

MAY 2020

CONSTRUCTION  
MARKET OVERVIEW

# The Coronavirus Impact: A New Paradigm

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# Executive summary

The current crisis affecting the real estate and construction industry is very different to previous economic cycles and corrections. The impact has been unprecedented in terms of its speed and scale. How businesses complete their existing projects is in some ways secondary to assessing what the longer-term impact will be on macro-economic conditions and the built asset investment and transaction markets. To assess the likely prognosis, it is therefore necessary to differentiate between existing committed projects – those that are suspended, part-open or that are still to start – from future projects yet to be commissioned in 2021 and beyond.

## Impact on live construction projects

**Likelihood of upward construction cost pressure – driving commercial tensions and programme slippage.** Pre-existing contractual risk allocation will be the centre piece for possible commercial disputes and danger of growing quality and assurance issues. Each project will have a cost and programme risk allocation which will be contract specific. Given the unprecedented nature of the crisis and the increasing risk of significant insolvencies throughout the construction supply chain it **is incumbent upon clients, contractors and consultants to collaborate and find ways of reducing the risk of supply chain failure.**

There could also be instances where part-complete projects need to pursue a more interventionist project recovery strategy to recover programme or to provide more delivery certainty to developers and funders. This might involve the **consideration of wholesale new contractual arrangements, re-design and re-procurement that improves increased speed, certainty and resiliency.**

## Impact on future construction projects

The supply chain will reassess its appetite and behaviours to pricing and risk allocation in response to an emerging market likely to characterised by drastically reduced demand for capital projects. There will be pressures on input costs acting in different directions. The net effect however of all of these dynamics is that there is a **high likelihood of downward pressure on tender prices over the next 12-18 months which could result in up to 10% deflation** depending on design & delivery complexity, size of project and proposed supply chain profile.

However, this level of deflation could be partially offset if we encounter a 'no deal' Brexit situation at the end of 2020. Other possible offset influences on tender price deflation are likely to be prolonged and strict social distancing measures, largescale capacity reduction in the market post Covid-19 and demand-side measures the government might take to stimulate the construction sector and housing market. **If the longer-term market correction is deep and protracted, the level of tender price deflation could exceed our predicted 10% level (as seen in the correction after the financial crisis between 2008 and 2011).**

It will be necessary for all projects to be reappraised for a different market ahead. Schemes will need to be re-assessed in terms of design, procurement and build methodology in a way that de-risks outcomes and build competitive advantage for clients in what will probably be a more competitive and challenging end user market for developers and investors.

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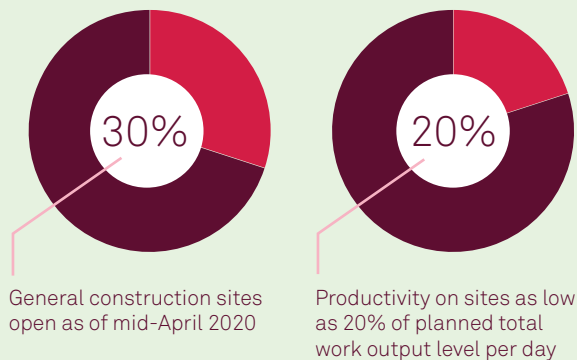


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## Impact on live construction projects

**The current market disruption being experienced by the UK construction industry is unprecedented. The Coronavirus pandemic has led to a substantive suspension of a large part of the construction sector.**

Glenigan has suggested that this is in the order of 2/3 of the industry's output or over £100 billion of construction value.



As of mid-April 2020, it has been estimated that only 30% of general construction sites are open and that productivity on those sites is as low as 20% of planned total work output level per day. In the housebuilding sector, it is estimated that only 20% of sites are open so the enforced closure of this part of the market appears to be much greater.

The government's stance on public health measures and designation of essential or critical activities has led to confusion within the industry as to whether sites should shut or stay open. Contractors have formed their own conclusions as to whether they can safely continue working on sites and indeed whether attempting to do so becomes a PR and brand risk due to the heightened level of media interest in this area. As of mid-April, the main contracting and housebuilding market still has a spectrum of responses ranging from full site shutdowns, to limited working only to attempting business as usual. At the time of writing, contractors and house builders are re-opening sites in line with the latest Construction Leadership Council (CLC) / Build UK issued guidance despite the contention that there is some conflict between strict social distancing and the current site guidelines.

It is worth noting that there is more incentive in the general contracting sector to return to work, where contractors have legal liabilities and are also wanting to generate cashflow. In the housebuilding sector, developer / contractors will usually have less liabilities to their trade workforce and some may indeed be concerned that their end markets for residential product have diminished so they are better off controlling work in progress rather than re-starting work immediately.

The ability to physically procure site labour has been intermittent. With a 40-50% self-employed workforce, that part of the supply chain has the greatest incentive to work, even in the face of health dangers, but there has also been evidence in the last few weeks that increasingly labour has elected to stay at home and have indeed been medical victims of the virus.

There have been calls from the CLC to give construction workers 'essential' worker status so they are not subjected to abuse or negative perceptions from the public. So far the UK government has resisted, and in Scotland, under devolved powers, the Scottish Government has indeed banned non-critical construction work outright.

