Contents

Overview ........................................... 4
Economy ........................................... 12
Private Housing ................................... 16
Private Housing RM&I ............................ 21
Public Housing .................................... 23
Public Housing RM&I ............................. 26
Public Non-housing ............................... 28
Public Non-housing R&M ....................... 32
Commercial ........................................ 34
Private Non-housing R&M ....................... 42
Industrial ........................................... 43
Infrastructure ...................................... 46
Infrastructure R&M ............................... 52

© 2018 Construction Products Association. All rights reserved.

This document is licensed for the exclusive use of Members of the CPA and purchasers of its economic forecasts (£210, including 20% VAT).

Please do not publicly distribute this document. Additions to the distribution list can be made by contacting the CPA at 020 7323 3770.

DISCLAIMER

All construction figures (starts, completions, orders and output) refer to Great Britain.

All output figures are in 2015 constant prices using the historic figures from the Office for National Statistics (ONS).

All new orders figures are in 2005 constant prices using the historic figures from the Office for National Statistics (ONS).

The information in this booklet has been prepared by Construction Products Association and represents the views of Construction Products Association without liability on the part of the Construction Products Association and its officers.
The start of 2018 has been an inauspicious one for the construction industry. The liquidation of Carillion in January, combined with the unseasonal weather in February and March, will inevitably lead to a poor first quarter of activity for the industry. The second quarter of 2018 is likely to see an upturn in activity but activity in the sector overall for the year will be dependent upon the extent to which Carillion’s liquidation impacts upon sub-contractors and suppliers down the supply chain in addition to the extent of catch-up following the three lost days of construction activity across the UK. As a result, the key risks to the latest forecasts are clearly on the downside.

Overall, construction activity is expected to remain flat in 2018 with growth in private housing and infrastructure offsetting falls in activity in the commercial, industrial and health sectors. Without this growth in housing and infrastructure, construction output would fall by almost 2.0% in 2018 and without a significant catch-up in activity following the poor weather this fall would be almost 3.0% in 2018.

In the wider economy, UK GDP growth in 2017 Q4 was 0.4% and GDP growth overall for 2017 was 1.8% compared with 1.9% in the previous year. GDP growth is expected to slow to 1.3% in 2018 as the lagged impacts of last year’s falling real wages impact on consumer confidence and spending on the high street. Those real wage falls have been less of an issue for those with substantial housing and pension wealth, particularly in older age demographics and this section of the population has boosted activity in areas such as private housing repair, maintenance and improvements (rm&i), the third largest construction sector. Inflation is expected to slow over the course of this year although the impacts of rises in commodity and component prices during 2017 suggest that inflation may dissipate at a slower rate than many macroeconomic forecasters are expecting. The Bank of England is expected to raise its interest rate once this year, most likely in May, although poor macroeconomic data during the first quarter of the year that is unrelated to the weather could potentially push this back. UK employment remains at amongst the highest rates seen since comparable records in 1971, which is expected to lead to significant nominal wage pressure and, in the light of slowing inflation, should ensure real wage growth during 2018.

Private housing output rose in each of the last five years and it is expected to continue to rise in 2018 in spite of a slowdown in property transactions and the continued falls in the Central London prime housing market. UK property transactions in 2017 were 0.6% lower than in 2016. Furthermore, transactions in January and February 2018 were 1.1% lower than a year ago and suggest that the slowdown is accelerating. Mortgage approvals indicate a similar story. The Bank of England reported that the volume of mortgage approvals in 2017 was 1.6% lower than in 2016. In addition, in January and February 2018, the volume of mortgage approvals was 4.8% lower than one year earlier. In spite of this, whilst there remains house price inflation, house builders will be keen to increase supply. Annual house price growth has more than halved since the 4.9% growth seen in 2016 according to Nationwide but it still remains positive, at 2.1%, in March 2018. The government’s Help to Buy continues to skew home ownership incentives.

Construction output is forecast to remain flat in 2018 before growth of 2.7% in 2019.

Key Points
- Construction output to remain flat in 2018 (0.1%) and rise 2.7% in 2019
- Private housing starts to rise 2.0% in 2018 and 2019
- Offices construction to decline 20.0% in 2018 and 10.0% in 2019
- Retail construction to fall 10.0% in 2018 but rise 5.0% in 2019
- Infrastructure work to rise by 6.4% in 2018 and 13.1% in 2019
towards purchasing of new build. It accounts for over one-third of private house building and 40% or more for some major house builders. For instance, Help to Buy accounted for 48% of Persimmon’s sales during 2017. Last year the government announced £10 billion of additional funding for Help to Buy in 2017 to ensure that it continues until 2021 but given the house builders’ reliance on Help to Buy and their need to invest in land years in advance, it will be essential that government announces an extension to Help to Buy beyond 2021 in the next 12-18 months. If this occurs then it is likely to involve restrictions given the concerns around its long-term impact on the housing market and whether greater enabled demand through Help to Buy is merely capitalised into higher house prices. Despite government recently focusing on house builders’ ‘duty to build’ and Oliver Letwin’s independent review to tackle barriers to building, the policy focus of politicians has consistently been on enabling greater private sector demand and, consequently, encouraging new build. The government still has its target of 300,000 net additional dwellings per year by the mid-2020s, which appears high but was 217,350 in 2016/17 and includes 42,870 of conversions from houses to multiple flats and changes of use (e.g. from offices to residential). A 38% rise in net additional dwellings over 10 years does sound achievable although government will be relying on private sector to deliver it. Local authorities continue to sell off properties under the Right to Buy scheme and government admitted in March 2018 that it was failing to achieve its pledge of replacing every Right to Buy home sold with a new home. The latest MHCLG figures to the end of 2017 Q4 indicate that it is replacing one in every four Right to Buy homes in England. Overall, private housing starts are forecast to rise by 2.0% both this year and in 2019.

Private housing repair, maintenance and improvement (rm&i) was worth £21.9 billion in 2017. Historically, property transactions have a positive relationship to refurbishment activity on existing properties with a 6-9 month lag. Yet, despite falling property transactions, private
housing m&i continued to grow during 2017 and the indications are that it is likely to sustain activity during 2018. Above a certain house price, particularly in the South East and North West, activity by an older demographic with housing and pension wealth appears to be negatively related to property transactions as they tend to prefer to improve rather than move. In addition, in the second year since the freedom and choice pension reforms were introduced in April 2015, £5.7 billion was withdrawn from pension pots by those 55 or older according to the ABI and this has helped to fund investment in improvements work despite falling real wages and tighter spending for those who are working. This activity has been sufficient to provide growth for the sector in 2016 and 2017. It is also expected to sustain activity during the first half of this year after the weather impacts of Q1 are taken account of. However, the sustainability of this growth is constrained by the initial burst of those taking money out of the pensions early having already occurred and the general slowing of the housing market and consequent impacts on the profitability of doing such improvements work. Offsetting this however, a return to real wage growth this year, assuming employment rates stay high, should ensure that the general improvements market grows in 2019 and 2020. The repair and maintenance part of the sector tends to be relatively flat when adjustments are made for seasonal variation so significant changes tend to be based around the refurbishment part of the sector. Private housing m&i output is expected to remain flat in 2018 before rising by 2.0% in 2019.

The key driver of growth in the forecasts remains activity in the infrastructure sector. New orders in 2017 rose by 35.2%. This is highly distorted by HS2 contracts awarded in 2017 Q3 and the TransPennine ExpressRail contracts awarded in 2017 Q4. New orders for the infrastructure sector during 2017 Q3 were at their highest level on record, 115.5% higher than one year earlier and infrastructure new orders in 2017 Q4 were 16.4% higher than one year earlier. More specifically, rail new orders in 2017 Q3 were 10 times higher than they were one year earlier and rail new orders in 2017 Q4 were more than double the volume seen one year earlier. However, activity on these contracts is unlikely to start until 2019 at the earliest and it will be spread out over many years. As a result, rail output is expected to grow by 5.0% in 2018 as current HS2 activity offsets declining work on Crossrail whilst output rises by 20.0% in both 2019 and 2020. Highways England investment is expected to rise throughout the forecast period yet concerns remain regarding delivery of new investment given that it is backloaded to the end of the first Road Investment Strategy (RIS) in 2019/20 and the start of the second RIS in 2020/21. 97% of roads remained under the control of local authorities in 2016 according to the DfT and activity on these roads will continue to fall as long as councils remain financially constrained. Following the poor weather in 2018 Q1, the DfT announced £100 million to repair potholes, in addition to its £1.2 billion per year local highway maintenance funding in England. Yet, the Asphalt Industry Alliance ALARM survey in March 2018 stated that the total
Roads spend is still considerably less than would be needed to stop the decline in local road conditions. Overall, roads construction is expected to remain flat in 2018 before growth of 3.0% in 2019 and 5.0% in 2020. Water & sewerage forecasts remain unchanged as activity under the five-year AMP6 spending plan continues and growth is driven by the £4.2 billion Thames Tideway project. Water & sewerage output is expected to rise 12.0% in 2018 and remain flat in 2019. Energy infrastructure activity is expected to grow by 7.0% in 2018 and 20.0% in 2019 in line with previous forecasts. Near-term, energy infrastructure activity is expected to be driven by offshore wind farm activity whilst output is expected to grow due to main works at Hinkley Point C. However, as with previous forecasts, further delays to the project cannot ruled out that would push main works into 2020.

Commercial construction is forecast to endure the sharpest falls in activity over the forecast period. New orders in the commercial sector fell by 7.9% during 2017 albeit from an eight-year high in 2016. Last year’s fall in commercial new orders is expected to feed through over the next 12-18 months so commercial output is forecast to fall by 7.8% in 2018 and a further 0.8% in 2019. Within the overall sector, the key impacts are likely to be on the offices and retail sub-sectors. Offices new orders fell by 25.0% in 2017 and in Q4 in particular new orders were 34.6% lower than a year earlier. Demand still remains high for flexible offices space in London although Savills reports that in the City flexible offices space providers may have saturated the market for one year. However, demand for additional high profile offices space from the financial and business services sector has fallen sharply since the EU Referendum vote in June 2016 although it is worth noting that the moves of banking staff from London to other European cities has been relatively small so far. The Investment Property Forum (IPF) reported in March 2018 that London offices capital values are expected to fall by 2.0% in 2018, 1.9% in 2019 and 0.3% in 2020. Falls in offices demand in London have been partially offset by growth in cities outside the capital, especially in Manchester and Birmingham. In Manchester, which has an offices construction market that is only one-tenth the size of the London market, the January 2018 Deloitte Crane Survey reported that activity on six main projects accounting for over 900,000 sq. ft. of floor space was started in 2017 and demand continues to outstrip supply, which was not significantly impacted by the UK’s vote to leave the EU. In Birmingham, Deloitte reported in January 2018 that there were four new office construction starts totalling over 640,000 sq. ft. that helped maintain offices construction output at a record high in the city. Overall, output in the offices sub-sector is expected to fall by 20.0% in 2018 and a further 10.0% in 2019. Activity within the retail sub-sector continues to be hindered by the continued shift away from the high street towards online shopping, which skews construction away from retail and towards warehousing, combined with the impacts of business rates increases of chains operating in the capital. This has been illustrated by the recent high profile...
administrations of Toys R Us and Maplin in 2018 Q1 and will only be exacerbated by the impacts of real wage falls last year on consumer spending this year as spending patterns change. Apart from the direct impact on additional retail demand, this could have a knock-on impact upon retailers that were looking to expand, such as Lidl, who may take over existing premises of now defunct retailers rather than build new premises. As a consequence, retail construction is forecast to fall by 10.0% in 2018. Looking further ahead, the £1.4 billion Croydon Partnership and £1.4 billion Brent Cross extension are still expected to drive growth for the sector as a whole whilst general retail demand is likely to benefit from a recovery in real wages and, consequently, consumer spending. Commercial retail output is forecast to rise by 5.0% in 2019 and 2.0% in 2020.

Public sector construction is expected to suffer from a lack of finance available and a lack of projects in the pipeline. Public housing m&i activity fell during 2017 and is expected to fall by 5.0% in 2018 before remaining flat due to essential repairs to social housing towers. There appears to be little in the education and particularly the health pipeline to provide any significant growth. The publicly-funded Priority School Building Programme 2 is likely to ensure growth from 2019. However, activity is still forecast to fall by 5.5% this year before growth of 2.5% in both 2019 and 2020. Activity in 2020 is still expected to be lower than in 2017.

Key Risks

Carillion was the UK’s second largest contractor before it was liquidated with a construction turnover of £1.5 billion, primarily operating across infrastructure and commercial, including PFI projects. It had liabilities of £2.0 billion and 11,687 direct sub-contractors and suppliers, although only 488 of these were dependent on Carillion for over £1.0 million of revenue. Within joint-venture (JV) projects in which Carillion was involved, the other main contractor on the joint-venture will take over under standard contract terms and, as a result, there is likely to be little overall impact on JV projects apart from a minor hiatus whilst administrative details such as employment contracts are dealt with. Carillion’s largest client, Network Rail, accounting for £350 million of turnover, has offered to pay sub-contractors and suppliers since 15 January to ensure that work continues on Carillion projects and, as a consequence, there may be minor delays on Carillion rail infrastructure projects. Issues are likely to be found on Carillion commercial projects, where activity on site has stalled whilst clients find contractors willing to take over the existing work or clients retender for work. This is particularly the case for the two PFI hospital projects (see Commercial), which were two of the four projects on which Carillion experienced serious issues that led to the eventual liquidation. Even prior to the collapse of Carillion, the health sector prospects for the health including PFI sub-sector were not looking bright. Two of the four major projects on which Carillion suffered £845 million of write downs that eventually led to its liquidation were the two PFI hospitals in Liverpool and Birmingham. Both projects will need new contractors and, as a result, will suffer from further delays before activity restarts.

In terms of the impacts of adverse weather in 2018 Q1, the lack of robust data as yet covering activity in February and March makes it difficult to have a clear picture and, as a consequence, we have made an assumption of a loss of 80% of contractors’ activity during the three working days of the greatest impact on construction output on three working days; 28 February to 2 March. This would mean that activity in 2018 Q1 would be £1.6 billion less than during the same period one year earlier. The extent of catch-up on delayed construction on site will determine the impacts on annual construction output.

Anecdotal evidence from firms suggests that house building activity is unlikely to be substantially affected as the key activity period for major house builders begins in Spring. Outside of house building, on larger projects a significant degree of catch-up may be possible especially where penalty clauses for delays are in contracts. However, anecdotal evidence from contractors suggests that in many other sectors, rather than catch-up, activity across the supply chain is just pushed back.

