

The Way Back

**Australian Construction
Market View**

Spring 2020



Introduction

Confidence appears to be returning to the construction sector following the announcement of several recession-busting public sector packages. But will these be enough to drive the industry forward?

- The number of newly reported daily cases of Covid19 across Australia has fallen recently to below 10 – also in Victoria, which has accounted for 73% of total cases and 90% of deaths. Previously imposed restrictions are being carefully lifted, with the economy re-opening gradually. However, South Australia saw a spike in active cases, indicating the possible launch of the second wave in that State. The government was swift to reimpose lockdown and it is yet to be seen if this will be sufficient to contain the virus and continue on the path to economic recovery.
- According to the latest data by the Australian Bureau of Statistics, the Australian economy contracted by 6.3% year-on-year by the end of June. While not as severe as the initial forecasts of a fall of about 10%, these numbers effectively end Australia's longest streak of continuous economic growth, which has lasted for 28 years. The latest forecast by the International Monetary Fund anticipates that Australian GDP will decrease by -4.2% in 2020 and grow by 3% in 2021, meaning that the levels of pre-pandemic growth will not be achieved before 2022.
- By the end of September 2020, the unemployment rate had risen to 6.9%, an increase of 0.1% from the previous month, and 1.7% year-on-year. The IMF predicts that by 2021 unemployment will reach 7.7%, driven mainly by youth unemployment, which has increased dramatically from 0.4% to 14.5% over the last year.
- The JobKeeper payment scheme has now been extended to the end of March 2021. However, payment benefits have been reduced by 20% from end of September. Further cuts to 2/3rd of the initial amount will be introduced from January 2021, indicating that the Federal Government is anticipating an economic recovery to accelerate and support employment.
- The total value of construction work completed in Q2 2020, comprising both building and infrastructure, fell by a mere 2.2% compared with the same period in 2019. Residential and building sectors were the most impacted, recording a decrease of -12.1% and -5.3% respectively. These figures were, however, compensated to some extent by continuous good performance in non-residential (+6.2%) and infrastructure (+2.2%) sectors.



- In early October, the Federal Government delivered their 2020-21 Budget, which focused on securing Australia's economic future over the next decade by supporting Australians with additional Covid19 response measures and driving job creation. A five-year JobMaker Plan comprises expenditure of \$74Bn and is focused on driving sustainable, private sector-led growth and employment. From the allocated funding, \$10Bn has been set aside to support the infrastructure investment pipeline, an increase of 10% bringing the total planned expenditure to \$110Bn over the next 10 years. This includes significant funding for short-term 'shovel ready' projects.
- In addition to the recession-busting Federal Budget, some States are also stepping up to the plate to drive their economy recovery at a local level. Victoria has recently announced a historic \$5.3Bn *Big Housing Build* program to construct more than 12,000 new homes. The New South Wales Government will also spend \$812M to create 1,300 new social houses across the State. In addition to this, it will also invest \$10.4Bn over the next four years on Metro West and \$9.2Bn on a new metro line to the new Western Sydney Airport. All these commitments help to create a visible work pipeline for the construction sector. However, much will depend on the pace of turning plans into 'shovel-ready' projects.
- Considering the impact of Covid19 on the wider economy, the construction sector has not been impacted as severely as was first forecast. However, we are not out of the woods yet and there is still uncertainty on the horizon. Orders for the first quarter of 2020 were relatively strong, but new procurement activity slowed considerably during the middle part of the year. An Arcadis survey at the time suggested that over 50% of sample clients had either cancelled or slowed active procurement as a result of the crisis.
- Driven by different levels of demand, construction is likely to temporarily become a "two-speed" industry, with sectors characterised by high growth rates, such as industrial and infrastructure, and a group of 'slow-growers' including residential and commercial. The implications are likely to include an increase in competition for workload across the buildings sector, as well as a shift of resources towards the more dynamic infrastructure sector.



Basis for the forecast

Public Sector handing over the batten?

As often happens in recessionary times, the public sector is expected to step up and become a key source of demand to help keep the construction sector going – until the private sector kicks in again. The release of the Federal Budget in October indicates that the Government believes that it has largely kept up its end of the bargain. The expectation is now on the private sector to start taking some of the strain and responsibility moving into 2021.

Not out of the woods yet

Government interventions have been welcomed by the industry as they are providing pipeline security, particularly in terms of infrastructure. However, it is unlikely that these will be able to compensate for falling opportunities in the tertiary education, retail, commercial, and residential sectors – creating a particular problem for specialist contractors that cannot easily transfer their skills from one sector to another.

