Office for National Statistics

Statistical bulletin

Labour productivity, UK: April to June 2014

Output per hour, output per job and output per worker for the whole economy and a range of industries. Includes estimates of unit labour costs.

Contact:
John Allen
productivity@ons.gsi.gov.uk
+44 (0)1633 456086

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1 . Labour productivity, Q2 2014

- UK Labour Productivity as measured by output per hour was unchanged in the second quarter of 2014 compared with the previous quarter, and 0.3% lower than a year earlier.
- Output per hour fell by 0.1% in the second quarter in service industries, and grew by 0.7% in the production industries.
- Whole economy unit labour costs increased slightly in Q2 but have fallen a little over the last year. A similar pattern holds for manufacturing unit wage costs.
- Extensive revisions to measures of economic output (and to a lesser extent to measures of labour input) have significantly revised the productivity record prior to the downturn, and especially over 2008-12. However, these revisions do not materially dispel the 'productivity conundrum': in Q2 2014 output per hour was some 16% lower than would have been the case had the pre-downturn trend continued.

2 . About this release

This release reports labour productivity statistics for the second quarter of 2014 for the whole economy and a range of industries, together with selected data on unit labour costs. Labour productivity measures the amount of real (inflation-adjusted) economic output that is produced by a unit of labour input (in terms of workers, jobs and hours worked) and is a key indicator of economic performance. Since labour costs account for around two-thirds of the cost of production of UK economic output, unit labour costs provide an indication of inflationary pressures in the economy.

Output statistics in this release are consistent with the latest Quarterly National Accounts published on 30 September 2014. Labour input measures are consistent with the latest labour market statistics as described further in the 'General commentary' and 'Notes on sources' sections below.

3 . Interpreting these statistics

Whole economy output (gross value added – GVA) increased by 0.9% in the second quarter of 2014, while the Labour Force Survey (LFS) shows that the number of workers, jobs and hours increased by 0.5%, 0.6% and 1.0% respectively over this period[1]. Since growth of labour productivity can be decomposed as growth of GVA minus growth of labour input, this combination of movements in output, workers, jobs and hours implies that UK labour productivity increased a little in terms of output per worker and output per job, and was unchanged in terms of output per hour[2].

Differences between growth of output per worker and output per job reflect changes in the ratio of jobs to workers. This ratio increased a little in Q2. Differences between these measures and output per hour reflect movements in average hours which, though typically not large from quarter to quarter, can be material over a period of time. For example, a shift towards part-time employment will tend to reduce average hours. For this reason, output per hour is a more comprehensive indicator of labour productivity and is the main focus of the commentary in this release.

Unit labour costs (ULCs) reflect the full labour costs, including social security and employers' pension contributions, incurred in the production of a unit of economic output, while unit wage costs (UWCs) are a narrower measure, excluding non-wage labour costs[3]. Growth rates of these series can be decomposed as growth of labour costs per unit of labour input minus growth of labour productivity. For example, with labour productivity remaining unchanged on an output per hour basis in the second quarter, the 0.1% increase in ULCs implies that labour costs per hour increased by 0.1% across the economy as a whole. In the manufacturing sector, the combination of output per hour growth of 1.2% and an increase of 0.3% in unit wage costs implies an increase in wage costs per hour of around 1.5% over the quarter.

Most of the series in this release are designated as National Statistics, meaning their production has been subject to rigorous quality assurance and methodological scrutiny. However, some service industry estimates use component series from the Index of Services (IOS) which are designated as experimental statistics (that is, not yet accredited as National Statistics, for example because the methodology is under development or reflecting concerns over data sources). Labour productivity estimates that use these series as their numerators are also labelled as experimental statistics. Market sector productivity estimates are also experimental series. More information on the experimental IOS series is available on the Guidance and methodology section of the ONS website.

Notes for interpreting these statistics

1. Growth rates for whole economy workers, jobs and hours shown in Table 10 may differ slightly from growth rates based on LFS aggregate data due to different methods of seasonal adjustment.

2. The evolution of output per hour (unchanged in Q2) differs slightly from that implied by growth of GVA and hours. This is due to rounding.

3. Both measures include labour costs of the self-employed.

4 . General commentary

GVA estimates published on 30 September 2014 incorporate the most extensive programme of changes to the National Accounts for a decade, including changes arising from the adoption of a new accounting standard (ESA10) and other improvements alongside the normal Blue Book processes of balancing, benchmarking to administrative data, updating of weights etc. ONS has published a number of articles describing these changes (available here). Some information on the impact of these changes on GVA by industry is available in this article published on 30 September 2014.

Revisions to labour inputs include normal revisions to jobs estimates for the previous quarter, plus revisions to overall labour input reflecting the impact of re-weighting Labour Force Survey (LFS) estimates to take account of revised working population estimates arising from the 2011 Census, described in this article. At this stage, these LFS revisions are only available as aggregate benchmarks and only up to the October-December quarter of 2013. This release uses component level pre-Census LFS data (as published in Labour Market Statistics on 13 August 2014), scaled as appropriate to the post-Census aggregates. Additionally, post-Census proxy estimates for Q1 and Q2 2014 are estimated by extrapolation, using growth rates as published on 13 August 2014.

The net effect of all revisions is to raise the growth of output per hour by 2.3 percentage points between Q1 2008 and Q1 2014 compared with the last Labour Productivity release on 1 July 2014. All of this improvement in productivity occurs between 2008 and Q3 2012; growth of output per hour is very slightly weaker since Q3 2012 in the current vintage of data than in the previous vintage.

By contrast, productivity growth has been revised down slightly between 1997 and 2007, from an average of approximately 2.4% pa to approximately 2.2% pa.

Changes to productivity are overwhelmingly due to changes to output rather than to labour input. The latest data show stronger (or less negative) output growth in each year from 2008 to 2012, but unchanged growth in 2013. The revisions to labour input generate very slightly stronger growth of hours worked in 2008 and 2009, no change in 2010 and 2011, and very slightly slower growth in 2012 and 2013.

Revisions to the growth of overall output per hour are reflected in higher productivity growth across most industries, reflecting broad-based upward revisions to GVA growth. Exceptions are agriculture (section A), mining and quarrying (B) and arts, entertainment and recreation services (R), where in each case output growth has been revised downwards since 2008. Thus while growth of manufacturing output per hour has been revised upwards by 3.0 percentage points (pps) between Q1 2008 and Q1 2014 compared with the previous release, growth of output per hour in the production industries (manufacturing plus B, D and E) has been revised upwards by 2.1 pps.

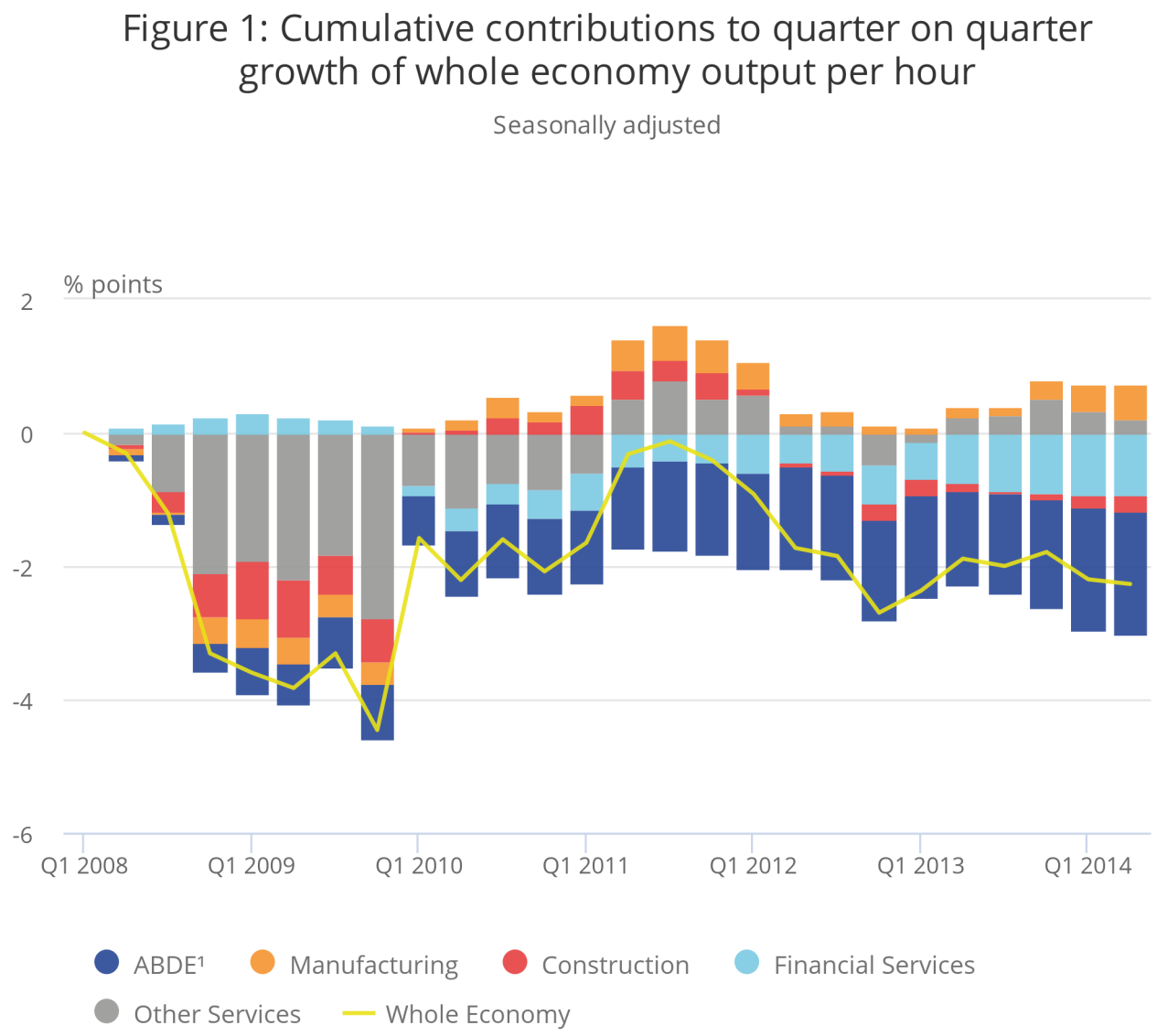
Over the same period, growth of services output per hour has been revised upwards by 3.2 pps, although the pattern is not uniform across all service industries. As noted above, output growth of industry R has been revised downwards, with a corresponding impact on labour productivity, and there are comparatively small upward revisions to productivity growth in information and communication services (J) and government services (O-Q). By contrast, productivity growth has been revised sharply higher since 2008 in transport and storage services (H), and in real estate activities, where output includes the imputed flow of housing services from owner-occupied dwellings.

