Construction prices in the time of coronavirus
April 2020
Construction prices in the time of Covid-19
Trying to make sense of it all

The world has changed completely in a matter of weeks, and the basis of our last forecast in February has been accordingly undermined. A fundamental basis of that report was: “Current business confidence levels will continue” – alongside other key assumptions that no longer apply (see below). A look at any metric – not least the IHS Markit index of Business Activity and the PMI tracker of business confidence – will show what has happened in the very short space of time that Covid-19 has taken hold.

Back in February (which feels a very long time ago!), we concluded a 1% increase in TPI this year, increasing to 2% in 2021:

<table>
<thead>
<tr>
<th>% change</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>alinea forecast</td>
<td>1.0</td>
<td>2.0</td>
<td>2.75</td>
</tr>
<tr>
<td>BCIS forecast</td>
<td>3.3</td>
<td>6.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Range of commentators</td>
<td>10 to</td>
<td>15 to</td>
<td>20 to</td>
</tr>
<tr>
<td></td>
<td>2.7</td>
<td>3.5</td>
<td>5.0</td>
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Tender price inflation (TPI) per annum
(February 2020)
London and the South East

The basis of our February view

Given the number of unknowns in the wider market at the time of writing our February paper, our view was based on what we knew to be true at the time and the assumption that the following trends would continue:

- Current business confidence levels will continue.
- There will be no significant currency movements. On key packages this should be considered as a risk and managed as such.
- Current government commitments will be maintained and achieved - such as a trade deal with the EU at the end of 2020 and continued investment in infrastructure.
- There will be no sudden changes in policy, with all business-related policy communicated in a clear, timely manner.

We also showed our views on the pressures which were being applied to the major components of prices:

<table>
<thead>
<tr>
<th>Component</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td></td>
<td></td>
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<tr>
<td>Materials</td>
<td></td>
<td></td>
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<tr>
<td>Margin</td>
<td></td>
<td></td>
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<tr>
<td>Risk</td>
<td></td>
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It is hard to know how long it will be before normality returns, or what normality will look like
The Economist
2nd April 2020

With so many unknowns and so much conjecture at the moment, it is important to offer our views based on what we know – and the principle thing we know is what has happened to materials and commodities. Since the initial outbreak of Covid-19 the cost of raw commodities has fallen as a result of a collapse in demand as factories and construction sites around the world closed. Pages 4 to 6 show how the pandemic has affected these markets.

As more information is measured and released on key areas such as the rebound in China, impact on the labour market and prospects for growth, it will be vital to track these measures in order to understand how the cost of commodities will be affected.

The reduction in these costs will exert a downward pressure on construction prices, particularly when one considers that they generally represent some 40% of the total cost of a project.

Our current view is that this more than anything will edge down our forecast from 1% for 2020 to zero, with short-term pressures to potentially edge it down further into a negative position. We anticipate prices being benign thereafter for a while, with that downward pressure easing as the industry and society emerges from lockdown - but with future prices very much dependent on the general economic recovery and a whole mix of other factors (see next page).

In short, we are revising our view for this year from 1% to a steady zero, but with downward pressure to maybe reduce prices in the short term.

The fall to zero is driven by the downward pressure on input costs, with any possible further decreases coming from a desire to secure work.
Looking beyond the next 3-6 months, there is a whole mix of variables, which are impossible to predict in their nature, extent and therefore impact. There are many questions that the industry simply cannot answer right now, such as:

- How will contractors cope with any lingering restrictions and how productive will they be when they return to site-working?
- How many people will have left the industry by then?
- How will global supply chains operate, and will there still be restrictions on certain imports?
- How will firms endure the pressure on cashflows and how will this affect investment?

One can see a variety of upwards and downward pressures, such as this:

<table>
<thead>
<tr>
<th>Potential downward pressure on prices</th>
<th>Potential upward pressure on prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials costs</td>
<td>Low productivity</td>
</tr>
<tr>
<td>Competition</td>
<td>Labour constraints</td>
</tr>
<tr>
<td>Economic depression</td>
<td>Industry consolidation</td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>Constrained imports</td>
</tr>
</tbody>
</table>

“**It is more difficult than ever to come up with adequate economic forecasts. The best we can do is describe several possible outcomes, based on different scenarios regarding the length of the lockdown and the spread of the virus**”

Carsten Brzeski, ING

Time is the big question mark: economic forecasters, like the rest of us, are in the dark about how long it will take for the virus to start retreating, and how long economies will take to start growing again. Traditional data is not useful in an unprecedented environment of a collapse in both supply and demand. As Carsten Brzeski of ING puts it: “It is more difficult than ever to come up with adequate economic forecasts. The best we can do is describe several possible outcomes, based on different scenarios regarding the length of the lockdown and the spread of the virus”.

