Construction Industry Forecasts 2017-2019

Autumn 2017 Edition - £175




construction
products
association

Contents

DISCLAIMER

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

All output figures are in 2013 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).

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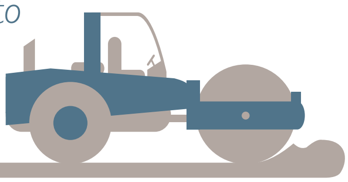
Overview

Construction activity on site remains at a high level, particularly in cities such as Manchester and Birmingham.

Overall for this year, output is forecast to increase by 0.7% as growth early in the year has started to be offset by slower activity during the second half of the year, especially in London. Construction activity during 2018 is expected to remain flat despite significant growth in private house building and infrastructure due to declines in commercial offices and retail activity as well industrial factories. In 2019, construction output is forecast to rise by 2.0% as infrastructure projects drive industry activity.

Construction activity *to*
remain flat
in 2018



The importance of government delivery of the infrastructure work, which has been an issue in recent years, cannot be underestimated over the period of the forecasts. Without delivery of this infrastructure, construction output would fall by over 1.0% in 2018. In the medium-term, factors such as Brexit and works on towers following the tragic events at the Grenfell Tower will also need to be taken account of. These may also lead to structural changes within construction as the industry attempts to wrestle with issues of spikes in activity within certain specific sub-sectors

Key Points

- Construction output to rise **0.7%** in **2017**, **0.0%** in **2018** and **2.0%** in **2019**
- Private housing starts to rise **5.0%** in **2017** and **2.0%** in **2018**
- Offices construction to decline **5.0%** in **2017, 15.0%** in **2018** and **5.0%** in **2019**
- Retail construction to fall **7.0%** in **2017, 5.0%** in **2018** and rise **2.0%** in **2019**
- Infrastructure work to rise by **7.4%** in **2017, 6.4%** in **2018** and **9.8%** in **2019**

whilst simultaneously dealing with capacity constraints on the labour and products side.

As the year has progressed, it has become increasingly apparent that there is not a single trend across all construction sectors. Activity in some areas of the industry is being sustained by government policies, such as Help to Buy, by demand from specific niches such as older, wealthier demographics or by one-off major projects. However, overall, it is difficult to escape key drivers that will impact upon many areas of the sector over the next 12-18 months such as subdued UK economic growth, rising inflation, falling real wages and slower consumer spending. In addition, labour and input cost rises are also feeding through and are hindering margins for many firms within the whole construction supply chain.

Following GDP growth of 0.6% in 2016 Q4, UK economic activity has slowed in recent quarters. UK GDP growth was only 0.3% in 2017 Q1 and 0.3% in 2017 Q2. In terms of the number of jobs, the UK labour market continues to thrive and UK employment is at its highest rate since comparable records in 1971. Despite this, real wages are falling, which raises questions about the type and quality of jobs being created. Also, it potentially suggests that both employers and employees are uncertain about medium-term prospects. As inflation persists this year, the fall in real wages is likely to endure throughout the majority of 2017 and this is likely to weigh down on consumer spending, particularly for those reliant on income and credit. However, for those with substantial housing and pension wealth, particularly in older age demographics, this is less of an issue.

In the **private housing** sector, there appears to be a clear difference between a relatively subdued UK general housing market and the house building market, which continues to enjoy growth. Property transactions in recent years have been distorted by changes to stamp duty in 2014 and in 2016 but, excluding these distortions, property transactions in 2017 are expected to

be at a similar level to transactions in 2015 and 2016, pointing towards a flat housing market and mortgage approvals also indicate a similar picture. UK house price inflation has averaged 3.1% so far this year according to Nationwide, which suggests that as demand has slowed, supply has reacted as potential sellers defer sales. The key part of the housing market where prices do appear to have been affected by the stamp duty changes, in addition from caution over medium-term returns due to Brexit uncertainty, is the prime Central London market. HM Revenue and Customs data highlight that property transactions above £1.0 million in the year to June were only 1.0% lower than the same period in 2014, before the stamp duty changes were introduced. But, house prices in central London have fallen 15.0% since their peak in 2014 according to Savills. Despite the flat general UK housing market, house builders continue to increase supply. House builders have been sustained by Help to Buy, which accounts for around 40% of starts and the indications are that it is not only the majors that are utilising Help to Buy and that SMEs have overcome the administrative burdens and are also making use of it. House builders remain positive but one potential note of caution is that in the three months to July, starts were 1.3% lower than a year earlier according to the NHBC. However, starts by the top 10 house builders by size were 4.2% lower than a year ago whilst the top 11-50 house builders and SMEs enjoyed double-digit growth. This may be an early indicator that the majors are slowing in advance of a general slowdown in the house building market or an illustration that the house building market is become more balanced across large and small house builder delivery although it is too early to say for certain at this early stage. The CPA forecasts that private housing starts will grow by 5.0% this year after which growth rates are expected to slow to 2.0% in both 2018 and 2019.

Private housing repair, maintenance and improvement (RM&I) is the third largest construction sector, worth £18.0 billion in 2016 and covers a wide array of work from repairing a boiler to fitting a kitchen or building a conservatory and everything in between. Private housing rm&i activity is highly correlated with property transactions, with the rm&i activity tending to occur within 6-9 months of purchasing a property. The subdued level of transactions this year would generally indicate that rm&i activity should also be broadly flat in 2017. Yet growth in the sector this year appears to have been sustained by an older demographic with housing and/or pension wealth, which is another key driver of rm&i activity, and this demographic is not reliant on real wages, which are currently falling, or credit. Research by Barbour ABI this year indicates that above a certain house price, rm&i activity is actually higher for those that are intending to improve rather than move. As a result, private housing rm&i output is expected to rise by 2.0% this year. However, the key question is how long they can sustain the sector as a whole and, as a result, output is expected to fall by 1.0% in 2018 and 2.0% in 2019.

Activity in the **public housing repair, maintenance and improvement** sector fell 21.7% between July 2010 and July 2017. The Summer CPA forecasts for the sector assumed that activity was unlikely to continue to fall in the light of urgent works following the tragic events at the Grenfell Tower in London. This assumption was based upon the urgent nature of the work. However, the signals so far from government are that the volume of the work and potential capacity constraints on both the labour/skills and product capacity sides are likely to mean that the activity may take years to address. Furthermore, at this stage, already financially constrained local authorities have not been given additional finance to deal with additional work. As a result, activity in the sector is likely to fall 5.0% in 2017 before a fall of 2.0% in 2018 and activity rising 5.0% in 2019.

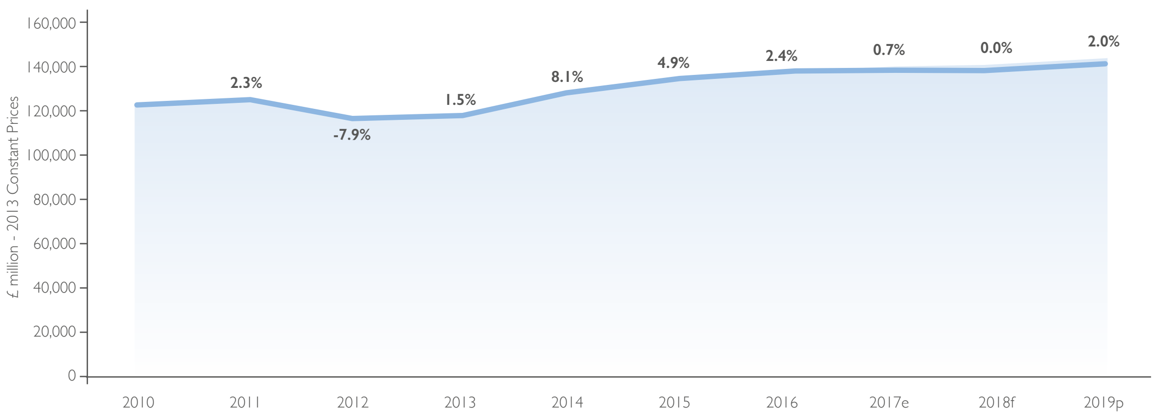
Activity in the **infrastructure** sector continues to be the key driver of construction output growth going forward and has been consistently within the CPA forecasts. Overall, output in the sector is expected to rise by 7.4% in 2017, 6.4% in 2018 and 9.8% in 2019. This is similar to the infrastructure forecasts in the detailed Summer CPA publication. Roads construction is expected to fall by 2.0% in 2017 before remaining flat in 2018 and rising by only 3.0% in 2019. This is despite ambitious plans by Highways England (HE) under its five-year Roads Investment Strategy for three key reasons. Firstly, investment under the strategy is backloaded to the final two years, 2018/19 and 2019/20. Secondly, there are concerns regarding HE's ability to procure and deliver multiple major roads projects and thirdly, a rising proportion of the activity appears to be smart motorways, which suggests a lower proportion of capital investment on construction whilst, simultaneously, a larger proportion of spending on electrical equipment and signage. In addition, further cuts to local authority spending are likely to hinder growth in roads construction. Within water & sewerage, activity under the five-year AMP6 spending plan, which goes to 2020/21, is currently providing the majority of activity in the sector and this is currently being boosted by work underway on the £4.2 billion Thames Tideway project. As a result, water & sewerage output is expected to rise 17.0% in 2017 and 12.0% in 2018 before remaining flat at this high level in 2019. Similarly, the majority of activity in the rail sector is determined by general work under the CP5 five-year spending plan but growth within the sub-sector will be driven by main works on HS2, which are expected to start in 2018 but primarily impact on output in 2019. Energy infrastructure activity is expected to grow by 7.0% in both 2017 and 2018 due to offshore wind farm activity. From 2019, growth rates expected to rise to 14.0% based upon the belated start of early works at Hinkley Point C. However, as with previous forecasts, based on consistent delays on the project, further delays to the project cannot be ruled out that would take main works out of the forecast period.

Commercial offices sector output continues to remain buoyant, particularly in major cities such London, Birmingham and Manchester and particularly within demand from the Technology, Media and Telecommunications (TMT) sector. However, the sharp fall in new contract awards since the second half of 2016, post-EU referendum and following investor concerns regarding pricing being too high, is starting to feed through to activity on the ground following the 12-18 month lag between commercial offices orders and output highlighted in previous CPA forecasts. New orders in the second half of 2016 were 19.7% lower than a year earlier. Output has already started to fall as previous projects finish and are not replaced at the same rate, especially within the key offices markets in Central London as demand for high profile floor space from the finance sector continues to decline. Growth early in the year and activity on projects signed up to prior to the referendum is likely to ensure that the key falls in commercial offices output occur next year but recent falls in new orders suggest that the falls in activity are likely to stretch to output in 2019 as well. As a result, output in the offices sub-sector is expected to fall by 5.0% in 2017, 15.0% in 2018 and a further 5.0% in 2019.

The primary growth area within the retail sub-sector is the expansion programmes of low-value supermarket chains. Aldi and Lidl have both been taking market share at the expense of the major supermarket chains. As a result, key supermarket construction has evolved away from the small, urban retail outlets from the major supermarkets that primarily involves interiors and fit-out back towards larger supermarkets based around retail parks. In addition to this, there remain two major projects around London driving activity in the sector, each worth £1.4 billion; the Croydon Partnership and the Brent Cross extension. However, it is unlikely that activity will be enough to offset reductions in activity by the major supermarket chains. Furthermore, the sector is still adversely affected by the long-term trend, often mentioned in previous CPA forecasts, away from high street retail and towards internet shopping. This is likely to be exacerbated by a slowdown in consumer spending due to the fall in real wages.

Activity in **education including PFI** has been rising for the past three years, primarily due to publicly-funded schools work and privately-financed universities work. Declines in work in the sector under the Priority School Building Programme, which is now expected to finish in 2018/19, are likely to be offset by education activity over time under the Priority School Building Programme 2 funding for which is from 2017/18 onwards. University expansion programmes have been a good source of work for the construction supply chain in the last few years as universities seek high profile new facilities to attract fee-paying students, particularly from abroad. Activity on major campuses continues

Construction Output



Source: ONS, Construction Products Association

but is unlikely to be growing at the same rates as in previous years and may well be scaled back in the light of concerns regarding government policy regarding students fees and uncertainty regarding the ability to attract in EU students post-Brexit. Output is expected to fall 6.8% in 2017 and a further 3.6% in 2018.

Health including PFI activity has risen for the past two years as a result of activity on a few sizeable projects and general activity on smaller health facilities under Procure21+. However, new orders and contract awards in the sector have been falling over the past three quarters. Cost overruns and delays to the Midland Metropolitan Hospital and the Royal Liverpool and Broadgreen Hospital mean that the volume of work is likely to be spread over a longer period than initially envisaged and, as a result, are likely to exacerbate falls in activity in the sector in 2017 and 2018. In addition, further delays on these major projects are likely. The opening of Sandwell's £350 million Midland Metropolitan Hospital has been delayed by at least six months and will only open in Spring 2019 whilst the opening of the £450 million Royal Liverpool and Broadgreen Hospital project has been delayed by over one year to Summer 2018. Health including PFI output is expected to fall by 8.2% in 2017 before a fall of 3.2% in 2018.

Key Risks

The key risk to the industry in the short-term is how the whole supply chain will deal with the rise in costs, and consequent fall in margins when growth in industry activity slows over the course of the next 18 months. The depreciations in the value of Sterling have led to rises in the cost of imported construction products, increases in the cost of imported materials that are used in UK manufactured products and rises in energy/fuel costs. As a consequence, materials cost inflation, at 6.0%, is already currently more than double the rate of inflation in the wider economy. Due to lags, forward purchasing and hedging of exchange rates, the full impact of the exchange rate depreciations may only be felt in 2018, the period during which industry activity is also expected to slow. This is likely to mainly impact upon project viability in sectors where demand is already falling such as the commercial and industrial sectors.

In the longer-term, the construction industry will have to deal with the impacts of the UK leaving the EU on construction labour and construction products trade. In September 2017, the Prime Minister stated that "As of today, these considerations point to an implementation period of around two years". Given the lack of progress by government so far, even assuming that the EU and UK can agree on an implementation period of this length, two years does not appear to be enough to determine the appropriate systems at the Home Office and HMRC for labour/skills and products trade respectively or to allow businesses to invest to change internal systems and business models. However, it does suggest that there is unlikely to be a cliff edge in labour/skills and products trade in March 2019. As a result, it is unlikely that these issues are likely to impact on the CPA forecasts, which cover the 2017-19 period. The CPA's documents on issues for construction regarding Brexit are available from the CPA Website.

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.

Construction Industry Forecasts - Autumn 2017

£ million 2013 constant prices		2015	2016	2017	2018	2019
% annual change		Actual	Actual	Estimate	Forecast	Projection
Housing						
Private		24,053	27,218	28,035	28,876	29,453
		8.7%	13.2%	3.0%	3.0%	2.0%
Public		4,604	4,310	4,526	4,661	4,801
		-18.1%	-6.4%	5.0%	3.0%	3.0%
Total		28,657	31,528	32,560	33,537	34,254
		3.3%	10.0%	3.3%	3.0%	2.1%
Other New Work						
Public Non-Housing		9,535	9,800	9,490	9,217	9,353
		-1.9%	2.8%	-3.2%	-2.9%	1.5%
Infrastructure		19,580	17,777	19,092	20,304	22,285
		37.9%	-9.2%	7.4%	6.4%	9.8%
Industrial		4,310	3,901	3,537	3,428	3,390
		9.6%	-9.5%	-9.3%	-3.1%	-1.1%
Commercial		24,305	26,376	26,176	24,796	24,798
		1.3%	8.5%	-0.8%	-5.3%	0.0%
Total other new work		57,730	57,854	58,296	57,745	59,825
		11.4%	0.2%	0.8%	-0.9%	3.6%
Total new work		86,387	89,382	90,856	91,282	94,079
		8.5%	3.5%	1.6%	0.5%	3.1%
Repair and Maintenance						
Private Housing RM&I		17,065	17,972	18,331	18,148	17,785
		2.0%	5.3%	2.0%	-1.0%	-2.0%
Public Housing RM&I		7,478	6,930	6,584	6,452	6,774
		0.5%	-7.3%	-5.0%	-2.0%	5.0%
Private Other R&M		10,631	11,079	10,747	10,747	10,747
		2.6%	4.2%	-3.0%	0.0%	0.0%
Public Other R&M		4,671	4,601	4,371	4,284	4,284
		-13.0%	-1.5%	-5.0%	-2.0%	0.0%
Infrastructure R&M		8,154	7,619	7,619	7,619	7,619
		-5.0%	-6.6%	0.0%	0.0%	0.0%
Total R&M		47,999	48,201	47,652	47,249	47,209
		-1.0%	0.4%	-1.1%	-0.8%	-0.1%
TOTAL ALL WORK		134,386	137,583	138,507	138,531	141,288
		4.9%	2.4%	0.7%	0.0%	2.0%

Source: ONS, Construction Products Association

Scenario A - Lower Scenario

Scenario A – Assumptions

- Economic growth continues to be subdued in the second half of 2017 and slows further in 2018
- Unemployment rises due to the slowdown in economic activity
- Real wages continue to fall in 2018 due to sustained inflation and constrained nominal wage growth due to rising unemployment and continued uncertainty
- Interest rate rise early in 2018
- Property transactions fall further due to slowing demand leading to subdued house price growth
- Government does not increase capital investment further for infrastructure despite announcements
- Main works on HS2 subject to delays