Figure 1 shows cumulative contributions to productivity growth since 2008 by broad industry. The height of each bar reflects labour productivity movements in that industry and weight of the industry, which in turn is a function of its weight in hours worked and output[1]. In Q2 2014, whole economy output per hour was 2.2% lower than in Q1 2008. This is approximately 16% lower than had productivity maintained its pre-downturn trend.

Comparing with the same figure in the previous release, the negative contribution of industry group ABDE is more pronounced, while all other components have been revised upwards (because the negative revision to industry R is outweighed by upward revisions to other service industries). A notable feature of Figure 1 in this release is the pronounced recovery in output per hour between Q4 2009 and Q3 2011 (that is, through calendar 2010 and 2011). The pattern since then is little changed compared with the previous vintage of data, although the level of output per hour relative to Q1 2008 is around 2 pps higher than previously estimated.

Figure 1: Cumulative contributions to quarter on quarter growth of whole economy output per hour

Seasonally adjusted



Source: Office for National Statistics

Notes:

1. ABDE refers to Agriculture, Forestry and Fishing (section A), Mining and Quarrying (section B) Electricity, Gas, Steam and Air Conditioning Supply (section D) and Water Supply; sewerage, waste management and remediation activities (section E).

Unsurprisingly, since aggregate labour productivity growth has been revised up since 2008, growth of unit labour costs (ULCs) has been revised down. In fact, while the level of overall labour costs has been revised upwards in line with the general direction of revisions to aggregate current price GDP, the growth of labour costs since 2008 has been revised downwards[2].

The upshot is that growth of whole economy ULCs is significantly slower since 2008 in the current vintage of data, by around 1% pa (averaging 1.4% pa compared with 2.4% pa in the previous vintage). Growth of manufacturing unit wage costs has also been revised downwards, from 1.7% pa to 1.1% pa.

Over the period 1997-2007, prior to the downturn, growth of whole economy ULCs has been revised down by 0.4% pa on average in the current vintage of data.

This release also includes section-level ULCs (216 Kb Excel sheet) updated to be consistent with Blue Book estimates of self-employment income by industry. These estimates show downward revisions to growth of ULCs of 1% pa for service industries as a whole, and especially large downward revisions in certain service industries including financial services.

Notes for general commentary

1. The decomposition is exact for periods over which the National Accounts have been balanced through the supply-use framework, that is to 2012. Small inconsistencies arise from Q1 2013 because the GVA weights are currently fixed for these periods.

2. Revisions to labour costs principally reflect revisions to non-wage labour costs, reflecting changes to the treatment of funded defined benefit pension schemes in the National Accounts, together with revisions to self-employment income.

5 . Whole economy labour productivity

Figure 2 shows whole economy output per worker in terms of index levels and percentage changes. Figure 3 shows whole economy output per hour, and Figure 4 provides a breakdown of the components of labour productivity over recent quarters. More information is available in the Reference Tables (233.5 Kb Excel sheet) section of this release, and in the tables at the end of the PDF version of this statistical bulletin.