In the meantime, private sector clients will need to evaluate the impact of Covid19 on the validity of their investment plans. Clients that decide to progress with projects are likely to be more careful, bearing in mind the expected challenging economic and, potentially, the ongoing political situation that may arise through further lockdowns and border closures. Demand is likely to take longer to return than many would wish.

Construction productivity remains the same

Contrary to the experience from different parts of the world, for example the UK or Ireland, where productivity is estimated to have decreased by approximately 15%, the ABS has indicated that so far there has been no data to conclude a similar impact on the Australian market. Despite some site closures and social distancing restrictions being put in place, overall construction productivity does not seem to have been materially affected.

The designation of construction as an essential service has certainly enabled construction activity to progress. It is also likely that larger infrastructure projects, which have been impacted less than their building counterparts, have masked productivity disruption on smaller projects.

Construction supply chain; a two-speed market

In recent months we have seen several head contractors slash preliminaries and margin levels to increase competitiveness and to secure their forward workload in an uncertain market. However, this has not necessarily been the same story at the trade contractor level. We are finding that trade contractors, particularly key trades, generally have longer-term secured pipelines established, meaning that they have not had to resort to the same slash-and-burn tactics that some managing contractors have employed. This has resulted in the emergence of a two-speed competitive market.

Despite challenging conditions, this market has kept tender prices relatively stable. There has been some negative adjustments and flattening of costs across the country, but this has not been at the levels that were forecast earlier in the crisis.

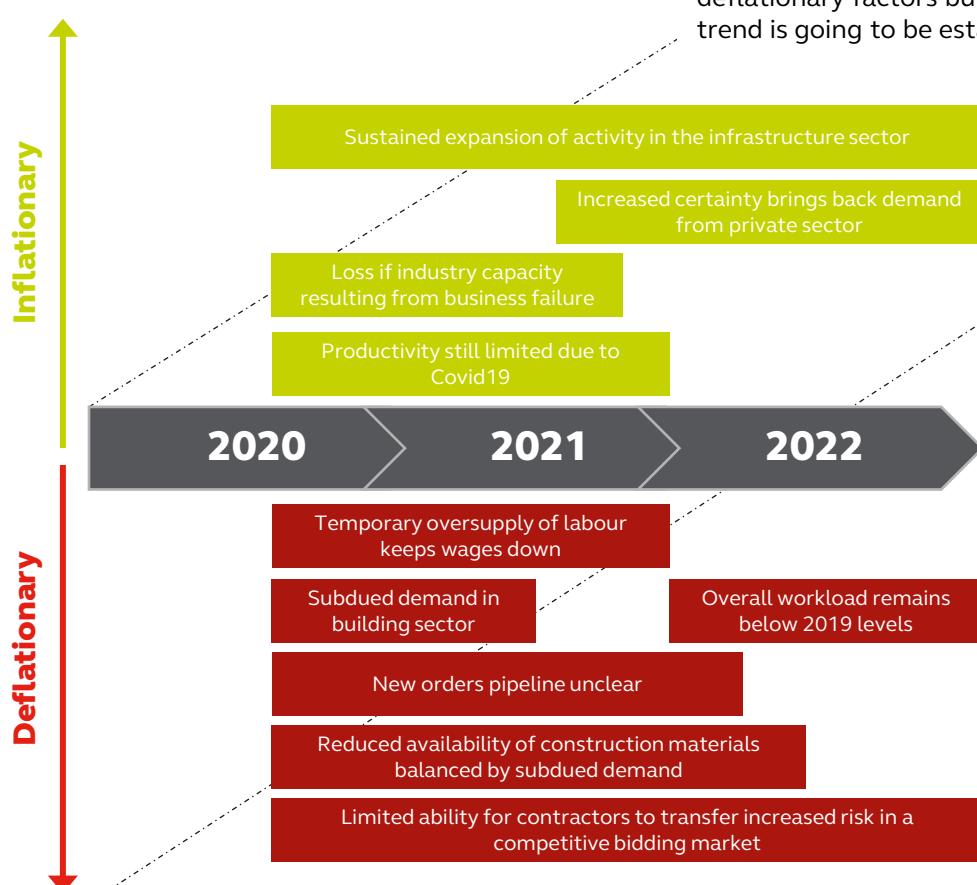
It is common practice for head contractors to try and improve margin levels by reducing trade contractor costs during construction delivery. However, those head contractors that have submitted aggressive commercially competitive offers may find themselves in financial difficulty where they have been unable to subsequently drive down supply chain pricing. Those head contractors that have relatively healthy balance sheets may be able to weather the storm for a time, but those that don't may find themselves going out of business.