**“There have been calls from the CLC to give construction workers ‘essential’ worker status so they are not subjected to abuse or negative perceptions from the public.”**

As stated above, the CLC has published site operating procedures that have been endorsed by Government and dictate measures required to maintain operative safety and social distancing. The reality is that the imposition of these measures, even though they allow limited working with 2m of each other, will have significant impact on site productivity and output.

This will be felt especially in trades that require working in close proximity on site or that require internal multi-trade working in confined internal spaces (i.e. the latter part of residential projects where internal partitioning has already occurred). This will create widespread pinch points that will require a completely different site logistics strategy.

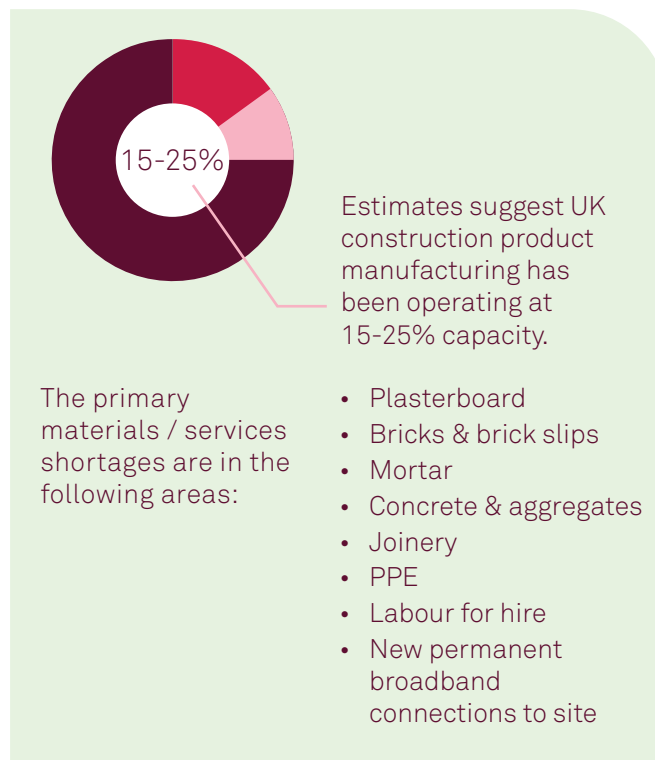
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The upshot of this will be additional construction costs expended against reduced output and schedule delays, including Preliminaries ‘thinning’ (where site overheads are having to be stretched across an extended programme), again, disproportionately adding to unit production costs. Anecdotally, main contractors are reporting significant reductions in site productivity in terms of output per hour worked. There are however reports that certain trades have been able to improve their individual worker productivity and output per day as they have been less conflicted by other trades on what are now less intensely resourced sites. This indicates the complexity of impact that we are currently seeing. In-situ concrete work for instance appears to be relatively unaffected on a labour productivity basis at site level **where material supplies have been available.**

Parallel to this focus on site working strategy, there has been a disruption and wind down of large parts of the material and product supply chain. This has meant irrespective of ability to secure the workforce on site, most sites have fractured supply chain lines and are not able to secure deliveries to feed site progress. The Construction Products Association has confirmed that large parts of the product manufacturing supply chain have either shut their factories or are working on a limited output basis. In addition, the importing of foreign materials has been disrupted significantly with lots of products stuck at border control points across Europe and beyond as global traffic flows have been suspended. At the time of writing, Chinese manufacturing is starting to export again but there will be a lag before they get back to previous output levels. In many respects, certainly in the UK, the supply chain will act in response to site-based demand patterns, but it is also impacted by the inability in many factories to work to PHE guidelines or the impact of an absentee workforce.

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The contractual interpretation of liabilities for all these cost and time related issues will be project-specific. There are already extensive examples of contractual interpretations varying in terms of extensions of time and loss and / or expense entitlement. This contractual tension is a warning note for projects yet to complete. It will create commercial tensions down into the supply chain and overlay what will be a cash constrained market. The expectation is that the lack of liquidity in the supply chain (from main contractors to sub-contractors to self-employed workers), will mean that we will see widescale financial failures in the period ahead that will invoke the need for determination provisions and subsequent insolvency management.

This raft of failures will also take significant capacity out of the future market which is highly relevant for the shape and size of any future market and potentially pricing levels and behaviours. We see this as a risk across professional services, technical, management and trade-based sectors and resources.

There should be a focus on pragmatic and practical solutions that lead to the best holistic outcomes. Parties should not blindly hide behind contracts at this point and should be looking at ways of minimising the risk of project failure throughout the supply chain by assisting with cash flow, supporting off-site manufacturing activity, promoting safe site activities and the like.

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## Commercial dynamics and market outlook for future projects

The shape of the return to worksite profile for the industry still remains to be seen. The government has clearly been keen to avoid a wholesale shutdown of the construction industry due to its economic importance.

