

HIGH RISE CONSTRUCTION



Matthias Holma

The UK's skyline continues to head upwards with record numbers of tall buildings being completed this year. They are increasingly becoming the norm in London with more than 500 in planning, approved or under construction in a city which has traditionally been associated with low-rise, developments. But the phenomenon is by no means limited to London. Manchester and Birmingham, amongst other UK cities, are also seeing their fair share of high rise development with more expected over the next decade. Key issues to consider include:

DESIGN

Designing to attract tenants and creating a USP for a building in a highly competitive market place is where the 'Midas touch' is required to deliver a successful tall building.

Changing tenant demands, whether they be driven by operational need or trends, and the varied business requirements of occupier types creates a need for design to be flexible and to accommodate change during the life of both the design and construction delivery phases.

STATUTORY

One of the most prominent issues for tall building design is planning for emergencies. Emergency service response plans are key for any building, but particularly for tall buildings where building populations tend to be higher with escape taking longer and potentially required to be on a phased basis.

Building Regulation changes, particularly in relation to fire strategies in the wake of Grenfell, mean statutory changes relating to cladding, material selection, means of escape and certification together with appropriate sign-off of construction elements and components are considerations that are now at the forefront of designers' thinking.

CONSTRUCTION

Constructing tall buildings, which are often situated on highly constrained sites, is a specialist skill. Vertical cranage and hoisting strategies to maximise hook time drive tall building construction programmes. Building at height means greater levels of winding-off to cranes, particularly in winter months, so seasonal-timing of construction maximises programme efficiency of the project.

FINAL THOUGHTS

Our experience of building towers, from the iconic Swiss Re 'Gherkin' to 100 Bishopsgate which completes this year, has taught us one very important lesson - no two high rise buildings are the same.

Although towers may have similarities in shape or structure the challenges met by their development teams will be unique and often require 'breaking the mould' solutions to deliver the client's vision for their project.

This is an extract from a longer article.

Visit: marketintel.gardiner.com to read in full.

INTRODUCTION

UK construction output grew by 1.7% in the year to May 2019 according to the ONS, but growth has been relatively flat in the first five months of 2019. As anticipated in our previous TPI report, output growth is likely to remain muted this year, with both infrastructure and new private industrial sectors likely to see the strongest average annual growth.

IHS Markit/CIPS data for May and June shows that construction activity experienced two successive months of contraction. June's reading – the steepest contraction in the sector since April 2009 – saw substantial falls in housebuilding, commercial and civil engineering. New work orders also decreased and demand for construction products and materials fell at the sharpest pace since January 2010.

Brexit uncertainty continues to hit confidence, leading to further delayed projects. The PMI's measure of business optimism was at a seven-month low in June with respondents becoming more risk averse as they struggle to predict the outcome of Brexit and the future impact on the economy. Many were hoping to be enjoying a post-Brexit bounce by now but any prospect of that has been pushed back towards the end of the year. If an orderly Brexit is achieved by 31st October, it's unlikely that the current slump will evolve into a prolonged downward trend.

Rising input costs are not fully feeding through to tender prices as a result of the current competitive market conditions. Lower margins are being accepted in order to maintain a solid workload and market share whilst the current political frictions are resolved.

TENDER PRICE FORECAST

Our latest tender pricing forecasts are largely unchanged from our previous TPI report. The current competitive market conditions mean that higher input prices are not fully feeding through into tender returns. However, in such a politically uncertain environment, long-term forecasting continues to be difficult.

Our UK average tender price inflationary forecast is 1% for 2019, 2020 and 2021. We then forecast tender price growth to rise to 1.5% in 2022. For 2019, none of the regions have seen an upward revision of tender price inflation. However, Yorkshire & Humber, the North West and the North East have all had 2019 tender price inflation revised down.

All forecasts take account of all sectors and project sizes as a statistical average, indicating an overall trend in pricing levels. It should be remembered that individual projects may experience tender pricing above or below the average rate, reflecting the

project specific components and conditions.

All forecasts continue to assume an orderly Brexit with open market trading conditions being retained.

MACRO ECONOMICS

UK economic growth for Q2 2019 is likely to be weaker than Q1 growth. The rolling three-month growth slowed to 0.3% in May 2019 from 0.4% in the three months to April. Consequently many economists expect growth to be close to zero in Q2.

Although the UK saw positive GDP growth in the first quarter of 2019, this was arguably underpinned by stockpiling efforts rather than an upturn in spending. GDP subsequently contracted by -0.4% in April 2019 compared to the previous month, but then rose by 0.3% in May. This means that June's growth figure will have to be strong in order to avoid a contraction in Q2 2019.