Forecasts of the drop in UK GDP for the second quarter range from 13.5% to anything up 40%. It is even more difficult when it comes to the annual contraction, with some suggesting a fall of 10-15% is possible – which is alarming when put in the context of the 2008 Global Financial Crisis, which saw a fall in GDP of 6% in its entirety. But right now, nobody really knows, which construction prices is just that, an assumption, in the absence of any certainties, and with so many variables in the mix.

There is potential for significant downward pressure to be mitigated, or even negated by upward pressures, but it is too early to judge, hence our working assumption is that the net effect of all these potential pressures balance each other out.
The material cost of Covid-19

In the modern age of interconnectedness and global supply chains, it is perhaps unsurprising that a pandemic has become a worldwide economic issue, partly facilitated by its origin in one of the world’s economic powerhouses.

Quarantine and isolation orders have restricted the movements of over 25% of the world’s population and shut down factories, offices, and shops.

One of the key questions for us will be how this unknown force affects the price of construction. With the situation still in its early stages, we do not know its full extent, but we can examine its impact on the material supply chain.

Demand for materials

China - the first domino?

China was once called the “workshop of the world”, intrinsically linked into most global supply chains. It consumes around half of the world’s copper, over 40% of global steel, over 65% of seaborne iron ore, and 14% of oil in 2018. From this vast ingredients list it produces the world’s smartphones, LCD screens, toys, and many components of a wealth of other products. We may never fully understand the scale of our dependence on Chinese factories or supply chains.

The initial outbreak forced China to take an extended break for the lunar new year (which normally sees factories closed for two weeks as workers travel home to see families), which in a short space of time evolved into stronger lockdown measures, closing factories for a prolonged period.

When the stockmarkets reopened after the new year break, commodity prices fell to their daily allowable limit as investors raised (and continue to raise) concerns over demand for key commodities as the world’s workshop workers stayed home.

In February, China’s manufacturing PMI fell to just 35.7, its weakest on record. However, most commentators anticipate this sharp decline being relatively short-lived and that future output will rebound, but the increase in cases of Covid-19 abroad is reducing the chance of a quick V-shaped recovery. The same measure in March showed a recovery to 52.0 which would suggest this could be true, but it is important to note that the index is always relative to the previous month (which in this case marked a record low), and that usually, three consecutively positive readings would suggest a true improvement.

Understanding the economic recovery in China will be a vital part in understanding how the cost of commodities and therefore materials pricing will be affected.

A situation without precedent

A common point of reference is the 2003 SARs outbreak. However, the details show that the current economic context is unprecedented.

As well as SARs being much less widespread than the current pandemic (SARs only reached 29 countries, whilst Covid-19 has currently been detected in 177 countries), the supply chain was also very different. In 2003, China is estimated to have accounted for less than 20% of base metal demand. Today that figure exceeds 50%.

Chinese commodities slumped on the first day of trading after the Lunar New Year

China's 2003 GDP growth (year-on-year)

China’s Manufacturing PMI in context
Falling commodity prices

Fear of reduced demand has infiltrated all commodities, pushing the Bloomberg commodities index down following sell-offs across the board. The health of the commodity market was already being questioned due to increasing stocks and trade wars affecting demand; the coronavirus has worked to exacerbate some of these trends.

Early in February, record numbers of manufacturers in China were calling on Force Majeure clauses to exempt them from contractual obligations. Many Chinese commodity buyers cancelled or delayed shipments whilst factories were closed.

Activity at Chinese ports also gave indications of the scale of the shutdown. Guangzhou - one of China’s key commodity ports - having only a third of the normal workers on duty, creating secondary effects for global shipping and therefore the price of moving goods which has manifested in a subdued Baltic Dry Index.

The shipping market has already endured the doldrums of the US/China trade war which pushed activity, and therefore prices, down in the first half of 2019. After a mild recovery at the end of 2019 on the promise of more international trade (and stability in the iron ore market after dam collapses earlier in the year), the Index has fallen back to fairly low levels.

Construction commodities

Our more focussed construction commodities tracker has also seen large falls in costs over the last two months, led by falling demand for metals.

According to analysis by CRU Group global demand for aluminium will fall 8% this year, led by further weakness in the car manufacturing sector. Production could outstrip demand by 6 million tonnes this year, whilst others forecast a smaller, but still significant, 2 million tonnes. For comparison, the surplus left at the end of the global financial crisis was a little less than 4 million tonnes.

Benchmark aluminium traded at the London Metal Exchange has fallen by over 15% this year, and in January was already more than 20% lower due to the combined effects of the US/China trade war and an ailing car industry.