Figure 2: Whole economy output per worker

Seasonally adjusted

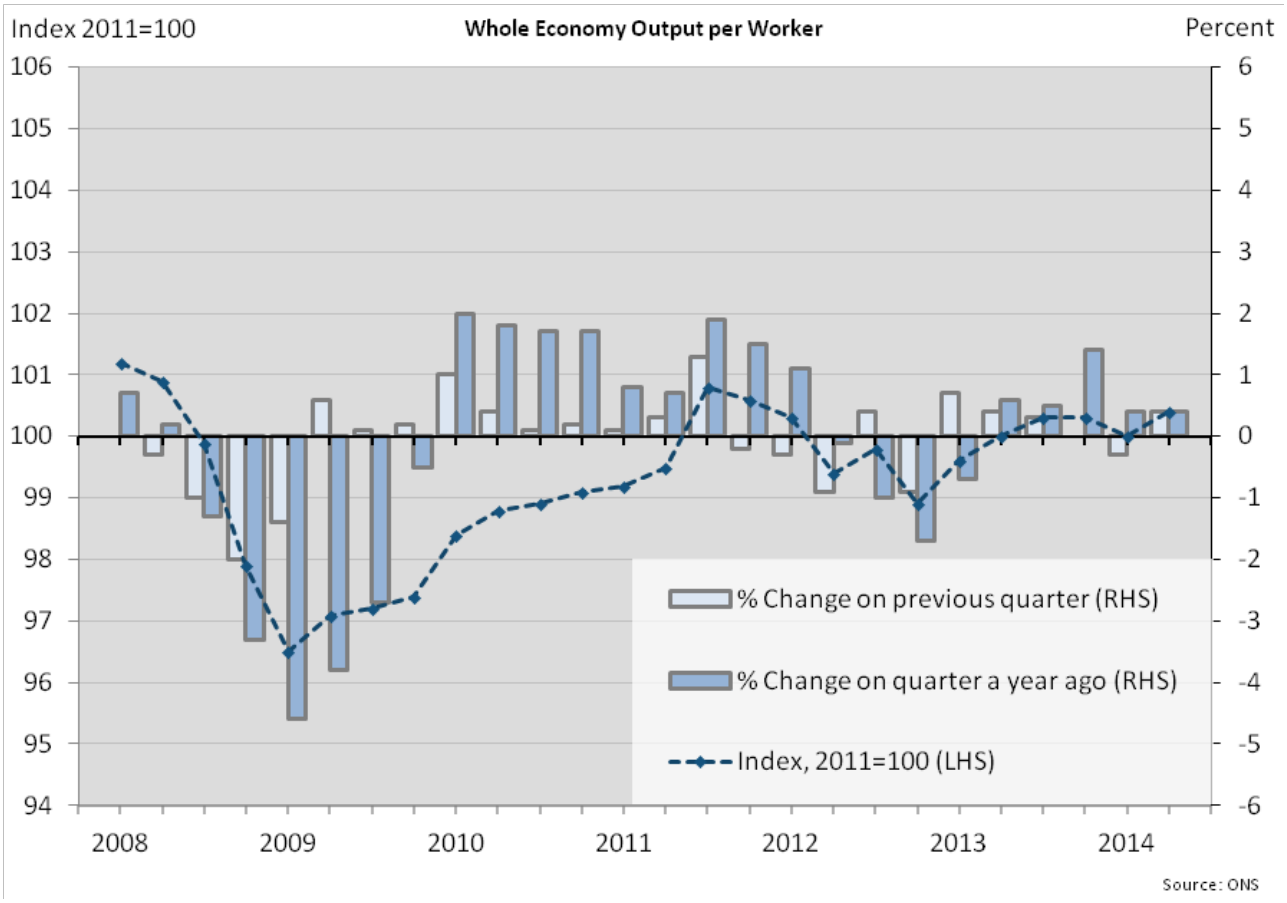


Figure 3: Whole economy output per hour

Seasonally adjusted

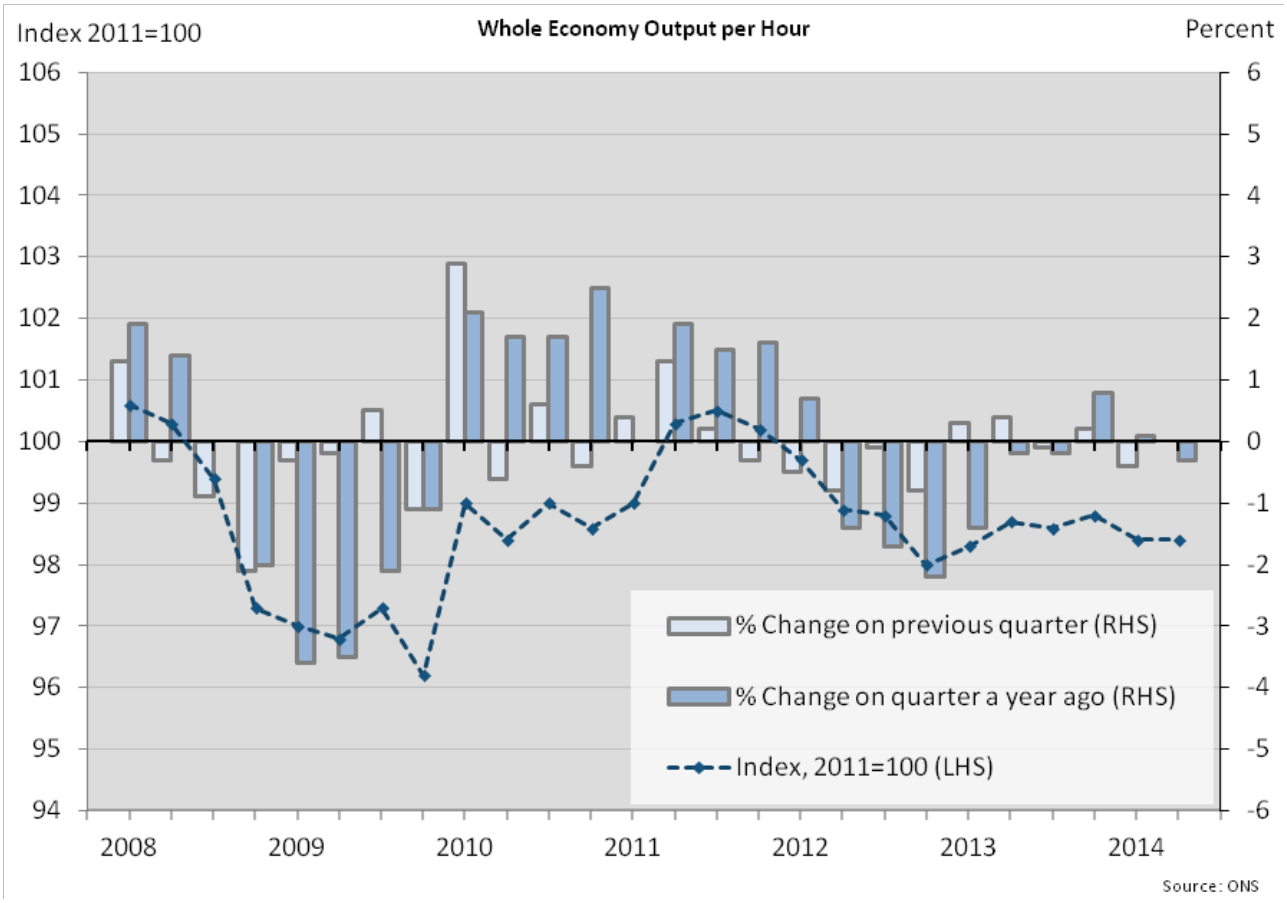


Figure 4: Whole economy labour productivity components

Seasonally adjusted

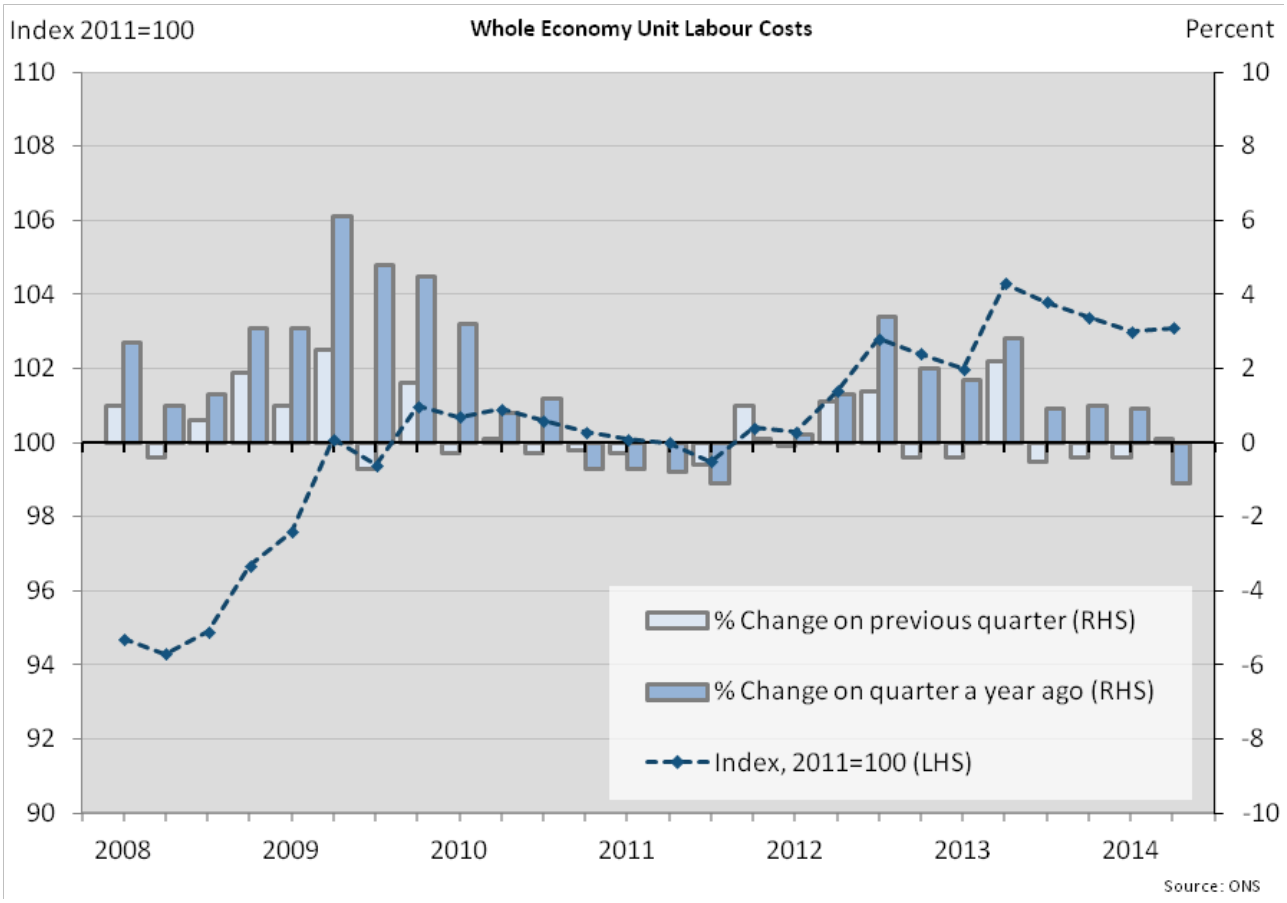
Source: Office for National Statistics

6 . Unit labour costs

Figure 5 shows whole economy ULCs in terms of index levels and percentage changes on the previous quarter and on the previous year. New and improved estimates of unit labour costs are published as a table [component (211.5 Kb Excel sheet)] alongside this statistical release. These estimates include some minor methodological changes at the whole economy level; however, the overall time series is very similar between the new series and the existing series (identifier LNNL).

Figure 5: Whole economy unit labour costs

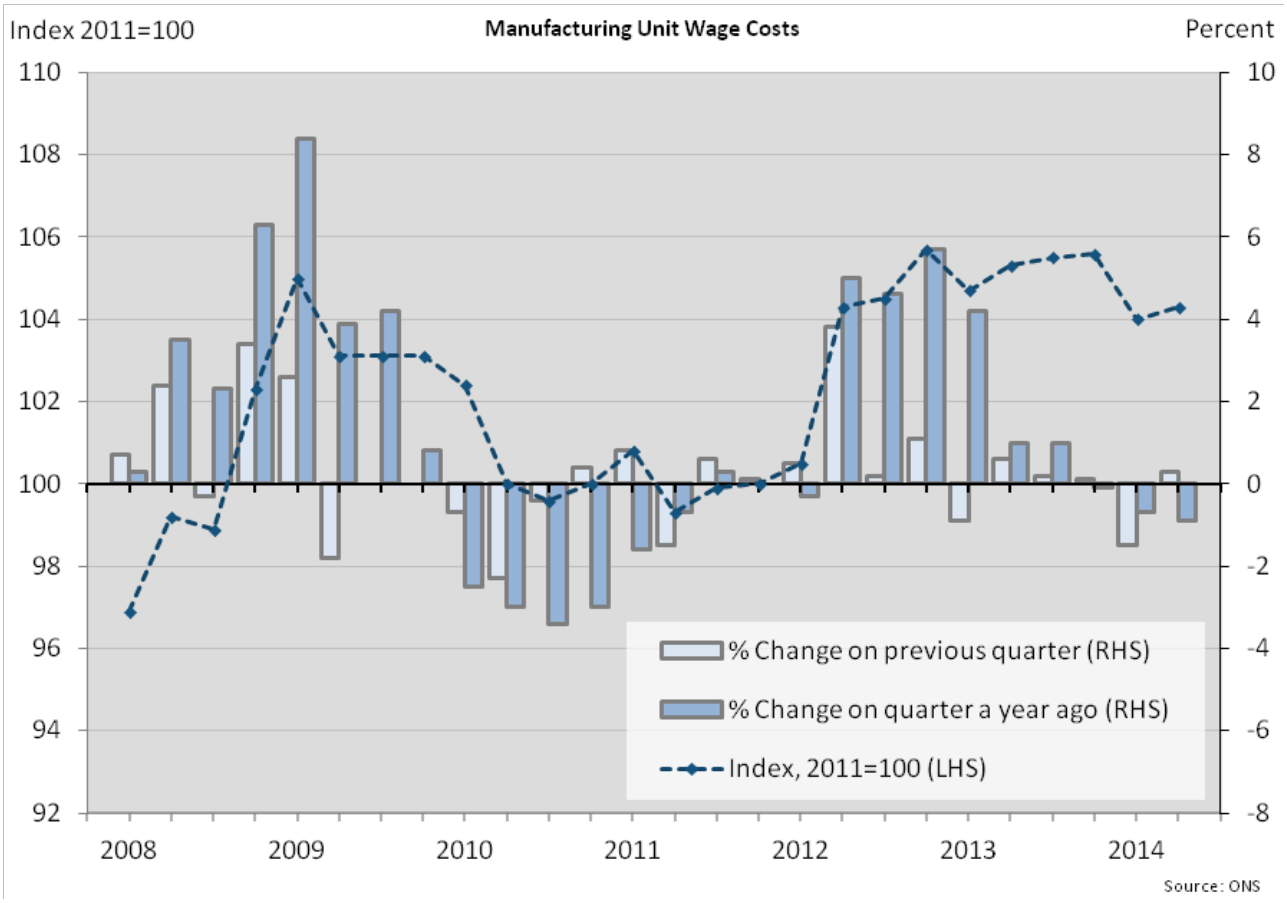
Seasonally adjusted



Manufacturing unit wage costs (Figure 6) increased by 0.3% in the second quarter and were 0.9% lower than a year earlier. As well as being a narrower measure than unit labour costs, the manufacturing unit wage cost series currently uses average weekly earnings in manufacturing (a measure of employee earnings) to proxy the earnings of self-employed workers in manufacturing, which is inconsistent with other ONS data on incomes of the self employed.