Both services and manufacturing contributed positively to the rolling three-month growth in May 2019, but construction growth was flat and made no contribution to headline GDP growth. However, in the month of May construction grew by 0.6%, reversing the negative growth trend from two previous months and making a positive contribution to monthly GDP growth.

The Consumer Price Index (CPI) 12-month inflation rate was 2% in May 2019, marginally lower than April's annual growth rate figure of 2.1% and sitting on the Bank of England's (BoE) 2% target. CPI is forecast to fall below the 2% target in the coming months in response to lower oil prices and an impending reduction in electricity and natural gas prices.

Whilst growing faster than expected, UK Wage growth showed signs of fraying since February, with average weekly earnings growth (total pay) dipping to 3.1% (year-on-year three month average to April) compared to 3.3% in March. The BoE recently said it expected wage growth of 3% at the end of 2019. The unemployment rate fell to 3.8% - its joint-lowest since the three months to January 1975, so overall, the labour market remains strong.



M&E

FABRICATED STRUCTURAL STEEL



DNCRETE REINFORCEMENT
BARS (STEEL)

-0.3%



READY MIXED CONCRETE

MACRO ECONOMICS



UK GDP ANNUAL GROWTH RATE (Q1 2018-Q1 2019



CPI MAY 2019 (12-month rate)



UK UNEMPLOYMENT RATE Feb-Apr 2019

3.8% ▼



UK BASE INTEREST RATE

UK interest rates remain at 0.75% and although the BoE has repeatedly said that it expects to introduce "limited and gradual" interest rate increases if there is a smooth Brexit, many in the financial markets believe that the central bank will not tighten monetary policy.

CONSTRUCTION OUTPUT

The total value of all construction work delivered in Great Britain in May 2019 was £13.78bn – up 0.6% from April 2019 and 1.7% higher than the same month one year ago. Comparing the last three month period to the same three month period a year earlier, there was a 2.9% increase in 'All Work' output.

REGIONAL BREAKDOWN OF CONSTRUCTION OUTPUT (ANNUAL GROWTH Q1 2018 - Q1 2019)

REGION	CONSTRUCTION OUTPUT GROWTH % (Q1 2018 - Q1 2019)		
Greater London	1.91		
South East	5.88		
South West	-5.99		
East	-3.39		
East and West Midlands (Average)	15.47		
Wales	14.85		
Yorks & Humber	12.97		
North West	10.55		
North East	6.90		
Scotland	2.56		
Northern Ireland	0.98*		

Comparing the latest three-month on three-month output growth figures, 'All New Work' grew marginally by 0.28%, whereas 'All Repair and Maintenance' fell by -0.5%.

The ONS' seasonally adjusted output figures show that new private industrial work (up 10.3%) and public housing repair and maintenance (up 3.8%) were the strongest performing sectors in May 2019 compared to the previous month. Growth in new private industrial work output is likely to be driven by the need for new distribution and logistics facilities, especially if Brexit makes the just-in-time delivery model harder to sustain. Private commercial, one of the worst performing sectors over the last year, continues its downward descent – with output falling by a further -3.2% in May 2019 compared to the previous month.

Falls in private residential output growth in both December 2018 and March 2019 led some commentators to believe that the strong growth in recent years was coming to an end. Whilst output in the sector grew in both April and May, the latest PMI survey showed a reduction in housing activity and demand due to growing 'risk aversion'. The PMI survey results are further supported by Q1 2019 ONS new order data, which showed private residential new orders fell by -7% compared to the previous quarter. The sector is the largest contributor to total all new work output and weakness in the segment could heavily impact overall output growth this year.

Political uncertainty is likely to keep output growth subdued for the remainder of 2019 as some projects continue to be delayed in this low-confidence climate.



MANUFACTURING OUTPUT



MARGINS



CONSTRUCTION INDUSTRY

Average Weekly Earnings Annual Growth to April 2019)



OIL PRICES (BRENT CRUDE) (As of 10^{th} July 2019)

∆ US\$66.08 bbl ▲

Figures are cumulative annual. $\nabla \triangle$ denotes movement trend.

large private sector projects coming through. The consensus is that most new order growth over the course of the next year or so is likely to come from



RPI MAY 2019 (12-month rate)



UK WAGE GROWTH (Year-on-Year three month Average to Apr 2019)

▼ 3.1% ▼

NEW ORDERS

New order data from the ONS for the first quarter of 2019 was fairly positive. New orders rose 9.6% to £11.98bn in Q1 2019 compared to the previous quarter – the highest quarterly growth rate since Q3 2017.

UK new orders in Q1 2019 were on par with new orders in the three years leading up to the EU referendum vote, indicating that there is still appetite for UK construction projects. In the twelve quarters since the EU referendum vote, eight of those quarters have seen quarterly period-on-period contractions in growth. Whilst there has certainly been a downward trend in new order growth since June 2016 for 'All Work', it has been a very gradual one. If we extend the time horizon, the 10-year quarterly new order average is £11.77bn – 2% lower than the Q1 2019 new order figure.

