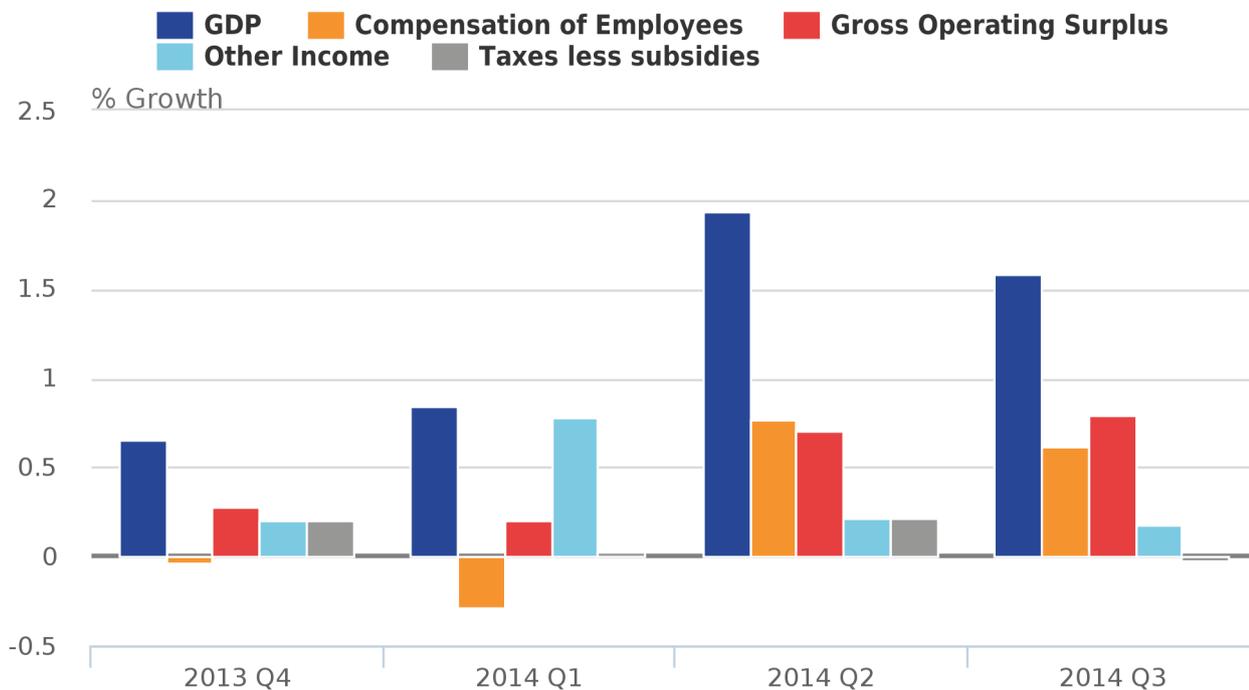


Source: Office for National Statistics

Taxes less subsidies on products and production fell by 0.2% in Q3 2014, following an increase of 1.8% in Q2 2014.

Figure 14 shows the contribution made by income components to current price GDP during Q3 2014. The positive contribution to growth came mainly from two of the components, with contributions from compensation of employees and gross operating surplus of 0.6 and 0.8 percentage points respectively.

Figure 14: Income components percentage contribution to GDP growth, quarter-on-quarter



Source: Office for National Statistics

9. International comparisons for Q3 2014

In Q3 2014, GDP for the Eurozone quarter-on-quarter increased by 0.2%, while GDP for the European Union (EU 28) grew by 0.3% (see Table 2 and Figure 15). This is the sixth consecutive quarter of growth for the EU28 economy. When compared to Q3 2013, GDP for the Eurozone expanded by 0.8%, while GDP for the EU28 increased by 1.3% (see Figure 16). France and Germany grew by 0.3% and 0.1% respectively in Q3 2014, following contractions of 0.1% for both economies in Q2 2014. Following a 1.1% increase in Q2 2014, GDP for the United States of America rose by 0.9% in Q3 2014. GDP for the United States of America grew by 2.3% between Q3 2013 and Q3 2014. The Japanese economy contracted by 0.4% in Q3 2014, following a contraction of 1.9% in Q2 2014.