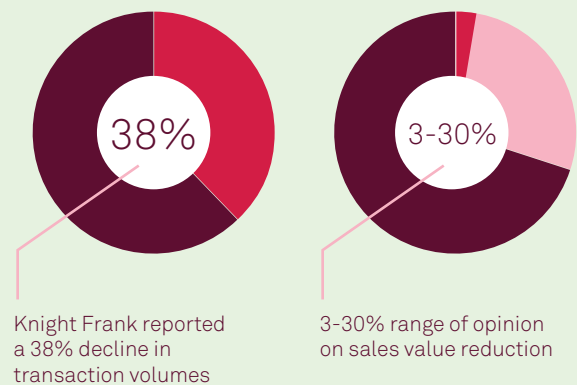
The reality is though that we are likely to see a period of protracted insidious non-productive working across trades and site overhead inefficiencies storing up cost pressures and fuelling the likelihood of disputes. It is also a risk that we may see an intermittent profile of return to sites interspersed by a possible reintroduction of movement or distancing regulations if we see a resurgence in the virus, especially over the winter period of 2020 / 2021. There are early signs in China, Singapore and Japan that there are already second-wave outbreaks.

The most recent CIPS PMI survey as of early April shows the biggest falls in new orders across all construction sectors from infrastructure to commercial to residential since the global financial crisis in 2008 / 2009. This purchaser confidence survey is one of the lead indicators which shows a direction of travel for orders and pipeline.

Away from site closures and restrictions, there are also some practical development market issues which will dictate the ability for pre-construction projects to move towards being construction ready. The primary area of concern is planning, as the pandemic has seized up large parts of the planning process. The government has acted to guide towards executive powers of determination and the technology enablement of virtual planning committees. However, there will undoubtedly be delays in planning that will play out parallel to a general reduction in urgency from developers and investors to get to site and commit to significant capex at such an uncertain time.

Beyond the more tangible impacts of the Coronavirus on live and ongoing construction projects, perhaps the greater concern for the industry is the outlook in terms of future investment confidence, finance availability and confidence in end user demand and hence values for built assets.

Knight Frank has reported a 38% decline in transaction volumes (over half a million sales).



There is more dispute on the impact on residential values. Knight Frank suggests only 3% reduction but other sector experts are quoting up to a 30% correction. There is also debate on whether the rental market will be more resilient than the for-sale market.

This remains largely an unknown, especially as the housing market is in effect suspended with physical transaction activity virtually halted. At the time of writing, the question is how the market's pricing levels will respond irrespective of transaction volume decline. This will be largely sentiment led and will take until the autumn potentially to show itself.

There is extensive deliberation at a macro-economic level of whether any recovery is 'V' shaped, 'U' shaped, 'bathroom tub' shaped or 'Nike swoosh' shaped. This is a question that goes beyond the construction industry and will be dictated by global economics, fiscal and monetary policies, employment and output levels. Two factors will drive market continuity: the level of employment and consumer confidence and the continuance of credit to businesses including provision of development finance.

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From a construction pricing perspective, it's necessary to analyse the component parts of what makes up construction costs and in turn how this translates into tender pricing. The sector operates an irrational, sentiment driven 'top down' pricing model which means tender prices are nearly always de-coupled from like for like changes in 'bottom up' input costs and risk. Pricing is adjudicated in board rooms and by owners based on order book, cash flow, outlook and project attractiveness in terms of client profile, risk profile, geography, size and type.

The component parts of a construction project's cost profile are essentially:

- Labour – trade & supervisory
- Plant
- Materials
- Overheads and Profit  
(Sub-Contract & Main Contract)
- Risk transfer allowances  
(Sub-Contract & Main Contract)

The current market chaos would suggest the following trends might play out:



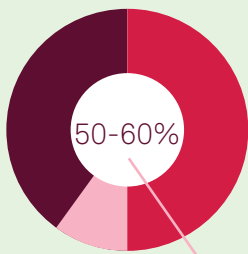
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## Labour

As the current committed construction projects are completed, irrespective of the disruption and cost issues on those projects, more and more **site labour** will become available in the market and recently seen skills deficits will be masked by possible over-supply of labour. In a 40-50% self-employment led market, this will lead to a **reduction in trade day-rates** which is already manifesting anecdotally in the earliest trades that are at the front of the queue for new pipeline. The level of fall will be informed by levels of foreign labour repatriating and the usual leakage of workers who leave the sector completely in a downturn and move into other lines of employment. Every 10% fall in trade day rates could reduce all in total residential construction pricing in the order of 3%.



Most residential projects have 50-60% site labour content (including management resources) so the elasticity of labour pricing has one of the biggest impacts on bottom line construction pricing.

The level of labour decline will also be potentially influenced by the extent and success of any possible government stimulus package injected into the economy post-crisis. This is likely to be a major economic and social infrastructure stimulus programme plus some form of both supply and demand-side housing market interventions. We have already seen a government sanctioned commitment to placing early civils packages in HS2 and we should expect more focus on 'shovel ready' public sector projects.

This will drive demand into the construction sector and to varying degrees will soak up a level of labour under-utilisation related to a decline in private sector activity. Some trades will be completely interchangeable from building work to civil engineering or office work to housing or hospitals. Many trades and skills though will be less versatile and there is a potential risk of 'skills' mismatch or deficit leading to quality and execution problems on future projects. The same applies to some areas of professional services where firms will decide to pivot towards new opportunity markets that government is stimulating but are fundamentally inexperienced in some of the sector-specific expertise.

