Quarterly Construction Price and Cost Indices

Commentary

1Q2014

Coverage: UK, Great Britain and England and Wales
Geographical area: Country and region
Date of publication: 17 June 2014

PCI Headline results

- The BIS Output Price Index for New Construction (2010): All New Construction for 1st Quarter 2014 increased by 1.7% on the previous quarter and by 4.3% year-on-year. Above average increases in output prices, on a quarterly and year-on-year basis, were noted in two new work sectors, namely the Private Commercial and Private Housing sectors.

- The BIS Output Price Index for Repair and Maintenance Construction (2010): All Repair and Maintenance for 1st Quarter 2014 increased by 0.3% on the previous quarter and by 2.7% year-on-year. Much of the increase was accounted for by rises in the Private Housing Repair and Maintenance sector which saw above average output price increases of 3.1% year-on-year.

- The BIS Tender Price Index for Public Sector Non-Housing (PUBSEC) 1st Quarter 2014 increased by 1.0% on the previous quarter and by 2.7% year-on-year. The BIS Tender Price Index of Social Housing (TPISH) 1st Quarter 2014 increased by 1.5% on the previous quarter and by 4.2% year-on-year.
The BIS Resource Cost Indices in 1st Quarter 2014 exhibited increasing costs in Building non-housing, house building, infrastructure, and road construction. Plus maintenance for building non-housing and maintenance for house building sectors. The BIS Resource Cost Index of Road Construction (ROCOS) increased by 0.8% on the previous quarter and by 0.8% year-on-year. While, the BIS Resource Cost Index of Infrastructure (FOCOS) increased by 0.5% on the previous quarter but remained unchanged year-on-year.
Introduction

This commentary accompanies the latest Quarterly Price and Cost Indices, published on the BIS Construction website on 17 June 2014.

It aims to provide a brief overview of recent trends in the data presented on the website. These data cover the following price and cost indices (in parentheses the publication frequency and geographical coverage).

**Output Price Indices (OPIs)**
All Work (2010): All New Construction and Repair and Maintenance Work (Quarterly, GB)
New Construction (2010): All New Construction (Quarterly, GB)
New Construction (2010): Infrastructure (Quarterly, GB)
New Construction (2010): Private Commercial (Quarterly, GB)
New Construction (2010): Private Housing (Quarterly, GB)
New Construction (2010): Private Industrial (Quarterly, GB)
New Construction (2010): Public Housing (Quarterly, GB)
New Construction (2010): Public Non-Housing (Quarterly, GB)
Repair and Maintenance (2010): All Repair and Maintenance (Quarterly, GB)
Repair and Maintenance (2010): Infrastructure (Quarterly, GB)
Repair and Maintenance (2010): Private Housing (Quarterly, GB)
Repair and Maintenance (2010): Private Non-Housing (Quarterly, GB)
Repair and Maintenance (2010): Public Housing (Quarterly, GB)
Repair and Maintenance (2010): Public Non-Housing (Quarterly, GB)
Direct Labour (2010): Public Housing New Construction (Quarterly, GB)
Direct Labour (2010): Public Housing Repair and Maintenance (Quarterly, GB)
Direct Labour (2010): Public Non-Housing Repair and Maintenance (Quarterly, GB)

**Tender Price Indices (TPIs)**
All Construction TPI: All Construction (Quarterly, UK)
All Construction TPI: All New Construction (Quarterly, UK)
All Construction TPI: All Repairs and Maintenance (Quarterly, UK)
BIS Tender Price Index of Public Sector Building Non-Housing PUBSEC\(^1\) (Quarterly, UK)
Tender Price Index of Road Construction, BIS ROADCON\(^2\) (Quarterly, UK)
Tender Price Index of Social Housebuilding (TPISH)\(^3\): New Build (Quarterly, England and Wales)\(^4\)
Tender Price Index of Social Housebuilding: (TPISH) Derived Rehab (Quarterly, England and Wales)