Scenario A – Key Effects

- Construction activity falls in 2017 due to a slowdown in the UK economy that, in turn, leads to existing contracts being put on hold and new contract awards falling. Output falls by 3.1% in 2017 followed by declines of 3.2% in 2018 and 2.7% in 2019
- Private housing output remains flat in 2017 but falls by 2.0% in 2018 and by 5.0% in 2019 as a potential slowdown in property transactions reflects a slowdown in demand and house builders respond to declining general housing market conditions by slowing build rates to ensure that they maintain land value and margin
- The slowdown in property transactions leads to a fall in consequent private housing rm&i work. In addition, falling real wage growth leads to a decline in refurbishment and improvements work. Output remains flat in 2017 but declines by 3.0% in both 2018 and 2019
- Investment in new high-profile commercial offices and retail space is adversely affected by a considerable slowdown in business and consumer confidence that negatively impact, in turn, on business investment and retail spending respectively. Commercial output declines 5.3% in 2017 and 8.8% in 2018
- Infrastructure growth suffers from delays to main works on HS2 whilst Highways England struggles to fulfil its expected capital investment in 2018 and 2019. Infrastructure output is expected to grow by only 1.8% in 2017, 4.1% in 2018 and 4.4% in 2019

Construction Industry Forecasts - Autumn 2017 - Lower Scenario

£ million 2013 constant prices	2015	2016	2017	2018	2019
% annual change	Actual	Actual	Estimate	Forecast	Projection
Housing					
Private	24,053	27,218	27,218	26,674	25,340
	8.7%	13.2%	0.0%	-2.0%	-5.0%
Public	4,604	4,310	4,095	4,054	4,054
	-18.1%	-6.4%	-5.0%	-1.0%	0.0%
Total	28,657	31,528	31,313	30,727	29,394
	3.3%	10.0%	-0.7%	-1.9%	-4.3%
Other New Work					
Public Non-Housing	9,535	9,800	9,067	8,527	8,314
	-1.9%	2.8%	-7.5%	-6.0%	-2.5%
Infrastructure	19,580	17,777	18,105	18,842	19,680
	37.9%	-9.2%	1.8%	4.1%	4.4%
Industrial	4,310	3,901	3,317	3,080	2,861
	9.6%	-9.5%	-15.0%	-7.2%	-7.1%
Commercial	24,305	26,376	24,971	22,763	21,240
	1.3%	8.5%	-5.3%	-8.8%	-6.7%
Total other new work	57,730	57,854	55,461	53,211	52,094
	11.4%	0.2%	-4.1%	-4.1%	-2.1%
Total new work	86,387	89,382	86,773	83,938	81,488
	8.5%	3.5%	-2.9%	-3.3%	-2.9%
Repair and Maintenance					
Private Housing RM&I	17,065	17,972	17,972	17,433	16,910
	2.0%	5.3%	0.0%	-3.0%	-3.0%
Public Housing RM&I	7,478	6,930	6,376	6,057	6,178
	0.5%	-7.3%	-8.0%	-5.0%	2.0%
Private Other R&M	10,631	11,079	10,525	10,315	10,108
	2.6%	4.2%	-5.0%	-2.0%	-2.0%
Public Other R&M	4,671	4,601	4,233	4,064	3,901
	-13.0%	-1.5%	-8.0%	-4.0%	-4.0%
Infrastructure R&M	8,154	7,619	7,390	7,168	6,953
	-5.0%	-6.6%	-3.0%	-3.0%	-3.0%
Total R&M	47,999	48,201	46,496	45,037	44,051
	-1.0%	0.4%	-3.5%	-3.1%	-2.2%
TOTAL ALL WORK	134,386	137,583	133,269	128,975	125,539
	4.9%	2.4%	-3.1%	-3.2%	-2.7%

Source: ONS, Construction Products Association

Scenario B – Upper Scenario

Scenario B – Assumptions

- UK economic activity accelerates after subdued first half of 2017
- Employment rate remains at highest levels on record and nominal wage growth responds to sustained price inflation
- The depreciation in Sterling leads to a persistent increase in UK net trade and global inflows of finance into the UK
- Consumer spending growth in 2017 despite rising inflation due to consistent real wage growth
- Government delivers on infrastructure activity in line with announcements under the government's National Infrastructure and Construction Pipeline

Scenario B – Key Effects

- Construction output rises by 4.6% in 2017, by 4.2% in 2018 and by 5.2% in 2019 due to consistent private sector growth, buoyed by increases in UK economic activity and public sector investment boosts activity
- Private housing output rises by 4.0% per year between 2017 and 2019. Although property transactions growth is expected to slow, a slower supply of properties on the general housing market could maintain house price growth and house builders' incentive to continue to raise build rates except in the oversupplied Central London market
- Private housing rm&i output increases by 4.0% in 2017 and 2.0% per year in 2018 and 2019 as house price growth ensures the return on investment in refurbishing properties remains high and activity is enabled by real wage growth despite rising costs. In addition, a boost to the sector is provided by households choosing to refurbish rather than move
- Infrastructure output increases by 11.8% in 2017, by 16.1% in 2018 and by a further 19.1% in 2019 as accelerated construction activity at HS2 is boosted by improved delivery from Highways England and Network Rail

Construction Industry Forecasts - Autumn 2017 - Upper Scenario

£ million 2013 constant prices	2015	2016	2017	2018	2019
% annual change	Actual	Actual	Estimate	Forecast	Projection
Housing					
Private	24,053	27,218	28,307	29,439	30,617
	8.7%	13.2%	4.0%	4.0%	4.0%
Public	4,604	4,310	4,741	4,931	5,177
	-18.1%	-6.4%	10.0%	4.0%	5.0%
Total	28,657	31,528	33,048	34,370	35,794
	3.3%	10.0%	4.8%	4.0%	4.1%
Other New Work					
Public Non-Housing	9,535	9,800	10,020	10,296	10,701
	-1.9%	2.8%	2.2%	2.8%	3.9%
Infrastructure	19,580	17,777	19,867	23,074	27,476
	37.9%	-9.2%	11.8%	16.1%	19.1%
Industrial	4,310	3,901	3,805	3,807	3,808
	9.6%	-9.5%	-2.5%	0.0%	0.0%
Commercial	24,305	26,376	27,786	28,087	28,585
	1.3%	8.5%	5.3%	1.1%	1.8%
Total other new work	57,730	57,854	61,478	65,264	70,571
	11.4%	0.2%	6.3%	6.2%	8.1%
Total new work	86,387	89,382	94,526	99,634	106,364
	8.5%	3.5%	5.8%	5.4%	6.8%
Repair and Maintenance					
Private Housing RM&I	17,065	17,972	18,691	19,065	19,446
	2.0%	5.3%	4.0%	2.0%	2.0%
Public Housing RM&I	7,478	6,930	7,069	7,210	7,498
	0.5%	-7.3%	2.0%	2.0%	4.0%
Private Other R&M	10,631	11,079	11,301	11,527	11,757
	2.6%	4.2%	2.0%	2.0%	2.0%
Public Other R&M	4,671	4,601	4,601	4,601	4,647
	-13.0%	-1.5%	0.0%	0.0%	1.0%
Infrastructure R&M	8,154	7,619	7,771	7,926	8,085
	-5.0%	-6.6%	2.0%	2.0%	2.0%
Total R&M	47,999	48,201	49,432	50,329	51,434
	-1.0%	0.4%	2.6%	1.8%	2.2%
TOTAL ALL WORK	134,386	137,583	143,958	149,963	157,798
	4.9%	2.4%	4.6%	4.2%	5.2%

Source: ONS, Construction Products Association

Economy

The CPA's UK economic growth forecast for 2017 and 2018 remains unrevised as data covering the macroeconomy have so far panned out as expected.

UK GDP growth slowed from 0.6% in 2016 Q4 to 0.3% in Q1 and remained subdued at 0.3% in Q2.

The depreciations in Sterling since the EU Referendum, which would be expected to boost exports over time, appear to be finally starting to benefit exporters. Net trade rose in 2017 Q2 and contributed 0.4 percentage points to GDP growth due to exports rising by 1.7% whilst imports only rose by 0.2% between Q1 and Q2. However, the depreciations in Sterling have also led to rising inflation this year and falling real wages. This has, consequently, led to a slowdown in consumer spending, which was broadly flat in Q2 and is expected to be subdued over the next 12 months.

The latest information from Markit/CIPS on the key industry sectors highlights mixed fortunes.

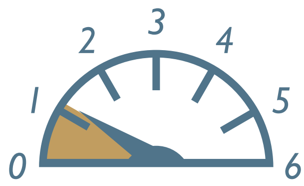
The Markit/CIPS PMI for manufacturing was 55.9 in September, lower than the 56.7 in August but considerably above its long-term average of 51.7 and the 14th consecutive month of growth for the sector. Exporters reported increased sales with growth seen particularly in exports to the EU, USA, China and Brazil. However, input costs accelerated in September, primarily due to rising commodity prices, the exchange rate and supply-chain constraints such as a lack of capacity for inputs.

The Markit/CIPS index for services was 53.6 in September, up from an 11-month low of 53.2 in August and remained above the no-change mark of 50, indicating that activity in the services sector continued to increase. The latest reading however, signalled moderate growth, with incoming new work rising at its slowest pace since August 2016, reflecting subdued domestic demand and concerns over the business outlook. Furthermore, input cost pressures continued to intensify in September, reaching a seven-month high and remained among the strongest seen since early 2011.

The Markit/CIPS PMI index for construction was 48.1 in September, down from 51.1 in August and the reading was below 50, representing declining activity in construction. The lower volumes of activity were primarily due to falls in commercial activity and civil engineering activity. Commercial activity fell at its second sharpest rate since February 2013, due to economic and political uncertainty hindering new contracts whilst civil engineering work declined at its fastest rate in almost four and a half years as a result of a lack of new projects getting on site to replace projects that were ending.

GDP growth is expected to be 1.4% in 2017 and 1.2% in 2018 in line with previous CPA forecasts. HM Treasury's September summary of the latest main City and Non-City macroeconomic forecasters highlight that an average forecast for UK GDP of 1.6% in 2017 and 1.4% in 2018, slightly higher than the CPA's forecast.

GDP growth set to slow to 1.2% in 2018



In August, the Bank of England continued to vote in favour of keeping interest rates at 0.25% and, in their accompanying Inflation Report, downgraded growth prospects from 1.9% to 1.7% in 2017 and from 1.7% to 1.6% in 2018. In the light of recent rises in inflation, the Governor signalled in September 2017 that interest rates may rise in the near term, over the next six months, considerably earlier than markets anticipate. However, the Bank also pointed towards future interest rate rises in the near-term back in June 2014 and this failed to materialise. The Bank's focus is clearly on ensuring GDP growth rather than mitigating inflationary impacts, particularly those that are short-term inflationary impacts that would be expected to feed out of the inflation figures in a year's time. As a result, with GDP growth expected to remain subdued, even if it marginally improves in Q3 and Q4 and inflation slows from 3.0% in 2017 to 2.5% in 2018, the CPA expects that interest rates will remain at 0.25% over the course of the forecast.

Economic Indicators

	2015	2016	2017	2018	2019
	Actual	Actual	Estimate	Forecast	Projection
GDP	2.3%	1.8%	1.4%	1.2%	1.5%
Fixed Investment	2.8%	1.3%	0.8%	1.0%	2.0%
Household Consumption	2.7%	2.9%	1.3%	0.5%	1.0%
Real Household Disposable Income	5.3%	0.3%	0.0%	1.0%	1.2%
Government Consumption	0.6%	1.1%	0.9%	0.4%	0.3%
CPI Inflation	0.0%	0.7%	2.9%	2.3%	2.0%
RPI Inflation	1.0%	1.8%	3.5%	2.8%	2.7%
Bank Base Rates - June	0.50%	0.50%	0.25%	0.25%	0.25%
Bank Base Rates - December	0.50%	0.25%	0.25%	0.25%	0.25%

Source: ONS, Construction Products Association

The UK labour market continues to thrive in terms of employment and unemployment. Between May and July 2017, the employment rate was 75.3%, the highest since comparable records began in 1971. Conversely, the unemployment rate was 4.3%, down from 4.9% a year earlier and the lowest rate since 1975. Despite this, real wages continued to fall. Between May to July 2016 and May to July 2017, both regular pay and total pay fell by 0.4% in real terms. For July 2017, average regular pay was £458 per week, £15 lower than the pre-crisis peak of £473 per week in March 2008. Average total pay was £487 per week, £35 lower than the pre-downturn peak of £522 per week in February 2008.

Over one year on from the EU referendum, there is little clarity regarding the relationship between the UK and EU after March 2019. Furthermore, although key UK ministers have highlighted what they would not like to see, there is even little clarity over what the UK would like to see the relationship as. In September 2017, the Prime Minister stated that "As of today, these considerations point to an implementation period of around two years", which is still vague at best. The uncertainty regarding flows of labour/skills, goods, capital and services is unhelpful for businesses, as is the domestic political instability. A CBI survey of business investment decisions in Summer 2017 highlighted that Brexit had affected investment decisions according to 40% of firms. And of these firms, 98% stated that it had negatively influenced investment decisions. The other way of looking at this is that 60% of firms stated that Brexit hasn't affected investment decisions. The ONS reported that business investment fell by 0.4% in 2016 compared with 2015 but more recently, in 2017 Q2, it was 0.5% higher than in Q1 and 2.5% higher than a year earlier. However, the impacts of the EU Referendum result are likely to differ depending upon the type of firm and the types of investment. General day-to-day investment on I.T. and equipment is likely to have largely been unaffected by uncertainty regarding Brexit whereas decisions regarding new major investments such as factories are likely to have been adversely affected. This is particularly the case for firms that are multinationals with global headquarters but operate in the UK, who have the choice of where to invest. Conversely, there may have been little impact on small firms only operating in local areas within the UK.

Downside Risks:

- Economic activity slows sharply during the final quarter of 2017 and 2018
- Unemployment rises due to the fall in economic activity
- Real wages fall due to rising inflation combined with constrained nominal wage growth due to rising unemployment
- Lending to businesses is weak despite Bank measures to increase liquidity and lending

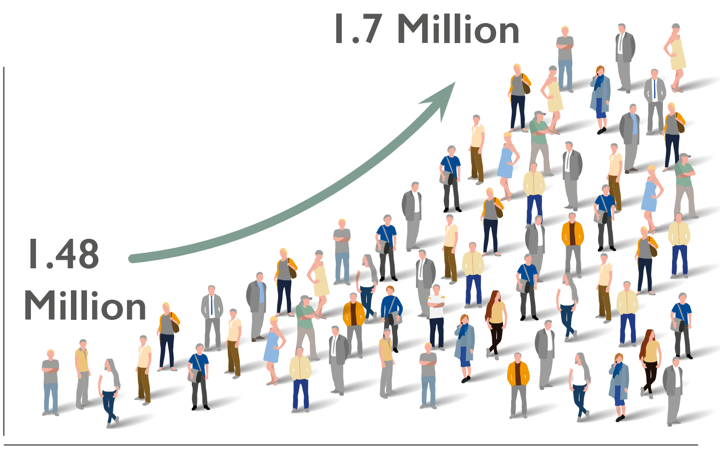
If UK economic activity slows more than expected during the second half of 2017, this will impact upon consumer and business confidence. This may lead to falls in consumer spending and business investment and, in turn, would slow economic activity further leading to a rise in unemployment. The Bank of England's cut in the interest rate and boosts to liquidity and lending may have little impact as the impacts of a slowdown offset any potential for improvements in lending. A persistent fall 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 in the second half of 2017
- Unemployment continues to be subdued
- The depreciation in Sterling leads to a persistent increase in UK net trade and global inflows of finance into the UK
- Real wages continue to grow despite the anticipated rise in inflation
- Measures by the Bank of England to boost lending and liquidity help to ensure that businesses and consumers have finance available
- Consumer spending growth in 2017 despite rising inflation

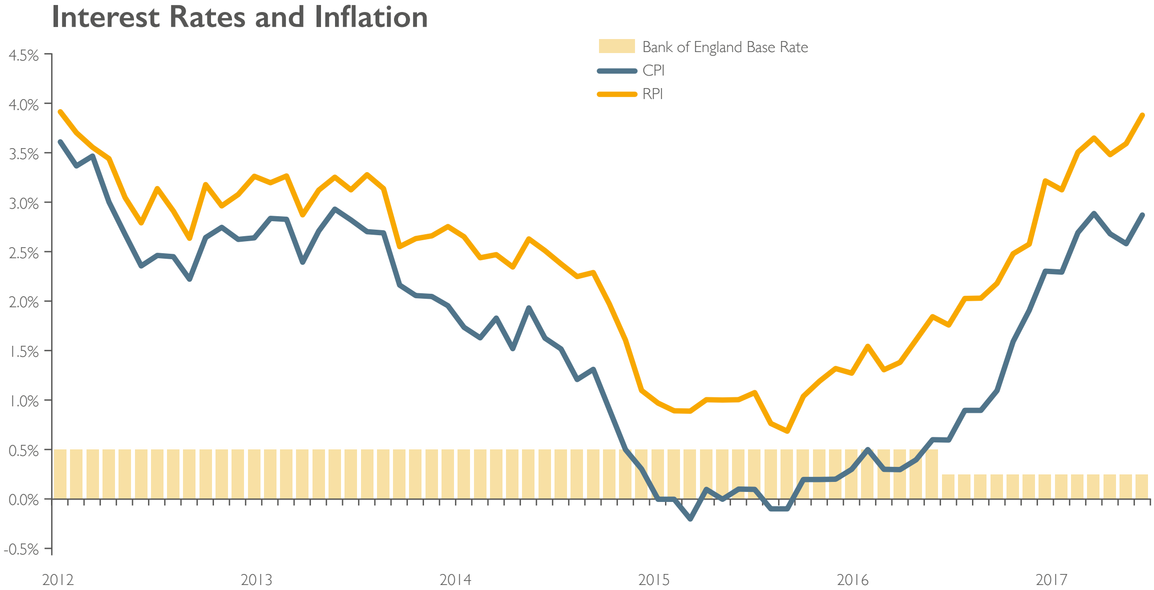
If UK economic activity grows at rates of 0.5% per quarter or above, the unemployment rate would be anticipated to remain at historic lows. The UK economy would be likely to benefit from exports and global inflows of investment in prime residential and commercial properties, especially in Central London. UK economic growth would be expected to ensure real wage growth despite the rise in inflation. In addition, growth in the wider UK economy and real wage growth would be expected to lead to rises in consumer expenditure. Further increases in capital investment could boost construction, manufacturing and professional services activity. However, one counterpoint to this may be that substantial growth in construction may place even greater pressure on skills shortages that have been reported for many occupations in the industry including planners, site managers, bricklayers and carpenters.