The most recent previous example of significant unseasonal adverse weather, worse than the ONS seasonal adjustment would take account of, was during March and April 2013. This was in a period of growing construction activity. The poor weather was between 10 March and 10 April and the worst of this between 22 and 24 March 2013 (Friday-Sunday) and it did not affect the majority of the country. According to the Met Office, there were heavy snowfalls across North Wales, Northern
## Construction Industry Forecasts - Spring 2018

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% annual change</td>
<td>Actual</td>
<td>Actual</td>
<td>Estimate</td>
<td>Forecast</td>
<td>Projection</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>29,717</td>
<td>32,182</td>
<td>33,791</td>
<td>34,467</td>
<td>34,812</td>
</tr>
<tr>
<td></td>
<td>13.1%</td>
<td>8.3%</td>
<td>5.0%</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Public</td>
<td>4,861</td>
<td>5,498</td>
<td>5,663</td>
<td>5,833</td>
<td>5,833</td>
</tr>
<tr>
<td></td>
<td>-3.7%</td>
<td>13.1%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>34,578</td>
<td>37,680</td>
<td>39,454</td>
<td>40,300</td>
<td>40,644</td>
</tr>
<tr>
<td></td>
<td>10.4%</td>
<td>9.0%</td>
<td>4.7%</td>
<td>2.1%</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Other New Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Non-Housing</td>
<td>10,770</td>
<td>10,387</td>
<td>9,891</td>
<td>9,983</td>
<td>10,131</td>
</tr>
<tr>
<td></td>
<td>3.8%</td>
<td>-3.6%</td>
<td>-4.8%</td>
<td>0.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>17,851</td>
<td>19,055</td>
<td>20,275</td>
<td>22,928</td>
<td>24,533</td>
</tr>
<tr>
<td></td>
<td>-3.0%</td>
<td>6.7%</td>
<td>6.4%</td>
<td>13.1%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Industrial</td>
<td>4,439</td>
<td>4,308</td>
<td>4,408</td>
<td>4,469</td>
<td>4,581</td>
</tr>
<tr>
<td></td>
<td>-6.2%</td>
<td>-3.0%</td>
<td>2.3%</td>
<td>1.4%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Commercial</td>
<td>28,183</td>
<td>29,552</td>
<td>27,243</td>
<td>27,024</td>
<td>27,202</td>
</tr>
<tr>
<td></td>
<td>7.5%</td>
<td>4.9%</td>
<td>-7.8%</td>
<td>-0.8%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Total other new work</td>
<td>61,243</td>
<td>63,302</td>
<td>61,817</td>
<td>64,045</td>
<td>66,448</td>
</tr>
<tr>
<td></td>
<td>2.5%</td>
<td>3.4%</td>
<td>-2.3%</td>
<td>4.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Total new work</td>
<td>95,821</td>
<td>100,982</td>
<td>101,271</td>
<td>104,705</td>
<td>107,092</td>
</tr>
<tr>
<td></td>
<td>5.2%</td>
<td>5.4%</td>
<td>0.3%</td>
<td>3.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Repair and Maintenance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Housing RM&amp;I</td>
<td>19,908</td>
<td>21,883</td>
<td>21,883</td>
<td>22,321</td>
<td>22,767</td>
</tr>
<tr>
<td></td>
<td>7.2%</td>
<td>9.9%</td>
<td>0.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Public Housing RM&amp;I</td>
<td>7,708</td>
<td>7,389</td>
<td>7,020</td>
<td>7,020</td>
<td>7,020</td>
</tr>
<tr>
<td></td>
<td>-5.3%</td>
<td>-4.1%</td>
<td>-5.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Private Other R&amp;M</td>
<td>12,013</td>
<td>12,490</td>
<td>12,740</td>
<td>12,995</td>
<td>13,235</td>
</tr>
<tr>
<td></td>
<td>4.6%</td>
<td>4.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Public Other R&amp;M</td>
<td>4,982</td>
<td>4,964</td>
<td>4,864</td>
<td>4,864</td>
<td>4,864</td>
</tr>
<tr>
<td></td>
<td>-1.3%</td>
<td>-0.4%</td>
<td>-2.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Infrastructure R&amp;M</td>
<td>8,260</td>
<td>8,573</td>
<td>8,659</td>
<td>8,746</td>
<td>8,746</td>
</tr>
<tr>
<td></td>
<td>-6.3%</td>
<td>3.8%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total R&amp;M</td>
<td>52,871</td>
<td>55,299</td>
<td>55,166</td>
<td>55,945</td>
<td>56,651</td>
</tr>
<tr>
<td></td>
<td>1.6%</td>
<td>4.6%</td>
<td>-0.2%</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>TOTAL ALL WORK</strong></td>
<td>148,692</td>
<td>156,281</td>
<td>156,437</td>
<td>160,650</td>
<td>163,743</td>
</tr>
<tr>
<td></td>
<td>3.9%</td>
<td>5.1%</td>
<td>0.1%</td>
<td>2.7%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: ONS, Construction Products Association
England, South-West Scotland and the east of Northern Ireland (the latter of which would not be in the ONS construction output as it covers only GB). Construction output in March 2013 was £499 million (4.7%) lower than one year earlier and in April output was £191 million (1.8%) lower than a year earlier. However, activity in both months was also £500 million lower than the average in the second half of the year, which may point to significant catch-up in activity later in the year.

In terms of Brexit, the UK and EU agreed on a 21-month implementation period following 29 March 2019 that will largely leave movements of people, products, capital and services similar to current conditions until 31 December 2020. This ensures clarity for businesses in the near-term but, in the longer-term, uncertainty regarding the market environment and movements of people, products, capital and services after 2020 remains. As a consequence, it is likely that the uncertainty that has hindered major new international investment in markets such as high-end residential and commercial offices over the last two years will continue.

**DISCLAIMER 1:** The Office for National Statistics (ONS) made major revisions to the construction output data in October 2015. The result of this was to add an extra £150-200 million per month from March 2015 into the infrastructure sector. As a result, there is now a structural break in the ONS infrastructure sector and sub-sector output data and 2015 ONS infrastructure data cannot be compared with data from previous years.

**DISCLAIMER 2:** The ONS determines sub-sector output by utilising the new orders data and an average length of time between orders and output. However, this means that major one-off projects may be assigned to output by the ONS earlier than it actually occurs. An illustration of this is in the water and sewerage sub-sector. General activity in the sector occurs under frameworks and often takes relatively little time to feed through from new orders to output as a part of general works under five-year plan. However, the ONS has assigned work on the £4.2 billion Thames Tideway Tunnel shortly after the new orders in 2016. As a consequence, the CPA is forecasting actual activity growth in the infrastructure sector and sub-sectors rather than forecasting distortions in the ONS data.

**DISCLAIMER 3:** The ONS has substantially revised upward all historic data going back to 2016 Q2. Construction output between January and July 2017 was initially 1.3% higher than a year earlier. However, the ONS has revised this up to 5.1% higher than a year earlier with the significant step up in construction output at the end of 2016 whilst simultaneously construction employment remained broadly flat.
UK economic growth is expected to be sustained this year by a return to real wage growth and positive impacts on consumer spending, assuming that unemployment remains at historic lows and inflation slows over the course of the year. The agreement of a transition period between the EU and UK that will last until 31 December 2020, effectively keeping conditions (for labour, trade, capital and services flows) the same as before, pushes back issues around Brexit uncertainty in the near-term. However, economic activity is still likely to be hindered by the lagged impacts of real wage falls in 2017 on consumer spending in the first half of this year and the falls in construction activity post-Carillion, particularly in light of the adverse impacts of unseasonal weather hindering retail sales and construction on three working days in February and March.

The ONS reported that GDP growth in 2017 Q4 was 0.4% and, in 2017 overall, was 1.8% higher than in 2016, only marginally lower than the 1.9% one year earlier. In 2018, GDP growth is expected to slow to only 1.3% and there remains a high degree of uncertainty regarding forecasts for the UK economy by the macroeconomic forecasters from the City and Non-city forecasters. The HM Treasury consensus of forecasters in March 2018 highlights that the most optimistic forecaster anticipates UK GDP growth of 2.6% in 2018 and the most pessimistic forecasts growth of only 0.6%. The average of the forecasters is for UK GDP growth of 1.5% in 2018. This is slightly higher than the CPA’s forecast as many other forecasters are expecting CPI inflation to slow to below 2.0% in the Autumn of this year whilst the CPA anticipates that inflation will dissipate more slowly due to rising global demand leading to sustained inflation in commodities and components.

Data covering the first quarter of 2018 have been mixed so far. Industrial production rose by 1.4% in the three months to January 2018 compared with a year ago, driven by a 2.6% rise in manufacturing, in turn driven by exports growth. Industrial production in Q1 would also have been boosted by the reopening of the Forties pipeline, which was closed for the majority of December and serves 40% of North Sea oil and gas. However, more recently, UK manufacturing has slowed. The

---

### Economic Indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
<td>1.9%</td>
<td>1.8%</td>
<td>1.3%</td>
<td>1.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Fixed Investment</strong></td>
<td>1.8%</td>
<td>4.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Household Consumption</strong></td>
<td>3.1%</td>
<td>1.7%</td>
<td>1.6%</td>
<td>1.8%</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Real Household Disposable Income</strong></td>
<td>0.0%</td>
<td>0.3%</td>
<td>1.0%</td>
<td>1.2%</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Government Consumption</strong></td>
<td>0.8%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>CPI Inflation</strong></td>
<td>0.7%</td>
<td>2.7%</td>
<td>2.5%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>RPI Inflation</strong></td>
<td>1.8%</td>
<td>3.6%</td>
<td>3.0%</td>
<td>2.7%</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Bank Base Rates - June</strong></td>
<td>0.50%</td>
<td>0.25%</td>
<td>0.50%</td>
<td>0.75%</td>
<td>1.00%</td>
</tr>
<tr>
<td><strong>Bank Base Rates - December</strong></td>
<td>0.25%</td>
<td>0.50%</td>
<td>0.75%</td>
<td>1.00%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

Source: ONS, Construction Products Association
Markit/CIPS PMI for manufacturing was 55.0 in February, down from 55.3 in January and marking the weakest expansion in the manufacturing sector since June 2017. It reported that manufacturing production increased at its slowest pace in 11 months, reflecting weak growth in the consumer, intermediate and investment goods sectors amid supply-chain delays. The Markit/CIPS PMI for manufacturing was 55.1 in March in spite of the adverse weather, indicating steady growth in 2018 Q1.

Services activity was strong early in the year. In the three months to January 2018, services output rose by 0.6% compared with the three months ending October 2017. This was the strongest growth since the three months ending December 2016. The Markit/CIPS PMI for services was 54.5 in February, up from 53.0 in January and above the no-change mark of 50, indicating that services activity expanded significantly. However, the PMI fell to 51.7 in March, highlighting the impact of the weather but the survey also noted economic uncertainty and subdued consumer spending.

Following the collapse of the UK’s second largest contractor, Carillion on 15 January, the ONS reported that construction output in January was 3.9% lower than one year earlier and, in addition, the Markit/CIPS PMI for construction was 51.4 in February, up from January’s four-month low of 50.2 and above the no-change mark of 50, indicating that construction activity expanded led by a strong upturn in commercial work. 60% of Carillion’s work was in infrastructure and Markit/CIPS reported that civil engineering was the worst performing construction sector in February. However, the surveying was conducted before the adverse weather; at the end of the month and so March’s UK construction PMI includes the impacts of the poor weather in February and March. Markit/CIPS UK construction activity in March fell to 47.0 in March, the first fall in six months. Construction activity in civil engineering endured the sharpest falls due to the combined effect of the impacts of Carillion’s liquidation and poor weather. Commercial activity also fell in March due to the poor weather and a continued fall in demand for new office space in London from the financial sector. House building activity rose marginally in March in spite of the weather; reflecting sustained demand from Help to Buy and also that house building mainly gets going from Spring and so is less impacted by external effects in late February/early March than other sectors.
In November, the Bank of England raised interest rates from 0.25% to 0.5% and macroeconomic forecasters are currently split on whether the Bank will raise interest rates once or twice in 2018. The likelihood is that rate rises will depend on economic data as the year progresses. The majority of forecasters anticipate a Central Bank rate rise in May but, given an expected poor first quarter of the year, it is more likely that the Bank will wait to see the underlying trend in data after Q1. We expect the Bank to raise interest rates in the second half of 2018 and then wait until 2019 for further rate rises. CPI slowed from 3.0% in January to 2.7% in February. Although an early Easter may lead to an upward blip in CPI inflation in March 2018, it is likely to slow over the course of this year. Oxford Economics forecasts that CPI will be below the Bank of England’s 2.0% target by Autumn 2018 as the effects of previous depreciations in Sterling on import costs feed out of the annual inflation figures. Overall for 2018, it forecasts that CPI inflation will average 2.3% whilst the March Office for Budget Responsibility forecast expects CPI inflation to average 2.4% in 2018. The CPA forecast for CPI inflation remains at 2.5% over this year as a whole.

The depreciations in Sterling since the EU Referendum, combined with rising global trade, have boosted the fortunes of exporters, particularly manufacturers. However, international supply chains and increased demand for components and have also meant increases in imports. ONS revisions to historic UK trade data mean that net trade (exports – imports) is now estimated to have only boosted GDP growth by just 0.3% in 2017. As the depreciations in Sterling feed out of the inflation figures this year, net exports are expected to provide even less of an impact on GDP growth.

Business investment continued to grow in spite of post-referendum uncertainty. In 2017 Q4, it was estimated to have increased by 0.3% to £46.2 billion from £46.1 billion in 2017 Q3 and it was estimated to have increased by 2.6% from £45.0 billion in 2016 Q4. For the whole of 2017, business investment grew by 2.4% and the last negative quarter-on-quarter value was in 2016 Q4. However, although business investment has continued to rise, this growth has consistently been subdued for over two years and its 2017 Q4 level was only 1.1% higher than the level seen in 2015 Q2.

In terms of numbers of people in employment and the unemployment rate, the labour market appears to have remained buoyant coming into the new
year. Data from the ONS highlight that between August to October 2017 and November 2017 to January 2018, the number of people in work and the number of unemployed people both increased, but the number of people aged from 16 to 64 not working and not seeking or not available to work decreased. There were 32.25 million people in work, 168,000 more than for August to October 2017 and 402,000 more than for a year earlier. The employment rate (the proportion of people aged from 16 to 64 who were in work) was 75.3%, higher than for a year earlier (74.6%) and the joint highest since comparable records began in 1971. There were 1.45 million unemployed people (people not in work but seeking and available to work), 24,000 more than for August to October 2017 but 127,000 fewer than for a year earlier. The unemployment rate was 4.3%, down from 4.7% for a year earlier and the joint lowest since 1975.

