
Window of Opportunity

UK Construction
Market View

Spring 2021



Introduction

As the construction sector recovery rapidly gains momentum, the window of opportunity for clients is likely to close faster than expected.

- The outlook for the UK economy has improved remarkably in recent months. While the decrease in GDP in 2020 is now estimated to have been around -9.9%, much more significant than the global decrease of -3.5%, the expectation is for GDP to grow by at least 5.7% in 2021 (HM Treasury consensus) and return to pre-pandemic levels by Q4 2021 (according to Bank of England). This has also been reflected in updated unemployment forecasts, which have been adjusted to account for 5.5% unemployment at the peak in Q3 2021 (as opposed to the initial 7.5%). These upgrades are supported by the successful rollout of vaccines, enabling an opening of the economy and further strengthened by the release of savings accumulated during the pandemic (over £160bn according to BoE). Some of these savings are likely to be directed at the residential sector.
- The cost of COVID-19 related interventions by the UK Government has so far amounted to £344bn and led to record levels of public debt. Planned tax rises and historically low costs of servicing the debt have enabled the Chancellor to continue the trajectory of increasing public investment with confidence. As such, capital spending remains on course to grow from 1.9% to 2.7% of GDP by 2025/26.



- Output in construction increased by 7% in March 2021, compared to February, driven by the strong performance of housing, housing repair and maintenance, and private commercial sectors. This was the first reading above £14bn since January 2020 and it provides further reasons for optimism regarding the pace of recovery. It will be important to observe if it can be sustained over the coming months.
- The latest IHS Markit/CIPS Purchasing Manager's Index recorded 61.6 in April, almost unchanged from the previous strong reading of 61.7 in March. The latest reading is underpinned by a positive outlook in all categories measured – house building, commercial and civil engineering. The strong outlook and signs of recovery are confirmed by the recent new orders data from ONS, which in Q1 2021 finally returned to pre-Covid levels.
- The Construction Products Association (CPA) has upgraded both 2020 and 2021 projections in its latest forecast, resulting in a 1% increase in workload to £169bn by the end of 2021 and a faster recovery of the sector than initially anticipated. By the end of 2022, all sectors other than public housing and commercial will have recovered or exceeded pre-pandemic activity levels.
- The strengthening new orders pipeline and increasing demand signal that the transition from the recovery phase to 'business as usual' has finally begun. While this is a welcome development, the sector must remain vigilant, especially in view of challenges regarding materials and workforce availability – particularly for specialist trades in high-growth sectors including rail and water.
- We are also only now beginning to see the impact of the pandemic on the financial health and capacity of the supply chain. As major contractors begin to publish 2020 results, losses reaching 20% of turnover are reported. A quick look at the number of births and deaths of construction companies in 2020 reveals a net decrease of 2% in the number of businesses. Combined with a buoyant new orders pipeline, these factors suggest there may be less spare capacity in the supply chain than previously thought – bringing forward the end of the window of opportunity.



Forecast

The recovery is finally underway. A combination of a brighter outlook, but numerous capacity challenges, has led us to modify our predictions for 2021-2023.

Against all lockdowns

Our Winter 2021 analysis highlighted that we are reaching the 'end of the beginning'. Now, equipped with new insights, the path to recovery is even clearer. Additionally, we seem to be moving at a faster speed than expected. However, as exciting as this is, it also means more challenges for the construction sector, and more inflationary factors – which are reflected in our upgraded forecast.

Construction output held steady in January and February 2021, despite pandemic restrictions and adverse weather. However, there was still a gap of approximately £1bn in workload delivered monthly,

and many workers were furloughed - while their employers were busy filling the order books. The latest data from ONS indicated an uptick in output and return to the pre-Covid levels of £14bn a month. After peaking for a second time during the winter lockdown, the number of operatives on flexible furlough fell by 15% between February and March. Yet, it remains higher than during Autumn 2020.

According to the Arcadis Sentiment Index, the order books should begin to fill now, with 60% of our experts seeing a growth in activity – a significant increase from 44% during Winter. Confidence seems to be returning to clients as well, with our internal survey indicating that 75% of projects are now progressing without any delays; a 50% improvement compared to the previous reading. Recent ONS data showed that the value of new orders in Q1 2021 passed £11bn and hence returned to the levels observed in Q4 2019. Growing evidence of an acceleration in recovery is of course welcome after a period of prolonged uncertainty, yet we still need to watch out for emerging challenges.

You didn't think it's going to be that easy, did you?

The faster than expected recovery in demand has coincided with increasing pressure around the availability of construction materials. We originally flagged this issue in our Winter forecast, but the problem has intensified. What started at the end of 2020 as a combination of constrained manufacturing capacity and increasing



logistics costs has recently escalated to significant shortages, extension of lead times by weeks, and spikes in prices of steel and timber, as well as roofing tiles and white goods. Logistics costs remain historically high and material prices continue increasing, and of course incidents like the recent blockade of the Suez Canal do not help.