Unemployment

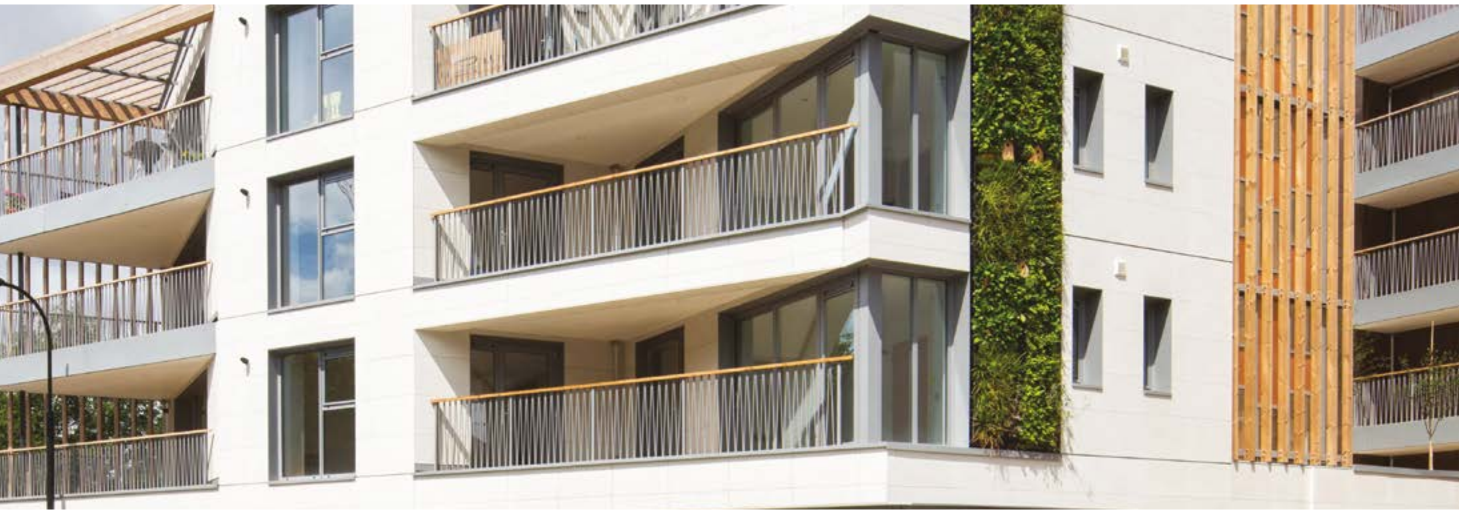


Source: ONS, Construction Products Association

Interest Rates and Inflation



Source: Bank of England, ONS



Private Housing

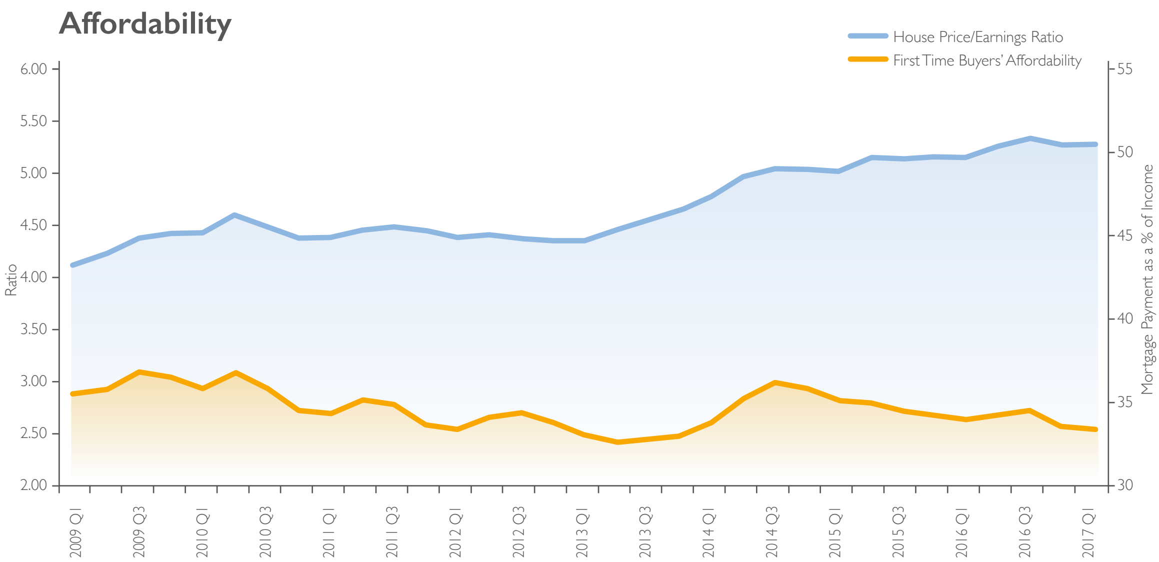
Growth rates in private housing output slowed in the first half of 2017, but continued support for new build demand from the government's Help to Buy equity loan is expected to maintain activity throughout the forecast period.

Private sector house building is closely linked to the performance of the housing market, driven by mortgage lending, property transactions and house prices. Mortgage approvals and property transactions have both displayed weakness in 2017. Bank of England data show that mortgage lending for house purchase declined in annual terms in every month between June 2016 and June 2017, with data from the Council of Mortgage Lenders (CML) highlighting a lower level of buy-to-let lending since the 3% stamp duty surcharge on additional properties was introduced in April 2016. July 2017 marked the first month following the stamp duty change that total mortgage approvals increased, including for buy-to-let. Similarly, following a 73.8% annual increase in UK property transactions, to 171,350 in March 2016, the final month before the stamp duty change, monthly

Private Housing Starts and Completions Great Britain

	2015	2016	2017	2018	2019
	Actual	Actual	Estimate	Forecast	Projection
Starts	140,015	146,143	153,450	156,519	159,650
	7.3%	4.4%	5.0%	2.0%	2.0%
Completions	129,373	133,214	146,535	150,931	152,441
	17.2%	3.0%	10.0%	3.0%	1.0%
Output (£m)	24,053	27,218	28,035	28,876	29,453
	8.7%	13.2%	3.0%	3.0%	2.0%
RM&I Output (£m)	17,065	17,972	18,331	18,148	17,785
	2.0%	5.3%	2.0%	-1.0%	-2.0%

Source: ONS, Construction Products Association



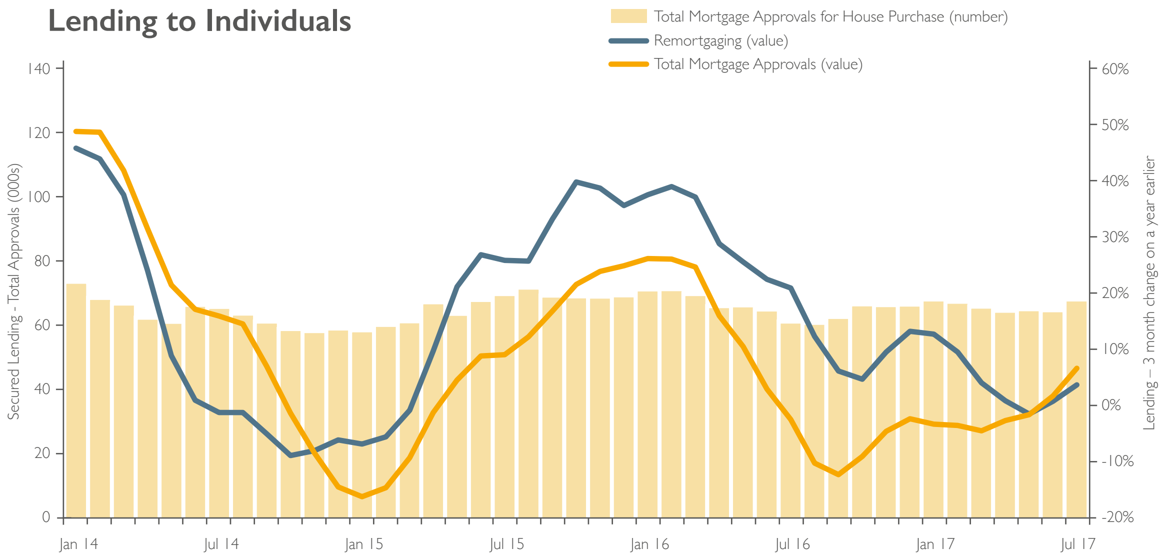
Source: Nationwide

transactions volumes remained below 100,000 for the remainder of 2016. Transactions rose in June and July, to the highest since March 2016 but remain below the levels seen in 2015.

UK house prices have continued to increase, despite the distortions in housing market activity over the last 18 months. According to the ONS/ Land Registry, national house prices rose 5.1% year-on-year in July, led by the East Midlands (7.5%), the East of England (7.1%), the South West (7.0%) and the West Midlands (6.9%). House prices for the period January to July were 4.8% higher than a year earlier. The Royal Institution of Chartered Surveyors (RICS) and Savills, among others, have highlighted that a reduction in the supply of pre-owned properties for sale is contributing to upward pressure on house prices and whilst this inflation continues, there would be expected to be an associated increase in house building. Forecasts for house price inflation in the HM Treasury's comparison of independent economic forecasts in September averaged 2.7%, with a range between -2.0% and +6.1% for the year to 2017 Q4. For 2018 Q4, house prices are forecast to rise 1.7% on average, but ranged between -5.0% and +4.6%.

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 June 2017, the equity loan was used on 134,558 transactions in England, and whilst this accounts for only 3.1% of property transactions over the period, it represents 29.7% of new build completions. Furthermore, in the most recent four-quarter period, this proportion rose to 34.0%. Among the major house builders, equity loan purchases are reported to account for up to 40% of their sales. The counterpart schemes in Scotland and Wales have accounted for a similar proportion of transactions and building activity. In England and Wales, the equity loan scheme will be in operation until March 2021, but in Scotland, the maximum eligible purchase value under the scheme will be tapered. This was reduced from £230,000 to £200,000 in April 2017 and will move lower to £175,000 from April 2018. 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. To date, in England, equity loan values have totalled £6.7 billion. At the Conservative Party Conference in early October, the Chancellor assigned another £10.0 billion to the scheme until 2021, alleviating concern that,

Lending to Individuals



Source: Bank of England

conversely, it could also be ended early if the original £8.6 billion funding runs out.

In early 2017, the government awarded bids for two funding programmes that aim to encourage local authorities to bring forward or remediate land suitable for housing. In January, £6 million was set aside to prepare land for 14 new garden villages, which the government hopes will lead to 25,000 starts by 2020.

Help to Buy equity loans *have been used to purchase* **29.7%** *of new build completions in England*

Also in January, 30 local authorities were awarded a share of the £1.2 billion Starter Homes Land Fund, which supports development on brownfield land. However, the Starter Homes scheme has been absent from recent policy documents, including the Housing White Paper and the Mayor of London's Housing Strategy consultation. In July, bidding was opened for local authorities to bid for a share of the £2.3 billion Housing Infrastructure Fund, forming part of the £23 billion National Productivity Investment Fund announced in the 2016 Autumn Statement. This funding is formed of two parts: the marginal viability fund and the forward fund. The former is capped at £10 million per bid, and aims to top up funding for projects facing an unforeseen shortfall in finance for site infrastructure. 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. However, funding must be spent by March 2021, which limits the amount of time local authorities and developers will have to plan and design major housing schemes.

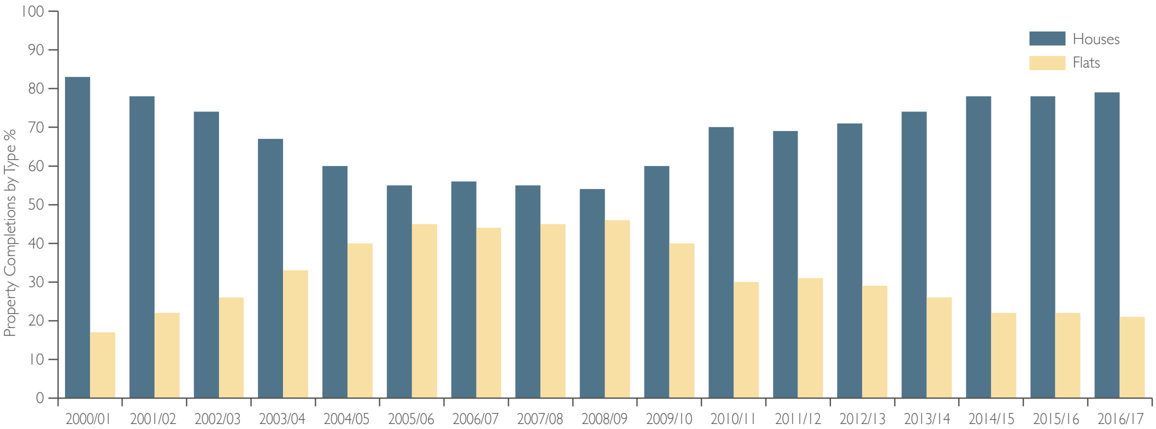
Government proposals in February's Housing White Paper and the Mayor of London's draft housing strategy from September have not been factored in to the forecast. The new policies outlined, including changes to Section 106 and Community Infrastructure Levy payments and negotiations, local authority plans to allocate small sites for SME house builders and reducing the time for developers to implement a planning permission from two years instead of three, are long-term changes still subject to the outcome of industry consultations before being implemented. Both policy consultations are 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 47,107 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 Department for Communities and Local Government (DCLG) showed that private housing starts in 2017 Q2 matched those of Q1. At 35,600, this was the highest level since 2007 Q4 and for the year to date, starts were 17.5% higher than a year earlier. The prime Central London market has been one area of private housing that has displayed weakness over the last 6-9 months, however. It is currently an oversupplied market, which has led to falling prices and as projects completing in the next 12-18 months add to the supply of prime residential properties, downward pressure on prices is expected to continue. As a consequence, according to the NHBC, new registrations in London declined 42.9% in the three months to August 2017 compared with a year earlier. Nationally, new orders for private housing in Q2 were 8.2% lower than a year earlier, which suggests weaker growth in starts and output in the second half of 2017.

Despite favourable market conditions for new build housing sustaining house builder confidence, downside risk to demand stems from the

deterioration in real wages and incomes. Inflation is set to rise to a five-year high of 3.0% in late 2017 (see Economy), outpacing increases in wages and salaries and, therefore, reducing households' willingness to make large purchases. As a consequence, construction growth is expected to moderate from the rates registered in recent years. Private housing starts are expected to increase 5.0% in 2017, followed by forecast increases of 2.0% per year in 2018 and 2019.

Private housing completions by type (England)



Source: DCLG

Downside Risks:

- Sustained falls in real wages deter Help to Buy purchases
- Full-year contraction in mortgage lending and property transactions
- House prices fall
- The Bank of England raises interest rates

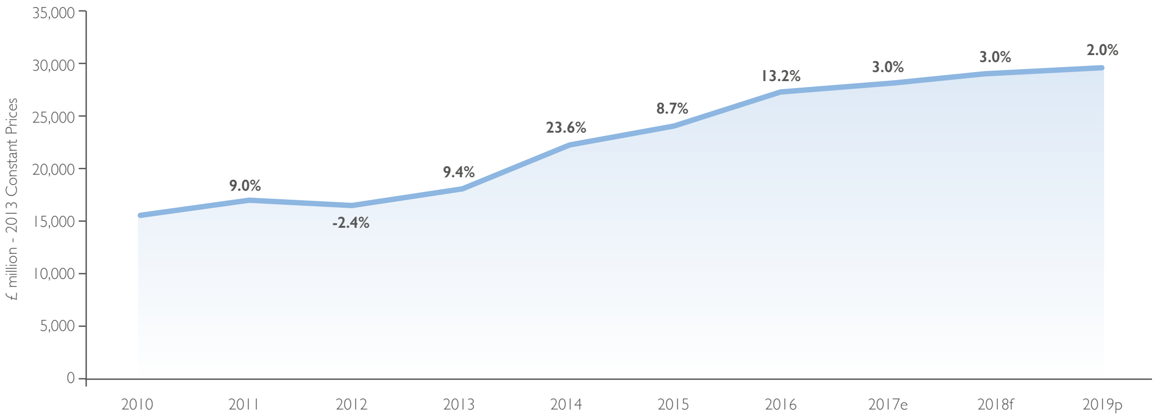
Real wages have declined since February and a large deterioration in consumer confidence would reduce appetite for borrowing and big-ticket purchases. Consumer confidence would be worsened further if the Bank of England raises interest rates. Furthermore, in light of changes to stamp duty rates and tax relief changes, an extended decline in demand from buy-to-let investors may materialise. A period of weakness in overall mortgage lending and property transactions in the fourth quarter of 2017 is likely to be accompanied by a significant slowdown or fall in house price growth in 2018. A decrease in house building starts would then be expected in 2018. 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. In the case of all downside risks materialising, the performance of private house building will vary considerably from the central forecast. Under these conditions, starts would be expected to rise 1.0% in 2017, followed by falls of 5.0% in 2018 and 4.0% in 2019.