**Downside Risks:**
- Economic activity fails to recover significantly in Q2 after weather affected Q1
- Unemployment rises due to subdued economic activity
- Real wage falls continue into 2018
- Interest rate rises impact on consumer confidence

If UK economic activity continues to be subdued in Q2 and real wages continue to fall early in 2018, this will impact upon consumer and business confidence. This may lead to falls in consumer spending and business investment and, in turn, would slow economic activity leading to a rise in unemployment. The Bank of England’s interest rate rise may exacerbate the slowdown. Any further falls in Sterling would be likely to impact upon import prices, and therefore UK inflation at a time when wage growth is likely to be constrained by the rise in unemployment.

**Upside Risks:**
- UK economic activity rises significantly after poor Q1
- Unemployment continues to be subdued
- Real wages rise significantly during 2018

If UK economic activity grows at rates of 0.5% per quarter or above after 2018 Q1, the unemployment rate would be anticipated to fall even further. UK economic growth would be expected to ensure nominal wage pressure and real wage growth. In addition, growth in the wider UK economy and real wage growth would be expected to lead to rises in consumer spending.

---

**Interest Rates and Inflation**

![Graph showing interest rates and inflation]

Source: Bank of England, ONS
Private sector house building is closely linked to the performance of the housing market, driven by mortgage lending, property transactions and house prices. Bank of England data show that the number of mortgage approvals declined 1.6% in 2017. Approvals volumes weakened in the second half of the year; averaging 65,000 per month and falling 5.6% in Q4. The Bank of England expects mortgage lending to remain around 65,000 approvals per month during 2018 and lending volumes remained

Private Housing

Private housing output reached a record high of £32.2 billion in 2017 and the continuation of the government’s Help to Buy equity loan through to March 2021 is expected to maintain demand for new build housing.

Private Housing Starts and Completions Great Britain

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual</td>
<td>147,004</td>
<td>157,294</td>
<td>160,440</td>
<td>163,649</td>
<td>165,286</td>
</tr>
<tr>
<td>%</td>
<td>4.8%</td>
<td>7.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Completions</td>
<td>133,214</td>
<td>149,200</td>
<td>153,676</td>
<td>155,212</td>
<td>156,765</td>
</tr>
<tr>
<td>%</td>
<td>2.9%</td>
<td>12.0%</td>
<td>3.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Output (£m)</td>
<td>29,717</td>
<td>32,182</td>
<td>33,791</td>
<td>34,467</td>
<td>34,812</td>
</tr>
<tr>
<td>%</td>
<td>13.1%</td>
<td>8.3%</td>
<td>5.0%</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>RM&amp;I Output (£m)</td>
<td>19,908</td>
<td>21,883</td>
<td>21,883</td>
<td>22,321</td>
<td>22,767</td>
</tr>
<tr>
<td>%</td>
<td>7.2%</td>
<td>9.9%</td>
<td>0.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Source: MHCLG, ONS, Construction Products Association
at this level in January and February, on average. UK Finance also forecasts that lending volumes will remain unchanged in 2018 due to a decline in buy-to-let lending related to changes in stamp duty and tax relief for residential landlords. UK property transactions decreased in 2017, falling 0.6%, and were 1.1% lower in January-February 2018 than in the corresponding period of the previous year. Annual property transactions have held at around 1.2 million per year since 2014.

Despite weaker volumes of mortgage lending and house purchases, particularly from the buy-to-let segment of the market, a reported reduction in the supply of existing properties for sale is likely to have contributed to a continued increase in UK house prices and whilst this inflation continues, there would be expected to be an associated increase in house building. According to the ONS/Land Registry, UK house prices rose 4.7% in 2017, led by the East of England (6.8%), the East Midlands (6.2%), the West Midlands (5.7%) and the South West (5.6%). Regional house price dynamics will also need to be monitored in 2018. An increase in the supply of higher-end residential units in inner London led to house price falls in each month between August and December 2017. This weakness appears to have spread to outer London boroughs, where house prices have fallen since October. Questions also remain over the sustainability of high volumes of house building and strong house price growth in prime central areas of Birmingham, Manchester and Salford. Reflecting general macroeconomic uncertainty, forecasts for house price inflation in the HM Treasury’s comparison of independent economic forecasts in March averaged 2.0%, with a range between 0.0% and +3.8% for the year to 2018 Q4.

The Help to Buy equity loan, which was introduced in April 2013, has been a significant government policy for supporting new build housing activity. Between its introduction in April 2013 and September 2017, the equity loan was used on 144,826 transactions in England, and whilst this accounts for only 3.1% of property transactions over the period, it represents 30.0% of new build completions. Furthermore, in the most recent four-quarter period, this proportion rose to 35.3%. For three of the top ten volume house builders, equity loan purchases are reported to be used in over half of their sales. The counterpart schemes in Scotland and Wales have accounted for a similar proportion of transactions and building activity. Given that property transactions volumes have remained relatively unchanged during its period of operation, the equity loan may be skewing demand towards new build. In England, between 2014 and 2017, new build completions as a proportion of property transactions rose from...
8.8% to 13.0%. In England and Wales, the equity loan scheme will be in operation until March 2021, whilst in Scotland, the maximum eligible purchase value under the scheme has been tapered. This was reduced from £230,000 to £200,000 in April 2017 and in April 2018, the scheme was extended by two years beyond its original end date to March 2021. Despite the strong uptake in equity loans nationwide, it is difficult to ascertain the substitution impact of how many of these purchases would still have occurred had the policy not been in place. Nevertheless, with the post-2021 period now entering house builders’ strategic plans, the industry is pressing for an extension to the scheme beyond this date, albeit with the possibility of narrower eligibility criteria for buyers.

The downside risk to near-term demand stems from the deterioration in real wages and incomes. Inflation outpaced increases in wages and salaries throughout 2017, and real household disposable income has remained largely unchanged since 2016, therefore reducing households’ willingness to make large purchases. The Bank of England raised interest rates by 0.25 percentage points at its November 2017 meeting. With the bank rate now at 0.5%, it remains at a historically low level and by itself is unlikely to have a material impact on demand. However, combined with lower real incomes, hawkish statements from policymakers may set expectations for higher future interest rates and worsened mortgage repayment affordability. The CPA expects interest rates to rise to 0.75% in the second half of 2018 (see Economy).

Since the Housing White Paper was published in February 2017, the government has announced funding and measures that aim to increase housing supply, including the £5 billion Housing Infrastructure Fund, a Land Assembly Fund, remediation for small sites and the Home Building Fund for SMEs. The Housing Infrastructure Fund is formed of two parts: the marginal viability fund and the forward fund. The former is capped at £10.0 million per bid, and aims to top up funding for projects facing an unforeseen shortfall in finance for site infrastructure. £866 million was allocated to 133 of these projects in February. The latter is for larger, strategic infrastructure projects, with up to £250 million in early finance available for each bid, with an aim of de-risking projects to attract other investment. The allocations are scheduled for Autumn, but the funding profile...
and implementation period for these measures will not peak until 2019/20 and beyond, however. These policies, along with long-running reform to the National Planning Policy Framework (NPPF), the Mayor of London’s draft housing strategy and long-term devolved regional housing deals have, therefore, not been factored into the forecast. The permanent stamp duty holiday for first-time buyers announced in Autumn Budget 2017 is expected to result in a minor easing of affordability, mainly in London and the South East where the full £5,000 saving can be achieved, but as highlighted in the Office for Budget Responsibility’s assessment, any gains are likely to be capitalised into house prices and, therefore, it is unlikely to provide a significant increase in purchases that would not otherwise have occurred. According to Nationwide, the house price to earnings ratio for first-time buyers in London was 9.8 in 2018 Q1 and 5.2 on a national level.

The government is keen to develop the Build to Rent sector, which covers new build developments for private rent that aim to generate a long-term return on investment. According to the British Property Federation, there are 58,542 units of this tenure with planning permission, concentrated mainly in London, Manchester and Birmingham. This has potential to provide some uplift to house building activity, but it is difficult to apportion activity between the private contractors and the housing associations active in this sector of the housing market.

In England, statistics from the Ministry of Housing, Communities and Local Government showed that on a seasonally adjusted basis, private housing starts in 2017 Q4 rose 7.8% from Q3 and were 1.9% higher year-on-year. For the whole year, starts increased 8.4%. In 2016/17, MHCLG reported a
total net supply of housing of 217,350. Change of use accounted for 37,190 additional units, or 17.1% of total supply. This has increased from 9.4% ten years earlier. As a consequence, private housing starts are forecast to increase 2.0% per year in 2018 and 2019. Private housing output growth is expected to increase 5.0% in 2018, reflecting work on conversions and changes of use that is not included in starts. Output growth of 2.0% is then forecast in 2019, followed by a 1.0% increase in 2020.

**Downside Risks:**

- Falls in real wages deter Help to Buy purchases
- Mortgage lending and property transactions fall in 2018
- London house price weakness extends to regions
- The Bank of England raises interest rates more than once during 2018

Real wages declined throughout 2017 and a large deterioration in consumer confidence would reduce appetite for borrowing and, notably, big-ticket purchases. Consumer confidence would be worsened further if the Bank of England continues to raise interest rates as implied in its recent rhetoric. Furthermore, in light of changes to stamp duty rates and tax relief changes, an extended decline in demand from buy-to-let investors may materialise. A fall in overall mortgage lending and property transactions beyond 2018 Q1 also raises the risk of a significant slowdown or fall in house price growth and a decrease in house building starts would then be expected to follow. Private housing starts may fall away relatively quickly in response to any deterioration in the general housing market but output and completions would be expected to hold up initially as house builders destock, but fall from late 2018.

**Upside Risks:**

- UK economic activity avoids marked slowdown
- Consumer confidence maintained in line with economic growth and a rise in real wages
- Mortgage lending and property transactions rise in 2018
- House price growth continues at current rates

If economic growth and demand for home ownership remain strong against a backdrop of uncertainty, and wage settlements outpace inflation, then mortgage lending, property transactions and house prices would be expected to pick up from Q2. This is especially the case given reported reductions in the supply of pre-owned properties on the market. There is also the potential for government policy measures on garden cities to provide an earlier-than-expected boost to house building in 2018 and 2019.

---

**Private Housing Output**

Source: ONS, Construction Products Association
The key factors that drive activity in the sector, particularly for improvements, are property transactions and consumer spending on big-ticket items. In addition, increases in housing wealth, pension wealth and household savings enable activity in the sector as they are used as sources of finance for rm&i activity.

Property transactions are a key determinant of activity in the sector because improvements to an existing property, as opposed to new build, tend to be made with a typical lag of 6-9 months after purchase. Property transactions have remained around 1.2 million per year since 2014, but were distorted in the first half of 2016 by the introduction of a 3.0% stamp duty surcharge for the purchase of additional properties. This led to property transactions rising 19.3% in quarterly terms and 32.6% in annual terms in 2016 Q1 as purchases were brought forward to avoid the higher transaction cost. This spike in purchase activity is likely to have driven the pickup in rm&i output growth in the second half of 2016. UK Finance forecasts that property transactions will remain around 1.2 million per year in 2018 and 2019, limiting this as a driver of rm&i growth.

In addition, with new build accounting for an increasing proportion of transactions due to Help to Buy, the link between property transactions and rm&i is likely to weaken further. The Royal Institution of Chartered Surveyors (RICS) has been reporting a shortage of existing properties for sale, and one sector of the rm&i market cited as providing impetus to growth is non-movers opting to extend or improve properties instead of moving, either due to not gaining enough equity to move up the housing ladder or, more significantly, retired, outright homeowners who have benefited from long-term rises in housing wealth and pensions freedom and do not wish to downsize.

In terms of other funding streams for rm&i work, the household savings ratio has steadily declined from 10.7 in 2010 and 2011 to 4.9 in 2017, which was the lowest on record. Along with reduced savings and net housing equity repayment, the fall in real wages during 2018 is likely to have a large impact on consumer confidence, especially for purchases of big-ticket items. The Bank of England raised interest rates by 0.25 percentage points in November 2017. The impact of a single interest rate rise is expected to be limited, but the Bank has indicated a further tightening in monetary policy is likely over the next couple of years, which may have a further negative impact on consumer confidence.

In terms of energy-efficient retrofitting work, an 18-month transition towards a four-year ECO: Help to Heat programme began in April 2017. The programme is valued at around £640 million per year and focuses on fuel poverty. This is lower than the £870 million spent under ECO previously and shifts focus from energy efficiency. Given its smaller scope, activity under the ECO: Help to Heat scheme is likely to be lower than its predecessor, in particular during the transition period. In the first ten months of the programme, the number of measures installed has averaged 15,009 per month, compared to a monthly average of 41,375 measures over the previous four-year ECO programme.

Private Housing RM&I

The prospects for private housing rm&i activity in the near-term depend on consumer confidence and, importantly, how wage settlements affect households’ willingness to make large, discretionary purchases.

The prospects for private housing rm&i activity in the near-term depend on consumer confidence and, importantly, how wage settlements affect households’ willingness to make large, discretionary purchases.
From April 2018, the Minimum Energy Efficiency Standards Regulations will require a minimum EPC rating of E to apply to new tenancies for properties rented out in the private sector and will apply to all tenancies from April 2020. According to the English Housing Survey, 320,000 private rental properties have an EPC rating of F or G, representing 6.6% of the housing stock of that tenure. This suggests a stream of potential work in the sector, but questions remain over how effectively the regulations can be monitored and enforced by local authorities.

Output from the sector grew strongly in 2016 and 2017 and momentum is expected to weaken in 2018, reflecting the lagged effect of falls in real wages hindering big-ticket spending. On a three-month basis in January, output was 0.7% lower than a year earlier. Activity is forecast to remain flat in 2018. A 2.0% increase is then forecast each year in 2019 and 2020.

**Downside Risks:**

- Consumers retrench spending in response to higher interest rates
- Property transactions and house prices fall in 2018
- The full implementation of ECO: Help to Heat is delayed as has happened with previous supplier obligations

A sharp deterioration in consumer confidence due to constrained growth in real incomes or a rise in economic uncertainty could result in households taking a precautionary savings stance and cutting non-essential spending. This may also be the case if the Bank of England raises interest rates by more than the 0.25 percentage point increase the CPA forecasts in the second half of 2018. Whilst this is unlikely to affect basic repairs and maintenance, it could have a large impact on refurbishment work, especially in the near-term. In terms of energy-efficient retrofit work, the ECO focus on fuel poverty and any potential delay in the rollout of the full ECO: Help to Heat scheme in 2018/19 could lead to a further drop off in energy-efficient retrofit activity.