Figure 6: Manufacturing unit wage costs

Seasonally adjusted



ONS published proposals for replacing manufacturing UWCs with a broader and more consistently derived measure of manufacturing ULCs in an article '[Sectional unit labour costs]' on 28 November 2012. Estimates of manufacturing ULCs are published as a table [component (211.5 Kb Excel sheet)] alongside this release. The overall pattern of the time series is broadly similar to that of the existing UWC series (identifier DIX4). However, in the latest period, manufacturing ULCs are estimated to have decreased by 0.6% compared to the previous quarter, compared with an increase of 0.3% for DIX4. Over the period 2008-13, growth of manufacturing ULCs averages ~1.6% pa compared with average growth of ~1.1% for DIX4 over this period.

More information on unit labour costs and unit wage costs is available in Table 2 in the Reference Tables section of this release, and in the tables at the end of the PDF version of this statistical bulletin.

7 . Manufacturing labour productivity

Figures 7 and 8 show movements in labour productivity in manufacturing in terms of levels and percentage changes on the previous quarter and on the previous year. Figure 9 provides information on the component movements in manufacturing output and labour inputs.

Figure 7: Manufacturing output per job

Seasonally adjusted

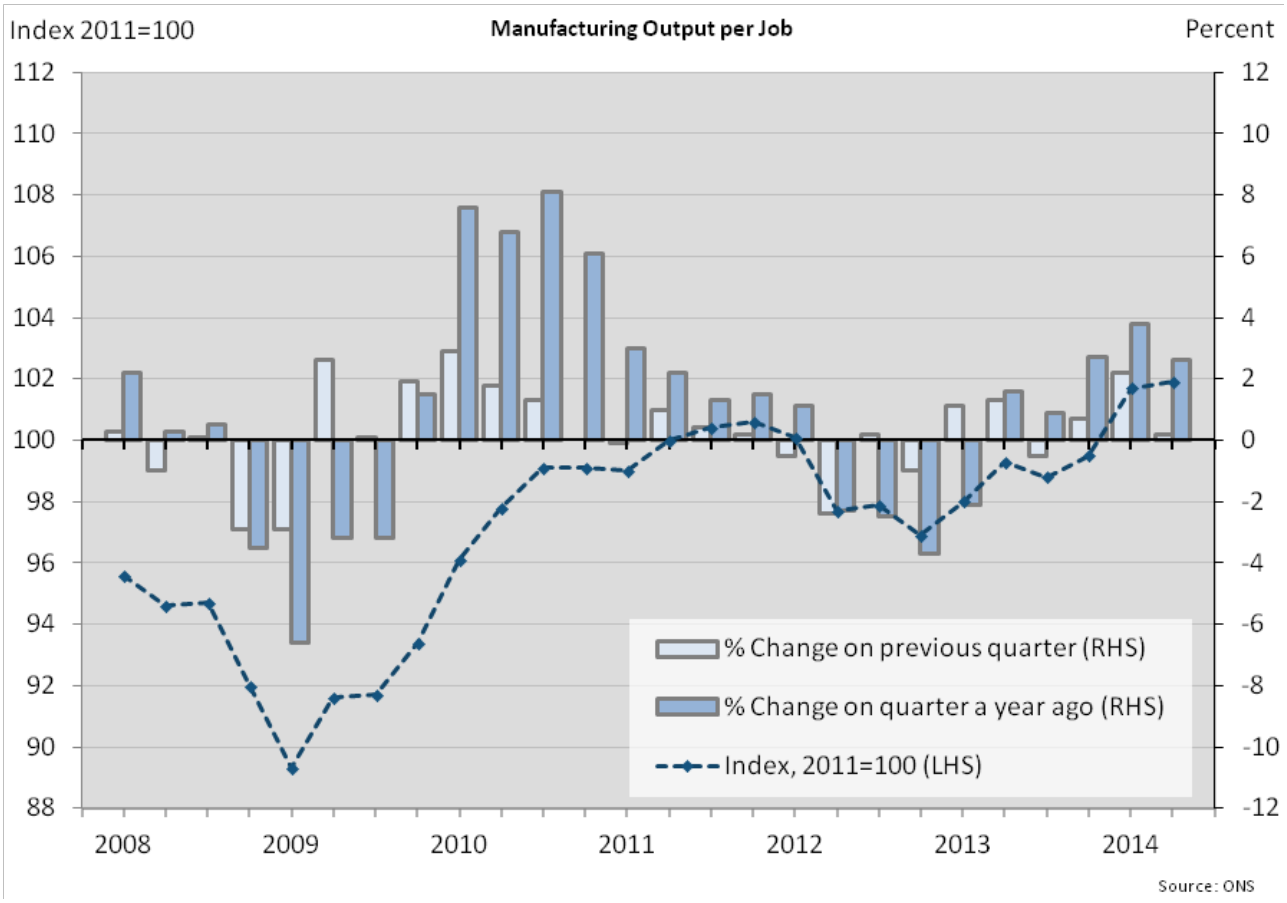


Figure 8: Manufacturing output per hour worked

Seasonally adjusted

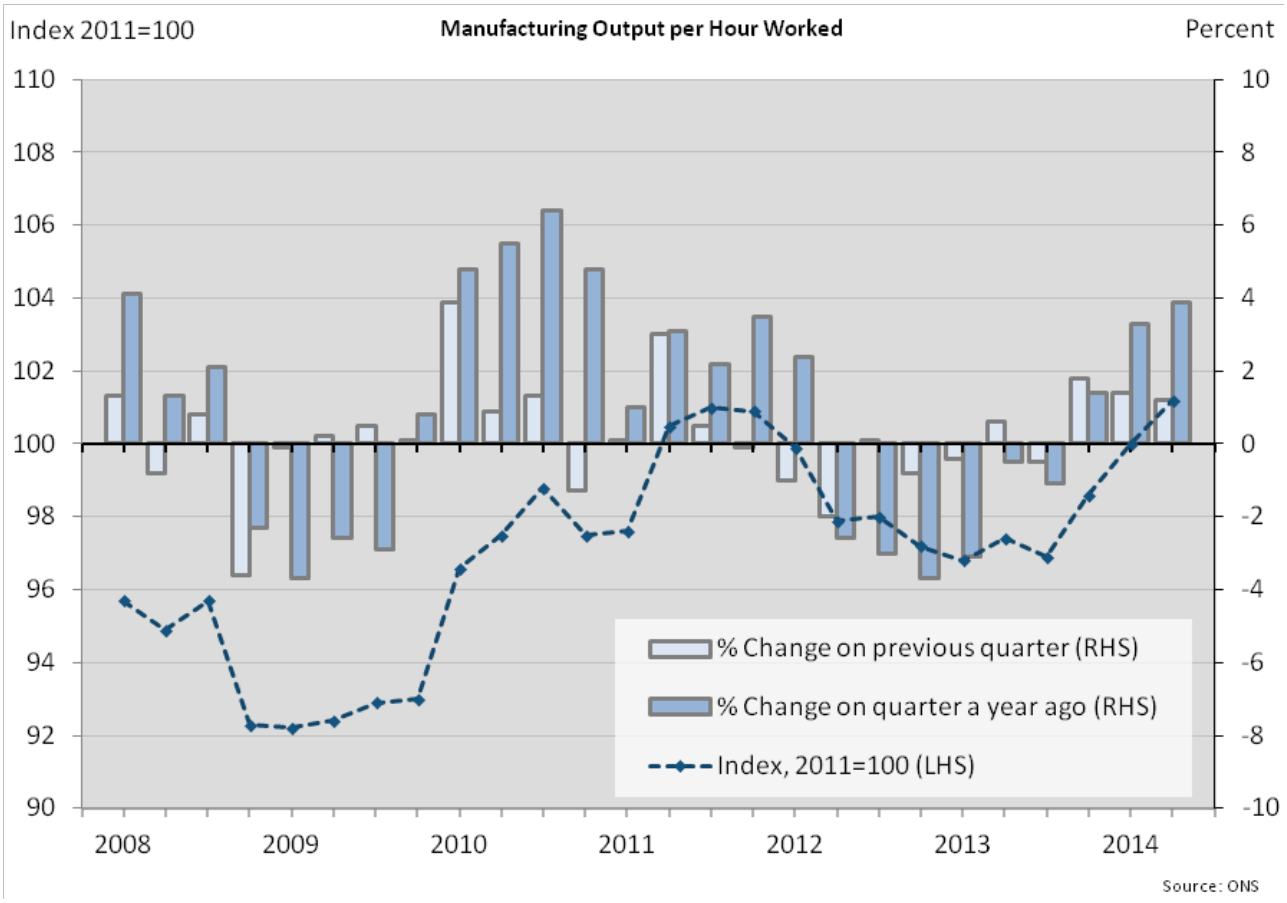
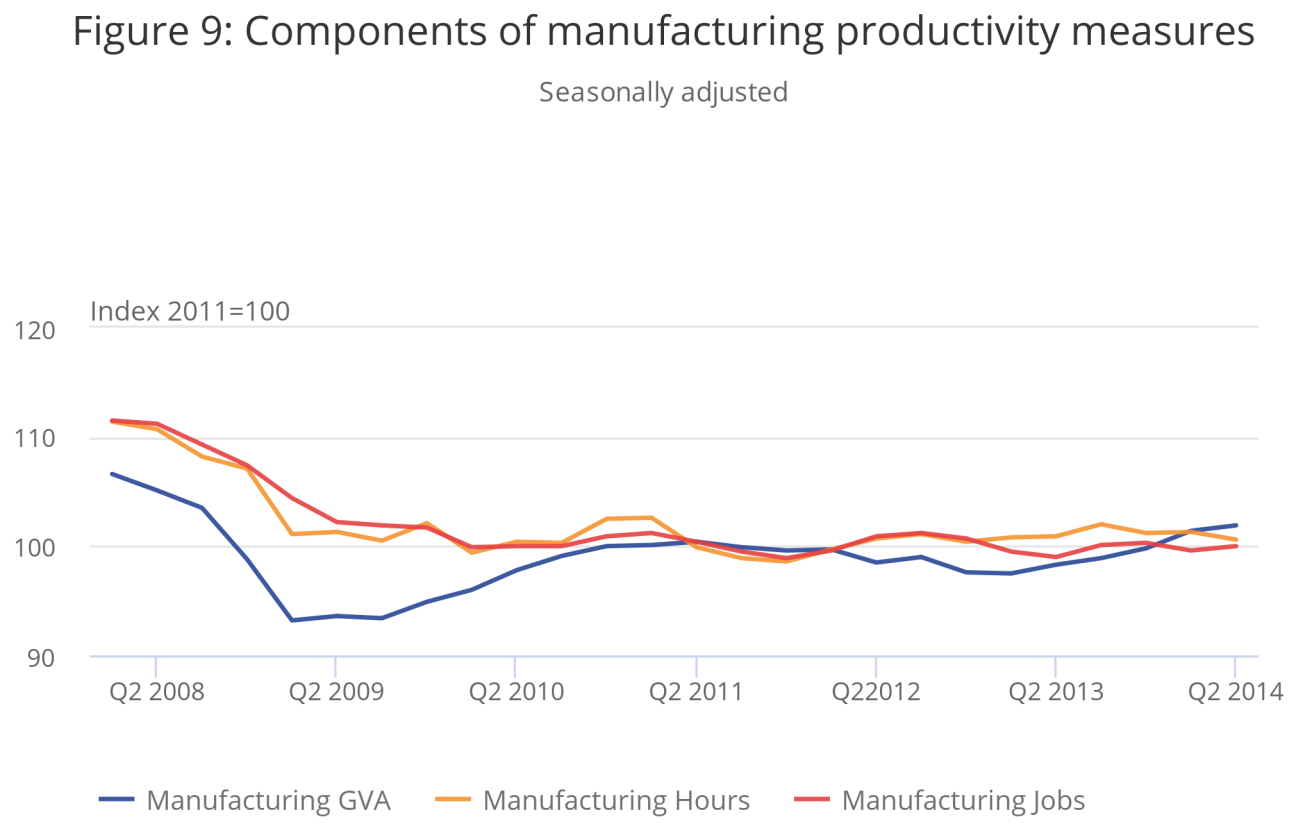