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 2017 and 2018
- House price growth continues at current rates

If economic growth, wage growth and demand for home ownership remain strong against a backdrop of uncertainty and rising inflation, then mortgage lending, property transactions and house prices would be expected to increase during the remainder of 2017 and into 2018. This is especially the case given reported reductions in the supply of 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. This would result in growth in starts of 8.0% in 2017 and 5.0% in both 2018 and 2019.

Private Housing Output



Source: ONS, Construction Products Association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Private Housing RM&I

The private housing repair, maintenance and improvement (rm&i) sector was worth £18.0 billion in 2016, an increase of 5.3% compared to 2015.

Growth in activity accelerated in the second half of the year, reflecting improvements work taking place on properties purchased in 2016 Q1 in advance of changes to Stamp Duty Land Tax from Q2. The prospects for activity in the near-term depend on how consumer confidence and, importantly, households' willingness to make large purchases, are maintained as rising inflation has eroded pay increases since early 2017.

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 and household savings enable activity in the sector as they are used as sources of finance for rm&i activity.

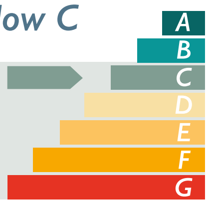
Property transactions are a key determinant of activity in the sector because improvements to an existing property, as opposed to new build, tend to be made with a typical lag of 6-9 months after purchase. Property transactions during 2016 were distorted by the introduction of a higher rate of stamp duty in April for the purchase of properties additional to a main residence. As a result, property transactions in 2016 Q1 rose 19.4% compared to the previous quarter and were 32.6% higher in annual terms as purchases were brought forward to avoid the increase in transaction costs. The Q1 spike in property transactions was matched by a 30.5% decrease in volumes during Q2. Quarterly transactions volumes increased from 2016 Q3 onwards, but only recovered to 2015 levels of 104,000 per month in July 2017. Reflecting the rm&i work on properties purchased in early 2016, output from the sector recorded growth of 7.8% in 2016 Q4 and 10.1% in 2017 Q1. Output rose 6.9% in Q2 and would be expected to slow further during the remainder of 2017 on account of lower transactions volumes.

In terms of funding streams for rm&i work, the household savings ratio has steadily declined in the post-recession years, whilst households are taking advantage of record-low mortgage interest rates to repay housing equity. In 2017 Q2, £4.1 billion was repaid by households, in contrast to the pre-recession period when similar levels were being withdrawn from housing equity and used as funding for rm&i work. It is the expected decrease in real wages during 2017 and 2018 that may have a larger impact on consumer confidence, especially for purchases of big-ticket items. Consumer price inflation has risen faster than growth in wages since February, meaning a fall in real incomes. However, 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 do not wish to downsize.

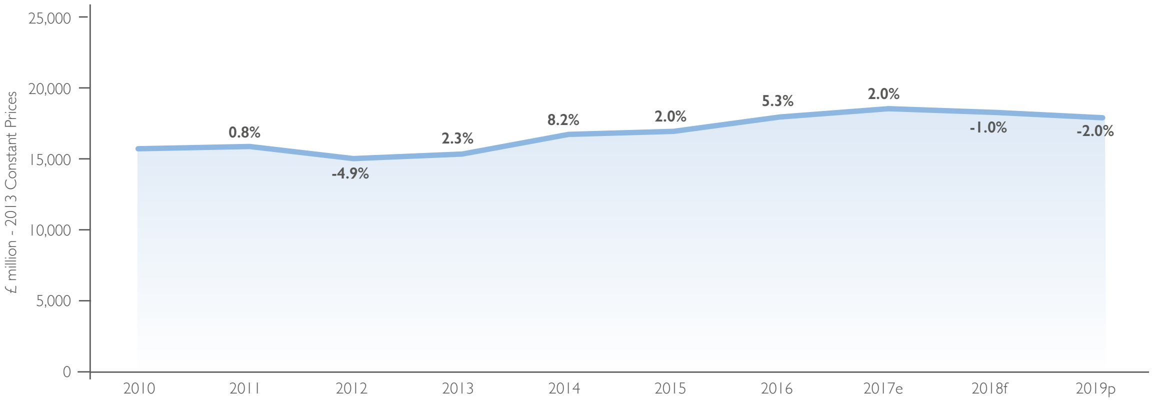
In terms of energy-efficient retrofitting work, a one-year transition programme towards a four-year programme of the ECO: Help to Heat programme began in April 2017. The programme is valued at around £640 million per year and focuses on fuel poverty. This is lower than the £870 million spent under ECO previously and shifts focus from

Proportion of the housing stock with an
EPC energy-efficiency rating below C

76.4% *owner-occupied*
73.6% *private rented*
51.6% *social rented*



Private Housing RM&I Output



Source: ONS, Construction Products Association

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 April, its opening month, 6,405 measures were installed, rising to 12,306 measures in May and 14,318 in June. These were the three lowest monthly numbers of ECO measures installed on record and compare to 14,430 measures in the opening month of ECO in January 2013 and an average of 41,399 per month over the entirety of the scheme to March 2017.

On balance, these factors are expected to hinder output from the private housing rm&i sector beyond 2017. Output growth is forecast to rise 2.0% in 2017, reflecting current favourable consumer sentiment but a slowdown from the strong rates of growth in the first half of the year. Activity is forecast to fall 1.0% in 2018, followed by a 2.0% decline in 2019, reflecting weaker consumer confidence as the fall in real wages reduces discretionary spending and, in particular, property transactions.

Downside Risks:

- Consumers retrench spending quickly in response to higher inflation
- An overall fall in property transactions in 2017 and house price falls 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 falling real incomes or a rise in economic uncertainty could result in households taking a precautionary savings stance and cutting non-essential spending. 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 activity. In this case, output would be expected to remain flat in 2017 and decline 3.0% each year in 2018 and 2019.

Upside Risks:

- Rising inflation has limited impact on consumer confidence
- Property transactions increase in 2017 and 2018
- House price inflation continues at current rates

If UK consumer spending is unaffected by rising inflation, property transactions increase in the final quarter of 2017 and into 2018, and house price growth remains around 5.0%, the prospects for rm&i remain positive. Whilst UK economic growth is still expected to be below the long-term trend in 2017 and 2018, rm&i activity could accelerate as rises in transactions drive an increase in property refurbishment and improvements spending. This would drive growth rates of 4.0% in 2017 and 2.0% in both 2018 and 2019.

Public Housing

Despite greater certainty over grant funding under the Shared Ownership and Affordable Homes Programme 2016-21 (SOAHP), public housing starts in England decreased 18.6% in 2017 Q2.

On an annual basis, starts fell 14.1%, resulting in starts being 2.4% lower for the year to date (on a seasonally-adjusted basis). Grant funding of £4.7 billion has been set aside for the SOAHP for England and the government announced in January that an initial £1.3 billion in grants had been allocated. Grants were awarded 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 further £1.3 billion of funding and an undetermined share of £1.4 billion funding for public housing starts announced in the Autumn Statement were also released for bids on an ongoing basis. In addition, the government has allowed greater flexibility over the tenure of housing built under the SOAHP to include affordable rent, which is less dependent on general housing market conditions than shared ownership, which was expected to account for 88% of building under the programme previously. This is an important concession, given that during the 2016/17 financial year, the Homes and Communities Agency reported that housing associations' revenues from open market and shared ownership sales were below forecast in every quarter. For local authorities, the Housing White Paper in February confirmed the government's view that councils' roles in house building will be to assign land and monitor delivery against local plans. In addition, the Local Government Association 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 Autumn Statement also announced £3.15 billion for 90,000 affordable housing starts in London over the same period. £1.7 billion of this was allocated in July 2017, for 49,398 homes for social rent, London living rent and shared ownership. An £8.0 billion deal between housing association L&Q and the Mayor of London was also signed in April 2017, to build 20,000 new homes in the capital, 40% of which will be for market sale or rent. The Mayor of London published a draft housing strategy 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. At the Conservative Party Conference, £2.0 billion in funding was announced for housing associations and local authorities and is expected to deliver 25,000 new homes for social rent tenures. Indications are that this will be spent beyond the forecast period, however.

Greater stability and certainty in the SOAHP, as well as flexibility to adjust tenures in accordance with prevailing housing market demand and a potentially large funding impetus for public house building in London, underpin expectations of three years of rising activity in the sector. Starts are forecast to increase 8.0% in 2017, 2.0% in 2018 and remain flat in 2019.

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 debt and, therefore, creditworthiness. In addition, reduced investor appetite may also disrupt alternative methods of finance, such as bond issuance, where uncertainty means that long-term returns on investment are unclear. These considerations, as well as the HCA reporting an increase in the stock of unsold market-linked units in the second half of 2016 and first half of 2017, provide the downside risks to the forecast and would see starts decline 5.0% in 2017 and 2.0% in 2018, before remaining flat in 2019.

Public Housing Starts and Completions Great Britain

	2015	2016	2017	2018	2019
	Actual	Actual	Estimate	Forecast	Projection
Starts	32,835	32,367	34,956	35,655	35,655
	-2.8%	-1.4%	8.0%	2.0%	0.0%
Completions	37,004	31,230	32,792	34,103	34,444
	27.2%	-15.6%	5.0%	4.0%	1.0%
Output (£m)	4,604	4,310	4,526	4,661	4,801
	-18.1%	-6.4%	5.0%	3.0%	3.0%
RM&I Output (£m)	7,478	6,930	6,584	6,452	6,774
	0.5%	-7.3%	-5.0%	-2.0%	5.0%

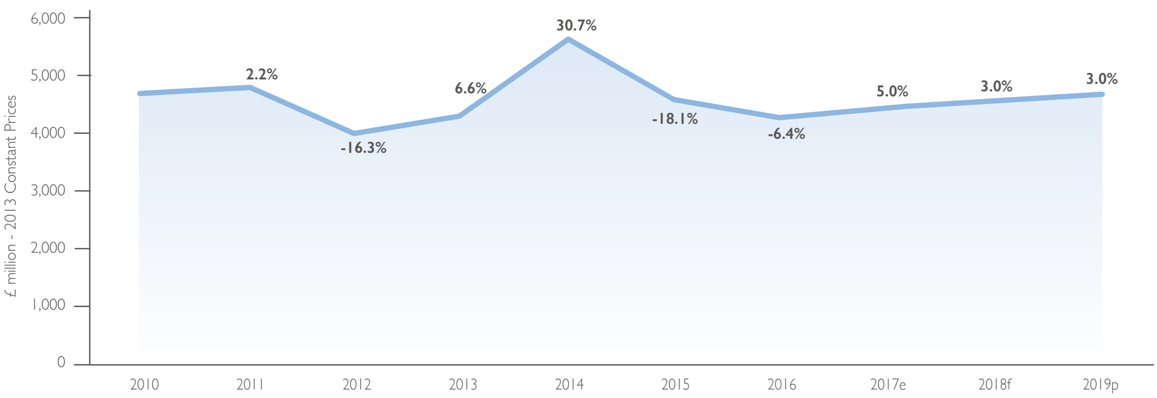
Source: DCLG, ONS, Construction Products Association

Upside Risks:

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

Over one-quarter of housing association starts and completions were for the open market in 2015/16 and 2016/17 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. Furthermore, greater flexibility in the SOAHP 2016-21 would allow for construction of affordable rent units if market conditions for planned shared ownership homes deteriorate, although it is not clear how quickly business plans could be adjusted. Starts would be expected to increase 10.0% in 2017 and then 4.0% each year in 2018 and 2019 under these conditions.

Public Housing Output



Source: ONS, Construction Products Association

Public Housing RM&I

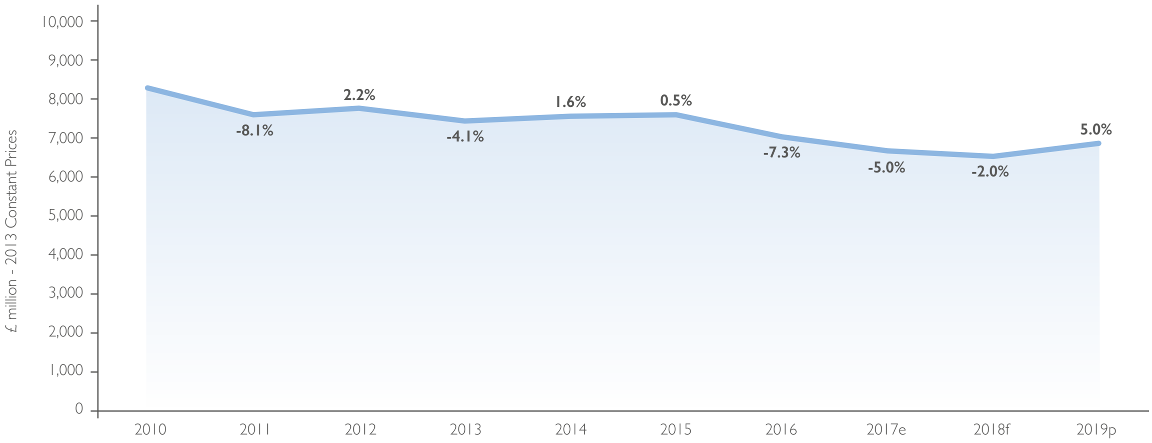
The majority of activity in the public housing rm&i sector is either basic repairs or essential maintenance on the existing public housing stock of 2.0 million local authority homes and 2.8 million housing association dwellings in Great Britain.

This type of work cannot be delayed for a significant period of time. Sector output has fallen 22.6% since 2010 Q2, due to central government reducing funding to the Department of Communities and Local Government 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 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, the typical drivers of rm&i work in the sector will be replaced by a shift in focus towards fire safety, investigations and a review of the housing stock. The response of local authorities to the disaster suggests that public sector rm&i resources will be redirected to prioritise fire 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 and are likely to displace other planned repairs and maintenance activity. Questions remain over funding for work, however, and main work is not expected to occur until 2019, given the wide scope of investigations.

The Homes and Communities Agency (HCA) forecasts that for social landlords, the average spend per unit for major repairs will decrease by 10% between 2016 and 2020. 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 current ECO programme ended in March and its successor, ECO: Help to Heat, began in April as a one-year transition programme before it begins fully in 2018/19. 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 four months of the transition between ECO and ECO: Help to Heat, an average of

Public Housing RM&I Output



Source: ONS, Construction Products Association

12,506 measures were installed per month. This compares to an average of 20,520 in the opening four months of ECO and 41,399 per month over the entire four-year programme. Furthermore, the public housing stock is likely to be diminished through the nationwide rollout of Right to Buy to housing association tenants, expected from 2018. Despite a government pledge for 1:1 replacement, between the second quarter of 2012 and the second quarter of 2017, there were 57,077 Right to Buy sales in England, but only 12,147 direct replacements started over the same period, a ratio of one replacement for every five sold.

Any uptick in urgent repair work in the final quarter of the year is unlikely to offset the decline in output that has occurred in consecutive quarters since 2015 Q4. For the year to date, output is 9.7% lower than a year ago and for the full year, output is estimated to fall 5.0%. A 2.0% decline is forecast for 2018, with growth picking up to 5.0% in 2019 as remedial work on the social housing stock accelerates.

Downside Risks:

- Full implementation of ECO: Help to Heat programme delayed
- Local authorities direct funding away from housing rm&i
- Housing association revenues reduced by a weaker than expected housing market

ECO: Help to Heat will cover fewer measures and will focus on easing fuel poverty, rather than improving energy efficiency. After the transitionary period in 2017/18, the full launch of a four-year programme is due to start in 2018/19. Delays to implementation, due to discussions over the scope and cost, cannot be ruled out, as has happened with previous programmes, and would reduce activity. The risk of further reductions in funding, through local authorities adjusting local spending priorities or a weaker housing market performance affecting housing associations' open market sales revenues, also pose a downside risk to rm&i spending. Under these conditions, output is forecast to decline 8.0% in 2017 and 5.0% in 2018. Despite higher planned volumes of work for 2019, skills shortages would be expected to limit growth to 2.0% in 2019.