On a sector basis, public new housing and other public new work fared the best in Q1 2019, with new orders for each growing 29% and 28% respectively compared to the previous quarter. The only sector that saw negative quarter-on-quarter growth was private new housing (-7%). A slowdown in the sector, which accounts for approximately 25% of all new work, will scupper the Government's target of building 300,000 houses a year.

The general drop in confidence, as demonstrated by June's poor construction PMI reading, may feed into official new order data over the next few quarters, so we continue to anticipate subdued new order growth in the short term. G&T's recent experience is that some projects that were previously put on hold are now coming back to life. Clients are being more selective with tenders and there are fewer

MARKET CONDITIONS

an uptick in public sector work.

Little progress has been made on Brexit since our last TPI report. The political landscape is in a state of constant flux and this uncertainty is evidently denting investor confidence. Whilst the UK retains its position as the top destination in Europe for foreign direct investment (FDI), investment is down significantly on pre-referendum levels. Uncertainty over the future trading arrangements with the EU has discouraged many from committing capital into UK construction projects.

G&T has seen growth in some key markets such as mixed-use and commercial office. Some developers are taking advantage of the increasingly competitive tendering market and have moved forward on projects previously placed on hold.

Feedback from the supply chain has been mixed. Generally we are seeing more appetite from tier 1 and tier 2 contractors to fill order books from 2020 onwards, so we may see more competitive tendering in a bid to secure workload. However, tendering is likely to be selective as many contractors remain risk-averse and wary of what will happen after the 31st of October 2019. As we explore below, input costs show few signs of abating in the current competitive market, but due to tighter market conditions firms will be unable to fully pass these on which will put further pressure on contractor profit and margins.

INPUT COSTS

MATERIAL COSTS

The latest ONS data shows that the 'All Work' construction material price index increased by 3.1% in the year to February 2019. Material price growth accelerated in the first three months of 2019, but between March and May prices fell by 0.6%. The rapid rise in material prices in Q1 can most likely be

attributed to construction firms stockpiling materials ahead of the original Brexit deadline at the end of March 2019.

In our previous TPI report, imported sawn or planed wood saw the largest annual rise in price, rising by 8.7% in the 12 months to February 2019. However, over the past few months the price of imported sawn or planed wood has fallen substantially. In the year to May 2019, it is insulating materials (11.9%), pre-cast concrete products (4.9%) and cement (4.3%) that have seen the largest cost increases.

Since the EU referendum vote in June 2016, average material price inflation for 'All Work' has increased by 4.3% annually. Although rising commodity prices are partly responsible for this upward trend in material price inflation it is likely to have been exacerbated by Sterling's weakness.

The cost of fabricated structured steel has increased by nearly 30% since the EU referendum which, according to the ONS, is the highest percentage increase of all the construction materials over the period. Materials such as steel, for which the UK relies heavily on imports to meet domestic demand, have clearly been the most affected by the weakness of the pound since the referendum. Such materials are also the most exposed to further price increases in the event of a no-deal Brexit.

We anticipate material price inflation to continue throughout the rest of the year, but at a slower rate than the annual average of 4.3% we've seen over the past three years.

LABOUR

Average weekly earnings (AWE) in the construction industry increased by 4.8% in the year to April 2019 to £638 per week – a growth rate that was stronger than AWE for the whole economy, where earnings rose by 3.3% over the same period. Once again AWE growth in the construction sector was well ahead of annual consumer price inflation growth and continue to put pressure on preliminary costs.

Difficulty in securing site trades remains according to the Construction Products Association (CPA), particularly for plasterers, carpenters and bricklayers. Relatively high workloads have resulted in consistently high demand for labour but there are signs that workload has softened in recent months. If this trend continues, upward pressure on AWE in the sector may subside but the underlying shortage of labour is likely to remain in the longer term, pushing labour costs higher.

Our latest TPI survey results indicate that respondents continue to perceive a shortage in the supply of skilled labour over the next six months. In the longer term we anticipate the labour market to continue to tighten as the skills shortage becomes more pronounced, adding significant upward

pressure to input costs that could eat further into contractor margins.

Whilst the UK regions are not as exposed as London is to an exodus of European construction workers, the regions face demographic pressure in the form of an ageing workforce. For example, although the North East only has a migrant workforce of 6%, 53% of workers are aged over 45.

PROFITABILITY AND SUPPLY CHAIN

G&T has seen no evidence of any significant changes to OH&P and preliminaries from tender returns in the past three to six months. OH&P remains around 5-6% and preliminaries around 15%.