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\(^1\) Regional location factors and Function factors are also available.
\(^2\) Regional Road type and Value factors are also available.
\(^3\) Regional location factors are also available.
\(^4\) Figures for Scotland are prepared by the Scottish Government.
Resource Cost Indices (RCIs)
ALLCOS Index of All Construction (Quarterly, UK)
  All New Work
  All Repair and Maintenance
  All Work
  All Work: Labour and plant
  All Work: Materials
NOCOS Index for Building Non-Housing
  Combined
  Mechanical
  Electrical
  Building
  Labour and Plant
  Materials
HOCOS Index for House Building (Quarterly, UK)
  Combined
  Mechanical
  Electrical
  Building
  Labour and Plant
  Materials
ROCOS Index for Road Construction (Quarterly, UK)
  Combined
  Labour and Plant
  Materials
FOCOS Index for Infrastructure (Quarterly, UK)
  Combined
  Labour and Plant
  Materials
NOMACOS Index for Maintenance of Building Non-Housing (Quarterly, UK)
  Combined
  Mechanical
  Electrical
  Building
  Labour and Plant
  Materials
HOMACOS Index for Maintenance of House Building (Quarterly, UK)
  Combined
  Mechanical
  Electrical
  Building
  Labour and Plant
  Materials
Commentary

Cost and price pressures in construction have continued to rise during the 1st Quarter 2014. There is an upward trend evident in several new work sectors when compared with both the previous quarter and year-on-year. In addition, the repair and maintenance sector also appears to be gathering some momentum. The impetus currently is within private sector construction, in particular the Private Commercial and Private Housing New Work sectors and the Private Housing Repair and Maintenance sector.

BIS New Construction Output Price Indices 1Q2014

The BIS Output Price Index for New Construction (2010): All New Construction for 1st Quarter 2014 increased by 1.7% on the previous quarter and by 4.3% year-on-year.

The quarter on quarter change resulted from increases in output prices in all sectors (Table 1). The composition of the index was influenced by some quarter-on-quarter changes in the proportions of volume of output. The proportion of Private Commercial and Private Industrial work increased while the proportion of work in the Public Non-Housing and Infrastructure sectors declined. The proportion of work in the Public Housing and Private Housing sectors remained unchanged (Table 2).

Table 1: BIS New Construction Output Price Indices 1Q 2014 (% change)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Change</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>on year</td>
<td>Y-on-Y</td>
<td>on quarter</td>
<td>Q-on-Q</td>
</tr>
<tr>
<td>Public Housing</td>
<td>2.9%</td>
<td>▲</td>
<td>0.8%</td>
<td>▲</td>
</tr>
<tr>
<td>Private Housing</td>
<td>5.8%</td>
<td>▲</td>
<td>2.0%</td>
<td>▲</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>4.5%</td>
<td>▲</td>
<td>1.1%</td>
<td>▲</td>
</tr>
<tr>
<td>Public Non Housing</td>
<td>4.4%</td>
<td>▲</td>
<td>1.0%</td>
<td>▲</td>
</tr>
<tr>
<td>Private Industrial</td>
<td>4.6%</td>
<td>▲</td>
<td>1.1%</td>
<td>▲</td>
</tr>
<tr>
<td>Private Commercial</td>
<td>7.7%</td>
<td>▲</td>
<td>2.6%</td>
<td>▲</td>
</tr>
<tr>
<td>All New Work</td>
<td>4.3%</td>
<td>▲</td>
<td>1.7%</td>
<td>▲</td>
</tr>
</tbody>
</table>

The year on year increase is attributable to upward movement in output prices in several sectors. Price increases are above average in the Private Commercial (7.7%), Private Housing (5.8%), Private Industrial (4.6%) and Infrastructure (4.5%) sectors (Table 1). The mix of the sectors in the index over the year was influenced by an increase in the proportion of output from the Private Housing and Public Housing sectors and a decline in the proportion of Infrastructure, Public Non-Housing and Private Industrial work (Table 2). The proportion of work in the Private Commercial sector remained unchanged.
Table 2: ONS New Construction Output proportion by sector
(based on current price non seasonally adjusted volume figures)