**Upside Risks:**

- Above-inflation wage increases
- Property transactions increase in 2018
- House price inflation continues at current rates

Rising inflation during 2017 may result in higher wage settlements in 2018 and, combined with the possibility of a rise in property transactions in 2018, and national house price growth remaining around 5.0%, the prospects for rm&i would remain positive. Whilst UK economic growth is still expected to be below the long-term trend in 2018, rm&i activity could accelerate as rises in transactions and incomes drive an increase in property refurbishment and improvements spending.

---

From April 2018, the Minimum Energy Efficiency Standards Regulations will require a minimum EPC rating of E to apply to new tenancies for properties rented out in the private sector and will apply to all tenancies from April 2020. According to the English Housing Survey, 320,000 private rental properties have an EPC rating of F or G, representing 6.6% of the housing stock of that tenure. This suggests a stream of potential work in the sector, but questions remain over how effectively the regulations can be monitored and enforced by local authorities.

Output from the sector grew strongly in 2016 and 2017 and momentum is expected to weaken in 2018, reflecting the lagged effect of falls in real wages hindering big-ticket spending. On a three-month basis in January, output was 0.7% lower than a year earlier. Activity is forecast to remain flat in 2018. A 2.0% increase is then forecast each year in 2019 and 2020.

**Downside Risks:**

- Consumers retrench spending in response to higher interest rates
- Property transactions and house prices fall in 2018
- The full implementation of ECO: Help to Heat is delayed as has happened with previous supplier obligations

A sharp deterioration in consumer confidence due to constrained growth in real incomes or a rise in economic uncertainty could result in households taking a precautionary savings stance and cutting non-essential spending. This may also be the case if the Bank of England raises interest rates by more than the 0.25 percentage point increase the CPA forecasts in the second half of 2018. Whilst this is unlikely to affect basic repairs and maintenance, it could have a large impact on refurbishment work, especially in the near-term. In terms of energy-efficient retrofit work, the ECO focus on fuel poverty and any potential delay in the rollout of the full ECO: Help to Heat scheme in 2018/19 could lead to a further drop off in energy-efficient retrofit activity.

**Upside Risks:**

- Above-inflation wage increases
- Property transactions increase in 2018
- House price inflation continues at current rates

Rising inflation during 2017 may result in higher wage settlements in 2018 and, combined with the possibility of a rise in property transactions in 2018, and national house price growth remaining around 5.0%, the prospects for rm&i would remain positive. Whilst UK economic growth is still expected to be below the long-term trend in 2018, rm&i activity could accelerate as rises in transactions and incomes drive an increase in property refurbishment and improvements spending.
Public Housing

Public housing activity continues to be affected by changes to government funding programmes since 2015.

Public housing starts have declined each year since 2015, and are estimated to have fallen 3.0% in 2017. Despite this period of weakness in starts, in 2017 output rose 13.1% and completions are estimated to have increased 10.0%. This suggests that policy changes have led to the build out of previously-approved developments, rather than a rapid response to new funding programmes, reflecting the time taken to adjust business plans. Since 2015, policy has been amended to introduce an annual 1.0% social rent cut beginning in April 2016 (announced in 2015), a switch from the Affordable Homes Programme 2015-18 that prioritised homes for affordable rent to the Shared Ownership and Affordable Homes Programme 2016-21 (SOAHP), under which 88% of homes were to be for shared ownership tenures (announced in April 2016), followed by an allowance for greater flexibility to include affordable rent in July 2017. Homes England and Greater London Authority affordable housing completions data for 2016/17 shows that over three-quarters of completed units in that period were for affordable rent, most likely funded under the original Affordable Homes Programme. Affordable housing starts data for the first half of 2017/18 showed the highest proportion of shared ownership starts on record (30.9%), signalling that activity is now beginning on the SOAHP. This would be expected to drive growth across starts, output and completions during 2018.
An initial £1.3 billion in SOAHP grants was allocated in January 2017, to 157 registered providers to build 39,403 units, plus an additional 7,131 units to be built under the programme without grant funding. A separate £2.7 billion of funding is also available for bids on an ongoing basis. At the Conservative Party Conference in October 2017, the government announced an additional £2.0 billion funding for social housing. Further detail has not been provided, but initial reports suggested that it will fund 25,000 affordable rent homes in the final years of the parliament in 2020/21 and 2021/22.

A change in focus to shared ownership links the public housing sector more closely to the general housing market. In addition, 6,467 starts by registered providers in the first half of 2017/18 were for open market sale. This represented 47.7% of total starts in the period, the highest proportion on record. However, Homes England’s survey of providers for 2017 Q4 showed that the stock of unsold shared ownership units has risen in every quarter since 2016 Q3. In Q4, there was also a 13.0% increase in the number of units that remained unsold for more than six months.

For local authorities, the Housing White Paper published in February 2017 confirmed the government’s view that councils’ roles in house building will be to assign land and monitor delivery against local plans. The Local Government Association also warned that local authority building capacity is constrained by Right to Buy. Approximately two-thirds of receipts from Right to Buy sales are returned to the Treasury, leaving little to fund replacement building after the cost of sales and servicing of debt are also subtracted. The proposed extension of Right to Buy to housing association tenants appears to have been given a low priority by government, but a regional pilot is due to begin in the West Midlands, on an unannounced date in 2018.

In London, Autumn Statement 2016 also announced £3.15 billion for 90,000 affordable housing starts in London by 2021, which implies 22,500 per year. However, affordable starts in London totalled 8,935 in 2016/17, similar to the five-year annual average of 8,983 starts. For the first 11 months of 2017/18, affordable starts were 6,725. £1.7 billion of the funding pot was

![Public Housing Output](chart.png)

Source: ONS, Construction Products Association
## Public Housing Starts and Completions Great Britain

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32,343</td>
<td>31,373</td>
<td>32,000</td>
<td>32,000</td>
<td>32,000</td>
</tr>
<tr>
<td></td>
<td>-1.5%</td>
<td>-3.0%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Completions</strong></td>
<td>31,205</td>
<td>34,326</td>
<td>34,669</td>
<td>35,015</td>
<td>35,015</td>
</tr>
<tr>
<td></td>
<td>-15.7%</td>
<td>10.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Output (£m)</strong></td>
<td>4,861</td>
<td>5,498</td>
<td>5,663</td>
<td>5,833</td>
<td>5,833</td>
</tr>
<tr>
<td></td>
<td>-3.7%</td>
<td>13.1%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>RM&amp;I Output (£m)</strong></td>
<td>7,708</td>
<td>7,389</td>
<td>7,020</td>
<td>7,020</td>
<td>7,020</td>
</tr>
<tr>
<td></td>
<td>-5.3%</td>
<td>-4.1%</td>
<td>-5.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: MHCLG, ONS, Construction Products Association

Allocated in July 2017, for 49,398 homes for social rent, London living rent and shared ownership. A further £1.67 billion funding was announced in the Spring Statement, which aims for an additional 27,000 starts by the end of parliament in 2021/22. The Mayor of London published a draft housing strategy (also included in the London Plan) for the capital in September, which, in contrast to the Housing White Paper, encourages house building by local authorities, through lobbying central government for fewer restrictions on council borrowing, as well as joint ventures and partnerships.

Flexibility to adjust tenures in accordance with prevailing housing market conditions and an increase in starts under the SOAHP, combined with a potentially large funding impetus for public house building in London, underpin the forecast for starts to increase 2.0% in 2018 but remain flat in 2019 and 2020 as build out occurs.

### Downside Risks:

- Difficulties in raising finance for housing associations
- A weakening in the housing market undermines focus on market-linked products

Housing associations’ borrowing capacity has been reduced by the annual 1.0% cut to social rents implemented from April 2016. Ratings agencies have warned that this, alongside lower levels of grant funding and a greater reliance on market-linked housing will worsen housing association creditworthiness. There is also still uncertainty over ability to access finance from the European Investment Bank once the UK leaves the EU. In response to any marked slowdown in the general housing market that may materialise, any changes to the planned tenure mix of development away from market-linked products is likely to delay start dates as housing association business plans are changed.

### Upside Risks:

- Flexibility to increase housing built for affordable rent
- Open market demand for housing remains buoyant

In the first half of 2017/18, almost half of housing association starts were for the open market and if underlying demand remains buoyant for market sales, market rentals and shared ownership products, this could cushion the fall in social housing construction activity by housing associations. If, in contrast, market conditions deteriorate and housing associations can quickly adjust business plans to accommodate a larger proportion of affordable rental tenures instead of sales, this will help avoid a hiatus in activity.
This type of work cannot be delayed for a significant period of time. Sector output has fallen 18.3% since 2010 Q2, due to central government reducing funding to the Ministry of Housing, Communities and Local Government (MHCLG) under its programme of fiscal austerity and, more recently, housing associations increasingly carrying out r&m in-house. This means that some work may not be captured in the ONS output data, which is based on a survey of contractors.

A weak outlook for the sector in 2018 is based on financial constraints on local authorities continuing and the 1.0% annual cut in social rents until 2019/20 leading to reduced discretionary spending on maintenance and improvements by housing associations. However, following the Grenfell Tower disaster in June 2017, the typical drivers of r&m work in the sector will be replaced by a shift in focus towards fire safety, structural investigations and a review of the housing stock. The response of local authorities to the disaster suggests that public sector r&m resources will be redirected to prioritise fire safety measures for high-rise social housing towers, yet with the results of fire investigations and a public inquiry pending, the full scale of the issue and, therefore, future works required is unknown and extends beyond the scope of the forecasts. The forecasts do take into account that emergency measures will need to be carried out as a priority on the public housing stock but are assumed to displace other planned repairs and maintenance activity given financial constraints. MHCLG’s Building Safety Programme indicated in March that there are 158 social housing buildings taller than 18 metres that require cladding work. Remediation work has completed on seven of these and has begun on a further 103 towers. Questions remain over funding for work, however; with local authorities asked to approach central government if financial constraints limit their ability to spend on fire safety work. The extent of future government funding for these works and wider fire safety measures is unknown at this point.

According to Homes England, housing association spending on major repairs decreased by 14.0% in 2016/17 and it forecasts a continued fall throughout the duration of the social rent cut to 2019/20. Rm&i on social housing has also been affected by a reduction in the number of measures installed under the Energy Companies Obligation (ECO) and the cancellation of the Green Deal in July 2015. The original ECO programme ended in March 2017 and its successor, ECO: Help to Heat, began in April 2017, originally as a one-year transition programme. However, this was extended to 18 months, before it begins fully in September. Under the Help to Heat programme, running until 2021/22, the focus will shift from improving energy efficiency to reducing fuel poverty and the annual funding for the scheme will be cut from £870 million to £640 million. In the first eight months of the transition between ECO and ECO: Help to Heat, an average of 15,009 measures were installed per month. This compares to an average of 41,375 per month throughout the four years of ECO. Furthermore, the public housing stock is likely to be diminished through the increased uptake of Right to Buy. The policy is expected to be extended to housing association tenants, with a pilot set to begin in the Midlands this year. The government’s proposals for local authorities to sell off their high-value housing assets as a means of funding...
the policy will not be introduced until at least April 2019, however. The government has pledged a 1:1 replacement of homes sold through the Right to Buy, but between the second quarter of 2012 and the fourth quarter of 2017, there were 63,517 Right to Buy sales in England, but only 14,275 direct replacements started over the same period, a ratio of one replacement for every four sold.

Any uptick in urgent repair work in the first half of 2018 is unlikely to offset the decline in output that has occurred in consecutive quarters since 2015 Q4. Output is forecast to decline 5.0% in 2018, and given limited financial capacity and diversion of funds from previously planned rm&i work to fund remediation work, output is expected to remain flat during 2019 and 2020.

**Downside Risks:**

- Full implementation of ECO: Help to Heat programme delayed
- Housing association revenues reduced by a weaker than expected housing market

The transition period for ECO: Help to Heat has already been extended from 12 to 18 months, ending in September 2018. Further delays to the launch of the full programme, therefore, cannot be ruled out, as has happened with previous programmes. The risk of further reductions in funding, through local authorities adjusting local

**Upside Risks:**

- Housing associations focus on maintenance
- Housing market performs stronger than expected

If building homes for market sale or shared ownership becomes less financially viable due to a weaker housing market throughout 2018, housing associations may instead focus on maintaining their existing, revenue-earning housing stock. Conversely, if the housing market remains more buoyant than expected, this would raise the revenues housing associations receive from sales of shared ownership and units sold on the open market, offering additional funding for rm&i work. This would help to offset constrained local authority rm&i spending.
New orders in the sector decreased 14.2% in 2017, with particular weakness in the health and other (mainly defence and prisons) sub-sectors. Overall, public non-housing construction is expected to decrease 4.8% in 2018, before rising 0.9% in 2019 and 1.5% in 2020 due to work on the second phase of the Priority School Building Programme and the Ministry of Defence’s Army Rebasing Programme.

The underlying driver of output in the publicly-funded education sub-sector continues to be the Priority School Building Programme (PSBP). In the first phase of the programme 260 schools will have been rebuilt, 214 of which are publicly funded. The Department for Education estimates that work on 23 will run over into 2018, however, due to site difficulties or planning issues. The National Audit Office assessed that the PSBP was £286 million over budget, although the average cost per square metre of the completed schools was one-third lower than the previous Building Schools for the Future programme. The £2.0 billion second phase (PSBP2) focuses on rebuilding individual blocks at 277 schools by 2021. Like the first phase, rising cost pressures for contractors were highlighted by the National Audit Office as a threat to achieving time and budget targets for the PSBP2. An additional £100 million of government funding, generated by the soft drinks industry levy, will be provided for the Healthy Pupils Capital Fund in 2018/19, to be spent on improving outdoor, kitchen and medical facilities in schools. In addition, a programme of new free schools, which are publicly-funded but operate outside of local authority control, has been favoured by government since 2010. The Free Schools Programme has a budget of £1.4 billion.
per year between 2016/17 and 2020/21 to open 500 new schools by the end of the period and the government allocated £320 million in additional funding for 140 new free schools in the March 2017 Budget, although the majority is not expected to be used until 2020. Whilst some of the premises for free schools are conversions or refurbishments of existing buildings, in February 2017, the National Audit Office highlighted that the low availability of sites is a key constraint on the new build element. The Department for Education will need to spend £2.5 billion to purchase land for the free schools in the current pipeline to 2022, but the Public Accounts Committee found that on average, land purchases to date have cost 19.0% above official valuations. Contractors have been selected for both the PSBP2 and the Free Schools Programme, through the government’s £8.0 billion schools construction framework, which runs until 2021 and would be expected to provide output growth in 2019 and 2020.