Upside Risks:

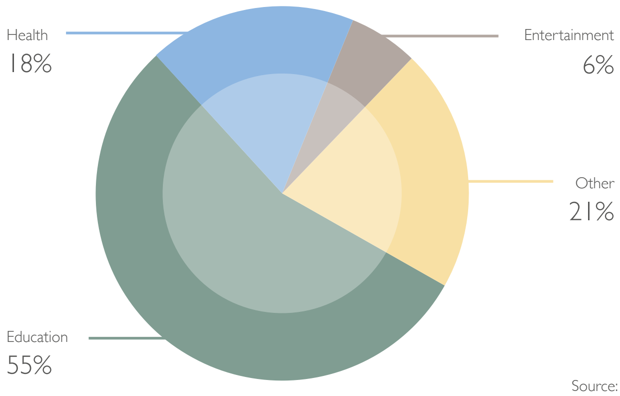
- Housing associations focus on maintenance
- Housing market performs stronger than expected

If building homes for market sale or shared ownership becomes less financially viable due to a weaker housing market moving into 2018, housing associations may instead focus on maintaining their existing, revenue-earning housing stock. 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 and growth of 2.0% per year would be expected in 2017 and 2018, followed by an increase of 4.0% in 2019.

Public Non-housing

Public non-housing construction output is largely determined by capital funding allocated to departmental budgets by central government and, therefore, is less affected by uncertainty than other sectors such as commercial and industrial.

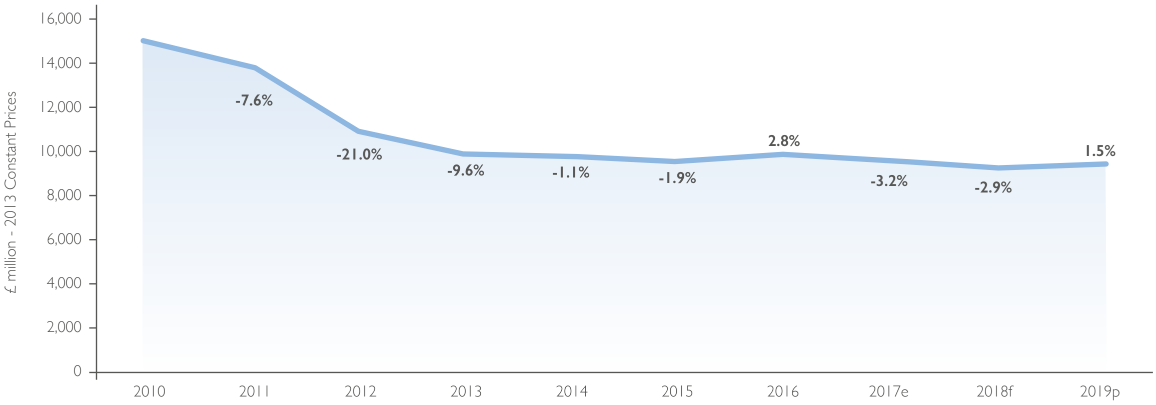
Public Non-housing Output by Sub-sector 2016 (%)



As a positive for the sector, capital investment for both education and health was increased in the March Budget, alongside an additional funding allocation for new free schools. However, a decrease in orders in the first half of 2017, hospital projects completing, concern over potential delays and budget overruns and recent rises in raw materials costs limit prospects for the sector. Output is expected to decrease 3.2% in 2017 and 2.9% in 2018, before rising 1.5% in 2019.

The underlying driver of output in the publicly-funded **education** sub-sector continues to be the Priority School Building Programme (PSBP). The first phase, nearing completion, will rebuild 260 schools, 214 of which are publicly funded and the majority is scheduled to be completed by the end of 2017. At the end of February 2017, work on 178 schools had been completed but

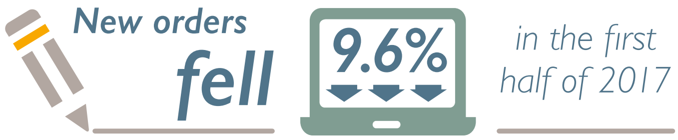
Public Non-housing Output



Source: ONS, Construction Products Association

the Department for Education estimates that 23 will run over into 2018, due to site difficulties or planning issues. A £2.0 billion second phase (PSBP2) will focus on rebuilding individual blocks at 277 schools by 2021. Rising cost pressures for contractors were highlighted in a report from the National Audit Office as a threat to achieving time and budget targets for the PSBP2. In total, the PSBP was assessed to be £286 million over budget. 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 Conservatives' manifesto in early 2015 pledged 500 new free schools by 2020, providing an additional 270,000 school places. Since then, 124 free schools have opened, with a further 376 approved, and a budget of £1.4 billion per year between 2016/17 and 2020/21. 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, but bidding has exceeded official valuations by 60% on 20 sites so far. The Public Accounts Committee has also cited concerns over value for money with the free schools programme.

Budget 2017 increased the Department for Education's capital investment funding, by a cumulative £2.8 billion between 2017/18 and 2019/20 compared to Budget 2016, and government also allocated £320 million in additional funding for 140 new free schools, although the majority is not expected to be used until 2020. However, given that output from the sub-sector fell 9.0% in 2017 Q1 and 18.6% in Q2 and this was accompanied by a decrease in new orders of 17.1% in Q1 and 1.4% in Q2, the sub-sector forecast has been downgraded. Output is forecast to fall 10.0% in 2017 and 5.0% in 2018, and remain flat in 2019.



Downside Risks:

- Cost increases and a lack of contractor interest delays start dates further

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. In addition, it is unlikely that the government will assign additional funding to cover these higher costs across each year of the programme, leading to a delay in contract awards and the start of construction. In this case, output is expected to decline 12.0% in 2017, 6.0% in 2018 and 3.0% in 2019.

Upside Risks:

- Capital funding is brought forward

With capital funding for education already raised in the latest Budget, additional financial support for school building is only likely to arise if government brings forward funding from later years of the departmental budget to 2017/18 and 2018/19, as a means of covering higher cost pressures in the near-term. Output would fall 3.0% in 2017 and then rise 3.0% each year in 2018 and 2019 in this case.

Like education, the forecast for the **health** sub-sector has been downgraded due to sharp falls in output and new orders since 2016 Q4. Work in this sub-sector includes publicly-funded work on hospitals, health centres and clinics. Among projects currently underway are the £298 million Broadmoor redevelopment (opening early 2018), 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 2019. 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, will see contracts awarded by the end of 2017. The NHS smaller works framework, ProCure21+, ended in September 2016 and was replaced by its successor, the £4.0 billion ProCure22 in October, but it will continue to provide a stream of work over the next few years. Since it started in October 2016, 29 major works schemes and 13 small works packages have started under ProCure22.

Capital value of projects *in the* ***ProCure22*** *pipeline:* **£1.1bn**

The Department of Health was allocated £6.1 billion for capital investment in 2017/18 in the Budget and £6.0 billion each in 2018/19 and 2019/20, although it is unclear how much of the capital budget will be assigned to new building work, rather than IT upgrades and equipment. After growth of 9.7% in 2016, the outlook for 2017 and beyond has weakened considerably as work on large hospitals projects peaks or completes and the pipeline is not replenished at the same rate. Sub-sector output declined 13.3% in Q1 and fell 27.8% in Q2, whilst new orders were 30.8% lower on a four-quarter basis in Q2. Output is forecast to decline 10.0% in 2017, 5.0% in 2018 and rise 1.0% in 2019.

Downside Risks:

• Cost rises delay projects

Rising costs for raw materials and on-site labour may lead to delays as projects are paused to allow for attempts at contract renegotiation. Site difficulties and rising costs have already been blamed for delaying the completion dates for privately-financed hospital construction, including the Midland Metropolitan Hospital by six months and the Royal Liverpool and Broadgreen Hospital by one year. Cost-related delays in publicly-funded activity would lead to falls of 12.0% in 2017 and 8.0% in 2018 and output remaining flat in 2019.

Upside Risks:

• Capital funding is brought forward

Like the education sub-sector, a sharp rise in costs that leads to contractors pausing activity could also prompt the government to change the existing capital funding profile to bring forward spending from later years. A decline of 3.0% would be expected in 2017, but growth of 2.0% each year in 2018 and 2019 is forecast in this case.

Public non-housing **other** covers construction work on publicly-funded facilities such as prisons and defence projects. In 2017 Q2, output grew 32.6% on a four-quarter basis as two large defence projects enter 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, the award of contracts for the Ministry of Defence's £1.1 billion accommodation and facilities for the Army Basing Programme on Salisbury Plain will improve growth rates from 2018, ahead of the project's completion in 2020.

In the March Budget, the Ministry of Defence's capital budget was increased to £8.5 billion in 2017/18 (from £7.5 billion previously), £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, after the new £212 million prison in Wrexham opened in February, there is little in the Ministry of Justice construction pipeline aside from the expansion of Rye Hill

and Stocken prisons. In March, the government announced further detail of four new prisons to be built in Yorkshire, Wigan, Rochester and Port Talbot as part of its £1.3 billion investment in the prison estate, but are yet to receive planning approval and, therefore, construction work is likely to fall outside of the forecast period. However, 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 and would be expected to provide some work from 2018. New orders in the sub-sector rose 15.6% on a four-quarter basis in 2017 Q2, with output expected to rise 15.0% in 2017, 2.0% in 2018 and 5.0% in 2019.

Downside Risks:

• Delays to projects

Questions over contractor appetite may arise if prolonged uncertainty acts a stronger drag on economic growth 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, which would see output rise 5.0% in 2017, followed by falls of 5.0% and 3.0% in 2018 and 2019 respectively.

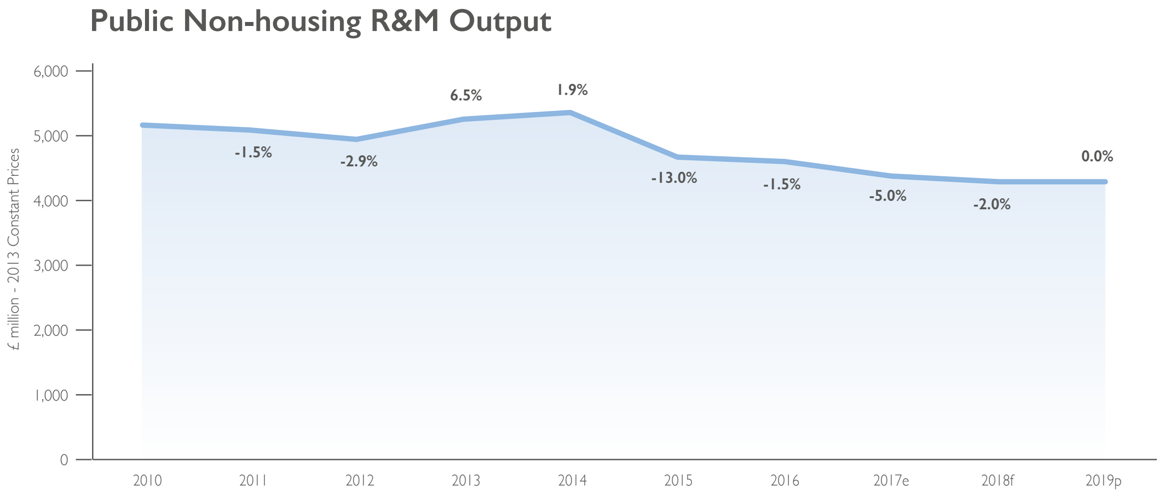
Upside Risks:

• Further detail and contracts for new prisons

Planning approval for the four new prisons announced in March would increase certainty for the sub-sector. However, construction activity would not be expected to begin until 2018 at the earliest, to allow for design and tendering. Therefore, a 15.0% increase in output is still expected in 2017. This would then be followed by growth of 3.0% in 2018 and 8.0% in 2019.

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.



Source: ONS, Construction Products Association

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.

Following a 1.5% decline in sector activity in 2016, output in the first half of 2017 was 6.3% lower than a year earlier. Against a backdrop of reduced grant funding from central government, and financially-constrained councils, a full-year contraction of 5.0% is estimated for 2017, followed by a further 2.0% contraction 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. The government has assigned £4.2 billion in school condition funding between 2015 and 2018, alongside more recent top-ups including a £1.4 billion investment to help improve and maintain the condition of school buildings and a £216 million investment for school maintenance announced in the March Budget. However, according to the National Audit Office, the condition of the school estate is expected to deteriorate further despite planned investment and, the cost to return schools to satisfactory conditions is likely to double between 2015/16 and 2020/21.

Downside Risks:

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

In the event of 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, this could lead to output contracting 8.0% in 2017 and 4.0% each year in 2018 and 2019.

Upside Risks:

- Work on framework contracts limits falls in activity

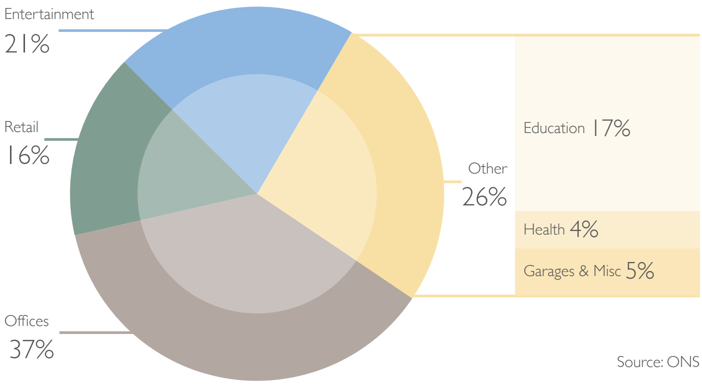
Existing long-term contracts for maintenance on prisons and hospitals are less likely to be affected by economic uncertainty and will provide a steady stream of public non-housing r&m activity. However, even with this support, growth in the sector is expected to remain flat in 2017 and 2018, before growth of 1.0% in 2019.


THE

Commercial

Activity in the commercial sector remains at a relatively high level but, over the past 12 months, the CPA has consistently highlighted the sharp falls in new orders in the commercial sector that have occurred since the EU Referendum in June 2016 in addition to the 12-18 month lag between new orders and output.

Commercial Output by Sub-sectors 2016 (%)

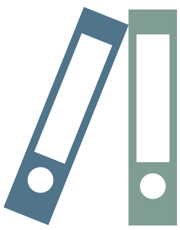


Source: ONS

The commercial sector now appears to be starting to experience the slowdown in activity on the ground. Commercial sector output rose by 8.5% in 2016 and output in 2017 Q1 was 7.4% higher than a year ago as work on projects signed pre-referendum continued to feed through but output in Q2 was 2.0% lower than in Q1.

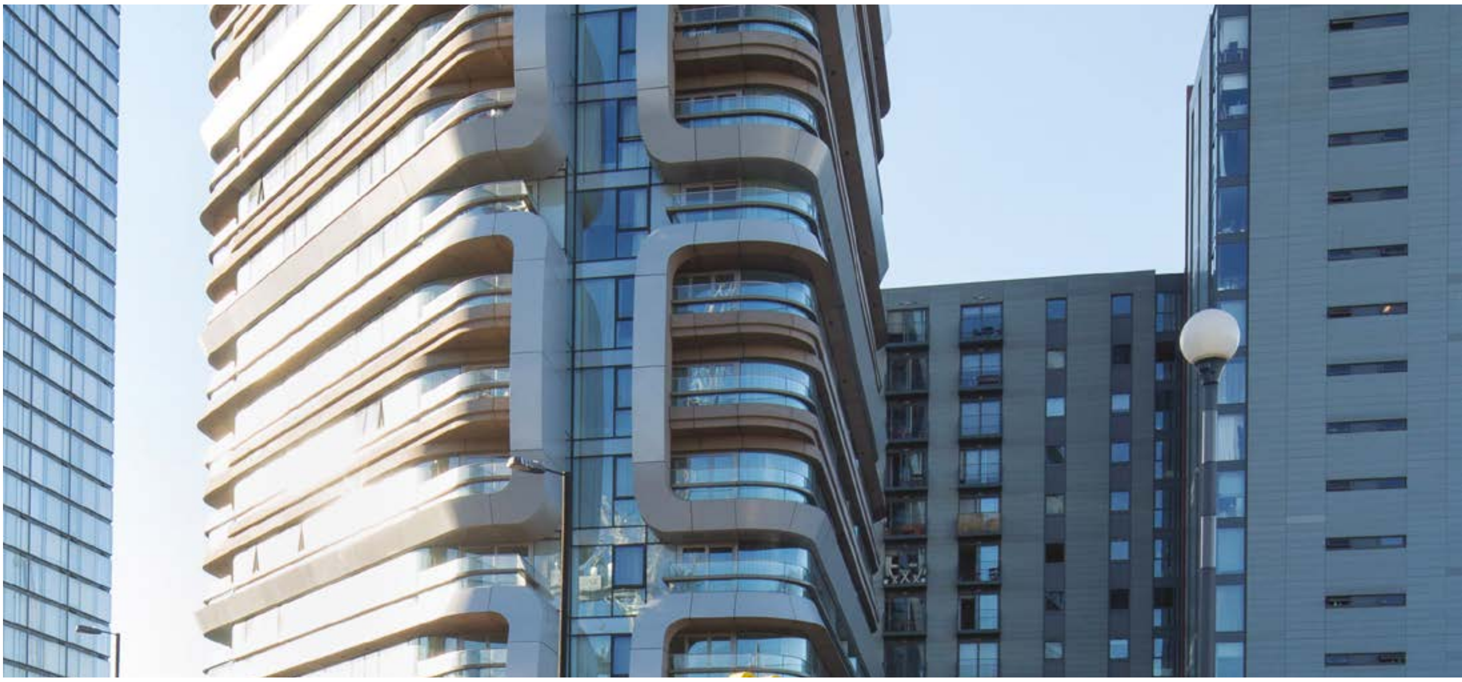
The clearest indications of issues in the sector were from the new orders. Prior to the referendum, new orders in the first half of 2016 were 19.1% higher than a year earlier. Following the lag between orders and output, this suggested increasing activity over the course of the year and in the first half of 2017. After the referendum, however, there was a considerable rise in uncertainty regarding labour/skills and trade in products, services and capital. This, in turn, impacts particularly on international investors and developers, who have clearly adopted more risk-averse behaviour towards new projects. New orders during the second half of the 2016, post-EU Referendum, were 10.5% lower than a year earlier. New orders during the first quarter of 2017 were 3.2% lower than a year earlier and new orders during Q2 were 20.4% lower than a year earlier, confirming that falls in output in the sectors are likely to extend to 2019. Previous CPA forecasts anticipated that the fall in new orders would start to feed through in the second half of 2017. However, as commercial output has already fallen by 2.0% in Q2, further falls in output are expected during the second half of 2017. Overall, output is expected to fall by 0.8% before a decline in activity of 5.3% in 2018.