Figure 9: Components of manufacturing productivity measures

Seasonally adjusted

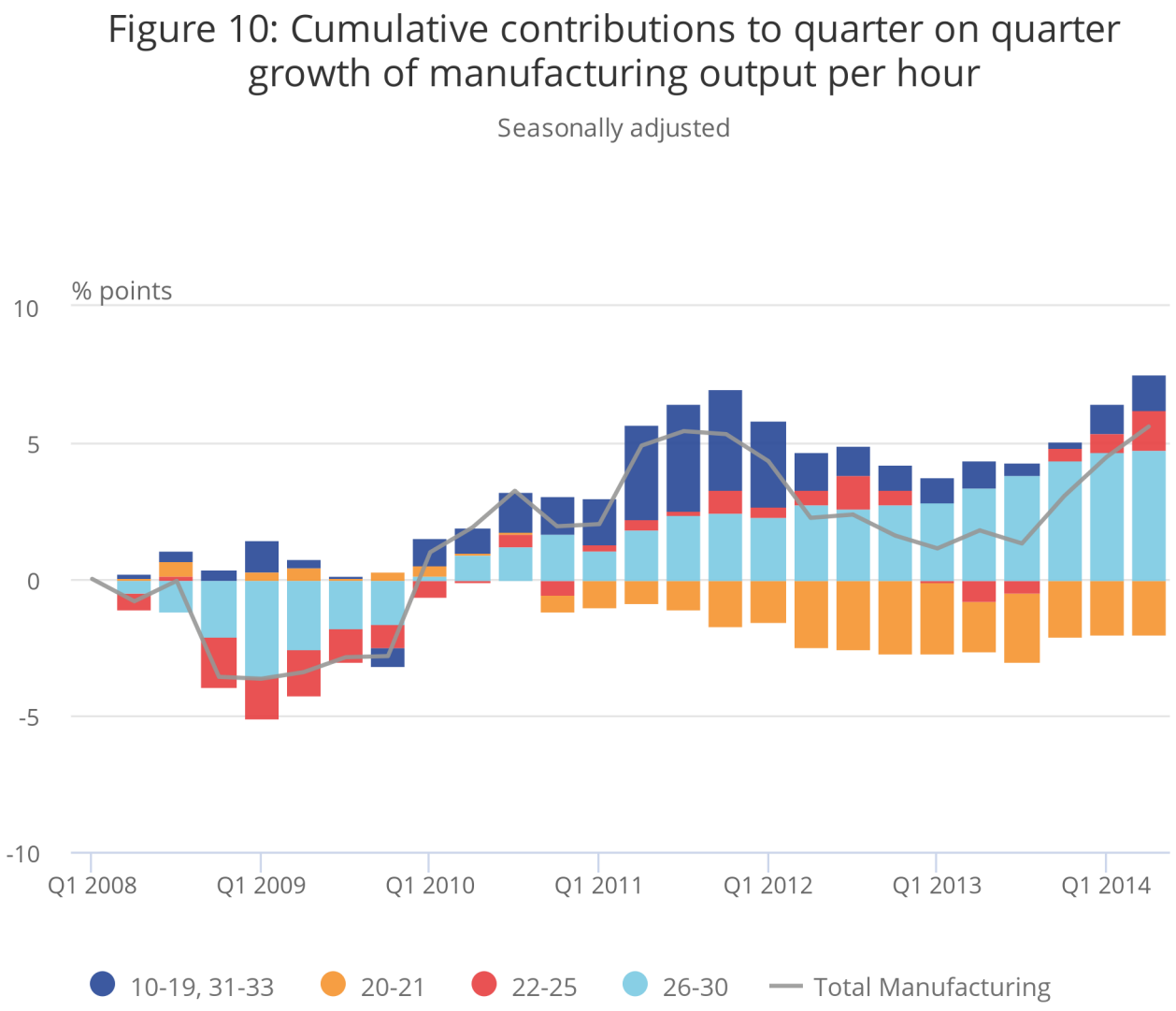


Source: Office for National Statistics

Figure 10 shows the cumulative contributions to growth of manufacturing output per hour since 2008. This analysis highlights the large negative contribution to productivity of industries 20-21 (Chemicals and Pharmaceuticals), particularly since 2010. By contrast, industries 26-30 (Equipment industries) have made strongly positive contributions to productivity growth since 2010.

Figure 10: Cumulative contributions to quarter on quarter growth of manufacturing output per hour

Seasonally adjusted



Source: Office for National Statistics

Notes:

1. 10-19 refers to Food products, beverages and tobacco (10-12), Textiles, wearing apparel & leather (13-15), Wood & paper products & printing (16-18) and Coke & refined petroleum products (19). 31-33 refers to Other Manufacturing.

2. 20-21 refers to Chemical and Pharmaceutical products.

3. 22-25 refers to Rubber, plastics & other non-metallic minerals (22-23), Basic metals and metal products (24-25).

4. 26-30 refers to Computer products, Electrical equipment (26-27), Machinery & equipment (28) and Transport equipment (29-30).

More information on labour productivity of sub-divisions of manufacturing is available in the Reference Tables (330 Kb Excel sheet) section of this release (Tables 3 and 4), and in the tables at the end of the PDF version of this statistical bulletin. Care should be taken in interpreting quarter on quarter movements in productivity estimates for individual sub-divisions, as small sample sizes of the source data can cause volatility.

Tables 3 and 4 now include estimates for the level of productivity in £ terms for the National Accounts base year of 2011. These are estimates of GVA per unit of labour input and are not necessarily related to pay rates. Output per job (Table 3) varied from £39.3k in Wood and paper products (divisions 16-18) to £134.4k in Chemicals & Pharmaceuticals (divisions 20-21). The average for the whole of manufacturing was £57.5k and the average for the whole economy was £47.2k in 2011.

Chemicals & Pharmaceuticals was also top of the distribution for output per hour in 2011 (£75.2), with Wood, paper products, & printing (divisions 16-18) and Basic metals & metal products (divisions 24-25) at the bottom of the distribution. On this basis the average for manufacturing as a whole was £31.1 and the average for the whole economy was £30.0 per hour.

8 . Services labour productivity

Figures 11 and 12 show movements in labour productivity in services in terms of index levels and percentage changes on the previous quarter and on the previous year. Figure 13 provides information on the component movements in services output and labour inputs.