Figure 17 shows GDP for the UK, EU, the United States of America and Japan, all indexed to Q1 2008 (the pre-downturn peak in the UK).

Table 2: International GDP quarterly growth rate comparisons for selected economic areas, quarter-on-quarter

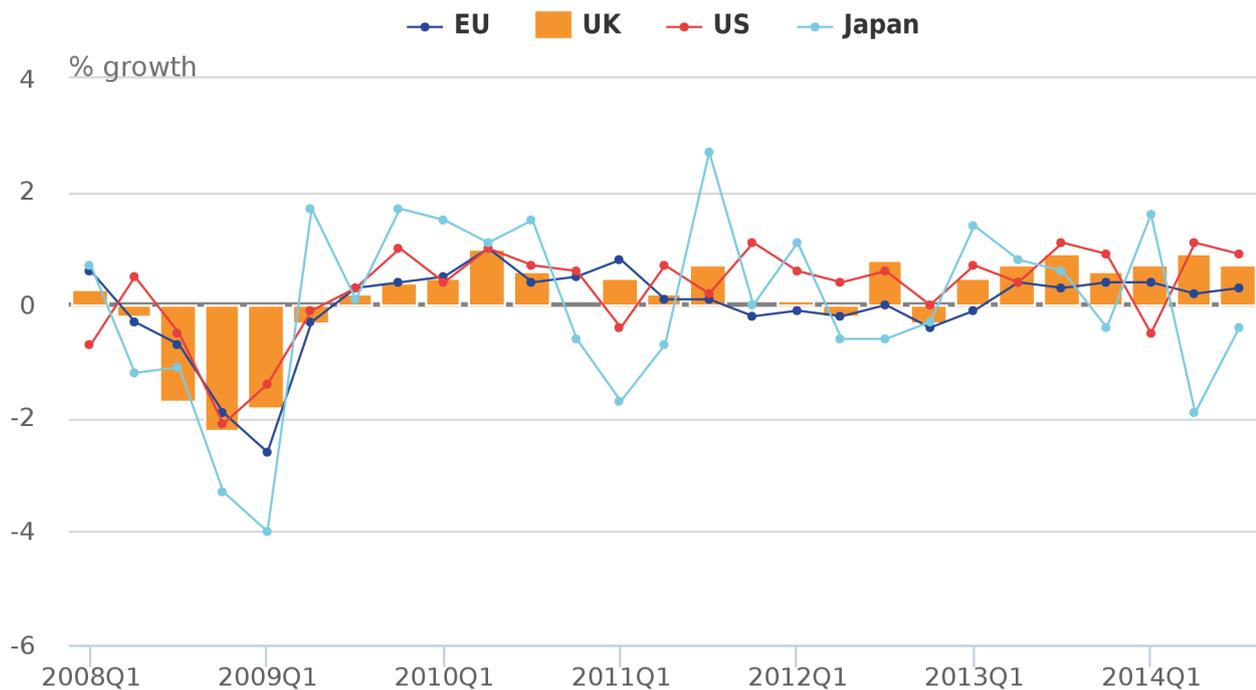
chained volume, seasonally adjusted

	EU28 Eurozone	France	Germany	Japan	United Kingdom	United States of America
Q2 2012	-0.2	-0.3	-0.2	-0.1	-0.6	0.4
Q3 2012	0.0	-0.1	0.2	0.1	-0.6	0.6
Q4 2012	-0.4	-0.5	-0.3	-0.4	-0.3	0.0
Q1 2013	-0.1	-0.3	0.0	-0.4	1.4	0.7
Q2 2013	0.4	0.3	0.7	0.8	0.8	0.4
Q3 2013	0.3	0.1	-0.1	0.3	0.6	1.1
Q4 2013	0.4	0.3	0.2	0.4	-0.4	0.9
Q1 2014	0.4	0.3	0.0	0.8	1.6	-0.5
Q2 2014	0.2	0.1	-0.1	-0.1	-1.9	1.1
Q3 2014	0.3	0.2	0.3	0.1	-0.4	0.9