The Autumn Budget in November 2017 reduced the Department for Education’s capital investment funding by a cumulative £1.0 billion between 2017/18 and 2020/21 compared to the March Budget. The Welsh Government’s £1.4 billion 21st Century Schools programme ends in March 2019 but a second phase backed by £2.3 billion funding is scheduled to follow immediately in 2019/20. The funding will be split between capital allocations and the mutual investment model, a new form of public-private partnership. New orders in the sub-sector decreased in every quarter (in annual terms) between 2014 Q4 and 2017 Q2. New orders increased in 2017 Q3 and Q4, however, reflecting the award of contracts on regional batches of the schools construction framework. Output is forecast to fall 7.0% in 2018 but increase 3.0% per year in 2019 and 2020 as new programmes begin.

**Downside Risks:**

- Cost increases and a lack of contractor interest delay start dates on the PSBP2

If contractors are reluctant to sign contracts for work due to cost inflation, the start and end dates for PSBP2 work could be pushed further beyond the forecast horizon, whilst start dates for future schools construction programmes in England and Wales may also be delayed. In addition, high bids for land may also push up costs for the Free Schools Programme. It is unlikely that the government will increase funding as a result, leading to a delay in the start of construction.

**Upside Risks:**

- Capital funding is brought forward

Additional financial support for school building is only likely to arise if government brings forward funding from later years of the departmental budget to 2018/19, as a means of covering higher cost pressures in the near-term and providing confidence over start dates for new building programmes.
Output in the health sub-sector has experienced sharp falls in output and new orders in recent quarters. Work in this sub-sector includes publicly-funded work on hospitals, health centres and clinics. Among projects currently underway are two £136 million proton beam treatment centres in London and Manchester (completion in 2018) and the £480 million Royal Sussex County Hospital, where work is expected to continue to 2020. The £90 million redevelopment of the Royal National Orthopaedic Hospital in London started in early 2017 after the originally privately-funded project was assigned capital funding from the Department of Health in August 2016. In addition, the £160 million redevelopment of Springfield Hospital, on two sites in south London, saw contracts awarded at the end of 2017. Work is expected to last until 2019. The largest new project entering the pipeline is a £466 million general hospital approved in Jersey in 2017. However, as Jersey is not in Great Britain, this will not be included in the ONS construction output data and it is also excluded from the forecast. In Autumn Budget 2017, the Department of Health was allocated £6.4 billion for capital spending in 2018/19, £6.7 billion in 2019/20 and £6.8 billion in 2020/21. This is an increase from £6.1 billion in 2017/18, although it is unclear how much of the capital budget will be assigned to new building work, rather than IT upgrades and equipment.

The latest NHS smaller works framework, the £4.0 billion ProCure22, started in October 2016 and will provide a stream of work over the next few years. Between its start date and March 2018, 44 major works schemes and 19 small works packages have started under ProCure22, at a value of £1.8 billion. The outlook for the forecast horizon is weak as work on large hospitals projects peaks or completes and the pipeline is not replenished at the same rate. However, a £400 million science campus and a new headquarters for Public Health England in Harlow received planning approval in December 2017 and main work is set to commence in 2019. Sub-sector output has been on a downtrend and fell 28.0% in 2017, whilst new orders were 55.6% lower and have declined for six consecutive quarters. Output is forecast to decline 20.0% in 2018 and 10.0% in 2019, before remaining flat in 2020.

**Downside Risks:**

- Cost rises delay projects

Rising costs for raw materials and labour may lead to delays as projects are paused to allow for attempts at contract renegotiation. The cancellation of plans for a £336 million critical care hospital near Basingstoke in December 2017 also demonstrate a low appetite for high-value projects.

**Upside Risks:**

- Capital funding is brought forward

A sharp rise in costs that leads to contractors pausing activity could also prompt the government to change the existing capital funding profile. The increase in annual capital funding for the Department of Health already allocated in Autumn Budget 2017 suggests that the only option would be to bring forward spending from later years.
Public non-housing other covers construction work on publicly-funded facilities such as prisons and defence projects. Output growth has accelerated since 2016 Q3 as two large defence projects entered the pipeline: the £500 million, ten-year upgrade to the Faslane naval base in Scotland, which began in early 2017, and the £135 million works at RAF Marham in Norfolk, including a new aircraft hangar and runway and taxiway resurfacing works, with work required to be completed before new aircraft come into service in mid-2018. In addition, despite the compulsory liquidation of Carillion as one of the joint venture partners, the Ministry of Defence’s £1.1 billion new accommodation and facilities scheme for the Army Basing Programme on Salisbury Plain will continue to drive growth in 2018 and 2019, ahead of the project’s completion in mid-2020. The expansion of RAF Lossiemouth in Scotland is also in the early stages of procurement, with contract awards scheduled for 2019.

Autumn Budget 2017 confirmed the Ministry of Defence’s capital budget allocation at £8.7 billion in 2018/19 (£7.8 billion previously) and £9.0 billion in 2019/20 (£8.1 billion in the previous Budget). In terms of prisons projects, there is little in the near-term Ministry of Justice construction pipeline aside from the expansion of Rye Hill and Stocken prisons and enabling works for the latter began in January. In Scotland, a £66 million new prison in Inverness gained planning approval in October 2017 and is expected to start construction this year. Back in early 2017, the government announced four new prisons would be built in Yorkshire, Wigan, Rochester and Port Talbot as part of its £1.3 billion investment in the prison estate, but so far, only one (Full Sutton in Yorkshire) has received outline planning permission for a £100 million development. Furthermore, the temporary closures of the current prisons in Rochester and Wigan that would allow redevelopment of these sites, have been deferred beyond the current parliament. In terms of public office buildings, the first £500 million tranche of work under the £1.0 billion Government Hubs programme, which seeks to reorganise public sector offices into regional hubs, mainly through fit-out work, was awarded in June 2017 and is expected to provide some work this year. New orders in the sub-sector are volatile, rising 82.0% in 2016, followed by a 32.8% fall in 2017, but large contracts awarded in 2016 are forecast to drive growth of 5.0% in 2018 and 2.0% in 2019.

Downside Risks:

• Delays to projects

Questions over contractor appetite may arise if prolonged financial and economic uncertainty act as a drag on confidence and activity over the next 12 to 24 months. In addition, contractors may pause to renegotiate contracts to take account of rising costs, forming the main downside risks to sub-sector activity. Government and public opposition to the construction of the new prison facilities in Port Talbot and Yorkshire would delay the entire English prison redevelopment programme indefinitely.

Upside Risks:

• Further detail and contracts for new prisons

Full planning approval for the four new prisons announced in March 2017 would increase certainty for the sub-sector. However, construction activity would not be expected to begin until 2019 at the earliest, to allow for design and tendering.
Basic repairs and maintenance cannot be cancelled or postponed significantly, which has helped keep output less volatile than in public non-housing new build, in spite of cuts to departmental funding since 2010.

Against a backdrop of reduced grant funding from central government, and financially-constrained councils, output in the sector has decreased for three years and a further 2.0% contraction is forecast for 2018. The schools Property Data Survey and the Royal Institute of British Architects estimate a backlog of repairs to school buildings of between £6.7 billion and £8.5 billion. Matching the school condition funding assigned between 2015 and 2018, a £1.4 billion investment has been allocated for 2018/19 to help improve and maintain the condition of schools. However, the condition of the school estate is expected to deteriorate further despite planned investment

Public Non-housing R&M

Output in the public non-housing repair and maintenance (r&m) sector consists of basic repairs and maintenance carried out on schools, hospitals and other public buildings.
and the cost to return schools to satisfactory conditions is likely to double between 2015/16 and 2020/21, according to the Department for Education’s own estimates. The Accounts Commission in Scotland identified structural defects in 19 council buildings in Edinburgh following an assessment at the end of 2017, including schools, leisure centres and care homes. Remedial work has been undertaken on the majority of these buildings, but the Commission’s report recommended that checks and maintenance on publicly-owned buildings be carried out across councils in Scotland.

Prior to its liquidation, Carillion held facilities management contracts for 875 schools and was the largest provider of facilities management services to the NHS and the Ministry of Defence. The government has confirmed that the contracts on the public sector services side of Carillion’s business will continue and, therefore, the effects of the liquidation on public non-housing RMi are expected to be minimal. The methodology for school condition capital funding allocations for 2019/20 and beyond is being reviewed, but is not expected to deviate significantly from funding allocated in previous years. On this basis, output is forecast to remain flat in 2019 and 2020.

**Downside Risks:**

- Local authorities cut spending plans
- Direct funding from central government is cut to focus on new build

A further reduction in local authority spending power, due to budget tightening by councils or central government shifting funding profiles to focus on new build would reduce sector output in 2019 and 2020.

**Upside Risks:**

- Work on framework contracts limits falls in discretionary activity

Existing long-term contracts for maintenance on prisons and hospitals are less likely to be affected by economic uncertainty and will provide a steady stream of public non-housing RMi activity. Public sector organisations may also focus on maintaining existing buildings, rather than new build.
Commercial

Commercial output is forecast to fall by 7.8% in 2018 and 0.8% in 2019.

Commercial activity in many cities around the country remains at high levels, especially in Manchester and Birmingham. The key issue outside the capital regards the sustainability of the demand given the rapid expansion of commercial developments in recent years. However, the impact of weaker factors driving commercial projects in London on activity in the sector overall is inescapable given that it accounted for 31% of commercial construction in Great Britain during 2017. The CPA has highlighted in previous forecasts that in the key offices sub-sector, construction demand within London has historically been driven by demand from the financial and business services sector although demand for new offices space has fallen away sharply since the EU Referendum in response to the consequent rise in uncertainty. Within the retail sector, constrained consumer spending and the continued shift to online shopping has led to a significant slowdown in new investment. Furthermore, the woes for many retailers on the high street have been exacerbated by substantial business rates rises, which particularly impacts smaller retailers in London. The start of 2018 has seen a number of high profile retailers go into administration and at this point new investment may go towards utilising these existing units rather than major new investments. Output within the PFI health sub-sector is likely to be hindered by the hiatus on two of the four projects that led to the liquidation of Carillion. PFI education is unlikely to see growth as the next school building programme focuses purely on publicly-funded projects.

Overall, output in the commercial sector during the year 2016 was at its highest level since pre-crisis 2008 and output in 2017 was 4.9% higher, driven by projects signed 12-18 months previously. However, looking across both years, output rose throughout 2016 and peaked in 2017 Q1, falling in each quarter thereafter and output in 2017 Q4 was 7.2% lower than at the start of the year. This reflects the impacts of the new orders data once the lag between contracts awarded and activity on the ground is taken into account. Commercial new orders in 2016 were 3.6% higher than in 2015. However, new orders in the first half of the year, pre-referendum, were 19.6% higher than a year earlier whilst new orders during the second half of 2016, post-referendum, were 10.7% lower than a year earlier. Furthermore, commercial new orders during 2017 were 7.9% lower than during 2016 and this is expected to feed through during 2018 and 2019.

The impact of the liquidation of Carillion on the commercial sector is likely to be relatively small overall. Carillion conducted £350 million of commercial work annually in a sector valued at £29.6 billion in 2017. Key high-profile projects have appointed other contractors since Carillion’s demise, such as BAM taking over as the main contractor at Birmingham Paradise and its sub-contractors have returned to site. In March, Sunderland council announced it would be rebidding the Vaux Brewery development Phase I project, which Carillion had started on in December 2016, which means that work is unlikely to restart until towards the end of the year. The main impact is likely to be on the Health including...
PFI sub-sector with the two largest projects on site prior to Carillion’s demise PFI hospitals in which Carillion was the main contractor, in Liverpool and near Birmingham. Both will require new contractors and, as a consequence, the delays in the construction activity onsite anticipated in the previous CPA forecast are expected to continue.

Output in the offices construction sub-sector rose by 12.5% in 2016 as a result of projects on site that had been signed up to in the previous 12-18 months. In addition, offices output in 2017 Q1 was 2.2% higher than in 2016 Q4 and was 5.2% higher than one year earlier. However, 2017 Q2 started to see the beginning of falls in offices output that continued throughout the year. Output in the second quarter of 2017 was 2.8% lower than in the first quarter of the year but only 0.4% lower than a year earlier. Yet, by 2017 Q4, after three consecutive falls in activity, offices output was 17.3% lower than a year earlier and new orders data over the last two years suggest further falls in output during 2018 and 2019. In 2016, new orders rose by 0.6% yet this disguises the sharp change in the direction of new orders prior to the EU Referendum and following the EU Referendum in June 2016. Before the referendum, in 2016 Q1, offices new orders were 25.4% higher than a year earlier and, in 2016 Q2, offices new orders were 24.6% higher than in the previous year. However, following the referendum, in 2016 Q3, offices new orders were 5.9% lower than in the same period one year earlier and the deterioration in new orders only accelerated throughout the year: In 2016 Q4, offices new orders were 30.1% lower than a year ago. In 2017, overall, new orders for offices construction were 25.0% lower than in 2016 and once again, offices new orders fell throughout the year: Offices new orders were only £794 million in 2017 Q4, 34.6% lower than one year earlier and 54.3% lower than the £1.7 billion of offices new orders during the same period two years earlier.

London accounts for almost one-third of the entire UK offices market. The prospects for offices construction remain poor. IPF forecasts expect a 2.0% fall in offices values in London this year, a further 1.9% fall in 2019 and a 0.3% fall in 2020. Deloitte Real Estate reported in January 2018 that 45% of pre-completion space let in Central London was due to demand from the financial sector. Whilst most major banks and insurers have announced plans to move a number of staff from London to other cities in the EU such as Frankfurt and Paris, the number of jobs has been considerably lower than the 10,000 banking jobs that Reuters reported, initially following the EU Referendum, may be lost due to Brexit. The agreement of a 21-month implementation period following the UK leaving the EU on 29 March 2019.
means that the conditions will broadly remain the same until 31 December 2020. This means the urgency with which firms will have to deal with staff changes has been postponed and there is likely to be little change this year. Investment in existing towers with long-term tenants remains strong and the past year has seen record deals in London by foreign investors. For instance, in the past year, the Leadenhall Building, also known as the Cheesegrater, was purchased for £1.2 billion and 20 Fenchurch Street, more commonly known as the Walkie Talkie, was purchased for £1.3 billion.

Yet, the key direct impact of the referendum has been to increase uncertainty, primarily in areas that are dependent on new international investment in projects that are high investment up front for a long-term rate of return. This largely affects investment in new high-end residential and commercial offices towers in London.