The iron ore market has been surprisingly resilient, partly as many hope that China will use large infrastructure and construction projects to revive the economy after the virus.

Wood Mackenzie noted that there is not yet a glut of iron ore but risks are escalating in the market, and prices could soften a little.

Global copper miners are reeling from shutdowns in the car industry, which accounts for roughly 15% of usage. Copper miners are experiencing their worst quarter since 2008.

### The material cost of Covid-19

The Baltic Dry Index | a subdued shipping market

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<table>
<thead>
<tr>
<th>Change in Feb (%)</th>
<th>Change in Mar (%)</th>
<th>Annual change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>-5</td>
<td>-9</td>
</tr>
<tr>
<td>Steel Scrap</td>
<td>-9</td>
<td>-5</td>
</tr>
<tr>
<td>Steel Rebar</td>
<td>-4</td>
<td>-1</td>
</tr>
<tr>
<td>Copper</td>
<td>-6</td>
<td>-16</td>
</tr>
<tr>
<td>Lead</td>
<td>-1</td>
<td>-14</td>
</tr>
<tr>
<td>Oil</td>
<td>-13</td>
<td>-34</td>
</tr>
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</table>

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The Bloomberg commodity index (US$)

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The future of costs?
There are many facets which need to be understood in order to predict future movements in the commodities market, and due to the geographic split between supply and consumption, many vital pieces of information are still unknown. As the virus continues its march across key production areas in the Americas and Africa causing mines to close, more will be known about the influence of supply.

Moves to mothball production will also help to reduce surplus figures. CRU estimate suggests that closure of mills by major producers could reduce the aluminium surplus to 4 million tonnes. Yet others question how likely of a scenario it is that smelters will be stood down as re-starting mothballed plants is a lengthy and costly process. A significant percentage of smelting cost are electricity costs, which have fallen recently.

In the UK...
Unlike other European cities, lockdown measures in the UK have been slowly ratcheted up, but it has already left signals of falling demand in the data. Electricity usage is 10% lower as factories, shops, and offices all closed their doors, which in turn has pushed wholesale electricity prices down. According to S&P Global Platts day-ahead prices have fallen 10% compared to the previous week and are 30% down annually. Hedging facilities mean that this will take a while to filter into consumer pricing.

Some UK producers have already announced plans to reduce material output to only serve “critical supply needs” and to help support the health and safety of the workforce. Usually, lowering output would have an upward pressure on construction prices, but with increasing site closures and stay at home orders, it is difficult to make a judgement on where pricing will go in such an unprecedented environment. Therefore, now, more than ever, it is vital to talk, exchange information, and track the changes.

Oil - A crisis of its own
As noted in the table on page 5, the price of oil has seen quite a dramatic fall in price recently, and whilst some of this is due reduced demand for oil due to the corona-shutdown, oil is having a crisis of its own.

The enlarged Opec+ alliance broke down in early March as Russia refused to go along with plans to extend the existing cuts to production into 2020, effectively ending the partnership between Opec and several other oil producers. Saudi Arabia announced that it would release an extra 2 million barrels per day onto the market in April, maximising downward pressure on the price of oil, hopefully pushing Russia back into the fold. The price of oil fell 20%, pushing it to an 18-year low of $23/barrel.

The twin forces of the Russia/Saudi Arabia oil price war and falling demand under the ongoing pandemic has resulted in oil rig closures on a scale not seen in 35 years, and space for excess supply is rapidly running out. The US shale oil market (which has been a growing industry for a few years) has see the number of rigs fall by 24% in a week and in Canada, where the cost of production is high, producers have been closing wells rather than fall into negative prices.

Under current circumstances Goldman Sachs estimates that oil demand has fallen by 25% due to Covid-19 and Brent oil could fall to $20/barrel.

Yet there could be some solace as Russia has called for an enlarged Opec to respond to the collapse in oil demand. Following discussions between Donald Trump and Vladimir Putin, the US president said that he expected Saudi Arabia and Russia to reach a deal soon to lower production and bring prices back up.
Data to knowledge to insight to advice

Especially in a time of extreme turbulence, it is important to focus on the facts to evolve our insight. Applying learning from both live projects and research studies, and feeding them into each other, is how we try to ensure that our clients and their teams get the best possible advice from us. This is why we have been committed to research from the day we launched.

Whilst data and information are the lifeblood of our business, we understand that they alone do not represent knowledge – which requires analysis, insight and questioning.

For these reasons we involve everyone at alinea, and we share our desire to innovate across borders: of discipline, geography and perspective. That way, we can learn from each other.

We also like to hear what you think and welcome any views you might have. Do please feel free to contact any of us.