The timing of the labour market correction is difficult to plot accurately as it will change on a staggered, trade by trade basis, starting with demolition, groundworks, frame, scaffold type trades who are first to complete on already committed projects. This 'bow wave' of labour re-pricing will gradually sweep through finishing and services trades where some of the most labour intensive working is, therefore it is likely that the fuller project wide impact of labour reductions could have a delayed action into 2021. At trade level, enabling works and early trade packages placed in the short-term period ahead will probably already start to see labour led pricing reductions if not already contractually committed. Some contractors might also look to re-negotiate labour rates as part of their internal buying gains although this might not be visible to end clients.

The offset against pure labour market-led pricing corrections will be how much the impact of reduced site productivity is factored in, especially on a longer-term basis. If workers are procured on an incentivised basis this will be partially reduced but if labour is contracted on a pure day rate basis, site restrictions and material supply chains are in the short term at least likely to reduce effectiveness and offset any cost saving. If we see a move towards more restricted working on an indefinite basis, this will also act as an incentive to increase Pre-Manufactured Value (PMV) including through use of 'flying factories' on site to pre-assemble.

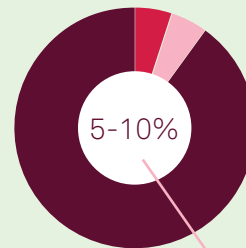


## Plant

The **Plant** market's pricing behaviour is always in reality highly indeterminate and is divided between those that own plant and those that hire it in. Ownership gives choices in terms of project costing in order to be opportunistic or competitive, especially if it has been fully depreciated and is paid for. This is less possible where plant is new and has debt leverage set against it. Those contractors that hire in plant will be able to benefit from gradual under-utilisation and a reduction in commercial hire rates.

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In bottom line terms, it is expected that the cost of plant and translation to pricing will show a **reduction** in overall levels in the market ahead unless there is specific scarcity related to the type of plant involved. Plant costs however usually contribute only a limited proportion (5-10%) to the overall construction costs so this input cost variance has minimal impact in holistic terms.



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## Materials

The **Materials** market is likely to be highly volatile in the period ahead. As has already been said, many suppliers have shut down so will be carrying fixed manufacturing overheads with low or zero output putting pressure on their viability. The continuance of materials flow to existing projects will initially mask the likely reduction in longer term pipeline of orders that will end up being completely synchronised with market output.

Supplier pricing and merchant / factor on-costing will be driven by product demand and their own capital reserves. In this economic cycle we have seen more prudent management of work in progress so many manufacturers – brick, glass, timber manufacturers etc. – have managed supply so there is not a vast unsold inventory as there was in 2009, which led to ‘fire sales’ of stock. This is likely to mean there will not be a collapse in materials pricing in the period ahead, but suppliers will manage their output in line with new orders, potentially mothballing expanded facilities or moving to part shift working. Indeed, scarcity on existing projects could lead to opportunistic price hikes albeit this could be a public relations risk for those businesses looking to profit from the crisis.

The risk for many UK and EU suppliers is a Chinese materials market looking to rebound and we could see aggressive pricing and largescale supply from China offer up reduced cost options for specifiers. The key issue will be safeguarding quality and technical accreditations.

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This issue is equally relevant to the emerging UK domestic MMC volumetric modular market where an influx of cheap international modular products could distort the market. It is also relevant that up to now, much of the MMC market has shared material supply chains with the wider traditional construction sector and has been in some instances equally affected.

The volatility in materials pricing will be further overlaid by a general medium to longer term market demand downturn as construction workload reduces. This will be added to by possible longer-term restrictions in ability to transport, unload raw materials on site and then move and integrate into the works in a traditional labour-intensive way. Certain activities might be more susceptible to future restrictions on social distancing and this might lead to de-risking in design by increasing pre-manufactured value (PMV) as mentioned above and a desire to reduce site labour hours.

It is important to note that PMV can be increased through both off and onsite manufacturing, and might change the nature of who the clients are for material suppliers and their delivery logistics.

PMV may increasingly be seen as a new measure of a project’s delivery resiliency. This might suggest a move to a greater level of pre-manufacturing across the board over the coming months and on schemes not yet fully designed, where partial or complete modularisation as opposed to multiple traditional component construction in-situ on site might now be preferred if the commercial relativity can be made to work. As with labour, taking capacity out of the materials market will hold pricing up in general terms. It is important for the industry that quality capacity is preserved and that new regulations such as fire safety and decarbonisation are achievable through sufficient products and R&D being available to the industry.

Material prices are obviously also subject to raw materials and commodities fluctuations and it is difficult to predict how the current crisis will play out in terms of supply and demand for various basic commodities. We have already seen a dramatic collapse in the price of crude oil which could in turn feed through to manufacturing process and transportation costs but it is also likely that such pricing will become more erratic both upwards and downwards as supply adjusts to new levels of demand in the medium to longer term.

The final variable with materials supply chains is the possible future impact of Brexit on tariffs and import logistics issues. Although this has fallen off the radar this could create upward price pressures and logistics / schedule challenges. It may also introduce a currency dynamic in terms of the strength of Sterling relative to our main import markets beyond just the EU. The Government has recently confirmed that it does not intend to seek an extension to the current timetable; the risk therefore remains of a no-deal Brexit at the end of 2020, which would completely re-shape the availability and price of EU sourced materials. This will bring into sharp focus the Government’s 2017 Industrial Strategy ambitions with a desire to build the domestic engine room of the UK economy; rebalance regional growth; reduce imports and improve productivity.