The difficult situation we reported in January has been compounded by increasing construction activity and a corresponding growth in demand. Furthermore, even more disruption to supply chains - including snowstorms in Texas that have impacted the global production of PVC, limited capacity of Brazilian iron ore mines, and a third wave of COVID-19 - have intensified materials shortages. Fabricated steel costs increased by 17.6% year-on-year, according to data published by the Department for Business, Energy & Industrial Strategy, and lead times have increased from weeks to months. The CPA has recently warned that this status quo would be maintained for at least a year. In many cases, the additional costs generated may not be absorbed by the supply chain and will lead to price increases. We have already taken this into account in the present Forecast update, but the situation is still evolving. Some commentators are heralding the arrival of the next commodities supercycle fuelled by the short-term capacity recovery issues at the beginning of the year. Should that indeed be the case, we will further adjust the anticipated inflation levels.

Better than expected reports on new orders also seem to be taking some pressure off contractors and

reducing the level of competition. But we still do not know the full extent of the pandemic impact on the financial health and capacity of the supply chain. Latest data paints a very mixed picture. Some contractors are reporting losses and are looking forward to securing new work - which may require a more competitive approach and could lead to price decreases. But on another hand, there is growing evidence of financial stress. Latest Begbies Traynor data points to a 47% increase in companies in financial distress between Q1 2020 and Q1 2021. Despite all of the support available, 2020 was also the first year in a long time when 6,000 more construction companies shut down than were created - that is a decrease of 2%. This number is likely to grow once Government support for businesses is withdrawn. Therefore, we cannot exclude the possibility of a capacity crunch, which could potentially add to the inflationary pressures, especially since access to EU labour is now also limited.

In addition to high profile issues associated with materials, there are other factors that are combining to make life difficult for the supply chain. The continuing tightness of the performance bond and professional indemnity insurance industries is feeding through to projects, and recent changes to the tax system are also working through. The introduction of IR35 may potentially result in increased employment costs as the self-employed transfer to the payroll. This has been introduced for the 2021/22 Tax Year. Similarly, there are concerns that the cashflow effects of reverse



Forecast

charge VAT, which was finally introduced into the sector in February 2021, will also have an impact on sub-contractor pricing. Only time will tell, but a rising market will provide the momentum for wider price movement.

Deflationary factors are also still at play, but getting weaker. The employment market is soft, and latest ONS data indicates that wages in the construction sector are below Q1 2020 levels and not recovering as quickly as in other (private) sectors. In addition, sterling has appreciated against major currencies, including a 12% hike against USD over the last 12 months. The main factor is the workload pipeline, which has been slow to recover to pre-COVID-19 levels. With many contractors actively seeking work, clients can be selective. Interestingly, mid-sized contractors with a direct labour force are doing well in this market, trading up to larger and more complex schemes, whilst keeping costs competitive. However, even taken together, our view is that these trends are unable to offset the previously discussed inflationary pressures, and as such we decided to modify our predictions for 2021 and 2022.

Narrowing window of opportunity

In our updated forecast, the major adjustment is an acceleration of price rises for infrastructure in 2021, which we think will become visible in the second half of the year. The reported pressures around materials availability are especially relevant to this sector, which is anticipated to expand rapidly as the volume of on-site work increases. Infrastructure will also be faced with a shortage of specialist skills.

For the building sector, we still think that activity growth in the regions will be higher than in London,

however we also see that projects are taking more time to get to the 'shovel ready' stage and hence we maintain our forecast for 2021. These delays, however, are likely to translate into a steeper pace of growth beyond 2021 as the market recovers further and we have upgraded our forecast for 2022 and 2023 to reflect this. There will, of course, be differences between sector performances, with downward trend in retail and a more buoyant residential sector, but overall, the outlook points to a modest expansion.

In our previous forecasts we pointed to a window of opportunity for clients ready to commit to projects at the early stage of the economic recovery. Although this window still remains open, the developments that we are observing suggest this will not be the case for much longer. Clients postponing their decision to proceed may find themselves in an increasingly inflationary landscape.