Figure 11: Services output per job

Seasonally adjusted

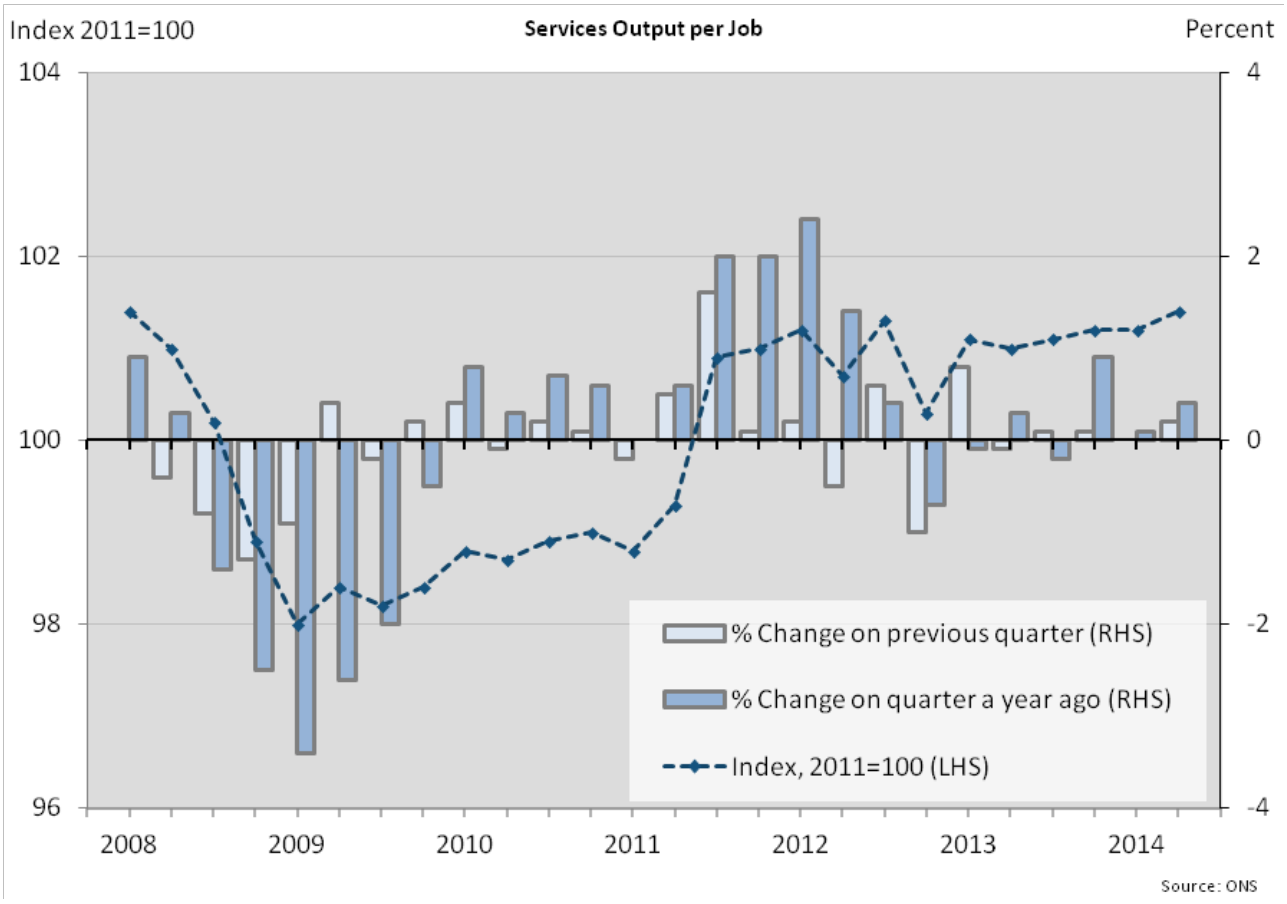


Figure 12: Services output per hour

Seasonally adjusted

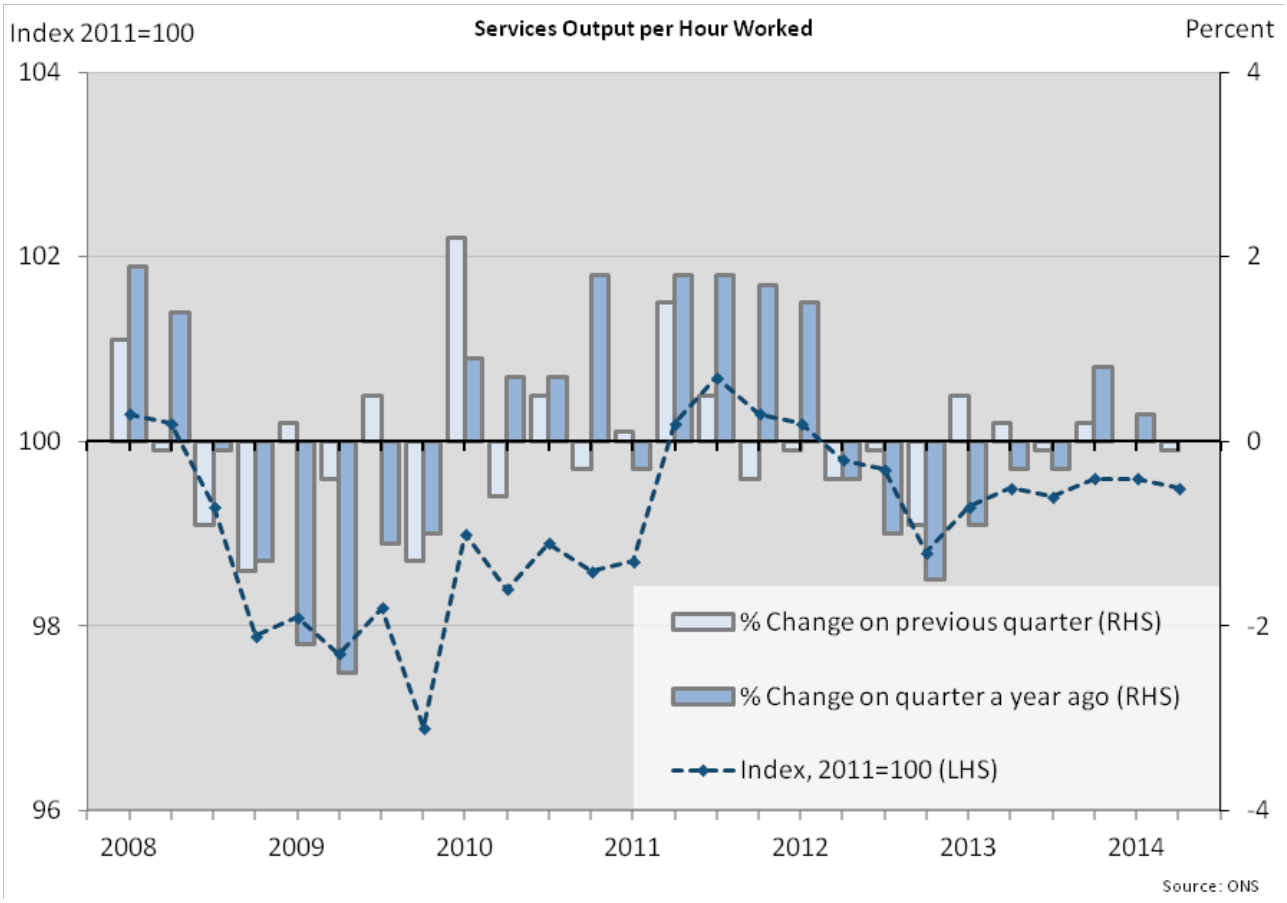
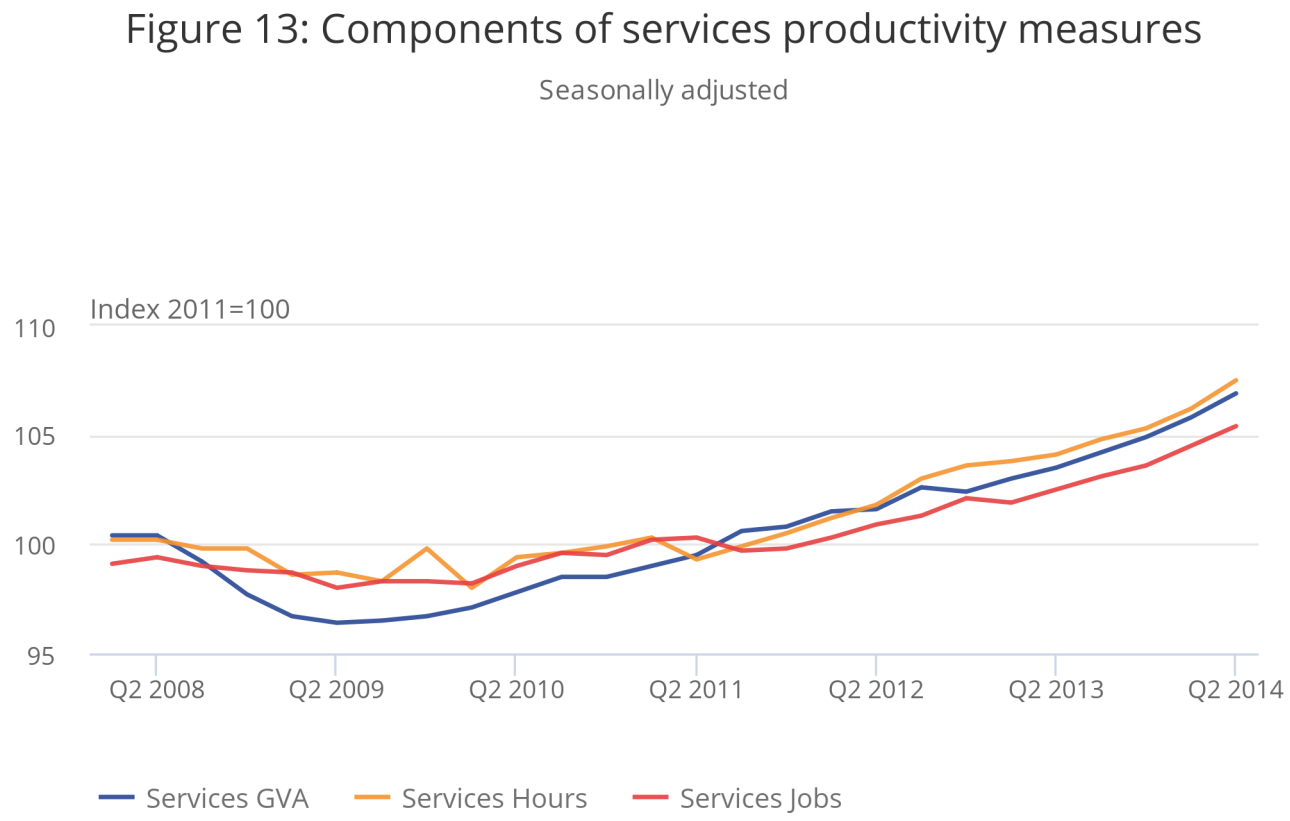