<table>
<thead>
<tr>
<th>Period</th>
<th>Public Housing</th>
<th>Private Housing</th>
<th>Infrastructure</th>
<th>Public Non Housing</th>
<th>Private Industrial</th>
<th>Private Commercial</th>
<th>All New Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Q2</td>
<td>7%</td>
<td>21%</td>
<td>20%</td>
<td>17%</td>
<td>4%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Q3</td>
<td>6%</td>
<td>21%</td>
<td>19%</td>
<td>17%</td>
<td>4%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Q4</td>
<td>6%</td>
<td>21%</td>
<td>20%</td>
<td>16%</td>
<td>4%</td>
<td>33%</td>
</tr>
<tr>
<td>2012</td>
<td>Q1 (P)</td>
<td>6%</td>
<td>23%</td>
<td>19%</td>
<td>16%</td>
<td>5%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Q2 (P)</td>
<td>6%</td>
<td>23%</td>
<td>19%</td>
<td>15%</td>
<td>5%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Q3 (P)</td>
<td>6%</td>
<td>22%</td>
<td>20%</td>
<td>16%</td>
<td>5%</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Q4 (P)</td>
<td>5%</td>
<td>23%</td>
<td>21%</td>
<td>14%</td>
<td>6%</td>
<td>31%</td>
</tr>
<tr>
<td>2013</td>
<td>Q1 (P)</td>
<td>5%</td>
<td>22%</td>
<td>21%</td>
<td>14%</td>
<td>6%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Q2 (P)</td>
<td>6%</td>
<td>25%</td>
<td>20%</td>
<td>14%</td>
<td>5%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Q3 (P)</td>
<td>6%</td>
<td>24%</td>
<td>19%</td>
<td>14%</td>
<td>5%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Q4 (P)</td>
<td>6%</td>
<td>26%</td>
<td>20%</td>
<td>13%</td>
<td>4%</td>
<td>31%</td>
</tr>
<tr>
<td>2014</td>
<td>Q1 (P)</td>
<td>6%</td>
<td>26%</td>
<td>19%</td>
<td>12%</td>
<td>5%</td>
<td>32%</td>
</tr>
</tbody>
</table>

BIS Repair & Maintenance Construction Output Price Indices 1Q2014

The BIS *Output Price Index for Repair and Maintenance Construction (2010): All Repair and Maintenance for 1st Quarter 2014* increased by 0.3% on the previous quarter and by 2.7% year-on-year. Much of the year-on-year increase was accounted for by an above average rise in the Private Housing Repair and Maintenance sector which saw output price increases of 3.1% year-on-year (Table 3).

Table 3: BIS *Repair & Maintenance Construction Output Price Indices 1Q 2014* (% change)

<table>
<thead>
<tr>
<th>Sector</th>
<th>on year</th>
<th>Y-on-Y</th>
<th>on quarter</th>
<th>Q-on-Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Housing</td>
<td>2.5%</td>
<td></td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Private Housing</td>
<td>3.1%</td>
<td></td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>Non-Housing</td>
<td>2.6%</td>
<td></td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>All Repair &amp; Maint</td>
<td>2.7%</td>
<td></td>
<td>0.3%</td>
<td></td>
</tr>
</tbody>
</table>

Generally, the movement of the Output Price Indices reflects the movement in tender prices in previous periods.

Notes
Details of *Construction output volumes* are available from ONS.
Details of the *Sector output price indices* are available on the BIS website.
BIS Construction Public Sector Tender Price Indices 1Q2014

The *BIS Tender Price Index for Public Sector Non-Housing (PUBSEC)* 1\(^{st}\) Quarter 2014 increased by 1.0% on the previous quarter and by 2.7% year-on-year. The series indicates that prices in this sector have increased since 3\(^{rd}\) Quarter 2013 following one quarter of decline.

The *BIS Tender Price Index of Social Housing (TPISH)* 1\(^{st}\) Quarter 2014 increased by 1.5% on the previous quarter and by 4.2% year-on-year. The series indicates that prices in this sector have exhibited steady growth since 4\(^{th}\) Quarter 2012.

The *BIS Tender Price Index of Road Construction (ROADCON)* 1\(^{st}\) Quarter 2014 is not available this period due to small sample sizes.

**Figure 1: Trends in PUBSEC, TPISH and ROADCON Tender Price Indices (1995=100)**

![Graph showing trends in PUBSEC, TPISH, and ROADCON](image)

**Note:**
PUBSEC: BIS Tender Price Index of Public Sector Building (Non-Housing);
TPISH: BIS Tender Price Index of Social House Building;
ROADCON: BIS Tender Price Index of Road Construction.

Figure 1 above provides quarterly data for the TPIs since 1995 and highlights the recent relative increase in *PUBSEC, TPISH* and *ROADCON*. *ROADCON* is now well above tender price levels last seen in early 2007 and *PUBSEC* is now at the same levels as the peak reached in late 2007. However, *TPISH* is still below tender price levels at their pre-recession peak, although an increasing trend is evident.
BIS Construction Resource Cost Indices 1Q2014

The *BIS Resource Cost Indices* 1st Quarter 2014 generally indicate that labour, plant and materials costs exhibited an increasing trend compared to the previous quarter and year-on-year. However, in terms of year-on-year changes, the largest increases are evident in materials costs, with increases in labour and plant costs more subdued.

The *BIS Resource Cost Indices* in 1st Quarter 2014 exhibited increasing costs in Building non-housing, house building, infrastructure, and road construction sectors.