Inflationary

- Materials – availability and logistics costs
- Recovery in demand, less pressure to secure ‘must-win’ projects
- Capacity constraints affecting specialist skills, particularly in infrastructure
- Duties on materials from the EU where Rules of Origin apply
- Implementation of IR35
- Cashflow impacts from the introduction of reverse-charge VAT

Deflationary

- Continuing need to fill the 2021/22 order book
- Competitive bidding triggered by contractors ‘trading-up’ to more complex projects
- Wage inflation is flat. Levels of furlough indicate availability of workforce
- Potential adoption of some digital practices and a post-COVID-19 productivity increase
- Sterling strengthened (4% EUR, 12% USD)

	Regional Building Construction TPI	London Building Construction TPI	National Infrastructure Construction TPI
2020	-3% (-3%)	-4% (-4%)	0% (0%)
2021	1% (1%)	0% (0%)	3% (2%)
2022	3% (2%)	3% (2%)	5% (4%)
2023	4% (3%)	4% (4%)	5% (5%)
2024	5% (5%)	5% (5%)	5% (5%)
2025	5% (5%)	5% (5%)	5% (5%)
Total	15% (13%)	13% (12%)	23% (21%)

Spotlight on: Unpicking the productivity puzzle

The UK construction market is finally on the road to recovery, but 20% of the directly employed construction workforce are still on flexible furlough. Has the industry improved productivity that much during the pandemic? With demand forecast to grow, this could have significant implications for industry capacity and the timing of the closure of the window of opportunity.

Construction data, published in May 2021 by ONS, shows that after months of output flatlining 7% below 2019 levels, activity has finally returned to pre-pandemic levels. This is a major breakthrough. The lower level of output seen before March helped to explain the fall in the size of the workforce by 7% to 2.14 million and the large proportion who remained on flexible furlough. However, the improving long-term outlook, signalled by high levels of confidence and more encouraging orders data, is likely to increase demand for labour – creating the conditions for wage-led inflation highlighted in our long-term forecast. Unless, that is, it can be offset by increased productivity.

One of the surprising outcomes of the pandemic is that the individual productivity of operatives has improved, even whilst the productivity at a project level has fallen. Output per person increased by around 2% in the year to Q4 2020. To illustrate the point, the 9% increase in output from December 2020 to March 2021 did not lead to any decrease in the workforce on flexible furlough. Should this productivity improvement be carried through to normal working and be further enhanced with project wide wins from standardisation and digitalisation, then forecast inflation pressures may reduce, reflecting the industry's greater capacity.

But before this happens, a number of unknowns need to be accounted for. Firstly, improved levels of individual productivity need to be sustained once there is a return to more normal ways of working. Secondly, some of the productivity lost at a project level – currently 10 to 15% - needs to be recovered. Thirdly, workers who were either made redundant or went home, especially some EU workers, need to return to their previous roles. Fulfilling all these criteria would equip the industry



Temporarily Closed {Due to COVID-19}

better than expected to meet the ‘build back better’ challenge set at the peak of the pandemic.

Despite improved productivity, the fact that it has taken until March 2021 for output to return to pre-COVID-19 levels, while the workforce on flexible furlough has increased, has implications. This is likely related to three causes:

- Total output on sites remains constrained due to restrictions around Site Operating Procedures.
- Recent procurement activity has been slow to convert into site activity – caused for example by extended contract negotiations.
- Design and procurement of projects in the pipeline is taking longer than expected, particularly in the public sector.

The combined implication of these factors is that the peak of the future wave of work associated with the recovery will be delayed, but due to pent up demand, it will be larger when it finally arrives. In addition, the industry will potentially have less capacity to respond. This is partly because fewer people are employed in the sector and sites are less productive, but also because of the effect on supply chain health of the loss of at least £8 billion in turnover since July 2020.

Hence, the speed of the recovery in the first half of 2021 is an important factor in determining the longer-term health of the sector. The signs are increasingly positive, with PMI scores at their highest since 2014 and the latest ONS new orders data increasing by 12% in Q1 2021 – even if the total was still 13% down on the prior year. But the pace of recovery in orders

needs to accelerate; to give the supply chain security, enable more of the workforce to be brought out of furlough and provide drivers for maintaining high levels of productivity – so that there is less risk of labour availability holding back the speed of recovery.

What would such acceleration mean for the window of opportunity and the prospects for longer-term inflation?

For the window of opportunity, the latest data suggests there is still slack in the market today, but that the pace of recovery is strengthening. Contractors are looking for opportunities, and there is value to be had. However, all of the data points to tighter market conditions in the future – hence our inflation puzzle.

For long-term inflation, the picture is more positive around productivity. Increased productivity not only means that costs should stabilise, but also that the industry will be able to make better use of its most scarce resource – skilled labour. This is a very positive development, and whilst we are not cutting our forecast immediately, we will be monitoring the labour data very closely indeed. If present trends continue, the industry may well be on the way to unpicking the productivity puzzle.



Zoom into: Constructing decarbonised infrastructure

Britain's appetite to become a world leader in reduction of carbon emissions is increasing – but so is our investment in new infrastructure. Is this a case of wanting to “have our cake and eat it” or is it feasible to build more, while emitting less?