Source: Office for National Statistics

Figure 15: International GDP growth rates, quarter-on-quarter

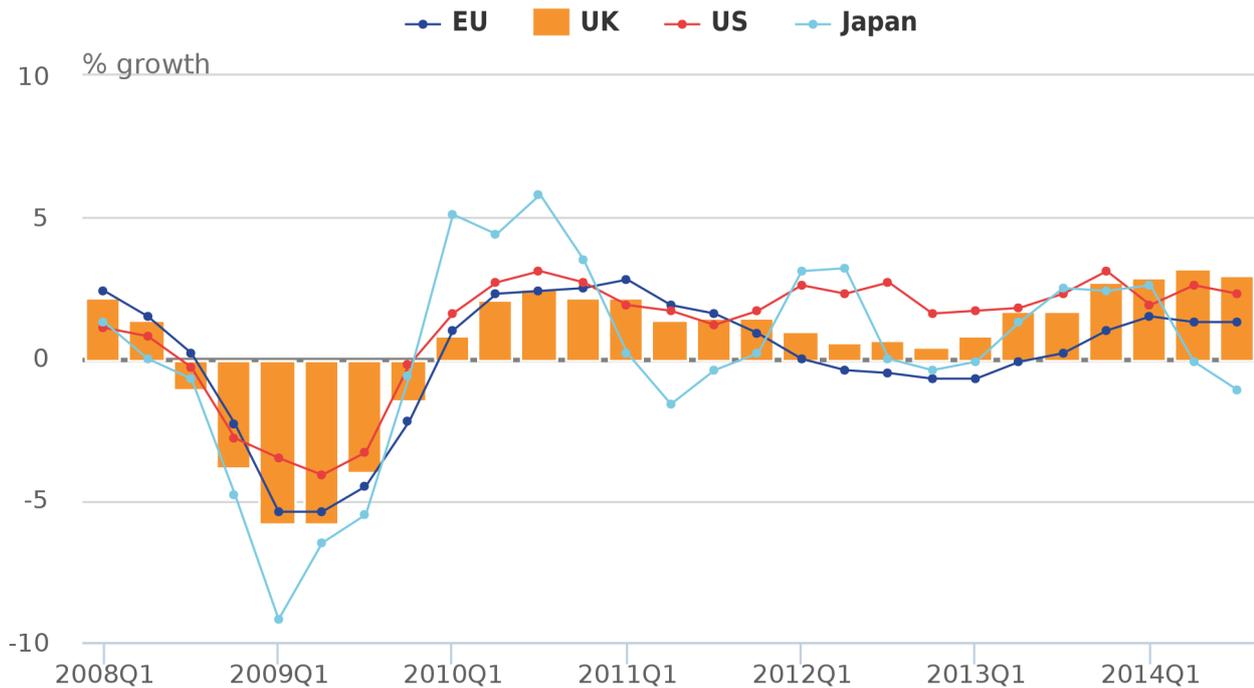
Chained volume measure, seasonally adjusted