The latest Deloitte Crane survey reported in Winter 2017 that only 12.6 million sq. ft. of office space is under construction in Central London, 9% lower than in its previous survey in Summer 2017 and that only 1.8 million sq. ft. of new space was started, which is the lowest volume of new space started since 2014 and 21.0% below the survey’s average. In addition, less than one-third of recent offices construction activity in Central London was new build with 70.0% the refurbishment of existing offices facilities. Deloitte also highlighted the recent decline in demand in Central London from the Technology, Media and Telecommunications (TMT) sector as a result of the completion of some major projects such as Bloomberg’s £300 million headquarters. In addition, Deloitte noted the rapid growth of flexible or co-working offices space. In the first three quarters of 2017, leasing activity by co-working operators was greater than in three of the previous four years. According to Cushman & Wakefield, the flexible offices space provider WeWork, has rented more space in Central London since 2012 than any other company and flexible work providers accounted for 20.0% of leases in London in 2017 compared with only 8.5% in 2016. Although WeWork is by far the largest flexible office providers, competitors, such as Blackstone-funded The Office Group, have taken up 853,000 sq. ft. of office space since 2012 and
landlords are also beginning to start their own co-working firms. British Land, the UK’s second largest listed property group recently set up Storey, which it expects to operate across its offices portfolio and the Crown Estate is also looking to start its own flexible offices division operating within its buildings. However, as stated in previous forecasts, this does raise questions about the sustainability of recent growth in flexible offices demand. It clearly benefits from changes in working practices and uncertainty in the general offices market. However, Savills have already stated that the City may be suffering from an oversupply of co-working offices space and there are still key questions regarding whether this has also become the case in other key areas of London.

In the past 12 months, whilst the London offices construction market has been falling away, albeit from a relative high point, activity in Manchester has been growing considerably. The Manchester offices construction market is only one-tenth the size of the London market but 72% of offices construction in Manchester in 2017 was focused on new build and only 28% of offices activity was refurbishment of existing facilities according to Deloitte in January 2018. 2017’s offices construction in Manchester represented its highest level since the financial crisis and was 564,000 sq. ft. over the 2002-2017 average. As a result, it has been a significant contributor to recent activity in the sub-sector and the largest offices project to start in Manchester in 2017 was the 526,000 sq. ft. Circle Square project. The offices sector saw significant growth in speculative office development with several major schemes breaking ground without pre-lets signed. Only 14,747 sq. ft. (3.9%) of new offices space under construction in Manchester in 2017 Q3 was pre-let. The total pipeline of schemes with planning permission was just under 3.5 million sq. ft. in January 2018. The majority of this activity is expected to occur in 2019 and is primarily based around major projects such as the St John development, continued construction in Manchester City Centre, NOMA and Salford Central. As a result, after the recent high levels of activity last year, offices construction in Manchester is expected to slow in 2018 before accelerating in 2019.

In Birmingham, public sector clients drove demand for offices space to record levels in 2017 according to Savills. Take-up of offices space in the city centre surpassed 1.0 million sq. ft., which is 51.0% above the ten-year average. Public services accounted for 27.0% of this take-up but there remains a shortage of grade-A office space in the city centre. Overseas investors accounted for 62.0% of the total offices investment in Birmingham during 2017. The largest project currently ongoing is phase I of what was Carillion’s Paradise building project in the centre of Birmingham, which is an office scheme for PwC, which topped out just before the liquidation of Carillion. The hiatus since 15 January only ended in March with BAM taking over the project and subcontractors returning to site. Consequently, this will directly impact on Q1 output. The £700 million, 1.8 million sq. ft. Paradise Birmingham project is expected to be completed in the first half of 2019. The West Midlands Combined Authority launched 20 potential development sites for private investors with a total value of £10 billion for projects that it hopes will start this year and sustain demand in the long-term, to 2025.

Overall, in the offices sub-sector, current declines in activity since 2017 Q1 are expected to continue throughout this year and into 2019 due to declines in new orders and uncertainty regarding new investment. Offices output is expected to fall by 20.0% in 2018 before a further fall of 10.0% in 2019.

**Downside Risks:**

- Prolonged Brexit negotiation uncertainty
- Business investment is constrained by subdued economic activity

Uncertainty throughout the Brexit negotiations this year would be expected to lead to falls in investment and take-up of new high-profile office space in London. Uncertainty regarding financial passporting and the UK’s participation in the Single Market post-2020 would particularly impact upon long-term demand in the financial sector and lead to further falls in new investment in London.

**Upside Risks:**

- Stronger economic growth despite rising inflation
- Clarity over post-Brexit and implementation period market environment raises business confidence
If the economy returns to robust growth after 2018 Q1 and real wages rise, then business confidence and investment would be anticipated to also rise. Additionally, confidence regarding a comprehensive deal between the UK and the EU after the UK leaves the EU and the implementation period, which enables business to continue across the UK and EU in a frictionless manner, would also be expected to boost business confidence and business investment. In turn, this could incentivise new long-term investment in commercial offices.

The start of 2018 has been a difficult one for retail with a number of different factors hitting the high street irrespective of the poor weather in February and March.

The ONS reported that retail sales in February 2018 were 1.5% higher than a year earlier but in the three months to February, retail sales were 0.4% lower than a year earlier. The British Retail Consortium reported that retail sales in February 2018 were 1.6% higher than a year earlier and that in the three months to February retail sales were 1.5% higher than a year ago. However, this was due to a 4.0% rise in food sales over the period whereas non-food sales fell by 0.5%. Consumer spending still appears to be hindered by the lagged impacts of last year’s rising inflation and real wage falls as general spending patterns take time to adjust. The key areas in which spending patterns can adjust more quickly is the shift towards online spending rather than spending on the high street and also spending on services such as restaurants and cafes/bars.

According to the ONS, internet sales saw an increase in its proportion of all retailing in February when compared with January, accounting for 17.2% of all retail sales, the highest proportion on record. This continues the general upward trend in the amount spent online as the proportion of online spending in recent years although notably it only accounted for 5.5% of food retailing.

The UK arm of Toys R Us and Maplin Electronics both entered administration during the first quarter of 2018 as outdated business models and the shift to online impacted upon both retailers. In addition, the restaurant chain Prezzo entered a Company Voluntary Arrangement (CVA) in March that will allow it to continue on the basis of closing almost one-third of its 300 outlets. Several other restaurant chains also announced plans to close outlets and renegotiated rents such as Jamie’s Italian, Strada and Byron Burger. In addition to constrained spending, over-ambitious expansion plans by mid-range restaurant chains and the consequent impact on competition, higher wage costs and rising business rates have had a severe impact on the restaurant part of the retail sub-sector.

According to the ONS, internet sales saw an increase in its proportion of all retailing in February when compared with January, accounting for 17.2% of all retail sales, the highest proportion on record. This continues the general upward trend in the amount spent online as the proportion of online spending in recent years although notably it only accounted for 5.5% of food retailing.

The UK arm of Toys R Us and Maplin Electronics both entered administration during the first quarter of 2018 as outdated business models and the shift to online impacted upon both retailers. In addition, the restaurant chain Prezzo entered a Company Voluntary Arrangement (CVA) in March that will allow it to continue on the basis of closing almost one-third of its 300 outlets. Several other restaurant chains also announced plans to close outlets and renegotiated rents such as Jamie’s Italian, Strada and Byron Burger. In addition to constrained spending, over-ambitious expansion plans by mid-range restaurant chains and the consequent impact on competition, higher wage costs and rising business rates have had a severe impact on the restaurant part of the retail sub-sector.

Low value supermarket chains have been increasingly gaining market share and continue with expansion plans, particularly Lidl and Aldi. Lidl, which has 670 stores, announced in January that it would build a 1.0 million sq. ft. regional distribution centre in Hertfordshire as it continues its £1.5 billion investment plan in the UK and, according to Barbour ABL, Lidl submitted 68 planning applications for new stores in 2017, which would be expected to be built out over the next 24 months. Aldi has 726 stores across the UK and plans to open a further 70 shops in 2018 as part of its target to have more than 1,000 shops by 2022. However, one knock-on effect of the difficulties experienced by existing retailers is that rather than new build on empty sites, the value retailers could look at taking advantage of empty existing properties at lower cost, particularly Toys R Us stores that are primarily in out-of-town developments.

The key drivers of activity in the retail sector in 2019 and 2020 are still expected to be the £1.4 billion Croydon Partnership project, which the
Mayor of London gave final approval in January 2018 and will see the current Whitgift and Centrale shopping centres replaced by a 1.5 million sq. ft. building that is expected to be completed in 2022. Initial works on the £1.4 billion Brent Cross extension started early in 2018 although main works on the 370 acre-site are expected in the second half of the year. It is expected to double the size of the shopping centre to 2.0 million sq. ft. of retail and leisure space with up to 150 new retail stores. The project is expected to be completed in 2022. However, in light of these projects and existing retail developments in London, it is difficult to see the viability of the 700,000 sq. ft. of retail space as part of the £9.0 billion Battersea Power Station project that the development company sees as becoming the “fourth retail pillar of London”, particularly as another key part of the project is building 4,239 high-end residential for international investors, which is increasingly looking unviable in the current market conditions.

New orders in the retail sector fell by 9.0% in 2017 and this is expected to feed through over the course of this year. Overall, a decline of 10.0% is expected in 2018 before output returns to growth with a rise of 5.0% in 2019 driven primarily by work from Lidl and on the two £1.4 billion London projects.

**Downside Risks:**
- Sustained inflation and real wage falls
- Rising unemployment

If inflation dissipates slower than anticipated and real wages continue to fall in 2018 then this would be expected to impact on consumer confidence and spending. Any significant rise in unemployment, albeit from historic lows, would also be expected to adversely affect consumer confidence and spending. Both of these would also be likely to shift spending further towards cheaper online offerings.

**Upside Risks:**
- Stronger than anticipated UK economic growth
- Real wage growth
- Unemployment falls

Stronger UK economic growth following a poor 2018 Q1, real wage growth and further falls in unemployment would be expected to boost consumer confidence and spending.

Output in **PFI education** reached its highest level on record in 2017 due to finishing projects under the privately-funded element of the Priority School Building Programme (PSBP) as well as expansion projects at universities. However, only 46 of the PSBP schools are privately-funded and as they complete, there is little to sustain activity given that the PSBP2 is purely publicly-financed.

Universities in England have experienced a 4.0% decline in funding between 2016/17 and 2017/18 and capital funding has declined by over 25% over the period. As a result, the reliance on students fees, increasing student numbers and borrowing from private sector will only rise going forward. Expansion plans at many universities around the country valued at £500 million or more that have been highlighted in previous forecasts are underway but, as a consequence, are unlikely to provide further growth.
The only major new universities projects of note are in Stratford, in the near-term, and potentially Milton Keynes, in the medium-term. The £1.6 billion university and museum quarter in Stratford is a part of University Square, a partnership between Birkbeck, University of London and the University of East London. The Mayor of London granted outline planning permission for the site at the end of March 2018 and five contractors have been asked to submit bids for the first building project in phase 1, which will start in 2019 and cost £200 million to build. Milton Keynes Council announced its intention to build a new university in the city. It will be conducting an 18-month feasibility study, which will consider the planning, design and financing of the new university and would be looking to initially have 5,000 students, from 2023.

Other new private projects in the last three months, since our last forecast, are below £100 million in value. The University of Bath submitted plans in March 2018 for a new school of management covering 170,000 sq. ft. costing £70 million. The University of Leeds appointed BAM Construction as its main contractor in March to deliver its £65 million Sir William Henry Bragg Building project that is expected to complete in Summer 2020. The University of Oxford appointed Laing O’Rourke as contractor in February this year to deliver a £70 million phase two expansion of its biochemistry building that is expected to start this year and complete during 2020. In February 2018, the Liverpool John Moores University has restarted plans to develop the 3.5 acre site of the old Royal Mail sorting office at a cost of £64 million. Plans were initially submitted one year ago. However, the project was not given the green light due issues around project viability when it was at a cost of £100 million. Subject to planning approval, phase 1 will see the development of two new buildings, a Student Life Building and Sports Building by Summer 2020.

In the medium-term, Theresa May stated that the UK may stay in some organisations that are overseen by the European Court of Justice (ECJ) after the UK leaves the EU and following the implementation period, which may mean that the UK could potentially be a part of the European Investment Bank (EIB), which has been a key contributor to investment in education, infrastructure and social projects.

PFI Education output rose by 11.2% in 2016 and by 0.9% in 2017. However, output has been falling since 2017 Q2 and output in the final quarter of last year was 5.9% lower than in the second quarter. New orders suggest that output is not likely to improve this year. PFI education new orders fell 7.3% in 2017 and output is expected to fall 4.0% in 2018 before growth of 2.0% per year in 2019 and 2020.
Downside Risks:

• Rising construction costs hinder viability of projects

The Department for Education stated in 2016 that there was a £286 million cost overrun on the Priority School Building Programme. Further delays and cost overruns within the privately-funded part of the programme would put at risk the volume of work conducted or require further funding.

Upside Risks:

• Increased funding from non-EU students

Further rises in student fees and rises in non-EU students could incentivise further university campus and accommodation investment.

The prospects for the PFI Health sub-sector have deteriorated in the last three months. The two largest ongoing projects in the sub-sector are not on site, two of the four major projects that led to the liquidation of Carillion. These were the PFI hospital projects; the £450 million Royal Liverpool and Broadgreen hospital redevelopment and the £350 million Midland Metropolitan Hospital.

The Royal Liverpool and Broadgreen hospital redevelopment was over 70% complete at the point of Carillion’s demise in January 2018 and was expected to finish in May 2018. However, construction on site is currently on hiatus and awaiting a new contractor. The most likely scenario is that Laing O’Rourke will take on the Royal Liverpool Hospital project in the next few weeks given that Laing O’Rourke’s M&E arm Crown House Technologies was already on the scheme working for Carillion. However, the appointment of a contractor and a completion date could be delayed further by remedial works that need to be completed on eight major concrete support beams on the project and the legal ramifications of who pays for it.

Work on the first PF2 health project, the £350 million Midland Metropolitan Hospital began in 2016 and was expected to open in 2018. However, delays pushed the completion date back to Spring 2019 and then a review into lack of capacity and the potential need for an additional floor led to a further delay in the completion date to 2020. Reports are that Skanska is looking at potentially taking over the project but with the projects less than two-thirds of the way through construction, done by another contractor, this may take even longer as the previous delays due to cost overruns and M&E design issues will need to be overcome.