In summary the net effect of the above is that it’s likely that **Materials pricing will be static to upward** in the period ahead. **With the additional risk that a no deal Brexit could create super-inflation in certain EU sourced products.**





## Overheads & Profit

Supply Chain Overheads & Profit is a highly sentiment-driven segment of construction pricing. Although it should be empirically derived from accounts, the industry operates an opaque approach to sharing and pricing actual establishment overheads and declaring true profit. This element of pricing is also, like site labour, highly elastic and tends to compress and expand very quickly in response to market conditions and outlook, ahead of evidence of actual input costs as set out above.

Most businesses will be looking at cash flow preservation irrespective of end of project margin as they can trade problems from one project to another. This model only fails when, as with Carillion, you see a gradual unwinding of balance sheet positions as work dries up and losses crystallise project by project. Short of stopping supply chain payments, liquidity reduces and insolvency materialises quickly as most businesses have little balance sheet strength and operate a return on capital employed model with few assets held other than staff. Clearly this is an imminent danger to the entire main contract supply chain now as well as the larger sub-contractors who in turn sub-contract. This creates an unprecedented risk that we will see more players of all sizes from SME's up to the largest corporates fail and **financial viability needs to be a major area of main contractor & supply chain selection due diligence.**

On the issue of **main contractor OHP**, it should be anticipated that main contractors will be looking to secure forward order book as urgently as possible now as current PCSA's are terminated or deferred. Part of this will no doubt be fixing OHP through PCSA or two stage tendering. This process will be under downward pressure as some contractors possibly revert to the usual cyclical 'race to the bottom'. Their recovery strategy will be to 'better buy' domestic sub-contract packages or to recover through discounting in the supply chain. Clients and advisors will need to be on their guard and not just follow the market down. Driving down or accepting very low OHP margins will be storing up a problem for the future. The optimum position is to use current market conditions to take out any of the recent 'froth' in market pricing, accept a reasonable return margin and select based on trust and transparency to drive the best outcome.

It is likely that – despite recent rhetoric from many contractors that they would not repeat the mistakes of the past – there could be a two-tier pricing market where some hold their nerve and look to charge standard OHP %'s and avoid margin compression. Others however, are likely to break ranks and look to reduce already thin margins. The nature of how this reaction plays out may well be influenced by size and complexity of project and we may see those largest projects have either a hard floor on margin pricing or alternatively will become the subject of bidding wars where contractors want to secure longer-term work at all costs. This possible 'two-tier' contracting market is likely to result in **static levels through to reductions in main contractor OHP.**

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In terms of **sub-contractor OHP** there is much more likelihood of price movement than there is with main contractor OHP. Many specialists have taken the last cycle as an opportunity to develop profitable businesses. This segment of cost in the construction pricing stack is one with the highest levels of elasticity alongside labour pricing. In a downward market, the compression possible from this element could be significant but in reality, will again vary trade to trade and will be influenced by the type of project and scarcity / reputation of the specialist's skills. If sub-contractors employ direct labour and have big investments in plant and machinery, it is likely they will be forced to seek cash flow cover and will compress their margins. Not all sub-contract businesses are as profitable as others so the propensity to cut margins to win work can create untenable positions that need to be guarded against in a sector that ultimately has less capital reserves and cash flow access than the main contracting market.

The cumulative effect of this sentiment shift will become most apparent as the current pipeline of part completed and committed live construction projects complete in 2020 / 2021 and securing forward order book becomes more and more critical. The upshot of this is an expectation of a **substantial reduction in sub-contractor OHP.**



## Risk Transfer

As with OHP, attitudes to risk transfer will possibly soften in the supply chain in a downturn but will follow many of the same patterns as OHP pricing and could result again in a 'two-tier' market. The net effect expected for the majority of the market is **the price of Contractors taking on risk will reduce**. This is completely sentiment-driven and the health warnings set out above under OHP apply also here. There is the propensity in a downward market to reduce risk premiums, but this should only really be as part of a measured risk management strategy by both parties not just dumping risk on the other side of the fence that might lead to a downstream delivery or financial failure.

There is also a sector-specific overlay on this as some parts of the construction market hold higher delivery risks and the pricing of these risks and attitudes to procurement etc harden more in a busy market. The residential sector is an example of part of the market which has increasingly been regarded as high risk by many main contractors who entered it after the last financial crisis due to lack of commercial and retail construction.

Whether contractors continue to decide to price a risk premium for residential delivery within their portfolio or ultimately decide to withdraw from the sector entirely remains to be seen and will be dictated by the flexibility of businesses to be able to enter other markets or sectors.

Some contractors may decide to become more selective on which clients and sectors they will work with, what terms they will accept, and the procurement approaches they will follow including asking for specific clauses to be added dealing with delay and cost relating to supply chain and site restrictions in the same way we have seen with 'Brexit' clauses. We are however also likely to see a return of willingness from many contractors to accept higher value lump sum bidding in order to secure work. This might be appropriate on schemes that can be fully designed and defined from the outset but in most instances this will involve risk arbitrage that most contractors or sub-contractors will be unable to take on if crystallised.