Source: Office for National Statistics

Figure 16: International GDP growth rates, quarter on same quarter a year ago

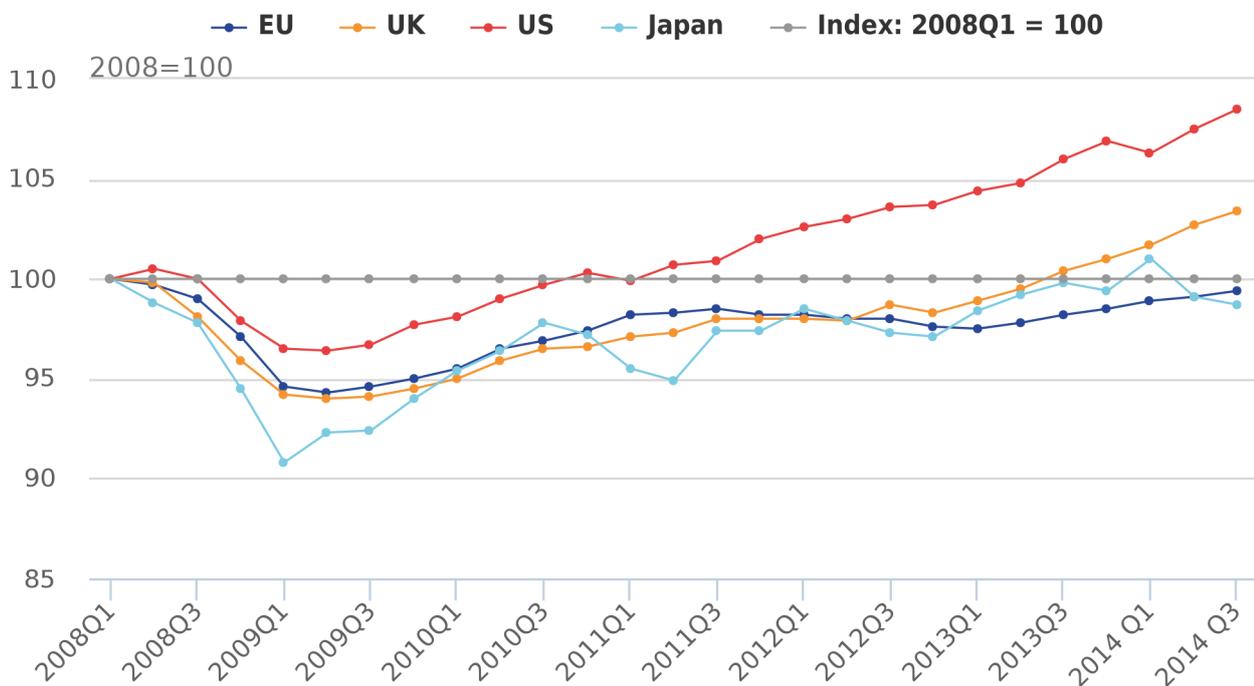
Chained volume measure, seasonally adjusted



Source: Office for National Statistics

Figure 17: International GDP growth rates, quarter-on-quarter, indexed to Q1 2008=100

Chained volume measure, seasonally adjusted



Source: Office for National Statistics

More detailed information on these estimates can be found on the [Eurostat website](#). Information on the estimates for the United States of America can be found on the [Bureau of Economic Analysis](#) website, while information on the estimates for Japan can be found on the [Japanese Cabinet Office](#) website.