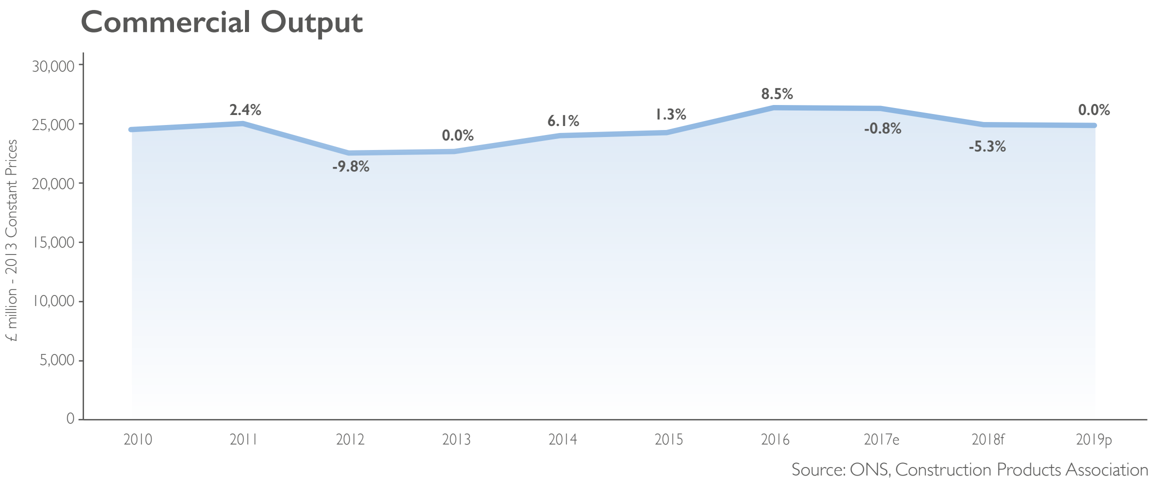
Output in the **offices** construction sub-sector rose by 13.6% in 2016. In addition, offices output in 2017 Q1 was 1.6% higher than in Q4 and 1.8% higher than one year earlier. However, 2017 Q2 saw output fall by 4.7% compared with Q1 and 6.2% compared with one year ago. Activity remains at a high level, demonstrated by the high number of cranes around cities such as London and Manchester. However, this is mainly based on projects signed up to pre-referendum and it is difficult to see Q2's declines as anything except the start of the fall in offices new orders during the second half of 2016 feeding through on to the ground.



Technology, Media and Telecommunications ***(TMT) accounted for*** **31.6%** *of new offices space in 2017 Q2*

New orders in 2016, overall, were 0.5% higher than in 2015. However, this is due to the sharp rise in new orders during the first half of the year, pre-referendum, offsetting the sharp falls in new offices orders since the referendum. New orders in the second half of 2016 were 19.7% lower than a year earlier. More recent orders have also provided little room for optimism in the sector. Commercial offices orders during the first half of 2017 were 24.3% lower than a year earlier, clearly implying that the decline in the sub-sector will be sharp and endure into 2019.





Overall, demand for high-profile offices space from the Technology, Media and Telecommunications (TMT) sector remains high. TMT accounted for 800,000 sq. ft. of lettings in Q2, increasing its market share in London offices space during the second quarter to 31.6%, just over double that of the financial services sector. In addition, offices demand for flexible working continues to grow, albeit potentially at the expense of standard office rental demand. WeWork, a large co-working firm, was responsible for the two largest commercial offices deals of the second quarter of 2017, accounting for 423,000 sq. ft. in London at 125 Shaftesbury Avenue and 2 Southbank Place.

Whilst activity in cities outside the capital continues to grow and demand from the TMT and flexible working sectors remains high, there continue to be concerns regarding future workloads in London, particularly from the financial services sector due to the ongoing uncertainty with respect to the UK's relationship with the EU once it leaves in March 2019. The moves, by banks, insurers and associated business and financial services firms continues to trickle out of the UK at a relatively slow rate and, currently, the key moves have been UK-based firms establishing a subsidiary in other EU member states or global firms moving their EU head office from London to another EU city. But this trend would be expected to accelerate if it proves to be the case that the UK will not be part of the Single Market.

WeWork** was responsible for the* ***two largest commercial offices deals in 2017 *Q2, accounting for* ***423,000 sq. ft.*** *in London*

In March 2017, Goldman Sachs announced that it would be moving hundreds of staff from London to Frankfurt and Paris as part of its Brexit contingency plan. Also in March, AIG stated that it would set up a subsidiary in Luxembourg. In addition, Lloyd's of London announced it would be opening a subsidiary office in Brussels. More recently, XL Group became the second Lloyd's of London insurer to announce its EU operations would be headquartered in Dublin after the announcement that Beazley would expand its Dublin local operation to a business transacting throughout the EU in July. Furthermore, US insurer Chubb announced in September that it was planning to establish its EU headquarters in Paris if the UK quit Europe.

Given the current declines in activity, offices output is expected to fall throughout the second half of the year and, overall for 2017, fall by 5.0%. This is expected to be followed by falls of 15.0% in 2018 and a further 5.0% in 2019.

Downside Risks:

- Prolonged Brexit negotiation uncertainty
- Business investment is constrained by a longer economic downturn, which reduces pre-letting activity and investor confidence
- Further depreciations in Sterling lead to further rises in construction costs

Uncertainty throughout the Brexit negotiations would be expected to lead to sharper falls in the 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 would particularly impact upon the financial sector and lead to further falls in new investment in London. In addition, any further depreciations in Sterling due to speculation would lead to a rise in construction costs, due to the impact on imported materials, hindering the financial viability of projects given uncertain returns. In this case, commercial offices would be expected to fall 10.0% in 2017 and 20.0% in 2018 with a further decline of 15.0% in 2019.

Upside Risks:

- Stronger economic growth despite rising inflation
- Exchange rate weakness supports foreign investment

If the economy returns to robust growth and real wage growth is maintained, despite rising inflation, then upward revisions to business confidence and business investment may incentivise new investment in commercial offices. This, combined with a weaker value of Sterling, may lead to further international investment as concerns regarding long-term returns on investment abate. These potential new projects could help to offset the impacts of falls in new contract awards last year. A rise in activity of 2.0% is expected in 2017 but activity would still remain flat in 2018 and 2019.

In line with previous CPA forecasts, **retail** construction activity between 2017 and 2018 is expected to continue to decline after already suffering falls in the last two years. However, even still, there are a few key hives of activity within the sub-sector.

Retail construction activity fell by 10.9% in 2015 and by a further 7.1% in 2016 due to a lack of growth from general retailers and, in particular, the major supermarket chains such as Tesco, Sainsbury's and Morrisons. The continued growth in online spending at the expense of regular high street spending is also likely to hinder construction activity the sub-sector. UK online retail sales rose by 15.6% in August 2017 and accounted for 16.4% of UK retail sales.

Recent increases in inflation, leading to falls in real wages, are expected to impact on retail sales in the medium-term. In the short-term, temporary falls in real wages have little significant impact on spending as consumers utilise savings or credit and take time to adjust spending plans. In August 2017, the volume of retail sales still increased by 1.0% compared with July 2017 and was 2.4% higher than a year earlier, the 52nd consecutive month of

year-on-year increase in retail sales. In the medium-term, however, consumers are expected to change spending patterns in response to persistently rising prices and falling real wages. The snap General Election in June is unlikely to have helped the retail sector. Greater clarity regarding Brexit and a recovery in the value of Sterling, reducing import prices, may have helped the ailing retail sector but the result provided no further certainty and led to further depreciations in the value of Sterling, raising import prices.

The falls in the sector are expected to be partially offset by the three largest projects within the retail sub-sector and growth from low value supermarket chains.

The ***three largest retail projects*** *are*

£1.4 billion Croydon Partnership
£1.4 billion Brent Cross extension
£1.0 billion Trafford Waters project

The Croydon Partnership is worth £1.4 billion. The design and preparation works are already underway, full construction on the project is anticipated from 2018 after many delays and it is expected to complete in 2021. The Brent Cross extension is also worth £1.4 billion and anticipated to double the size of the shopping centre. It is expected that enabling works will begin in 2017, which would allow for the start on site of main works in 2018 and an expected completion date of the project in 2021/2022. In addition to these projects, Trafford Council gave the green light to the £1.0 billion Trafford Waters mixed-use project, which includes one million sq. ft. of retail and office space, 3,000 new flats, a 300 room hotel, a 150 bed care home and a primary school built. However, no start date has been announced for the 20-year investment.

Aldi** is expecting to **open more than 1,000 new stores in the UK by 2022

***Lidl** is expecting to **invest £1.5 billion** in **opening 50-60 new stores each year** between 2017 and 2019*

In addition to a few major projects, low-value supermarket chains have been generating growth within the retail sub-sector. Aldi and Lidl have been the fastest-growing grocery chains in the UK this year and both have strong expansion plans. Aldi is expecting to open more than 1,000 new stores in the UK by 2022 and Lidl is expecting to invest £1.5 billion in opening 50-60 new stores each year between 2017 and 2019 compared with only 30 new stores in 2016. In contrast to previous supermarket chain expansion plans, which focused on small urban retail units that were take-up of new mixed developments or largely interiors and fit-out of existing buildings, Aldi and Lidl have been driving growth in the out of town (OOT) retail sub-sector. According to Savills, in August 2017, strong consumer demand for discounted grocery retail has led landlords and developers into the OOT sub-sector in recent years. In 2014, there were only 203 OOT retail schemes anchored by discount grocery brands such as Aldi and Lidl but this has risen to 423 in 2017. In addition, this also drives growth by other retailers that are focusing on out of town shopping districts such as M&S, B&Q, Matalan, Next and Wickes.

Overall, declines of 7.0% in 2017 and 5.0% in 2018 are forecast in the retail sub-sector before output returns to growth with a rise of 2.0% in 2019.

Downside Risks:

- More depreciations in the value of Sterling lead to further cost rises
- Lower real wage growth leads consumers further towards spending in low-value chains and online rather than major supermarket chains

Further depreciations and increased volatility in the value of Sterling could lead to higher costs, falls in real wage growth and declines in consumer spending overall. In addition, falls in real wage growth could lead to further increases in the proportion of spending online. In this case, retail construction would be expected to fall 10.0% in 2017, 5.0% in 2018 and 5.0% in 2019.

Upside Risks:

- Stronger than anticipated UK economic growth
- Consumers utilise savings in the short-term to still spend despite rising costs
- Real wage growth in the medium-term continues despite inflation rises

In the short-term, consumers could maintain spending by utilising savings if they assume that the hit to real wage growth will be temporary. If UK economic growth is sustained at rates experienced in 2015 and 2016 and real wage growth continues as employers are able to raise nominal wages in line with inflation then consumer spending could be sustained in the medium-term. In this case, retail output will fall 2.0% this year but remain flat in 2018 and rise 2.0% in 2019 as in the central forecast.

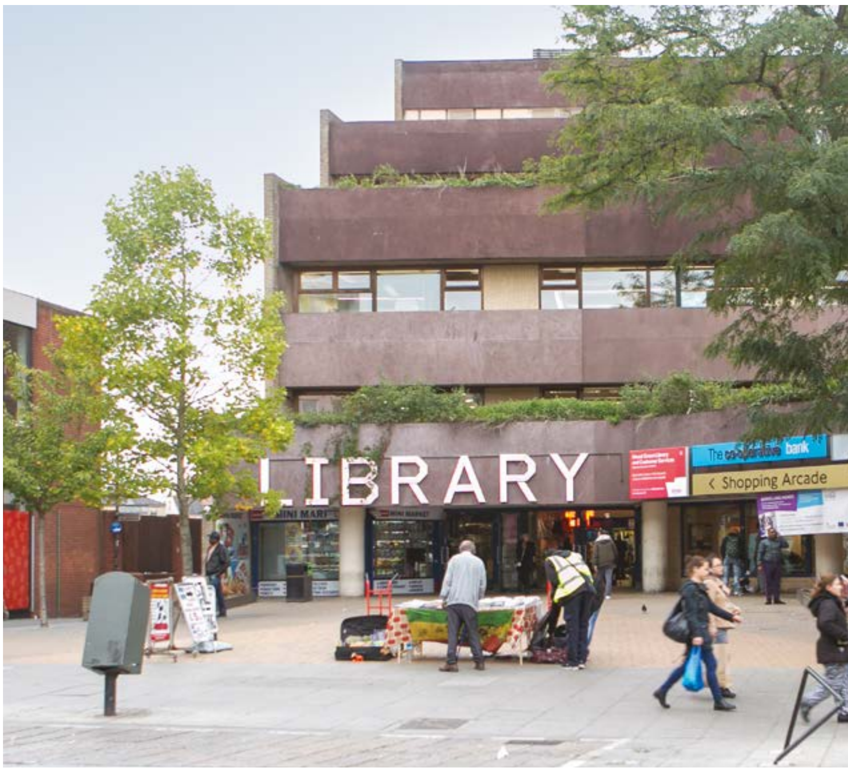
A few years ago, prospects in the **PFI education** sub-sector were bright. Activity in the sub-sector enjoyed double-digit growth in three of the last four years, with a pipeline of projects to come. PFI education output surpassed its pre-crisis peak during 2014 and grew by a further 7.9% in 2015 and 12.3% in 2016 as a result of major expansions by universities across the country with the anticipation of rising student numbers, increasing student fees and an increasing proportion of foreign students.

The most notable of these university investments, in size, were the £1.25 billion University College London (UCL) development, in addition to the £1.0 billion programmes at the University of Cambridge, the University of Manchester and the University of Glasgow but there are also £500 million developments at the University of Leeds and South Bank University and £100 million plus developments at many other universities and colleges.

Future growth in university revenue may, however, be hindered by the UK government announcing it was placing a cap on student fees in October 2017. In addition, the spectre of Brexit may hinder the number of EU students wishing to come to the UK and study, at least until conditions are more certain. Brexit may also hinder university borrowing and make it more expensive. Many of the improvements to facilities and accommodation across the universities sector have been partly financed by investment loans from the European Investment Bank such as the £280 million 30-year loan to UCL. Brexit will not impact on existing loans but may have a major impact upon on any new loans taken out prior to, and post, Brexit.

University revenue and investment going forward is dependent on ***increasing student fees*** *and a* ***rising proportion of foreign students***

Smaller university projects continue such as the £100 million integrated campus for engineering and physical sciences at Leeds University, covering 160,000 sq. ft., which was given the green light in September with the preferred contractor expected to be named in November. This would allow work to start by March 2018 and the project to complete in Summer 2020. In addition, Leeds Beckett University has been granted planning permission for a £75 million, 150,000 sq. ft. creative arts building in the city's Civic Quarter.



Work on the 46 schools that are privately funded, at a cost of £700 million, is underway or has completed on the first phase of the Priority School Building Programme. Although government continues to state that good progress is being made on the programme, the Infrastructure and Projects Authority annual report 2017 stated that a number of external factors continue to impact the programme. In particular, the report highlighted the recovery of the construction market in the past two years had meant that there was a lack of interest from contractors in the new batches of schools and an increase in the overall cost to deliver the programme. This has led to the projects that were expected to complete this year slipping into 2018. Although, there is a second phase of the Priority School Building Programme covering 277 schools, this is purely publicly-funded.

Construction work is underway, or has completed, on all schools in the first phase of the Priority School Building Programme and activity set to finish at the end of financial year 2017/18. Output is estimated to fall 3.0% in 2017 and 2.0% in 2018 before remaining flat in 2019.

*Delays and cost overruns on the £450 million **Royal Liverpool and Broadgreen hospital** redevelopment and £350 million **Midland Metropolitan Hospital** are **hindering activity** in the sector*

Downside Risks:

- Rising construction costs hinder viability of projects

The Department for Education already 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. In this case, output in the sub-sector would be expected to fall by 5.0% in 2017, 2.0% in 2018 and 3.0% in 2019.

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. Output growth would remain flat in 2017, with growth of 2.0% each year in 2018 and 2019.

The prospects for the **PFI health** sub-sector remain poor due to a lack of major projects in the pipeline. Output this year has been adversely affected by delays and cost overruns and rework on existing projects, which means that projects will continue into 2018 and 2019 but are providing less activity than initially anticipated this year. There are two major projects in the pipeline, the £450 million Royal Liverpool and Broadgreen hospital redevelopment as well as the £350 million Midland Metropolitan Hospital. The Royal Liverpool and Broadgreen hospital redevelopment has £95 million of loan funding from the European Investment Bank. However, it has endured delays and is currently one year behind schedule and is expected to finally open in Summer 2018. Work on the first new major PF2 health project, the £350 million Midland Metropolitan Hospital began in 2016 and it was expected to open in 2018. Following delays the project was then expected to open in Spring 2019. However, a review is currently underway due to concerns that the hospital will not have enough beds to meet requirements and that an extra floor may have to be added. If this is the case, then further construction work may occur but it could also be delayed due to design changes and the revised completion date would be more likely to be 2020.