We may also see the supply chain (perhaps requested by some main contractors) take on the cost risk of lower level of labour productivity and associated schedule risk if working practices are affected in the longer term by Covid-19 related restrictions or future re-occurrence risks.

This will largely depend on how businesses are impacted by current events on live construction projects and whether they are prepared to (or are required to by main contractors) shoulder such an indeterminate risk. There is also an opportunity here for clients and their teams to actively rethink how they engage with the market and how they manage risk, quality, certainty and performance rather than just perpetuate the 'race to the bottom' which is inevitably a false economy.

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Other fixed-price risks relate to material pricing and availability in the event of a no deal Brexit. This is likely to be a risk too far for most of the supply chain and will not be absorbed.

**There are some early signs that a small number of tier one main contractors are actively considering, either in isolation or in collaboration with other contractors, the choice of acquiring stakes in their primary supply chains to improve their control.**

This move towards vertical integration appears to fly in the face of the flexible sub-contract model that most main contractors have adopted over the last 40 years but perhaps is an indicator of how the crisis will redefine accepted business models and this move also supports an increasing likelihood of contractors trading off risk of taking on increased fixed costs against the improved resiliency and control of embedding integrated supply chains and even MMC capability into their businesses in a much more fragile world ahead. Whether this pays off will ultimately depend on their ability to secure stable workload.

In summary, despite the elevated market risks relating to Covid-19 and Brexit, we believe we will see **reduction in labour performance risk pricing alongside static levels of material supply and logistics risk pricing. There is also a risk of residential sector specific workload appetite reduction from contractors or risk pricing holding up, even increasing due to increased site labour intensity and material supply chain complexity.**





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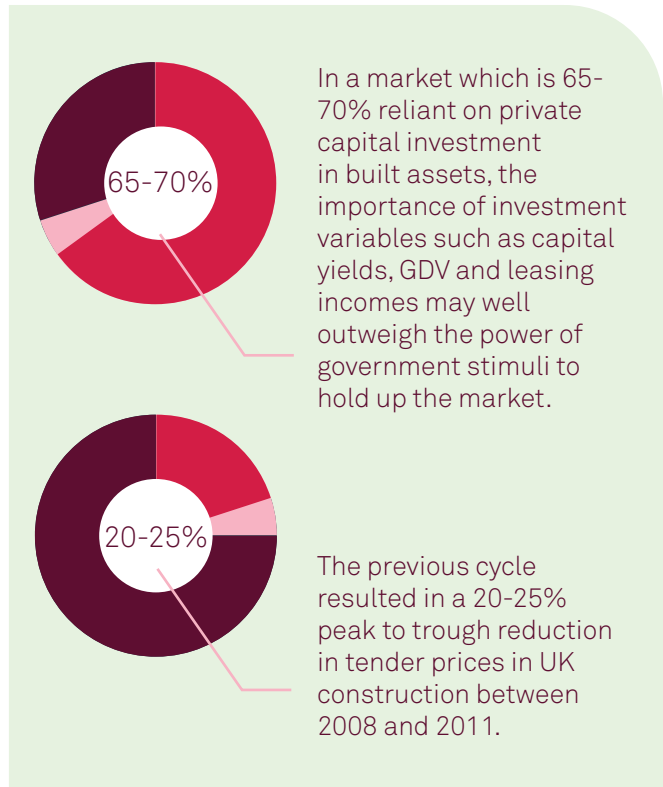
## Tender pricing and input cost trend summary

The combination of the above factors suggests a **net downward trajectory in tender prices is the central, and most likely scenario** that will probably outpace the actual observed profile of net input cost reductions.

This pattern, of 'sentiment ahead of reality', is observed in most cycles and will lead to risk of main contractor failure unless input costs follow the same path in lag. The depth and duration of any market downturn is not yet identifiable. There is a risk however that this downturn could be a significant market-correction, resulting in recalibration through supply-side capacity erosion and right-sizing in response to new demand fundamentals.

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It is likely the pace of reduction in tender pricing might be quicker in this cycle due to the accelerated correction in market activity. It may also be that the quantum of reduction will be lessened, with the reduced structural capacity of the industry (be that for skilled labour, materials or competent sub-contractors and main contractors) being upheld on a supply and demand basis.