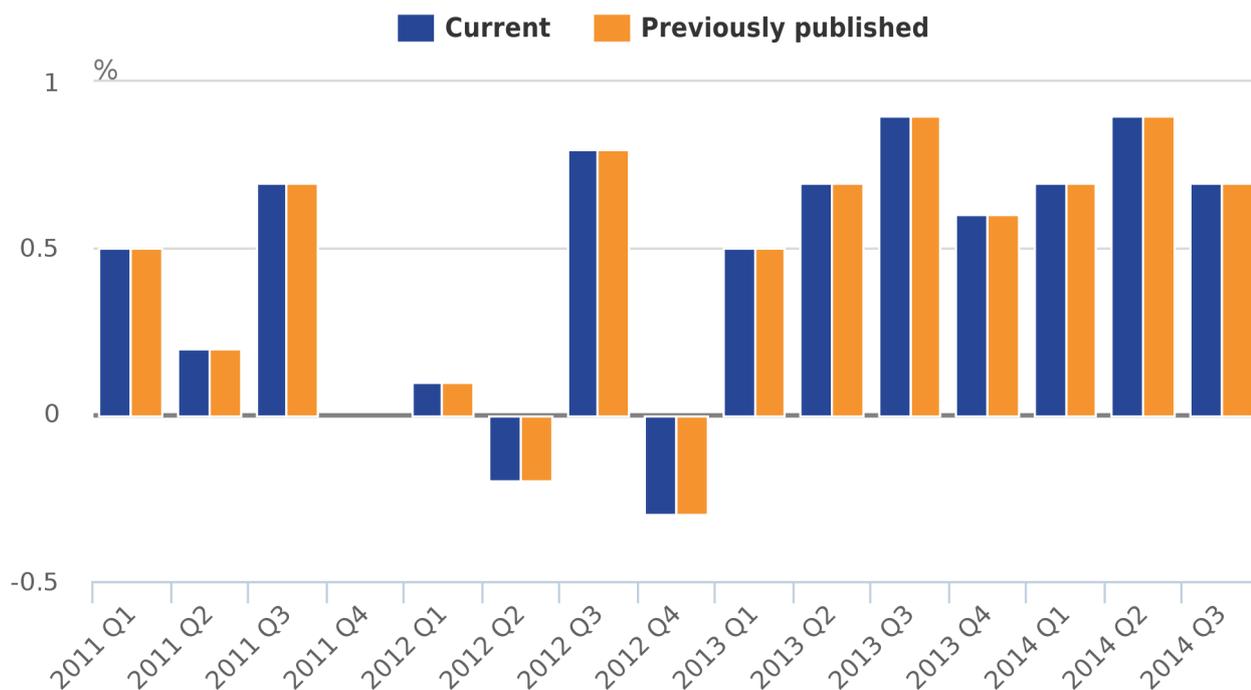
10. GDP quarterly revisions

GDP and components, previously published on 24 October 2014.

The only period open for revision in this release is Q3 2014 (see Figure 18).

Figure 18: Gross domestic product, quarter-on-quarter growth

chained volume measure, seasonally adjusted



Source: Office for National Statistics

Revisions for the GDP Output approach are shown in [Annex E \(32.5 Kb Excel sheet\)](#) of this release.

11. Background notes

1. Release policy

This release includes data available up to 17 November 2014. Data are consistent with the Index of Production statistical bulletin published on 6 November 2014 and the current price trade in goods data within the UK Trade statistical bulletin published on 7 November 2014.

2. UK trade

ONS has suspended the publication of expenditure estimates for UK residents' visits abroad and overseas residents' visits to the UK within the September 2014 Overseas Travel and Tourism release, published on 13 November 2014, due to an error identified within the series. This error affects expenditure estimates for January to September 2014 and has resulted in the UK Statistics Authority suspending the National Statistics designation of the expenditure series within the Overseas Travel and Tourism releases until the figures have been corrected.

These data feed into the UK Trade release as imports and exports of services and the errors led by the [UK Statistics Authority to suspend the National Statistics designation of UK Trade](#) on 14 November 2014 following a request from the National Statistician.

In addition, Household Final Consumption Expenditure reflects these estimates as the Net Tourism measure, an adjustment to move from UK domestic consumption, to UK national final consumption. In terms of GDP, there is no effect on the level or growth rate from these errors, nor is there any effect on GNI. Any revision to the expenditure of UK households abroad recorded as an import of services is offset exactly by a revisions to consumers' expenditure in GDP that records the consumption expenditure of UK households at home and abroad.

Corrected expenditure estimates for UK residents' visits abroad and overseas residents' visits to the UK will be published for all months, January to September 2014, and Quarter 1 and 2, as soon as possible. Please note that the UK Trade time series data are also affected by this error and will be updated with the corrected data when it becomes available. ONS will announce the timetable for the publishing of corrected figures prior to their release. The ONS statement regarding this error can be found on [ONS's website](#).

3. Release content and context

This release includes the second estimate of GDP. Data content for each successive release of GDP varies according to availability.