The £165 million public-private partnership (PPP) Papworth hospital project at the Cambridge Biomedical Campus, which started in 2015 covers 40,000m^2 and will provide 300 beds when completed. The completion date is still currently late 2018. Within Manchester, a 100,000 sq. ft. private hospital will be built at Manchester Metropolitan University's former Elizabeth Gaskell campus worth £75 million. Revised plans were approved at the start of 2017 and will include 30 consultation rooms, 60 patient en-suite bedrooms, eight critical care beds, six operating theatres and a rehabilitation gym.

Overall, delays on major projects are likely to lead to a 5.0% fall in output during 2017 but, afterwards, activity on the delayed projects, combined with output on new medium-size projects and the continuation of work on Procure21+ and ProCure22 should ensure that output remains broadly flat over the next two years, in 2018 and 2019.

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. In this lower case, output would be forecast to contract 8.0% in 2017 and fall by 1.0% in 2018 and 2019.

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 small sector during both 2018 and 2019, of 1.0% and 2.0% respectively.

Private Non-housing R&M

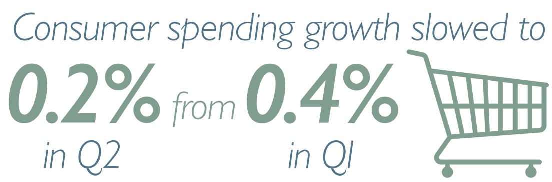
Output in private non-housing repair and maintenance (r&m) includes the basic repairs and maintenance of offices, shops, warehouses, factories and other privately-owned properties and is dominated by work on offices and retail units.

Key drivers of the sector include business investment and consumer spending, which have both slowed in the second quarter of 2017. Business investment in Q2 increased 0.5% quarter-on-quarter, down from 0.8% in Q1 as ongoing Brexit-related uncertainty continues to dampen business sentiment and decision-making. With uncertainty unlikely to abate in the near-term, the weakness in business investment is expected to persist and, as a result, the Bank of England expects quarterly growth to average 0.5% between 2017 Q3 and 2018 Q1. Similarly, household spending in Q2, increased 0.2% compared with Q1 and was 1.6% higher than a year earlier, marking the slowest growth in nearly four years. Rising inflation and muted real wage growth were largely responsible for the weakness and are expected to remain a drag on consumer spending in the second half of 2017. As a result, private non-housing r&m output is forecast to decline 3.0% in 2017, before remaining flat in both 2018 and 2019.

Downside risks:

- Weaker-than-expected growth in business investment and household spending

Heightened uncertainty over the UK's future relationship with the EU, alongside rising 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. Under these circumstances, private non-housing r&m output is expected to decline 5.0% in 2017, followed by falls of 2.0% in 2018 and 2019.

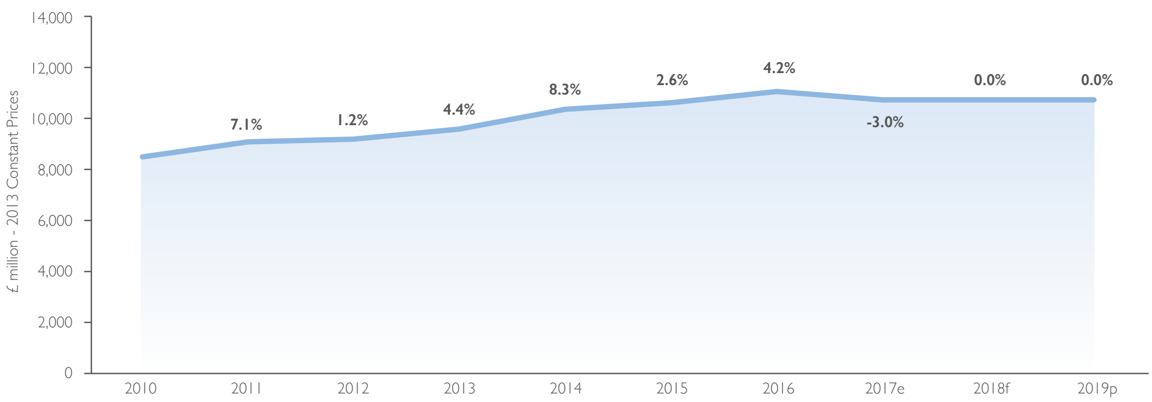


Upside risks:

- Consumer spending picks up as real wages recover

Official data for the first half of 2017 showed weaker household spending, owing to rising inflation and subdued wage growth, which is expected to persist in the near-term. However, a shift more towards unsecured borrowing as households have been running down their savings since 2010, as well as a potential recovery in real wages if employers increase pay in response to rising inflation, is likely to support consumer spending. In this case, output is expected to increase 2.0% per year over the forecast period.

Private Non-housing R&M Output



Source: ONS, Construction Products Association

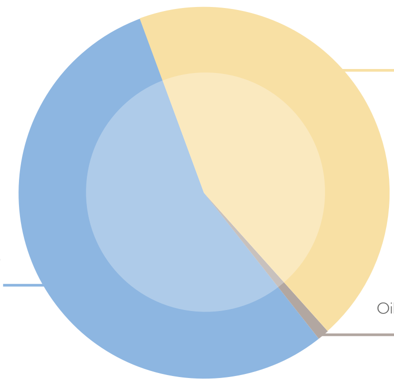
Industrial

Growth prospects for the industrial sector remain weak, with output forecast to decline over the three-year forecast horizon, due to lower activity in factories and warehouses.

Industrial output is forecast to fall
9.3% & **3.1%**
in 2017 *in 2018*

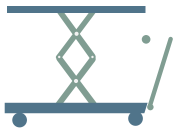
In 2017, industrial output is forecast to contract 9.3%, followed by a decline of 3.1% in 2018 and a further 1.1% in 2019. This reflects a fall in factories construction in the face of weaker domestic economic conditions, as well as decline in warehouses output, in part owing to lower speculative development activity. Weak orders in both factories and warehouses is expected to translate into lower activity on the ground. By the end of the forecast period, industrial output is projected to be 13.1% lower than in 2016.

Industrial Output by Sub-sectors 2016 (%)



Source: ONS

In Q2, UK ***exports of goods rose*** **13.0%**
year-on-year to a record-high of
£84.6 billion



The outlook for **factories** remains broadly unchanged since the Summer forecasts, with activity expected to contract each year between 2017 and 2019. Sub-sector output is largely determined by industrial production and manufacturing output, which, in turn, are dependent on domestic demand and exports. In Q2, manufacturing output declined 0.3% on a quarterly basis, following growth of 0.6% in Q1 and 1.3% in 2016 Q4, reflecting softer domestic demand. The weakness in the official data however, continues to be at odds with recent industry surveys (Markit/CIPS, EEF and the CBI) that paint a strong picture of manufacturing output. Meanwhile, UK exports of goods increased 13.0% year-on-year to £84.6 billion in Q2, the highest value on record,

driven by the past Sterling depreciation and strong global demand. However, going forward, such benefits are unlikely to fully offset the weakness in domestic demand. Furthermore, in Q2, new orders declined 1.1% on four-quarter basis, which is expected to feed through to output. As result, factories output is forecast to fall 10.0% in 2017, 4.0% in 2018 and a further 2.0% in 2019.

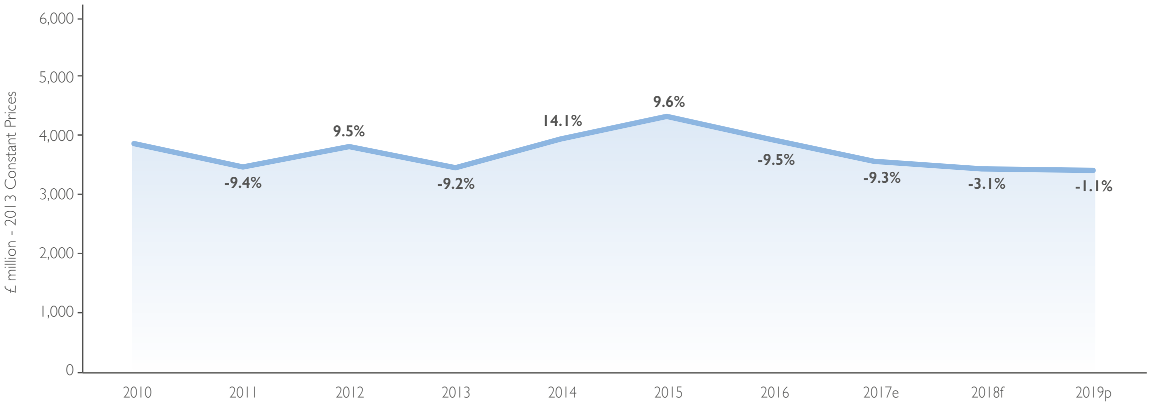
In terms of projects in the pipeline, construction is currently underway on Aston Martin's £200 million manufacturing facility in South Wales. Going forward, activity will be supported by work on Jaguar Land Rover's £500 million expansion of its global headquarters in Coventry, the largest automotive project in the pipeline, and McLaren's £50.0 million factory in South Yorkshire. Other commitments in the UK automotive industry include Nissan's expansion plans at its Sunderland factory, Honda's £200 million investment at its manufacturing centre in Swindon and £240 million from Toyota to upgrade its car plant in Derbyshire. Besides this, construction on Boeing's first European manufacturing facility in Sheffield commenced in September, after the project was approved in July. The 66,700 sq. ft. production facility is expected to be in operation by 2018.

Downside risks:

- Weaker-than-expected domestic demand
- Further depreciations in Sterling
- Manufacturers delay or cancel investment plans

A marked slowdown in domestic demand as household spending weakens in response to higher inflation and subdued wage growth, remains a risk to the sub-sector. Moreover, further falls in the Sterling, alongside higher commodity prices, are likely to keep input costs elevated for manufacturers. This, alongside heightened uncertainty surrounding the outcome of Brexit negotiations will inevitably make the UK a less attractive investment destination and, as a result, manufacturers are likely to revise or delay major investment plans. In this case, factories output is expected to decline 15.0% in 2017, before falls of 5.0% in both 2018 and 2019.

Industrial Output



Source: ONS, Construction Products Association

Upside risks:

- A weaker Sterling exchange rate boosts exports further
- Stronger global economic growth

Further falls in the Sterling, together with stronger global economic growth, may boost exports of goods further in the near-term. However, such benefits to export competiveness are unlikely to fully mitigate the prospective weakening in domestic demand and, as a result, output is expected to fall 2.0% in 2017, with no growth anticipated in the subsequent two years.

Activity in the **warehouses** sub-sector is primarily driven by UK economic growth and consumer spending, and both have slowed considerably in the first half of 2017 relative to the second half of 2016. However, retail sales, particularly the proportion spent online, continued to deliver healthy growth rates during the same period reflecting the ongoing structural change within the retail industry. This, in turn, has sustained demand for warehouses and distribution space and, according to Knight Frank, total take-up for the first half of 2017 was 16.5 million sq. ft., 24.0% lower compared to 2016 H2 but 2.0% higher than the level of take-up registered in 2016 H1. Since the EU Referendum, speculative development activity across the UK has slowed and this trend is expected to persist in the near-term amid ongoing economic and political uncertainty. However, it should also be noted that this lower growth follows a period of strong activity in 2014, 2015 and 2016. New orders in the sub-sector increased 1.0% in annual terms in Q2 however, quarterly orders tend to be volatile, and on a four-quarter basis, were 2.8% lower than a year earlier. Furthermore, output declined 24.5% year-on-year in Q2, marking a sixth consecutive quarter of decline. By contrast, both Knight Frank and Savills have continued to report positive activity in the pipeline. Nevertheless, warehouses output is forecast to fall 9.0% in 2017 and 2.0% in 2018, before remaining flat in 2019.

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 rising 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, together with limited speculative development activity would result in lower growth rates over the next three years. Warehouses output would decline 15.0% in 2017, followed by falls of 10.0% in both 2018 and 2019.

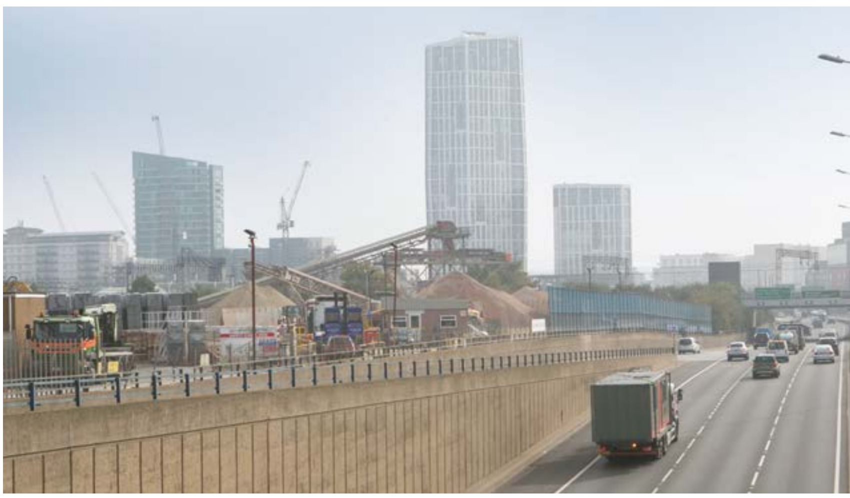
***Online retailers** accounted for 33% of total logistics take-up in 2017 H1*

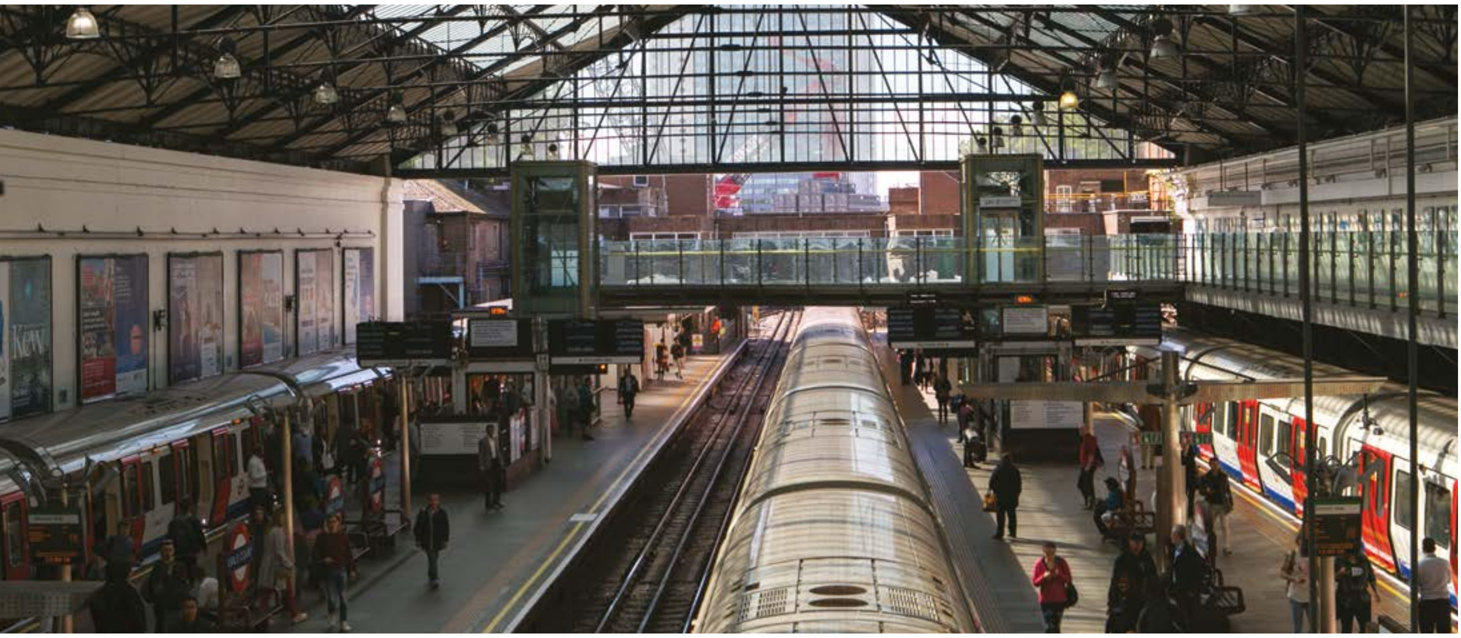
(Source: CBRE)

Upside risks:

- Consumer spending picks up as real wage growth recovers

If employers raise nominal wages in response to higher inflation, real wage growth is expected to recover over the near-term. However, the higher cost of living could see consumer spending habits shift more towards online retail in search for bargains. Together with stronger demand from the manufacturing sector, as a weaker Sterling continues to boost demand for British goods, this should underpin demand for warehousing and distribution space. However, in this case, we still anticipate growth to fall 4.0%, which largely reflects lower speculative starts and new orders, followed by no growth in 2018 and 2019.