The £450 million Royal Liverpool and Broadgreen hospital redevelopment and the £350 million Midland Metropolitan Hospital still awaiting new contractors to take over from Carillion

Outside of these projects, there is little in the way of major new projects in privately-funded health to offset the impacts of the delayed work that has been signed in the last three months apart from the £48 million Pirbright Institute research laboratory in Surrey. New orders in 2017 were 8.6% lower than in 2016 and in 2017 Q4 were only £95 million, the fourth lowest level on record. Output in the sub-sector in 2016 was 4.2% lower than in the previous year and output in 2017 was 4.7% lower. Overall, output is expected to fall by 5.0% in 2018 and fall 3.0% in 2019 but until contractors are appointed for the two main Carillion PFI projects, risks to the forecasts are clearly on the downside.

Downside Risks:

• Further delays to projects

• Rising construction costs hinder project viability

Higher construction costs, resulting from the effect of Sterling depreciation pushing up the price of imported materials, or continued large increases in construction wages due to labour shortages, may lead to a pause in activity as contractors re-assess costs and margins.

Upside Risks:

• The number of private sector hospital projects increases

Private healthcare providers have increased development in recent years and a small number of medium-size projects would be enough to drive growth in the sub-sector during both 2019 and 2020.
Private Non-housing R&M

Private non-housing repair and maintenance (r&m) covers basic repairs and maintenance of offices, shops, warehouses, factories and other privately-owned properties.

In 2017, household spending increased at its weakest pace since 2011

Activity in the sector is dominated by work on offices and retail, and as a result, is driven by business investment and consumer spending, with recent data showing that both remained weak in the final quarter of 2017. Business investment increased 0.3% quarter-on-quarter in Q4, following a 0.8% rise in Q3 and was the weakest growth since Q1. Despite robust global demand, business investment reported a modest expansion of 2.4% for the whole of 2017, as ongoing Brexit-related uncertainties continued to weigh on business confidence and decision-making. Given that such uncertainties are unlikely to abate any time soon, the OBR expects business investment to remain subdued in the near-term. Meanwhile, household spending in Q4 rose 0.3% compared with Q3 and was 1.2% higher than a year earlier. For 2017 as a whole, spending increased 1.7%, the slowest annual growth since 2011 as higher inflation and muted real wage growth eroded purchasing power. Looking ahead, household spending is expected to remain weak over the course of 2018, before picking up as inflation eases and wage growth recovers. Reflecting this, private non-housing r&m output is expected to increase 2.0% per year over the forecast period. Overall, output in the sector tends to be less volatile, given the reliance on facilities management contracts. Carillion was the UK’s second largest construction, facilities and property management company and, despite its liquidation in January, government and key private sector clients remain committed to sustaining facilities management services. As a result, the impact of its collapse on activity is expected to be limited.

Downside risks:

• Weaker than expected growth in business investment and household spending

A prolonged period of heightened uncertainty over the UK’s future relationship with the EU and higher inflation is likely to weigh on business and consumer confidence in the near-term. In this case, consumers and businesses are expected to rein back spending and investment plans respectively, restraining activity in offices and retail.

Upside risks:

• Stronger than expected growth in business investment and consumer spending

Greater clarity over the future UK-EU relationship, alongside stronger global economic conditions that strengthen business confidence and investment intentions is likely to pose an upside risk to the sector. This, coupled with a marked improvement in consumer spending, assuming inflation falls back quickly towards its 2.0% target and real wage growth recovers, is likely to boost activity in the sector further.

Private Non-housing R&M Output

Source: ONS, Construction Products Association
Growth over the next three years will predominantly be driven by the warehouses sub-sector, where activity remains buoyed by strong demand from online retailers and manufacturers for warehousing and distribution space. This is expected to offset the weakness in factories, where construction output is predicted to fall amid slower domestic economic conditions and a limited pipeline of new work. As a result, industrial output is forecast to increase 2.3% in 2018 and 1.4% in 2019, before accelerating to 2.5% in 2020. By the end of the forecast period, industrial output is projected to total £4.6 billion, £0.3 billion higher than in 2017.

Output in the factories sub-sector is primarily driven by industrial production and manufacturing output, which, in turn are dependent on domestic demand and exports. Recent data show that manufacturing output increased 1.2% quarter-on-quarter in Q4, following growth of 1.5% in Q3, which marked the strongest two quarters of growth since 2010. The strong performance in the second half of 2017 was largely due to robust global demand, particularly from the Eurozone, the UK’s largest trading partner, as well as the lower Sterling that boosted exports. In Q4, UK exports of goods increased 4.3% year-on-year to £85.7 billion, marking a seventh consecutive quarter of growth. However, such benefits to export competitiveness are expected to be short-lived, as the Sterling continues to appreciate and coupled with weaker domestic demand, this is likely to weigh on manufacturing activity. Recent industry surveys, notably Markit/CIPS have already provided early signs of this, as output reached an eight-month low in February. New orders for factories construction fell 30.9% year-on-year in Q4 and were 8.2% lower for the whole of 2017, which is expected to feed through to output in the near-term. As a result, factories output is forecast to fall 4.0% in 2018 and 2.0% in 2019, before remaining flat in 2020.

Industrial output is forecast to increase 2.3% in 2018 and 1.4% in 2019.

Output in the warehouses sub-sector is primarily driven by strong demand from online retailers and manufacturers for warehousing and distribution space. This is expected to offset the weakness in factories, where construction output is predicted to fall amid slower domestic economic conditions and a limited pipeline of new work. As a result, industrial output is forecast to increase 2.3% in 2018 and 1.4% in 2019, before accelerating to 2.5% in 2020. By the end of the forecast period, industrial output is projected to total £4.6 billion, £0.3 billion higher than in 2017.
Looking at the project pipeline, construction at McLaren’s £50.0 million factory in South Yorkshire, Boeing’s first European manufacturing facility in Sheffield and the world’s largest corrugated cardboard manufacturing facility worth £75 million in Ellesmere Port are all due for completion this year. Meanwhile, work at Aston Martin’s £200 million manufacturing facility in South Wales is currently underway and is scheduled for completion in 2019. Going forward, activity will be supported by Berkeley Group’s plans to build a 150,000 sq. ft. modular factory in Kent and Siemens’s £200 million rail factory in Hull. Construction on the latter is expected to commence later this year, subject to the final investment decision. Despite the outcome of the EU Referendum in June 2016, major car makers, including Nissan, Honda and Toyota have all re-announced their investment commitments to the UK’s automotive industry. However, ongoing uncertainty regarding the UK’s future trading relationship with the EU is undermining business confidence, with other car makers still holding back major investment decisions awaiting further clarity.

**Downside risks:**
- Manufacturers delay or cancel investment plans
- Weaker domestic and external demand

A prolonged period of heightened Brexit-related uncertainty will inevitably make the UK a less attractive investment destination and, as a result, manufacturers are likely to delay or cancel major investment plans in the near-term. A marked slowdown in domestic demand as household spending weakens in response to above-target inflation and subdued real wage growth, alongside weak external demand, reflecting the recent Sterling appreciation is likely to weigh on manufacturing activity.

**Upside risks:**
- A weaker Sterling exchange rate boosts exports further
- Stronger global economic growth

Further falls in the Sterling, alongside stronger global economic growth may boost exports of goods further in the near-term. However, such benefits to export competitiveness are unlikely to fully mitigate the prospective weakening in domestic demand.

---

**Industrial Output**

![Graph showing industrial output from 2010 to 2020](image)

*Source: ONS, Construction Products Association*
The near-term outlook for *warehouses* remains bright despite recent weakness in the sub-sector’s two key drivers. Recent data show that both UK economic growth and consumer spending eased in Q4, leaving growth for 2017 as a whole at 1.8% and 1.7% respectively, the weakest in approximately six years. Although this was echoed in recent retail sales data, the proportion of internet spending has continued to expand and, in February reached a record high of 17.2%, reflecting the ongoing structural change taking place in the retail industry. This, in turn, has continued to support demand for warehouses and distribution space and, according to Savills, take-up in the UK warehouse market was estimated to have reached 13.1 million sq. ft. in 2018 Q1, the highest on record and 115% above the long-term average, with online retailers the biggest single user. This has boosted requirements for industrial units of over 500,000 sq. ft. and, as a result, Savills reported an increase in built-to-suit (BTS) units, which are more bespoke facilities, during the quarter. New orders decreased 3.3% year-on-year in Q4, following an increase of 74.2% in Q3, which was largely due to contracts being awarded on Amazon’s 2.2 million sq. ft. mega-shed project in Bristol. Orders however, tend to be volatile on a quarterly basis, and on a four-quarter basis, were 18.3% higher than a year earlier. This growth in new orders is expected to filter through to activity on the ground and, as a result, warehouses output is forecast to increase 10.0% in 2018, followed by a further 5.0% in both 2019 and 2020.

**Downside risks:**

- A sharp slowdown in consumer spending
- Speculative development declines due to heightened economic uncertainty

A major downside risk to sub-sector growth emerges if consumers rein back their spending sharply in the face of above-target inflation and falling real wage growth. Faced with lower retail sales, retailers may cut back on expansions plans, denting demand for warehousing and distribution space. This, alongside a fall in speculative development activity due to heightened Brexit-related uncertainty would result in lower activity over the three-year forecast period.

**Upside risks:**

- Stronger than anticipated consumer spending growth and a lower Sterling boosts online retailers’ and manufacturers’ demand respectively
- Higher demand for warehousing facilities linked to port expansions as a result of Brexit

If real wages recover in response to a pick-up in nominal wages and inflation falls back faster than expected, this is likely to boost consumer spending. This, as well as stronger export growth on the back of a lower Sterling exchange rate and healthy global growth should buoy retailers’ and manufacturers’ demand for warehousing and distribution space. Demand is likely to further increase if requirements for industrial warehousing and logistical facilities, including bonded warehouses and cold storages close to all UK exit and entry points such as ports and airports surge ahead of Brexit.

Take-up in the UK warehouse market is set to reach a record high of 13.1 million sq. ft. in Q1 (Savills).
Infrastructure

With the overall outlook positive, infrastructure is forecast to remain a key engine of growth for the construction industry if government delivers on major projects.

Over the three-year forecast period, activity will mainly be driven by work on large-scale infrastructure projects in the rail, water & sewerage and electricity sub-sectors such as HS2, the Thames Tideway Tunnel and Hornsea Project One. Even the relatively small harbours sub-sector will be boosted by projects such as the £350 million Aberdeen Harbour Expansion project. In December 2017, the government updated the National Infrastructure and Construction Pipeline, setting out £462.7 billion worth of planned private and public investment over this Parliament, with £182.2 billion worth of projects from 2018/19 to 2020/21. However, the annual spend is broadly flat over this period. In Autumn Budget 2017, the government increased the size of the National Productivity Investment Fund (NPIF) from £23 billion to £31 billion and extended it by one year to 2022/23. This included a new £1.7 billion Transforming Cities Fund to improve local transport connections. However, it is the delivery of these infrastructure announcements that will be key. By the end of the forecast period, infrastructure output is projected to total £24.5 billion, £5.5 billion higher than in 2017.

Despite a positive outlook, risks remain on the downside, given the collapse of Carillion in January and adverse weather conditions in recent months. Official statistics show that majority of Carillion’s contracts were held with the Department of Transport (DfT). This is consistent with data from Barbour ABI, which showed that around 60% of Carillion’s active schemes or projects with contracts awarded in which Carillion was the sole major contractor were infrastructure projects. Within their infrastructure work, 53% of the projects were road schemes and 42% of the projects were rail schemes. However,

Infrastructure Output by Sub-sector 2017 (%)

- Electricity: 43%
- Rail: 16%
- Roads: 21%
- Gas, Air & Communications: 4%
- Water & Sewerage: 12%
- Harbours: 4%

Source: ONS
many of Carillion’s projects were joint-ventures (JVs) with other major contractors and since its liquidation in January, partner contractors have taken over Carillion’s share of work and staff on these projects. Network Rail, which was Carillion’s largest client has continued to pay sub-contractors and suppliers over the past three months to ensure that work continues on rail projects, whilst Highways England have signalled that there will be no delays to major roads projects in which Carillion was involved. However, in March, Transport Scotland announced that the opening of the £745 million Aberdeen Western Peripheral Route has again been pushed back to Autumn, owing to the collapse of Carillion and bad weather conditions during the first quarter of this year even though the project was taken over by the remaining two partners on the JV. Poor weather conditions in late-February and March disrupted construction activity over three working days, with infrastructure among the sectors significantly affected. The CPA estimates a potential £195 million loss to infrastructure output, which assumes a limited amount of catch-up throughout the year. The impact of the bad weather on infrastructure has already been echoed in recent survey data from Markit/CIPS, which showed that civil engineering activity fell at its fastest pace for five years in March.

Growth forecasts for the rail sub-sector remain unchanged, with output expected to increase 5.0% in 2018 driven by ongoing works on the £1.2 billion Northern Line extension to Battersea and the £642 million Bank station capacity upgrade project, which is expected to reach completion in 2022. Furthermore, main construction work on the £263 million London Overground extension to Barking Riverside is expected to start this summer and is scheduled for completion in 2021. However, in December, Transport for London (TfL) reported a five month delay during the procurement process due to design complications and anecdotal evidence suggests that the start of works could be pushed further towards the end of the year. Besides this, activity will be supported by electrification of cross-country routes, including the Great Western Main Line between London and Cardiff and the Midland Main Line between London and Kettering. However, plans to electrify three routes across the UK: the Great Western line between Cardiff and Swansea, the London-Sheffield Midland Mainline north of Kettering and the Oxenhoe to Windermere line in the Lake District were all cancelled by the government in July 2017, on the basis that it was deemed unnecessary to electrify every line to deliver passenger benefits. However, in March, the National Audit Office (NAO) published an investigation into the decision, which revealed that cost overruns were the main reason. Reflecting this, further delays or cancellations on existing electrification schemes cannot be ruled out.

Looking at 2019, output growth is forecast to accelerate to 20.0%, reflecting main civil engineering works starting on Phase 1 of HS2, as well as works under the next five-year Control Period CP6 (2019-2024), which has a budget of £47.9 billion. £9.6 billion higher than the £38.3 billion allocated for the current control period, CP5 (2014-2019). Network Rail stated that its focus will remain on delivering the enhancement schemes that were deferred from CP5, including the TransPennine Route Upgrade, Great Western electrification, as well as Phase 2 of the East West Rail project. Recent data showed that new orders increased 133.7% year-on-year to £1.8 billion in Q4, which reflects contracts being awarded on the £2.2 billion TransPennine Route West of Leeds that will see work commence in 2019 Q2. This follows growth of 994.5% in Q3, which was almost entirely due to seven contracts relating to HS2. Activity on the project is expected to start from 2019 and will occur over many years. Reflecting this, rail output is projected to increase a further 20.0% in 2020.
**Downside risks:**

- Main works on HS2 delayed
- Work stalls under CP5 as the programme comes to an end

A main downside risk to rail growth emerges if main construction works on Phase 1 of the HS2 project are pushed back. Moreover, higher construction costs fuelled by inflationary pressures could also exacerbate the project’s budget issues, pushing the total cost of HS2 above the estimated £55.7 billion. Also, a potential hiatus between the end of CP5 and the start of CP6 could slow the delivery of major projects.