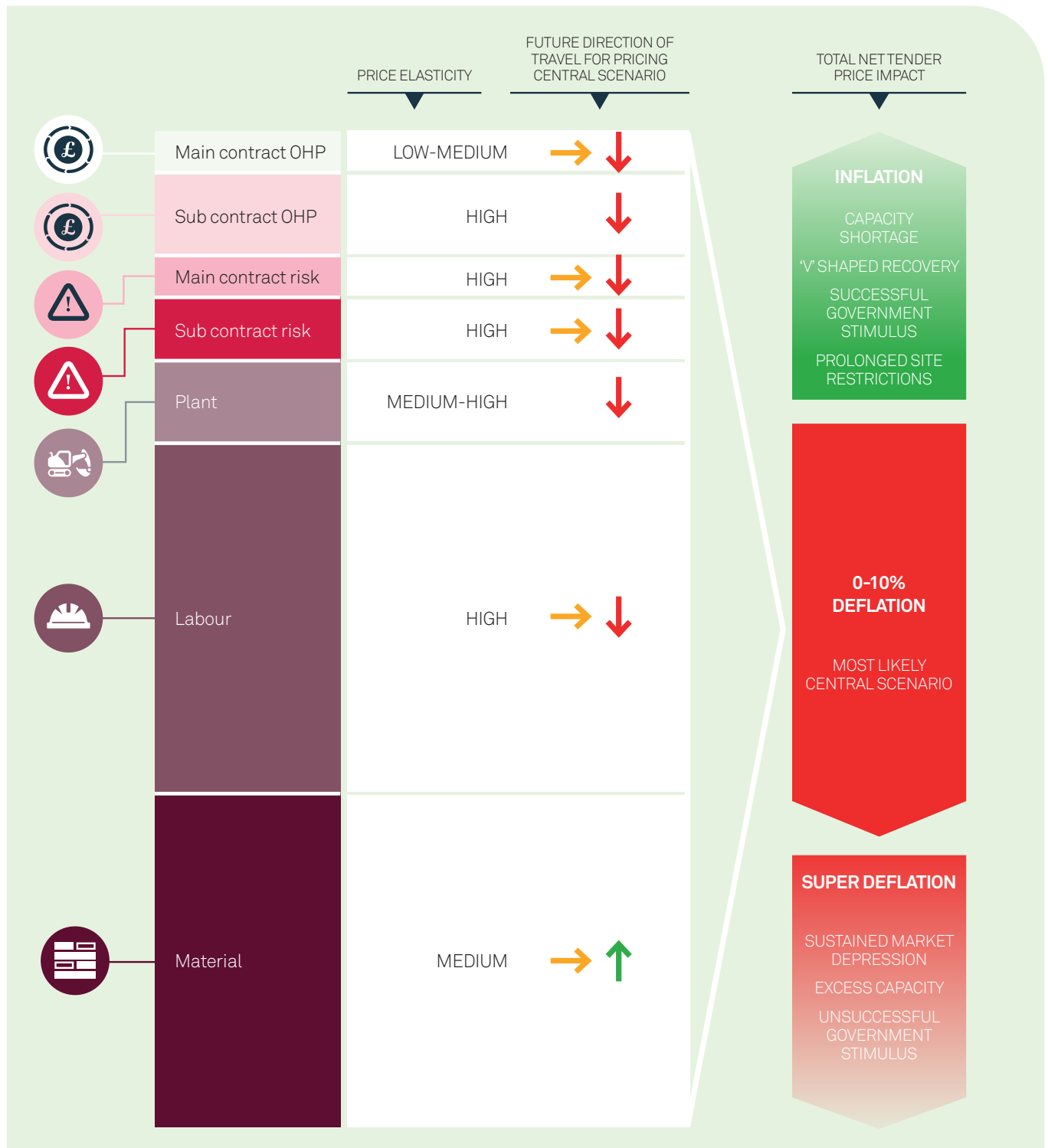
If this equilibrium is more closely matched than in the last cycle when the decline was slower and many 'zombie' businesses operated beyond what their true solvency would have allowed, then this could see a **reduction in pricing levels over the next 12 – 18 months of up to 10% for future projects. This excludes current on site or contractually committed projects yet to start where there will be upward price pressure and heightened commercial tensions.** It is also clear though that if there is excess capacity and too many contractors are chasing too few projects, then we could see much deeper tender price adjustments closer to the previous cycle, mostly derived from labour costs, OHP and risk reductions. This is when the risk of storing up future problems in project delivery will be greatest.

Whether any sustainable price reductions become a client-side benefit or end up opaquely held as sub-contract reductions in the main contract supply chain **will depend on the procurement models employed and the timing of market engagement.** Both routes have pros and cons dependent on ability to clearly define and pre-design the works and the right party to manage the risk. There should be a resistance to any strategies which looks to simply exploit what appears to be bargain prices as this will almost certainly result in delivery failure as mentioned above.

It is likely that the adoption of higher PMV solutions in order to secure more resiliency and certainty of outcome for the reasons already stated may well exhibit a different tender price profile compared to traditional work. The increased level of manufacturing overheads and use of direct rather than self-employed factory labour is likely to mean less price deflation than traditional construction work.

**Higher PMV price reductions are more likely to be linked to order volumes and wider market-maturity driven by greater design and production standardisation and efficiencies.** These economies of scale-led reductions are potentially significant. Additional theoretical capex costs for increasing PMV will also be offset by savings on site running costs including Preliminaries and the potentially unproductive levels of traditional site labour.

Summary of Construction Price Stack & Dynamics Post Covid-19 For Future Projects (12 - 18 Month Time Horizon)



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## Area of focus for clients and advisors in period ahead

Key areas for clients and their advisors to concentrate on in the period to develop more resilient and effective delivery strategies for projects will include:

### Robust due diligence

- There will be a need for greater soundings from all levels in the market on trends, risks and opportunities – evidence-backed intelligence will be key. It is vital not to perpetuate rumours of financial stability but to be diligent in supply chain selection based on balance sheet strength, product quality, team competence and track record. Standard credit checks in themselves are not enough, there is a need for much deeper insights.