Infrastructure

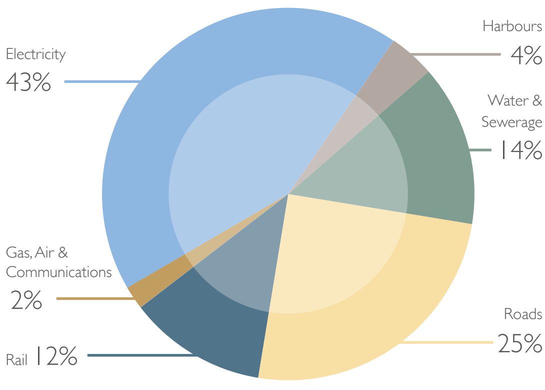
The outlook for the infrastructure sector remains unchanged since the Summer forecasts, with output forecast to increase 7.4% in 2017 and 6.4% in 2018.

Infrastructure output is forecast to rise

25.4% *by 2019*

Growth will mainly be driven by work on large-scale infrastructure projects in the water & sewerage, electricity and rail sub-sectors, including HS2. Even the relatively small harbours sub-sector will be boosted by projects such as the £350 million Aberdeen Harbour Expansion project. As was the case in our forecasts three months ago, main works on Hinkley Point C are no longer expected to peak during the forecast period, owing to constant delays and cost overruns. In December 2016, the government published a new National Infrastructure and Construction Pipeline, setting out over £500 billion worth of planned private and public investment over this Parliament, with over £300 billion worth of projects from 2016/17 to 2020/21. Furthermore, in Autumn Statement 2016, the government announced a new National Productivity Investment Fund (NPIF) worth £23 billion over a five year period from 2017/18 to 2021/22 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 reach £22.3 billion, 25.4% higher than in 2016.

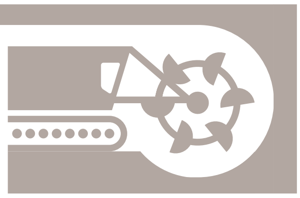
Infrastructure Output by Sub-sector 2016 (%)



Source: ONS

Following four years of falls since 2013, **rail** construction output is forecast to increase 15.0% in 2017 driven by ongoing works on the £563 million redevelopment project of Bank Station, main tunnelling works on the £1.2 billion Northern Line extension to Battersea, as well

Tunnelling works on the
£1.2 billion
Northern Line extension
project are underway



as electrification of cross-country routes (Great Western and North West lines). However, in November 2016, four projects within the Great Western Main Line electrification programme were deferred to CP6 (2019-2024) due to cost and time overruns. In March, the Public Accounts Committee signalled further concerns over delivery to the revised completion date of 2018 and budget of £2.8 billion. More recently, 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 Oxenholme to Windermere line in the Lake District were all cancelled by the government. Consequently, further delays or cancellations cannot be ruled out.

Looking ahead, activity will be supported by construction on the £263 million London Overground extension to Barking Riverside, which is scheduled to start in summer 2018 and be completed by 2021, after receiving approval in August. Enabling works on Phase 1 of the HS2 Project are currently underway, with main civil engineering works expected to begin in 2018/19. Furthermore, bidding for £3.0 billion worth of works on two of the four stations expected to be developed during the first phase opened in August, with contract award expected in Autumn 2018. In Autumn Statement 2016, the government allocated £110 million of funding to accelerate construction of the East-West Rail line between Oxford and Cambridge however, work is expected to be delivered within CP6. Meanwhile, concerns remain over the delivery of the £284.4 million Metropolitan Line extension project to Watford Junction (formerly known as Croxley Rail Link) after TfL revealed a £50 million funding gap in March. Discussions to meet this additional cost are currently underway. Reflecting the pipeline of work, rail output is forecast to rise 5.0% in 2018, before accelerating to 20.0% in 2019.

Downside risks:

- Main works on HS2 delayed further
- Network Rail projects further delayed

A main downside risk to rail growth emerges if main construction works on Phase 1 of the HS2 project are pushed back further. Moreover, higher construction costs spurred by rising inflation could also exacerbate the project's budget issues, pushing the total cost of HS2 above the estimated £55.7 billion. Alongside this, an increasing backlog of work and cost overruns on key projects, is likely to slow delivery under Network Rail's Control Period 5 (CP5). In this case, rail output is forecast to increase 5.0% per year between 2017 and 2019.

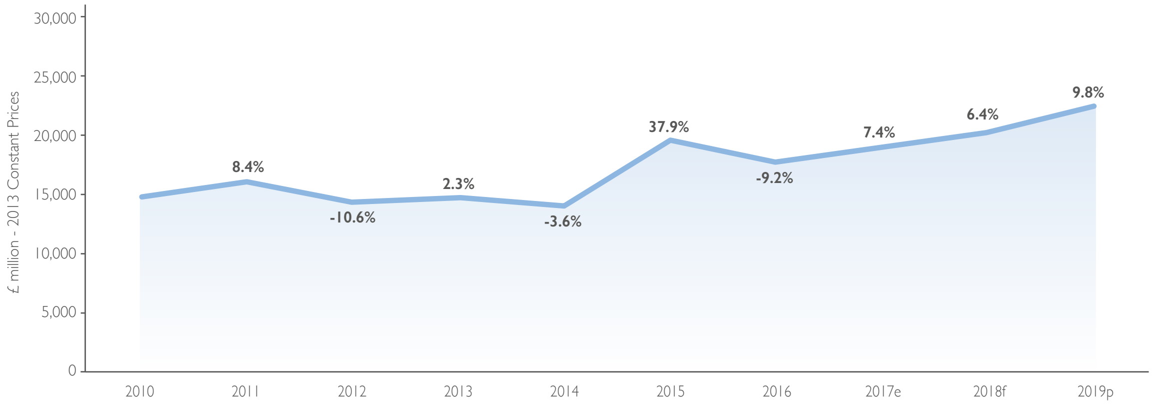
Upside risks:

- 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. Rail output is forecast to increase 20.0% per year over the forecast period.

Electricity is the largest infrastructure sub-sector and will be the key driver of overall sector growth over the forecast period. Alongside ongoing nuclear decommissioning, including the £500 million Sellafield project and work around the National Grid power connections, near-term activity will be supported by a pipeline of projects in the offshore wind farm sector. Construction of Race Bank, the 660MW Walney and 336MW Galloper Wind Farm extension projects that form part of the Round 2 Offshore Wind Programme, as well as works at Rampion are all nearing completion and are expected to be fully commissioned in 2018. Meanwhile, construction works at the £2.6 billion Beatrice Offshore Wind Farm, located in the Outer Firth of Moray are currently underway. Reflecting this, sub-sector output is forecast to grow 7.0% in 2017. Looking ahead, activity will be supported by main construction works commencing on major projects under the Round 3 Offshore Wind Programme, including Hornsea One, the world's largest offshore wind farm, and East Anglia ONE. As a result, electricity output is forecast to increase 7.0% in 2018 and a further 14.0% in

Infrastructure Output



Source: ONS, Construction Products Association

2019, assuming works begin on Hinkley Point C. In July, following a review of costs, EDF announced that the cost of the project has increased £1.5 billion to an estimated £19.6 billion and is a year behind schedule. Furthermore, it added 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, whilst the National Audit Office anticipates a figure of £22.0 billion. Given the concerns over delivery and cost overruns, main works are not expected to occur during the forecast period.

The ***WORLD'S LARGEST offshore wind farm,*** *Hornsea One, is*

Downside risks:

• Hiatus in new offshore wind development

A downside risk emerges if heightened economic and political uncertainty during the Brexit negotiation period further undermines investor confidence, deterring new foreign investments into the UK. Furthermore, increased uncertainty over access to European Investment Bank (EIB) funding over the medium-term could stall decision-making on large-scale projects, especially in offshore wind. In this case, lower growth rates of 3.0% and 7.0% are anticipated in 2017 and 2018 respectively, followed by 7.0% in 2019.

Upside risks:

• Investor confidence improves leaving large-scale projects unaffected

• Swansea Bay Tidal Lagoon receives government go-ahead

A potential upside risk relates to a period compounded by better-than-expected economic conditions and greater clarity regarding the future UK/EU relationship. In this case, investor confidence is likely to be renewed, enabling large-scale projects to get off the ground, including work previously paused under the Round 3 Offshore Wind Programme. Furthermore, if the £1.3 billion Swansea Bay Tidal Lagoon project in South Wales receives government go-ahead, allowing works to commence in 2018, this would support higher growth rates throughout the forecast period. As a result, electricity output is forecast to rise 10.0% in 2017, 18.0% in 2018 and a further 25.0% in 2019.

Activity in the **water & sewerage** sub-sector is expected to remain buoyant in 2017 and 2018 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 in 2018. 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. Meanwhile, total spending under the current five-year Asset Management Plan (AMP6) running from 2015/16 to 2019/20 is expected to peak in 2017/18, but water companies will mainly focus on efficiency, through maintenance of existing assets, rather than new build. In 2017 Q2, output in the sub-sector declined 15.5% year-on-year, following an 8.8% fall in Q1, despite works occurring on the Thames Tideway Tunnel project. Contracts for the project were awarded in February 2015 and, as a result, new orders increased 421.8% in that year. Output rose 49.7% in 2015 and 41.5% in 2015 even though main tunnelling works on the project are yet to occur. This suggests that output is not accurately reflecting activity on the ground, and is likely to have been incorporated too early in the ONS data. Overall, sub-sector output is forecast to grow 17.0% in 2017, 12.0% in 2018, before remaining flat in 2019.

Main tunnelling works on the

to ***start*** *in* **2018**

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, a recent 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. Nevertheless, water & sewerage output is expected to increase 10.0% in 2017, followed by 5.0% in both 2018 and 2019 in this case.

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. In this case, growth of 20.0% is anticipated per year over the forecast period.

Roads construction is expected to contract 2.0% in 2017, before remaining flat in 2018, reflecting limited new work in the pipeline to replace completed projects, as well as the fall in new orders between 2016 Q4 and 2017 Q2, which is expected to feed through to output. This tallies with survey data from the Civil Engineering Contractors Association (CECA), which showed that workloads in roads declined in Q2 for an eighth consecutive quarter since 2015 Q3. Going forward, output is projected to return to growth and increase 3.0% in 2019 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 July, the ORR published its second Annual Assessment of Highways England's Performance covering 2016/17, which reported that 16 out of the 112 major schemes started works before the road period, eight started in 2015/16, a further eight started in 2016/17, with the remaining 80 anticipated to begin between April 2017 and the end of the road period. Of the 80, Highways England reported that 77 are on, or ahead of schedule, whilst three are delayed. This profile of work was similarly echoed in a report published by the National Audit Office in March, which revealed that 54 schemes are scheduled to start construction within the final year of Road Period 1, whilst 16 are at a risk of being delayed or cancelled. Overall, this suggests that the majority of the work is heavily skewed towards the end of the road period 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 Autumn Statement 2016, the government announced an additional £1.1 billion to upgrade local roads and transport through the National Productivity Investment Fund (2017/18-2020/21) and £220 million to address pinch points. In terms of activity in the pipeline, work on the A1 Leeming to Barton improvement scheme, as well as construction on major projects in Scotland including the £1.462 billion Forth Replacement Crossing, the £588 million combined M8/M74/M73 improvement projects and the £745 million Aberdeen Western Peripheral Route have either reached or are nearing completion, and there is little new work in the near-term pipeline. Meanwhile, work is currently underway on the £1.5 billion A14 Cambridge to Huntingdon improvement scheme and the A19/A1058 Coast Road junction to relieve congestion. In addition to this, activity will be underpinned by smart motorway schemes, although this focuses on the use of technology rather than new roads construction. Work on four schemes is currently underway, with one scheduled for completion this year. Construction on seven others is set to begin during the forecast period, including the M4 Junctions 3 to 12.

Downside risks:

- Further cuts to local authorities' funding
- Focus shifts further to smart motorways

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, increasing focus on smart motorways, mainly technology-based, rather than new roads construction could dampen activity in the sub-sector. In this case, output is anticipated to fall 5.0% in 2017 and 1.0% in 2018, before remaining flat in 2019.

Upside risks:

- Highways England brings forward finance

If Highways England brings forward finance and projects from later years during the RIS period that will ensure a smoother profile of works. This would provide higher workloads in the near-term and ensure a gradual increase in funding and investment over the RIS, rather than the bulk of activity occurring in the later years 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. In this case, growth of 5.0% is expected in 2017, followed by 8.0% in both 2018 and 2019.

After five years of contraction, output in the **gas, air and communications** sub-sector is forecast to increase 20.0% in both 2017 and 2018, driven by works under Manchester Airport's £1.0 billion ten-year investment programme, Luton Airport's £1.5 billion 20-year investment programme and Gatwick Airport's £1.2 billion five-year Capital Investment Programme (2016 to 2021) that will support activity through to the long-term. Furthermore, construction work under London City Airport's £344 million expansion programme is expected to commence this year. Besides this, activity will be supported by work under Virgin Media's £3.0 billion Project Lightning programme, which aims to extend its fibre network to four million additional premises by 2019. In Q2, 127,000 new connections were added, compared to 102,000 in Q1, bringing the total to 796,000 premises since the project's inception in February 2015. Given that a final decision to build a third runaway at Heathrow Airport has once again been delayed until the second half of 2018, the project has not been factored into our projections, as works are unlikely to occur during forecast period, even if it were given final go-ahead. In 2019, sub-sector output is projected to increase 10.0% to £664 million.

Works on **Manchester Airport's**
£1.0 billion
10-year programme started in July

Downside risks:

- Further delays in expansion to superfast broadband

A major downside risk to sub-sector growth emerges if Virgin Media's £3.0 billion ultra-fast broadband roll-out faces delays. This would result in lower growth figures over the next three years and, as a result, sub-sector output is expected to rise 5.0% in 2017, followed by 7.0% in both 2018 and 2019.

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 Virgin Media's £3.0 billion project, 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 accounts for 70% of the UK's total storage capacity, would underpin double-digit growth rates of 25.0% in 2017 and 2018 and 15.0% in 2019.

Infrastructure R&M

Infrastructure repair and maintenance (r&m) includes work on assets owned by utility companies, publicly-funded assets such as roads and rail, airports and energy-generating facilities.

Estimated cost to clear local roads maintenance backlog:

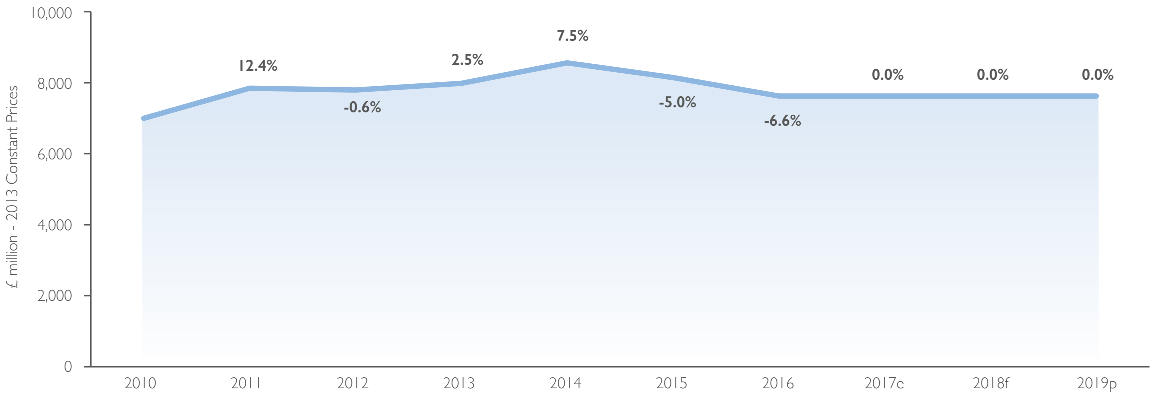
***England £10.8bn** (13 years)*
***Wales £591.5m** (9 years)*
***London £686.1m** (10 years)*

(Source: AIA 2017 ALARM survey)

Highways England has a maintenance budget of £1.3 billion over its first fixed five-year investment period, which began in 2015/16. In 2017/18, expenditure on maintenance is set to rise to £256 million, from the £254 million allocated for 2016/17. Thereafter, it is expected to increase to £268 million in 2018/19, before slowing to £265 million in 2019/20. However, local authorities manage 97% of the roads network, who remain financially-constrained. According to the Local Government Association, local authorities 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. However, the Asphalt Industry Alliance's 2017 ALARM survey reported that there was a 13-year backlog of local roads maintenance in England, at a value of £10.8 billion. For London, the average maintenance backlog was 10 years (£686.1 million).

In the rail-sub-sector, r&m output is likely to be overshadowed by new build activity under CP5. According to the ORR's Network Rail Monitor published in July, the maintenance budget for 2016/17 was £1.4 billion, £114 million higher than the estimated £1.3 billion in the Periodic Review 2013 (PR13) determination. Furthermore rising cost pressures and a backlog of work under the current control period is likely to increase financial pressure

Infrastructure R&M Output



Source: ONS, Construction Products Association

on CP6 (2019-2024). Overall, infrastructure r&m is forecast to remain flat in the next three years from 2017.

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 ensure delivery of ongoing projects. In addition, increased pressure on government departmental budgets could lead to schemes being cancelled or delayed. Against this backdrop, r&m output is expected to contract 3.0% each year between 2017 and 2019.

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. In this case, output is anticipated to increase 2.0% per year between 2017 and 2019.

The Construction Products Association represents the UK's manufacturers and distributors of construction products and materials. The sector directly provides jobs for 300,000 people across 22,000 companies, and has an annual turnover of more than £55 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**.

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