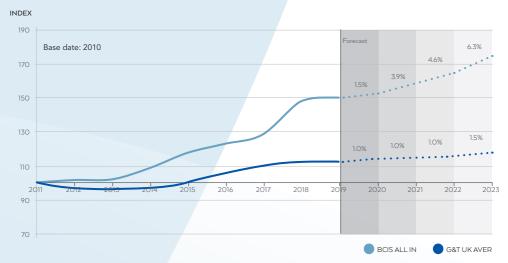
The spike in new orders in Q1 2019 corresponds with our latest TPI survey results, which found that new enquiries are still being received and previously shelved jobs are now starting. The pipeline of future projects remains positive but is very sector specific. We have observed that a number of developers are moving away from the residential sector and are converting sites into commercial office developments. Other sectors, such as retail, continue to struggle. With more retail chains going into administration, large units around town centres and retail parks are being vacated. Developers and land owners are offering very competitive rents to fill this empty space, making it difficult to get new retail schemes off the ground.

Although Q1 2019 provided some respite in terms of increased new orders, this may transpire to be just a brief spike. Contractor pipelines are still reported to be strong in the short term but more Tier 1 contractors are looking to fill their order books in 2020. Because of this, tender returns remain competitive – especially for smaller, low-risk schemes. Larger and more complex projects however, are seeing less competitive tension and are attracting higher tender returns.

Construction output is likely to stagnate for the remainder of 2019 as many backlog schemes will not progress until there is some level of clarity on Brexit. Some analysts expect Pound-to-Euro rate to fall to parity in the event of a no deal (or WTO) Brexit. Equally, there is significant upside in the event of an orderly EU exit. This creates a very binary potential upside and downside for the construction supply chain. Accordingly, currency-led input costs could swing in either direction. In conclusion, it remains very difficult to predict how the evolving economic and political climate will impact demand, input costs and ultimately tender pricing.

TENDER PRICE TREND

TENDER PRICE TREND "ALL UK TPI" Q2 2019



TENDER PRICE TREND "LONDON TPI" Q2 2019

INDEX

190 180 170 160 150 140 130 120 110 100 20|1 20|2 20|3 20|4 20|5 20|6 20|7 20|8 20|9 20|20 20|21 20|22 20|23 90 80

Note: BCIS does not publish regional forecasts.

BCIS LONDON G&T LONDON

Our advice is to review each project on its own merits. This forecast publication must be treated as a guide only, being that it is based on averages of various types and sizes of projects across a region, ascertained through our latest market research. The quality, both of design and desired end product, procurement route (particularly ownership and transfer risk), delivery timescales, complexity of design and desire of contractors to tender should be carefully considered in project specific estimates and their outturn cost.

Suitable allowances should be made for project specific designs, site conditions and local market conditions, which should be reviewed regularly with your Gardiner & Theobald team to determine the appropriate base cost.



TENDER PRICE CHANGE

TENDER PRICE ANNUAL PERCENTAGE CHANGE Q2 2019

%	20	19	2020		2021		2022	
Regional forecasts	Now	Last	Now	Last	Now	Last	Now	Last
Greater London	1.00	1.00	1.00	1.00	1.50	1.50	1.50	1.50
South East	1.00	1.00	1.00	1.00	1.50	1.00	1.50	1.50
South West	1.00	1.00	1.50	1.00	1.50	1.50	1.50	1.50
East	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Midlands	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Wales	1.00	1.00	1.00	1.00	0.50	1.00	0.50	1.00
Yorks & Humber	0.00	1.00	1.00	0.75	1.00	0.75	1.50	1.00
North West	1.00	1.50	1.50	1.50	1.50	1.50	1.50	2.00
North East	0.00	1.00	1.00	1.00	1.00	1.50	1.50	1.50
Scotland	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Northern Ireland	1.50	1.50	1.50	2.00	1.50	2.50	2.00	2.50
UK Average	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.50

Note: 2022 is a long term average market forecast

COMPARISON OF PUBLISHED FORECASTS FOR TENDER PRICE CHANGE

	G&T UK AVER.	BCIS UK AVER.	G&T LONDON	AECOM LONDON	ARCADIS LONDON				
	Q2 2019	JULY 19	Q2 2019	Q2 - Q2	Q2 2019				
% CHANGE									
2019	1.00	1.50	1.00	2.30	2.00				
2020	1.00	3.85	1.00	1.70	3.00				
2021	1.00	4.56	1.50	N/A	3.00				
2022	1.50	6.27	1.50	N/A	4.00				

Note: All figures relate to year on year quarterly changes

KEY CONTACTS



Gavin Murgatroyd
PARTNER, LONDON

+44 (0)20 7209 3000 g.murgatroyd@gardiner.com



Michael Urie
MARKET ANALYST, LONDON

+44 (0)20 7209 4362 m.urie@gardiner.com