**Upside risks:**

- Network Rail brings forward finance ensuring delivery of projects

If Network Rail brings forward capital investment from the next control period (CP6), increasing the volume of work on the ground, in turn, boosting activity within the current control period (CP5), this presents an upside risk to sub-sector growth.

Electricity, the largest infrastructure sub-sector, is expected to enjoy double-digit growth over the three-year forecast period. In the near-term, activity will be underpinned by ongoing nuclear decommissioning, which includes Sellafield, the UK’s largest nuclear site, and work around the National Grid power connections. Alongside this, activity will be supported by a pipeline of projects in the offshore wind farm sector. Construction work at the £2.6 billion Beatrice Offshore Wind Farm, located in the Outer Firth of Moray is currently underway and expected to be commissioned by the end of 2019. Meanwhile, construction of the 660MW Walney and 353MW Galloper Wind Farm extension projects that form part of the Round 2 Offshore Wind Programme, as well as works at Rampion are all scheduled for completion this year. Although this suggests slower activity in 2018, this will be offset by main construction works starting on major projects under the Round 3 Offshore Wind Programme, including Hornsea Project One, the world’s largest offshore wind farm, East Anglia ONE and Moray East. Furthermore, subject to a final investment decision, onshore construction works at Triton Knoll Offshore Wind Farm (a Round 2 Offshore Wind project) is expected to start in mid-2018 and offshore construction in 2020. As a result, sub-sector output is forecast to increase 7.0% in 2018.

Looking ahead, output growth is expected to accelerate to 20.0% in 2019, followed by growth of 5.0% in 2020, driven by construction works on Hornsea Project Two, which will overtake Hornsea Project One to become the world’s largest offshore wind farm once operational in 2022, as well as main works occurring on the £19.6 billion Hinkley Point C project. However, in July 2017, following a review of costs EDF reported that the project risks being delayed by up to 15 months and, if this materialises, the total cost is expected to reach £20.3 billion. This came after a report was published by the National Audit Office in June 2017, which estimated a potential increase to £22.0 billion. As a result, further delays and cost overruns cannot be ruled out. Besides this, an estimated 25,000 job opportunities will be created during the construction phase, with 5,600 construction workers expected onsite at its peak. With pre-construction works on the £10 billion Wylfa Newydd nuclear project also anticipated to occur from 2020, if development consent is granted, this raises concerns over skills availability in the medium to long-term given that other major infrastructure projects in roads and rail are also expected to occur at the same time.

**Downside risks:**

- Hinkley Point C delayed further

The world’s largest offshore wind project Hornsea One, will be constructed over 407 km² consist of 174 turbines & have a capacity of 1.2 GW

**Downside risks:**

- Hinkley Point C delayed further

The UK and EU have agreed on a transitional period that will last from 29 March 2019 until the end of 2020, which includes the provisions of the Euratom Treaty. However, the UK will need to secure agreements with the International Atomic Energy Agency and any delays to this are likely...
to impact on new build, notably, Hinkley Point C, which is already at risk of being delayed further.

**Upside risks:**

- Investor confidence improves leaving large-scale projects unaffected

Improved investor confidence amid greater clarity regarding the future UK-EU relationship and stronger than expected economic conditions present an upside risk to the sub-sector. This would, in turn, allow large-scale projects, including work previously paused under the Round 3 Offshore Wind Programme to get off the ground.

Output in the water & sewerage sub-sector is forecast to increase 12.0%, driven by work on the largest project in the pipeline, the £4.2 billion Thames Tideway Tunnel. Preliminary construction is currently underway, with main tunnelling works set to begin this later this year. The project has £700 million of backing from the EIB and following the EU referendum result, the Bank has stated that its funding commitments to the sub-sector will remain unchanged in the near-term, until a decision is reached on the UK’s membership of the EIB. Besides this, activity will be supported by work under the current five-year Asset Management Plan (AMP6) running from 2015/16 to 2019/20, but water companies will mainly focus on efficiency, through maintenance of existing assets, rather than new build. Meanwhile, water companies are preparing their business plans for the next regulatory period, AMP7 (2020-2025), which are due for submission to Ofwat in September and the draft determination is expected to be published in March/April 2019.

In 2017 Q4, output in the sub-sector declined 23.7% year-on-year to £482 million, marking a fourth consecutive quarter of annual decline, and fell 13.5% for the whole of 2017 despite works occurring on the Thames Tideway Tunnel project. Contracts for the project were awarded in February 2015 and, as result new orders increased 426.6% in that year. Output rose 11.5% in 2015 and 65.2% in 2016 even though main tunnelling works on the project are yet to begin. This suggests that the ONS’s construction output data is not accurately reflecting activity on the ground and is likely to have been incorporated too early in official data. Water & sewerage output is forecast to remain flat in both 2019 and 2020.

**Downside risks:**

- Thames Tideway Tunnel delayed

A downside risk to sub-sector growth arises if work on the Thames Tideway Tunnel suffers from delays due to cost overruns, slowing activity on the ground. However, in March 2017, a report by the National Audit Office revealed that the government has provided a contingent support package, which aims to mitigate any downside risks, including providing financial support if cost overruns exceed 30% or if economic and political events make it difficult to access capital from debt capital markets.
Upside risks:

• The focus shifts to new build under AMP6

Alongside construction activity on the Thames Tideway Tunnel, increasing focus on new build under the AMP6 will lead to stronger growth rates over the forecast period.

Growth in the roads sub-sector is expected to remain flat in 2018, as lower activity in Scotland is offset by works elsewhere in England. New orders fell 39.4% to a six-year low of £1.6 billion in 2017, which is expected to feed through to output. This is consistent with survey data from the Civil Engineering Contractors Association (CECA), which showed that workloads and order books in roads have remained weak since 2015 Q3. Going forward, output is projected to return to growth and increase 3.0% in 2019, followed by a further 5.0% in 2020 driven by a pick-up in activity under the £15.2 billion Road Investment Strategy (RIS), reflecting higher capital expenditure in the final two years of Road Period 1. In October 2017, Highways England published its updated delivery plan for 2017/18, which reported that around 60 of the 112 major schemes have either started or are committed to start between 2017/18 and the end of the first road period. However, it also revealed that sixteen schemes have been delayed, six paused for review, whilst two are expected to be delivered in Road Period 2 (2020/21-2024/25). Overall, this suggests that the majority of work is heavily skewed towards the end of the Road Period 1 and, as a result, this will need to be matched by a significant increase in skills and capacity in order to ensure delivery of these projects.

In terms of activity on the ground, work is currently underway on the £1.5 billion A14 Cambridge to Huntingdon improvement scheme, the UK’s largest road project. Construction work on the A19/A1058 Coast Road junction to relieve congestion, the A1 Leeming to Barton improvement scheme and the £745 million Aberdeen Western Peripheral Route (AWRP) project in Scotland are all expected to reach completion this year. In March, Transport Scotland announced that the AWRP project completion date has been pushed further back to Autumn, owing to poor weather conditions and the collapse of Carillion. This came after one of the consortium’s partners announced earlier in March that the project would be completed in Summer, six months later than planned. Given the project’s history of delays, further delays cannot be ruled out. In the near-term, alongside works picking up under Highways England’s RIS, activity will be underpinned by smart motorway schemes, which focus on the use of technology rather than new roads construction. According to Highways England, five schemes are currently underway, including the M4 Juncions 3 to 12. Construction on twelve others is set to begin during the forecast period.

Downside risks:

• Further cuts to local authorities’ funding

Government focus on austerity in the near-term could see funding to local authorities fall further, constraining their ability to deliver on roads projects. This, coupled with diminishing EU funding over the long-term, could see local government budgets stretched, leaving projects unfunded. Furthermore, an increasing focus on smart motorways, mainly technology-based, rather than new roads construction could dampen activity in the sub-sector.

Upside risks:

• Highways England brings forward finance

If Highways England brings forward finance and projects from the final year of the first road period that will ensure a smoother profile of works. This would provide higher workloads in the short-term and ensure a gradual increase in
funding and investment over the RIS, rather than the bulk of activity occurring in the final year of the programme. Moreover, financial incentives to local authorities mainly in the form of ring-fenced funding could provide more clarity on roads projects and, in turn, ensure delivery of them over the medium-term.

The near-term outlook for the gas, air and communications sub-sector remains unchanged, with output forecast to increase 20.0% in 2018, from a low base, driven by works under Manchester Airport’s £1.0 billion ten-year investment programme, as well as Gatwick Airport’s £1.2 billion and Heathrow Airport’s £3.2 billion five-year capital investment programmes that will support activity throughout the forecast period. Work under Luton Airport’s £229 million investment programme continues apace, with the newly-extended terminal due to be opened later this year. At London City Airport, piling and decking works that form the first stage of construction under its £480 million expansion programme are expected to start this Spring. In addition to this, activity will be supported by work under Stansted Airport’s five-year transformational programme. Construction of a new arrivals building, which has an estimated cost of between £120-£150 million is expected to start later this year and will take three years to build, whilst redevelopment of the departures lounge that has an estimated cost between £180-£230 million will also commence in the final quarter of 2018.

Sub-sector activity will additionally be driven by work under BT’s £6.0 billion investment programme to extend its ultrafast fibre and mobile broadband network to at least 10 million premises by 2020, as well as Virgin Media’s £3.0 billion Project Lightning programme, which aims to extend its fibre network to four million additional premises by 2019. According to Virgin Media’s preliminary results, 159,000 new connections were added in 2017 Q4, up from 147,000 in Q3. For the whole of 2017, this figure was 536,000, bringing the total to 1.1 million premises since the project’s inception in February 2015. In the 2018 Spring Statement, the government allocated £95 million from the £190 million Local Full Fibre Network (LFFN) challenge fund to support the roll-out of full-fibre broadband to 13 areas across the UK. In 2019, sub-sector output is forecast to increase 10.0%, before remaining flat in 2020.

**Downside risks:**
- Further delays in expansion to superfast broadband

A downside risk to sub-sector growth emerges if work under both Virgin Media’s and BT’s superfast broadband programmes faces delays. In this case, lower activity would be anticipated in the near-term.

**Upside risks:**
- Substantial progress is made in expanding broadband across the UK
- New gas storage investment occurs

If progress is made on expanding broadband across the UK, including work under both Virgin Media’s £3.0 billion and BT’s £6.0 investment programme, this presents an upside risk to sub-sector growth. This, as well as new investment in gas storage in response to utilising shale gas reserves and given the closure of Rough, which accounted for 70% of the UK’s total storage capacity, would underpin stronger growth rates over the next three years.
Highways England has a maintenance budget of £1.3 billion over its first fixed five-year investment period, which began in 2015/16. In 2018/19, expenditure on maintenance is set to rise to £268 million from the £256 million allocated for 2017/18, before falling to £265 in the final year of the first road period. However, local authorities manage 97% of the roads network and remain financially-constrained. According to the Local Government Association, local authorities will face an overall funding gap of £5.8 billion by 2020. As a result, basic repairs and maintenance are unlikely to be a key driver of work in the sector despite the urgent need for basic repairs to roads. In 2016, the government allocated £70 million of funding from the £250 million Pothole Action Fund for use by local highway authorities across England in 2017/18 that will help repair 1.3 million potholes. Furthermore, in Autumn Budget 2017, the government announced that an additional £45 million will be invested in the Pothole Fund in 2017/18 to tackle around 900,000 potholes across England. More recently in March, government announced a further £100 million to help repair two million potholes and protect roads from future severe weather conditions. However, the Asphalt Industry Alliance’s 2018 ALARM survey reported that there was a 13-year backlog of local roads maintenance in England, at a value of £8.2 billion. This is lower than the one-time catch-up cost of £10.8 billion estimated in the 2017 survey. For London, the average maintenance was 9 years (£465.9 million), which is marginally down from the 10 years estimated in the previous survey. The survey also reported that 40% of the local road network is currently classified as amber or red. Of this, 24,496 miles of road is identified as red (poor overall condition), suggesting the urgent need for maintenance in the next 12 months.

In the rail sub-sector, r&m output is likely to be overshadowed by new build activity during
the remainder of CP5. According to the ORR’s Network Rail Monitor published in December, Network Rail’s spending on maintenance is forecast to reach £1.4 billion in 2017/18, £15 million higher than its initial budget. Furthermore rising cost pressures and a backlog of work under the current control period are likely to increase financial pressure on CP6 (2019-2024). In February, Network Rail published its Strategic Business Plan for CP6, which focuses on maintenance over enhancements. Of the total £47.9 billion funding allocated for the five-year period, £18.5 billion has been earmarked for operations and maintenance, a 25% increase from CP5, £18.5 billion for renewals and £10.1 billion for enhancements. Following an increase of 3.8% in 2017, growth in the infrastructure r&m sector is forecast to slow to 1.0% in both 2018 and 2019, in part owing to the impact of severe winter weather conditions in February and March on activity on the ground. Thereafter, growth is projected to remain flat in 2020.

**Downside risks:**

- Local authorities subject to further budget cuts
- R&m output is likely to be overshadowed by new build activity rather than basic maintenance

Further cuts to local authority funding amid constrained spending by central government under any further austerity programme pose a downside risk to sub-sector activity. In the event of this, local authorities may be forced to finance new build from maintenance budgets in order to ensure delivery. In addition, increased pressure on government departmental budgets could lead to schemes being cancelled or delayed.

**Upside risks:**

- Central government increases infrastructure r&m spending quickly

A large increase in ring-fenced funding to local authorities for transport projects that allows work to get off the ground, in turn, providing a boost to both infrastructure r&m output and the wider economy presents an upside risk.
The Construction Products Association represents the UK’s manufacturers and distributors of construction products and materials. The sector directly provides jobs for 313,000 people across 23,000 companies, and has an annual turnover of more than £56.5 billion. We act as the leading voice to promote and campaign for this vital UK industry.

The CPA produces a range of economic reports including quarterly Construction Industry Forecasts, Construction Trade Surveys, State of Trade Surveys and various bespoke research. These publications are available free to members and via subscription to non-members. To learn more, please contact our Economics team at 020 7323 3770 or visit www.constructionproducts.org.uk.