Figure 13: Components of services productivity measures

Seasonally adjusted



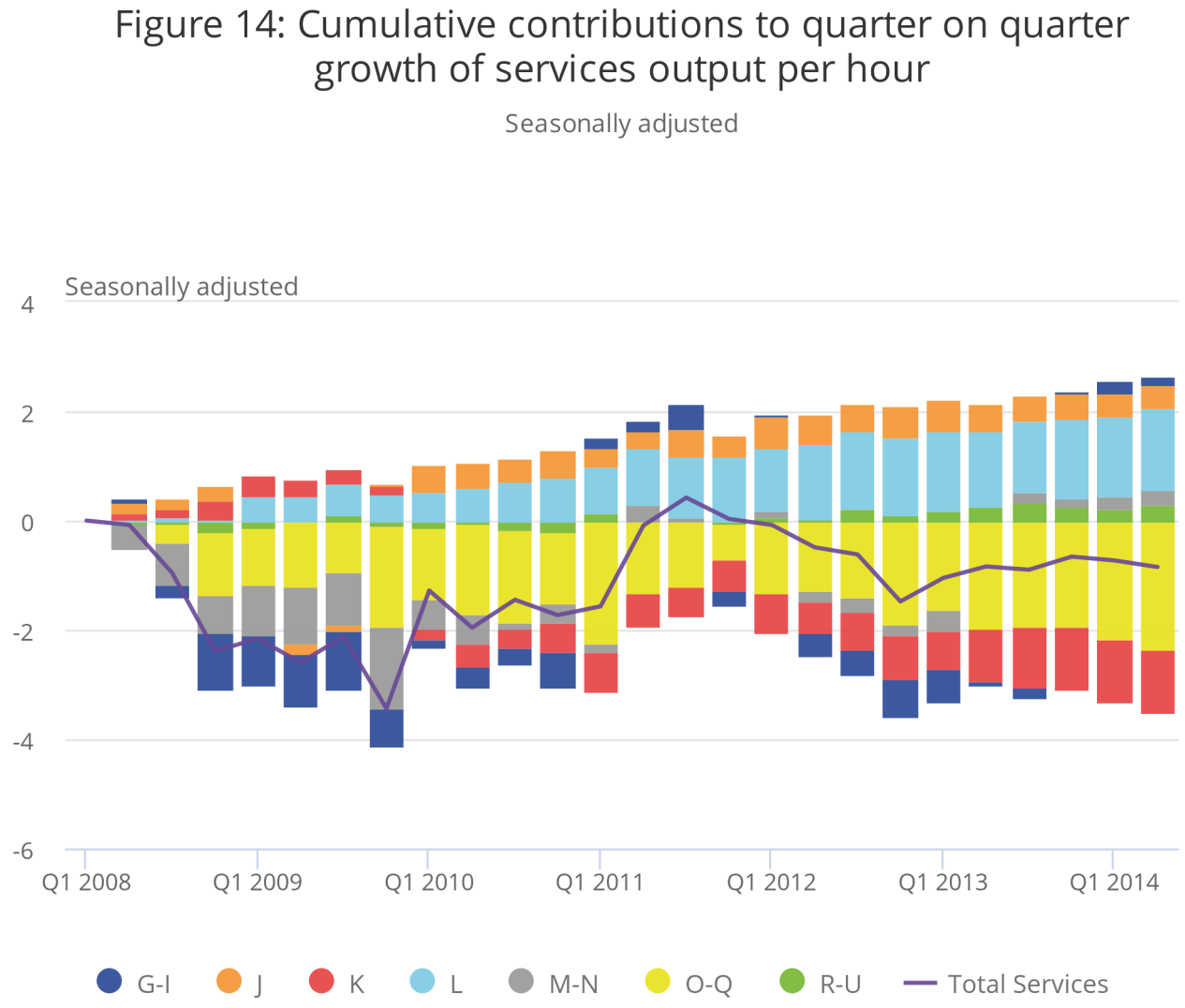
Source: Office for National Statistics

Figure 14 shows the cumulative contributions to growth of services output per hour since the economic downturn. From the beginning of 2008 to the second quarter of 2014, industries O-Q (Government services) and industry K (Financial and insurance activities) have made the largest negative contributions to services output per hour. In the case of O-Q the negative contribution mainly reflects hours rising faster than output, particularly over the period 2008-11. In the case of K, the negative contribution mainly reflects falling output over the whole period since 2008, not matched by falls in hours worked.

Industry L (Real estate activities) has made the largest positive contribution to services output per hour since 2008. This mainly reflects growth of imputed value-added from owner-occupied housing., for which there is no corresponding labour input.

Figure 14: Cumulative contributions to quarter on quarter growth of services output per hour

Seasonally adjusted



Source: Office for National Statistics

Notes:

1. G,H,I refers to Wholesale and retail trade; repair of motor vehicles and motorcycles (G), Transportation and storage (H) and Accommodation and food service activities (I).
2. J refers to Information and communication.
3. K refers to Financial and insurance activities.
4. L refers to Real Estate activities.
5. M,N refers to Professional, scientific and technical activities (M), Administrative and support service activities (N).
6. O,P,Q refers to Government Services.
7. R,S,T,U refers to Other Services.

More information on labour productivity of services industries is available in Tables 5 and 6 in the Reference Tables section of this release, and in the tables at the end of the PDF version of this statistical bulletin.

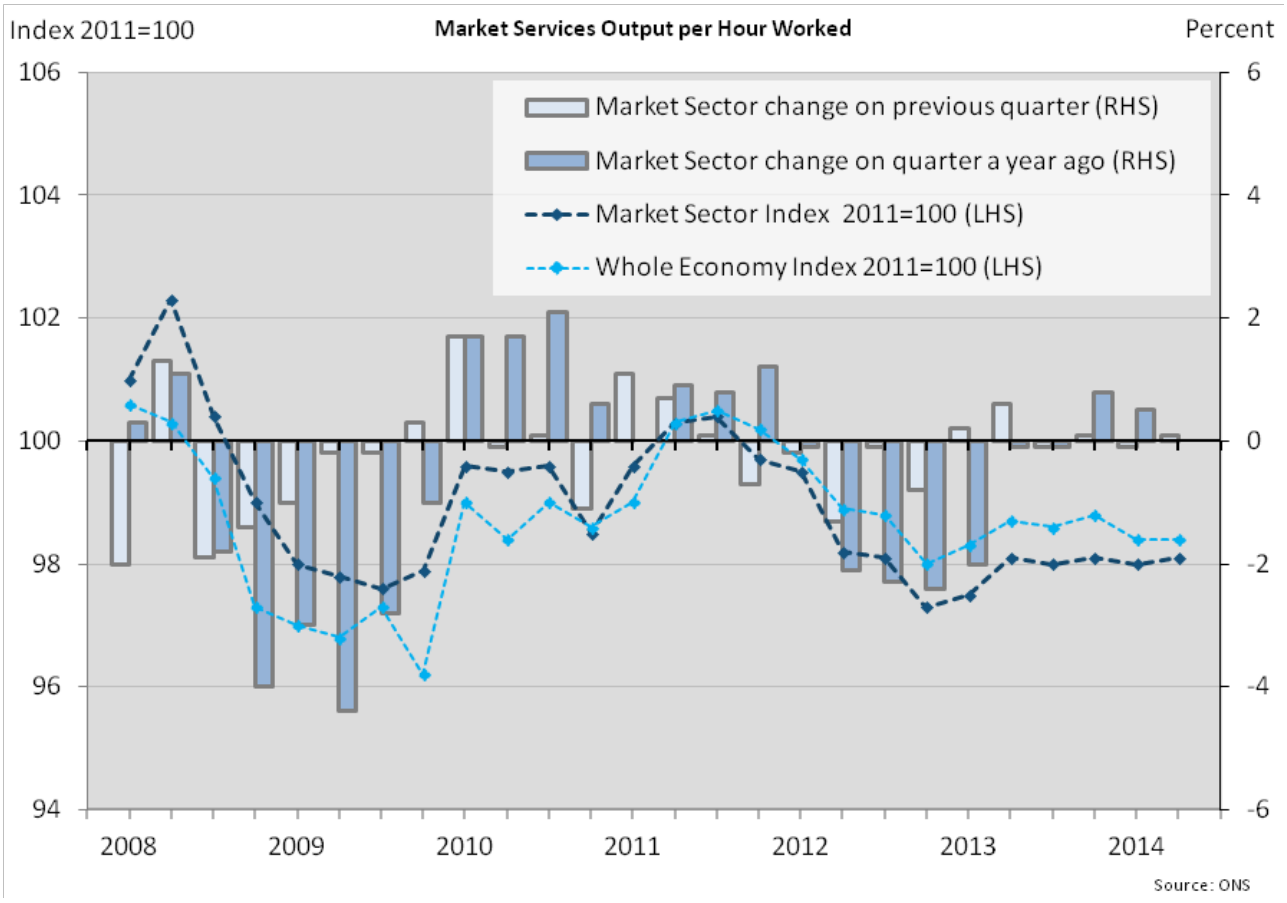
In general, the dispersion of labour productivity growth rates across service industries is less pronounced than within manufacturing. At face value, the dispersion of productivity levels is more pronounced. However, it should be borne in mind that labour productivity in industry L is affected by the National Accounts concept of output from owner-occupied housing, which adds to the numerator but without a corresponding component in the denominator. Excluding this industry, output per job (Table 5) varied from £21.6k in Accommodation & food services (section I) to £106.2k in Finance & insurance (section K) in 2011. These industries were also at the bottom and top of the productivity distribution in terms of output per hour (Table 6).