In the beginning of March 2021, the Government confirmed its record investment in infrastructure in its 'Build Back Better: our plan for growth' publication. This happened not too long after the Climate Change Committee (CCC) published the proposal for the Sixth Carbon Budget, which underpins the recently announced acceleration of the path to net-zero. For construction and manufacturing sectors, the Balanced Net Zero Pathway included in the CCC's budget assumes 70% emissions decrease by 2035, compared with 2018 levels. But how can this be achieved whilst maintaining progress on the great infrastructure investment to be delivered in current plans?

The focus of the net-zero effort has so far been on the operational carbon footprint of infrastructure. Now, our attention needs to turn towards the significant embodied carbon footprint resulting from the construction processes involved. The hard-to-abate industries such as cement or steel production together contribute 15% to global CO₂ emissions. Their decarbonisation is essential to the successful achievement of net-zero goals, as mentioned in the Industrial Decarbonisation Strategy.



Organisations such as the Infrastructure Client Group are publicly committing to using low carbon cement, and their promises are reflected in initiatives such as the Mineral Products Association's UK Concrete and Cement Industry Roadmap to Beyond Net Zero. There are different ways, from economic incentives to research directions, that will contribute to addressing this challenge.

1. Carbon Pricing and Emission Trading Schemes

The cost of carbon more than tripled over the last year, from £17 per tonne of CO₂ to £47 per tonne. The independent lobby group Zero Carbon Commission believes that the price will need to reach £75 per tonne of CO₂ by 2030 if NZC goals are to be achieved. Following the UK's departure from the EU, the UK specific Emission Trading Scheme has been introduced, which will start trading credits in May 2021. It continues to apply to energy intensive industries, such as cement production. The ceiling on emissions will fall over time and in a transparent manner, allowing companies to make a business case for investment in decarbonisation.

2. Recycling and Replacement Materials

The steel industry can recycle and reuse scrap indefinitely, although some addition of the raw material – direct reduced iron (DRI) – is required for a high-quality product. A combination of reuse, recycling and reduced demand is forecast to help reduce the emissions associated with steel production by around 15%. For concrete, the calcination reaction required to obtain the binder-cement is a major source of CO₂ emissions. Until recently, it seemed that the application of any replacement to cement will inevitably lead to a concrete with different characteristics and limited application. Recently, however, new products have been introduced to the market that use an alternative binder and allow for the carbon footprint to be reduced by 70%, while maintaining the characteristics of traditional concrete. This, however, comes at a cement price premium of approximately 20-30% for ready-mix concrete, which for some clients may prove prohibitive.

3. Reduced Demand

Our efforts to reduce end-user consumption of new resources and improve efficiency must continue too. Modifications to the design or even designing out of some assets can minimise the amount of raw material needed and limit the carbon footprint by up to 40%, as achieved by Arcadis in designs for the EKFB JV on HS2. The savings will also come from the impact that using fewer materials will have on the demand for plant machinery and fuel. In a more distant future, more precise delivery methods, such as the use of 3D printing and robotics, could further minimise footprint.

4. Electrification and Transition to Renewables and Hydrogen in Materials Production

Both cement and steel production require extremely high temperatures, which are currently met through burning of fossil fuels. The transition to electrification, combined with the application of renewables, has the potential to reduce CO₂ emissions from construction and manufacturing industries by approximately 18%. Another 18%, according to the CCC, could be abated through application of green hydrogen (hydrogen obtained through water electrolysis). If green hydrogen is used as an alternative to natural gas as a reductant in the direct reduced iron production process, it will make the steel process carbon neutral.

5. Carbon Capture and Storage.

Part of the Prime Minister's Ten Point Plan, carbon capture, usage and storage (CCUS) also has a big role in driving energy transition and could also help reduce emissions from the construction industry. The possibility of capturing CO₂ (and utilising it as a raw material) could be seen as an intermediate step for industries such as cement production, for which the path to total decarbonisation is more challenging. This, however, will only be feasible for the industrial facilities co-located with the CCUS, in locations such as the Humber. A much bigger impact is likely to come from the transition from fossil fuels to hydrogen, described above. To make that happen, CCUS facilities will be essential.

According to projections by the United Nations and the Energy Information Administration, as other sources of carbon emissions are addressed earlier, the contribution of embodied carbon will become even more pronounced and could contribute almost 50% of the GHG emissions of global new construction from 2020 to 2050. As carbon prices rise, failure to decarbonise will increasingly threaten the economic viability of construction projects, driving construction costs up. 2035 may seem far away, but we must not underestimate the size of the challenge – embodied carbon will not be eliminated through a single incentive. It requires a combination of all the above-mentioned approaches and cooperation between design, delivery, and asset operation teams. And the sooner we act, the better.

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Our world is under threat - from climate change and rising sea levels to rapid urbanisation and pressure on natural resource. We're here to answer these challenges at Arcadis, whether it's clean water in Sao Paolo or flood defences in New York; rail systems in Doha or community homes in Nepal. We're a team of 27,000 and each of us is playing a part.

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