The Preliminary Estimate of GDP is based on output data alone. These are based on survey estimates for the first two months of the quarter with estimates for the third month of the quarter based on forecasts using early returns from businesses. Other (non-survey based) data used in the compilation of the output approach are also based on forecasts.

For the Second estimate of GDP, output estimates based on survey data are available for all three months of the quarter, in addition to other significant data sources. Estimates of the expenditure and income approaches to measuring GDP are also available in this release based on a combination of limited survey data, other data sources and forecasts.

For the Quarterly National Accounts (QNA) release, output survey data are available for all three months of the quarter, along with most other data sources. For the expenditure and income approaches to measuring GDP, more extensive survey data are available, in addition to other data sources and a more limited use of forecasts.

After this release, the current quarter will be subject to revision in accordance with [National Accounts revisions policy \(43.3 Kb Pdf\)](#) as further data, annual benchmarks and methodological improvements are implemented.

For more information on the different estimates of GDP, ONS has released a [video explaining these differences](#).

4. Forthcoming changes

National Accounts continuously seeks to improve its publications. During this process it was identified in the Q2 2014 United Kingdom Economic Accounts, the non-financial corporations' sector tables were not as comprehensive as the accompanying private non-financial corporations and public corporations sub-sector tables. Therefore with the publication of Q3 2014 Quarterly National Accounts, on 23 December, we will add new time series to the non-financial corporations' sector to provide more detail for users. No existing time series have been withdrawn as part of this process.

Following [public consultation](#) a new methodology for construction output price statistics has been developed. The price statistics will be used as deflators for construction output and new orders in the Output in the construction industry October 2014 and New Orders Q3 2014 statistical release on 12

December 2014 and so will be included in the GDP estimates within the Quarterly National Accounts statistical release on 23 December 2014 in line with the [National Accounts revision policy \(43.3 Kb Pdf\)](#). An article explaining the impact of these new price statistics on construction output will be published on 12 December 2014.

A work plan for construction output statistics will be published shortly and will align with the [National Accounts and related statistics work plan](#).

5. 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's Special Events policy](#). More information can be found in the report on [Adverse weather conditions in December 2013 and January and February 2014 \(49.9 Kb Pdf\)](#) 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.

6. National Accounts methodology and articles

ONS regularly publishes [methodological information and articles](#) to give users more detailed information on developments within the National Accounts; supplementary analyses of data to help users with the interpretation of statistics and guidance on the methodology used to produce the National Accounts.

ONS has produced an article '[Interpreting the Recent Behaviour of the Economy](#)' available on the ONS website to aid interpretation of movements in the economy.

An article summarising the upcoming improvements to the estimation of gross fixed capital formation and changes in inventories is now available on the ONS [National Accounts methodology and articles](#) web pages. These developments are part of the programme of continuous improvement to the UK National Accounts.

7. National Accounts classification decisions

The UK National Accounts are produced under internationally agreed guidance and rules set out principally in the [European System of Accounts \(ESA 2010\)](#) and the accompanying [Manual on Government Deficit and Debt - Implementation of ESA 2010 -2014 edition \(MGDD\)](#).

In the UK, ONS is responsible for the application and interpretation of these rules. ONS therefore makes [classification decisions](#) based upon the agreed guidance and rules, and these are published on the ONS website.

8. Economic context

ONS publishes a monthly [Economic Review](#) discussing the economic background, giving economic commentary on the latest GDP estimate and other ONS economic releases. The next article will be published on 3 December 2014.

9. Basic Quality Information for GDP Statistical Bulletin

A [Quality and Information report \(518.9 Kb Pdf\)](#) for this Statistical Bulletin can be found on the ONS website.

10. Key quality issues

Common pitfalls in interpreting series: 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.

Very few statistical revisions arise as a result of 'errors' in the popular sense of the word. 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 estimates 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.

11. Reliability

Estimates for the most recent quarters are provisional and are subject to revision in the light of updated source information. ONS currently provides [an analysis of past revisions \(244.6 Kb Pdf\)](#) in the GDP and other Statistical Bulletins which present time series.