Costs in the infrastructure sectors, both roads and infrastructure generally, have increased compared with the previous quarter and year-on-year there are slight cost increases evident. The *BIS Resource Cost Index of Road Construction (ROCOS)* increased by 0.8% on the previous quarter and by 0.8% year-on-year. While, the *BIS Resource Cost Index of Infrastructure (FOCOS)* increased by 0.5% on the previous quarter but remained unchanged year-on-year.

**Figure 2: Trends in Infrastructure Input Cost Indices ROCOS (1995=100)**

Figure 2 above provides quarterly data for ROCOS since 1995 and confirms the recent relative increase of input costs in the first quarter of 2014, following a period of relatively stability since early 2012, similar trends are also evident in FOCOS. Material costs continue to be the primary driver for any cost increases evident in the infrastructure cost indices, while labour and plant costs remain relatively stable.

Economic Background
Within the latest ONS statistical release “Output in the Construction Industry”, Construction Output and New Orders have increased both on the previous quarter and year-on-year, although both are still well below pre-recession peaks (http://www.ons.gov.uk/ons/rel/construction/output-in-the-construction-industry/april-2014/index.html).

BIS produce a monthly note on the economic background for construction, published with its Monthly Statistics of Buildings Materials and Components.

Notes
Uses of Data
There are three types of indices which have different purposes and uses:

Tender Price Indices: Measure project construction prices to clients agreed at ‘commit to construct’. The TPIs are produced primarily for use in estimating, cost-checking and fee negotiation on public sector construction works. They are used by the Office for National Statistics (ONS) to deflate construction new orders from current to constant prices and in the calculation of the OPIs.

Output Price Indices: Measure project construction prices paid by clients at the point that the work is carried out. The OPIs are produced primarily to deflate construction output from current to constant prices and are generally derived from TPIs modelled to sector output in previous quarters.

Resource Cost Indices: Measure the notional trend of input costs to a contractor in terms of increases in the cost of labour, materials and plant by application of the BCIS Price Adjustment Formulae Indices (PAFI) for Building (Series 3), Specialist Engineering (Series 3) and Civil Engineering (1990 Series) to cost models. The PAFI are based on ONS Producer Price Indices (PPIs). The RCIs are used for budgeting, estimating, tendering or paying for construction work.

Quality Information
For the Tender Price and Output Price Indices that are based on project indices, sample sizes are stated for each index.

For OPIs that are based on modelled TPIs, the inputs come from the RCIs and TPIs.

The RCIs are based on PPIs and published wage awards. Details of the PPIs are available on the ONS website.
Related Statistics
ONS publish **Producer Price Index (PPI)**, a monthly survey that measures the price changes of goods bought and sold by UK manufacturers and provides a key measure of inflation. This Statistical Bulletin contains a comprehensive selection of data on input and output index series. It contains PPIs for materials and fuels purchased, and output of manufacturing industry by broad sector and includes many construction materials.

ONS publish **Construction Output statistics**, a monthly series of the output of the construction industry in both the private and public sectors, and for both new work and repair and maintenance.

ONS publish **Construction New Orders**. This information relates to contracts for new construction work awarded to main contractors by clients in both the public and private sectors. Also included is speculative work, undertaken on the initiative of the firm, where no contract or order is awarded. The value of this work is recorded in the period when foundation works are started.

Revisions Policy
The [revision policy](#) for these indices can be found on the BIS Building Price and Cost Indices webpage.

Further Information
As part of this programme of work BIS have published methodology notes for each set of BIS Construction and Price Indices:

- **Tender Price Indices (PDF, 276 Kb)** including the Tender Price Index of Public Sector Building Non-Housing (PUBSEC), Road Construction (ROADCON), Social Housebuilding (TPISH), and the All Construction Tender Price Index (ALLCON)


- **Resource Cost Indices (PDF, 150 Kb)** including the Resource Cost Index of: Building Non-Housing (NOCOS), House Building (HOCOS), Road Construction (ROCOS), Infrastructure (FOCOS), Maintenance of Building Non-Housing (NOMACOS), Maintenance of House Building (HOMACOS), and All Construction (ALLCOS).

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**Enquiries:** Enquiries about the indices should be addressed to AECOM.
Telephone: +44 (0)20 7061 7373
Email: Bis-pcisupport@aecom.com
Responsible Statistician: Frances Pottier from the Department for Business Innovation and Skills (BIS) is the statistician responsible for the Price and Cost Indices
Telephone: +44 (0)20 7215 1953
Email: frances.pottier@bid.gsi.gov.uk

Website: BIS Price and Cost Indices