### Designing for resiliency

- There will be an increased need to consider at the earliest possible stage the supply and installation consequences of design decisions. Delivery resilience will increasingly be measured by the level of control and robustness of the source supply chain all the way back to raw materials and components. The ability to design solutions that have more domestically sourced and readily available materials from multiple sources will be more important. Also there should be a focus on ensuring designs can enable increased Pre-Manufactured Value (PMV) that requires less site-based labour to install. These measures will overcome future labour availability / safe site working risks. The government's 7 category [MMC Definition Framework](#) for residential should become a control document / choice menu for design development and PMV improvement.
- The increasing need to improve PMV and greater consideration of MMC will require advisors to better understand more accurate cost and schedule comparisons between traditional and MMC solutions. This should include the time-based value of money in relation to earlier delivery, whole life performance costs and issues and the value of certainty as construction becomes more of a retail price offering as it moves to manufacturing.

- Greater standardisation over time will enable manufactured systems and sub-assemblies to be stockpiled rather than made to order if they align to wider industry norms and are able to build sufficient scale demand. This could promote a wider discussion about more standard manufacturing protocols and parametric residential typologies that consolidate what are currently fragmented MMC solutions with greater commonality and interoperability between suppliers (ie repeating the modularity of a brick or a kitchen unit dimension).

### Setting the right price and programme from the outset

- Clients and advisors should strike a balance between not being overly opportunistic in relation to possible price compression whilst ensuring value for money is being achieved. Cost plans need to reflect the 'right price' for the project to any given level of quality and certainty of outcome required. Intelligent cost plans will now more actively manage and test sensitivity of inflation / deflation forecasts at a time based elemental level and should be better integrating the dimension of risk and delivery certainty rather than just absolute capex level.
- Lessons learned in the last cycle suggest direct commercial discussions with the second- and third-tiers of the supply chain do not always hold when subsequently asked to be embedded in a tier one price. There is a need to involve all requisite parties in pricing from the outset or to redefine the procurement model so that the client retains the downside risk and the upside commercial benefit of direct supplier discussions (see below). With up to 50% of all construction costs being non-value add including the likes of on-costing and pass through, risk transfer, supervision, administrative waste and the like, the cost of a project is as much about project organisational design and procurement model as it is about quantities and rates.
- Project scheduling will need to better reflect the time implications of integrated working and the greater front-loading of supply chain involvement to validate and prove early designs, including pre-planning. The procurement and lead-in phase durations need to also reflect different engagement strategies. Construction durations should be informed by PMV and a sensitivity test of the logistical, sequence and duration impacts of potential future site working restrictions imposition as well as longer-term productivity impediments that remain in place post crisis.



## Promoting collaboration & integration through innovative delivery strategies

- Procurement models are at the heart of enabling innovation and ensuring more predictable outcomes. Greater use of MMC and increasing PMV for instance is not possible unless it is facilitated by more early engagement and integrated procurement that allows early stage Design for Manufacture & Assembly (DfMA) thinking where architects can be informed by the system manufacturers.
- Innovation in procurement will increasingly have to consider how money flows (ie use of Project Bank Accounts or Distributed Ledger Technology) and the appropriate allocation of risk in a way that better reflects ability to control risk. This will in turn disrupt existing contracting business models that have been cash flow rather than profit margin-led. As PMV increases, there is less room and affordability for a main contractor 'wrapper' unless the manufacturing is vertically integrated within the main contractor. Insurance solutions such as Integrated Project Insurance (IPI) may well feature more if the insurance market can provide the depth of underwriting to the construction market linked to getting more comfortable with assured outcomes using MMC, collaboration and the like.
- The possibilities of a digital on-line marketplace are likely to be more widely explored by clients. Supply chain resiliency demands greater redundancy on sourcing options and combined with greater standardisation (see above) could enable digitally configured designs linked via digital workflows to multiple manufacturers who are all capable of dynamic pricing and delivering all of part of the same solution. The technological enablement of design, procurement, manufacturing and assembly process could all accelerate.
- Innovation in procurement must be accompanied by ensuring funders are aligned to end risk-transfer and management strategy and ensuring fund advisors are progressive enough to support outcome cost, not just input cost thinking. There will be a need to change banks advisor thinking as much as developer advisors going forward.
- There will be a drive to improve project team resiliency through technology and crisis management and a need to ensure minimum levels of digital enablement throughout the team (including professionals) and full contingency planning as part of the selection process. This should become part of standard project management protocols for team selection and assembly.
- It is imperative to the industry's health that all parties are professional and ethical in all dealings and to avoid bid peddling, Dutch auctions etc. Every downward cycle brings a return to poor behaviours and these prevent the industry breaking out of a vicious cycle of self-destruction. This is an opportunity to turn a corner.

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## Contact us

Cast has market-leading experience and a strong reputation in development and construction innovation. Our thought leadership in the move to higher levels of productivity, predictability and performance in built assets gives us unrivalled insight as to how the current crisis can be turned to opportunity.

If you would like to discuss any of the issues contained in this report and how they may affect your business or organisation please get in touch. Cast is currently advising development and investment clients, supply chain businesses at all levels and public sector organisations including local, regional and central government in how to navigate a course to recovery from the Covid-19 pandemic.

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