9 . Market sector (experimental statistics) labour productivity

Figure 15 shows movements in labour productivity in the market sector with the whole economy series plotted for comparison purposes. In the latest data, market sector output per hour fell less than the whole economy estimate during the downturn. Since 2012, the paths of the two series have been similar, with market sector output per hour falling a little more than the whole economy estimate.

Figure 15: Market sector output per hour

Seasonally adjusted



Longer time series on market sector labour productivity are available in Table 7 of the Reference Tables section of this release, and in the tables at the end of the PDF version of this statistical bulletin.

10. Revisions

Table R1 in the Reference Tables section of this release (and in the tables at the end of the PDF version of this statistical bulletin) shows revisions to growth rates of the main productivity variables for the whole economy, manufacturing and services between this release and the previous release on 1 July 2014. As noted above, revisions to productivity and to ULCs principally reflect revisions to GVA, together with smaller revisions from re-weighting of LFS. Revisions to GVA affect the entire time series while revisions to LFS go back to the previous Census in 2001.

A research note on sources of revisions (145.4 Kb Pdf) to labour productivity estimates is available on the ONS website.

Table A below summarises differences between first published estimates for each of the statistics in the first column with the estimates for the same statistics published three years later. This summary is based on five years of data, that is, for first estimates of quarters between Q3 2006 and 2011 Q2, which is the last quarter for which a three-year revision history is available. The averages of these differences with and without regard to sign are shown in the right hand columns of the table, and these can be compared with the value of the estimates in the latest quarter, shown in the second column. Additional information on revisions to these and other statistics published in this release is available in the Revisions triangles (1.17 Mb Excel sheet) component of this release.

Table A: Revisions analysis

Whole economy

		Revisions between first publication and estimates five years later (2006Q3 - 2011Q2)	
Change on quarter a year ago	Value in latest period (per cent)	Average over 5 years (bias)	Average over 5 years without regard to sign (average absolute revision)
Output per worker	0.4	-0.2	0.7
Output per job	0.3	-0.2	0.7
Output per hour	-0.3	-0.3	0.6
Unit labour costs	-1.1	0.5	0.9
Unit wage costs	0.0	0.3	0.8

This revisions analysis shows that whole economy labour productivity growth estimates have tended to be revised down over time, by 0.2-0.3 percentage points (on a year-on-year basis), while unit labour cost growth estimates have tended to be revised up by 0.3-0.5 percentage points. Absolute revisions have been larger for unit labour costs than for productivity. Were the average revisions to apply to the current release, growth of output per hour in the year to the second quarter of 2014 would be revised down from -0.3% to -0.6% over the next three years, and growth of unit labour costs would be revised up from -1.1% to -0.6% over the same period.

11. Notes on sources

The measure of output used in these statistics is the chain volume (real) measure of Gross Value Added (GVA) at basic prices, with the exception of the regional analysis in Table 9 (in the Reference Tables and the PDF version of this statistical bulletin), where the output measure is nominal GVA (NGVA). These measures differ because NGVA is not adjusted to account for price changes; this means that if prices were to rise more quickly in one region than the others, then this would be reflected in apparent improved measured productivity performance in that region relative to the others. At the whole economy level, real GVA is balanced to other estimates of economic activity, primarily from the expenditure approach. Below the whole economy level, real GVA is generally estimated by deflating measures of turnover; these estimates are not balanced through the supply-use framework and the deflation method is likely to produce biased estimates. This should be borne in mind in interpreting labour productivity estimates below the whole economy level.

Labour input measures used in this bulletin are known as 'productivity jobs' and 'productivity hours'. Productivity jobs differ from the workforce jobs (WFJ) estimates published in Table 6 of the ONS Labour Market Statistics Bulletin, in three ways:

- To achieve consistency with the measurement of GVA, the employee component of productivity jobs is derived on a reporting unit (RU) basis, whereas the employee component of the WFJ estimates is on a local unit (LU) basis. This is explained further below.

- Productivity jobs are scaled so industries sum to total LFS jobs. Note that this constraint is applied in non-seasonally adjusted terms. The nature of the seasonal adjustment process means that the sum of seasonally adjusted productivity jobs and hours by industry can differ slightly from the seasonally adjusted LFS totals.

- Productivity jobs are calendar quarter average estimates whereas WFJ estimates are provided for the last month of each quarter.

Productivity hours are derived by multiplying employee and self-employed jobs at an industry level (before seasonal adjustment) by average actual hours worked from the LFS at an industry level. Results are scaled so industries sum to total unadjusted LFS hours, and then seasonally adjusted.

Industry estimates of average hours derived in this process differ from published estimates (found in Table HOUR03 in the Labour Market Statistics Bulletin release) as the HOUR03 estimates are calculated by allocating all hours worked to the industry of main employment, whereas the productivity hours system takes account of hours worked in first and second jobs by industry.

Whole economy unit labour costs are calculated as the ratio of total labour costs (that is, the product of labour input and costs per unit of labour) to GVA. Further detail on the methodology can be found in Revised methodology for unit wage costs and unit labour costs: explanation and impact.

Manufacturing unit wage costs are calculated as the ratio of manufacturing average weekly earnings (AWE) to manufacturing output per filled job. On 28 November 2012 ONS published Productivity Measures: Sectional Unit Labour Costs describing new measures of unit labour costs below the whole economy level, and proposing to replace the currently published series for manufacturing unit wage costs with a broader and more consistent measure of unit labour costs. As noted earlier, estimates on the new methodology are published as a table component (211.5 Kb Excel sheet) of this statistical release.

What is a reporting unit?

The term 'enterprise' is used by ONS to describe the structure of a company. Individual workplaces are known as 'local units' and a group of local units under common ownership is called the 'enterprise'. Reporting units are the parts of enterprises that return data to ONS. While the majority of reporting units and enterprises are the same, larger enterprises have been split into reporting units to make the reporting easier.

For most business surveys run by ONS, forms are sent to the reporting unit rather than local units, in other words, to the head office rather than individual workplaces. This enables ONS to gather information on a greater proportion of total business activity than would be possible by sending forms to a selection of local units. But it has the disadvantage that it is difficult to make regional estimates – for instance all the employment of, say, a chain of shops would be reported as being concentrated at the site of the head office.

Further differences between reporting unit and local unit data can be seen in the industry coding. Take, for example, a reporting unit with three cake shops and one bakery, each employing five people. The local unit analysis would put 15 employees in the retail industry and five employees in the manufacturing industry. But the reporting unit series puts all 20 people into the industry with the majority activity, in this case, retailing. Detailed industry figures compiled using the local unit approach will therefore be different from industry figures using the reporting unit approach, although the totals will be the same at the whole economy level.

12. Background notes

1. **This statistical bulletin**

   This statistical bulletin presents Labour Productivity estimates for the UK. More detail can be found on the Productivity Measures Topic page on the ONS website.

   Index numbers are referenced to 2011=100, are classified to the 2007 revision to the Standard Industrial Classification (SIC) and are seasonally adjusted.

   Quarter on previous quarter changes in output per job and output per hour worked for some of the manufacturing sub-divisions and services sections should be interpreted with caution as the small sample sizes used can cause volatility.

2. **Quality and Methodology**

   A revised and updated Quality and Methodology Information paper for Labour Productivity was published in March 2012. This paper describes the intended uses of the statistics presented in this publication, their quality and methods used to produce them. It also includes more information on the uses and limitations of labour productivity estimates.

3. **Future developments**

   ONS has recently developed new and improved measures of labour input as part of ongoing work to comply with EU regulations. Specifically, these new measures provide an industry breakdown of employment (i.e. on a headcount basis rather than a job basis), and provide a split between employees and the self-employed. For methodological consistency, this work has also made some changes to the computation of corresponding hours series. These series are currently available on the Eurostat website and ONS has published an article entitled Introducing New Labour Productivity Statistics which describes these new series.

   In response to user requests, ONS has now published selected estimates of labour productivity using the new and improved estimates of labour inputs, together with comparisons against the corresponding estimates from the existing productivity system. These are available as an additional reference table component (table NEWLPROD01) of the already published article Introducing New Labour Productivity Statistics.

4. **Other data on productivity**

   ONS has published Labour Productivity Measures from the ABS, 2008-2012. This article uses published estimates from the Annual Business Survey (ABS) to provided more detailed information on recent trends in labour productivity by industry than those available from other sources.

   ONS publishes International comparisons of labour productivity in levels and growth rates for the G7 countries.

   More international data on productivity are available from the OECD, Eurostat, and the Conference Board.

   ONS publishes experimental estimates of Multi-factor productivity (MFP), which decompose output growth into the contributions that can be accounted for by labour and capital inputs. In these estimates, the contribution of labour is further decomposed into quantity (hours worked) and quality dimensions.

   ONS also publishes experimental indices of labour costs per hour. These differ from the concept of labour costs used in the unit labour cost estimates in this release. The main difference is that experimental indices of labour costs per hour relate to employees only, whereas unit labour costs also include the labour remuneration of the self-employed.

   Lastly, ONS publishes a range of Public sector productivity measures and related articles. These measures define productivity differently from that used in the ONS labour productivity and MFP estimates. Further information can be found in Phelps (2010) (252.5 Kb Pdf).

   More information on the range of ONS productivity estimates can be found in the ONS Productivity Handbook.

5. **User engagement**

   A note of the latest Productivity Statistics User Group Workshop held on 28 January 2014 is available here. If you are interested in attending future workshops or if you have any comments on this release please email Productivity@ons.gsi.gov.uk.

   You can follow ONS on Twitter and Facebook.

6. **Publication policy**

   Details of the policy governing the release of new data are available from the UK Statistics Authority or from the Media Relations Office email: media.relations@ons.gsi.gov.uk. A list of the names of those given pre-publication access to the contents of this bulletin is also available.

7. 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

   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 broadly interpreted to mean that the statistics:

   - meet identified user needs
   - are well explained and readily accessible
   - are produced according to sound methods
   - 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.