ONS has a webpage dedicated to [revisions to economic statistics](#) which brings together ONS work on revisions analysis, linking to articles, revisions policies and key documentation from the Statistics Commission's report on revisions.

Revisions to data provide one indication of the reliability of key indicators. Tables 3 and 4 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. An asterisk (*) shows if the result of the test is significant.

12. Revisions to GDP estimates

Table 3 shows the revisions to month 1 (preliminary) and month 2 (second) estimates of GDP. The analysis of revisions between month 1 and month 2 uses month 2 estimates published from November 2009 (Q3 2009) to August 2014 (Q2 2014). The analysis of revisions between month 2 and month 3 (third estimate of GDP) uses month 3 estimates published from December 2009 (Q3 2009) to September 2014 (Q2 2014).

Table 3: Revisions to early estimates of GDP growth

Revisions to GDP growth	Estimate in latest period (%)	Revisions between early estimates of GDP 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	0.7	0.03	0.05
Between M2 and M3	0.7	0.01	0.05

Source: Office for National Statistics

Table 4 shows the revisions to GDP 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 December 2006 (Q3 2006) to September 2011 (Q2 2011) for GDP.

Table 4: Revisions to month 3 estimates of GDP growth

	Estimate in latest period (%)	Revisions between early estimates of GDP growth (quarterly, CVM)	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
GDP growth (quarterly, CVM)	0.7	-0.09	0.4

Source: Office for National Statistics

Revisions triangles for the main components of GDP from expenditure, output and income approaches and spreadsheets containing [revisions triangles \(real time databases\)](#) of estimates from 1992 to date and the calculations behind the averages in both tables are available on the ONS website.

An article titled '[Revisions to GDP and Components](#)' (513.5 Kb Pdf), published on 28 January 2014, is available on the ONS website.

13. **Balancing GDP**

Information on the methods ONS uses for [balancing the output, income and expenditure approaches](#) to measuring GDP can be found on the ONS website.

The different data content of the three approaches dictates the approach taken in balancing quarterly data. In the UK, there are far more data available on output than in the other two approaches. However, in order to obtain the best estimate of GDP (the published figure), the estimates from all three approaches are reconciled to produce an average.

Annually, the estimates from all three approaches are reconciled through the creation of Input-Output Supply and Use tables for the years for which data are available.

For years in which there is no Supply and Use balance, a Statistical Discrepancy exists which reflects the differences between the published headline estimate of GDP and the expenditure and income estimates.

For all periods, the expenditure and income estimates are aligned to the published headline GDP figure. Although annual data is aligned for balanced years, there will still be quarterly differences for balanced and post balanced years, due to timing and data content issues. These are dealt with by means of explicit alignment adjustments which are applied to specific components (gross operating surplus of private non-financial corporations in the income approach and changes in inventories in expenditure) to align the three approaches. As these are purely quarterly discrepancies, the alignments sum to zero over the year and are published explicitly in the GDP statistical bulletins. They are also published as “of which” items within the specific components, to enable users to ascertain the underlying picture.

Alignment adjustments typically have a tolerance of +/-£2,000 million on any quarter. However, in periods where the data sources are particularly difficult to balance, slightly larger alignment adjustments are sometimes needed.

The size and direction of the quarterly alignment adjustments in Q3 2014 indicate that in this quarter the levels of expenditure and income were both lower than that of output.

14. **Further information**

Latest copies of this and other ONS releases are available under Publications on the ONS website. ONS has also produced [a short guide to the UK National Accounts \(136.8 Kb Pdf\)](#).

Details of the policy governing the release of new data are available from the media relations office. Also available is [a list of the names of those given pre-publication access](#) to the contents of this bulletin.

15. **Following ONS**

Follow ONS on [Twitter](#) and receive up-to-date information about our statistical releases.

Like ONS on [Facebook](#) to receive our updates in your newsfeed and to post comments on our page.

16. 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

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.