Forecast overview

Short-term deflation for buildings, while infrastructure prices will keep growing.

Our Mid-Year Forecast advocated a ‘Swoosh-type’ recovery, albeit across two different scenarios – optimistic and pessimistic. At this stage, we are refocusing on a single version of events and adopting the more optimistic approach, underpinned with better performing GDP growth, relatively mild impact on the construction output, and a strengthening new orders pipeline.

With Victoria emerging from a second significant lockdown, and community transmission seemingly in decline, the groundwork is now in place for a swift economic recovery – assuming that the private sector steps up over and starts to take the lead in our economic recovery. However, a resurgence of the pandemic, say in South Australia, will only add uncertainty about how sustainable any economic rebound will be – which in turn will impact construction demand. In the short-term, we see a predominance of deflationary factors but, with time, an inflationary trend is going to be established.





Buildings forecast

Arcadis Buildings Tender Price Forecast

The balance continues to shift towards a deflationary trend for buildings. This is mainly driven by uncertainty in new work pipeline, the timescales needed to mobilise government investment and – understandably in the current circumstances – weaker risk appetite from the private sector. These conditions will, in the short term, help offset inflation caused by lower productivity.

In the long-term, however, we still predict the return of above-trend inflation across the principal cities from 2022 (namely Sydney, Melbourne, and Brisbane). This will likely be driven by the return of demand in combination with a slightly constrained labour market.

	Adelaide	Brisbane	Canberra	Darwin	Melbourne	Perth	Sydney
2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2021	-0.5%	-2.5%	-2.0%	-2.5%	-1.0%	-1.5%	-1.0%
2022	2.0%	2.0%	2.5%	2.5%	3.5%	0.5%	4.0%
2023	1.5%	3.0%	2.0%	2.5%	3.5%	0.5%	4.0%
2024	1.5%	3.0%	2.0%	2.5%	4.0%	2.5%	4.5%
2025	1.5%	3.0%	2.0%	2.0%	4.0%	2.5%	4.5%
TOTAL	6.0%	8.5%	6.5%	7.0%	14.0%	4.5%	16.0%



Infrastructure forecast

Arcadis Infrastructure Tender Price Forecast

In contrast to the buildings forecast, infrastructure continues to maintain its favourable position. This is underpinned by several significant recovery-boosting investments by both Federal and State Governments, including:

- The Coomera Connector (Stage 1) in Queensland | \$750M
- New England Highway – Singleton Bypass in New South Wales | \$560M
- Sydney Gateway in New South Wales | \$1.5Bn
- Sydney Metro West in New South Wales | \$10Bn
- Western Sydney Airport Metro | \$11Bn
- Shepparton Rail Line Upgrade (Stage 3) in Victoria | \$320M
- Metronet in Perth | \$227M

	QLD	VIC	NSW
2020	1.0%	2.5%	3.0%
2021	2.5%	4.0%	4.5%
2022	4.0%	5.0%	5.5%
2023	4.0%	5.0%	6.0%
2024	3.0%	4.5%	6.0%
2025	3.0%	3.5%	5.0%
TOTAL	17.5%	24.5%	30.0%



Zoom into: Supply chain resilience in construction

One of the immediately visible impacts from the outset of Covid19 in China was the disruption to global supply chains. In today's connected world, many businesses source components to their products from multiple locations. As the global crisis continues, the vulnerability of supply chains will continue to be a major risk.

More than 60% of Australia's annual \$6Bn worth of construction materials is imported from China and overseas. Covid19 has laid bare the risks associated with this and demonstrated that the sector is not immune to the shocks caused by the temporary closures of factories, either in China or in other parts of the world.

The chaos caused from the outset of Covid19 in China and later in other countries, but also the earlier US-China trade war, are examples of events that disrupt the flow of goods and impact regular business operations. They also prove to us that we are simply unable to foresee some risks. But it does not mean that we can only be reactive - quite the opposite.

Arcadis has prepared an 8-step plan that enables organisations to start building long-term resilience here and now, focusing first on short-term interventions, then accelerating the recovery, to finally creating a futureproof supply chain. Even though inspired by the 2020 events, this plan remains relevant to a "business-as-usual" reality.

Secure supply in the short term

1. Tactical scenario planning

Assess the levels of inventory, capacity of resources available, and deliverability of goods needed to respond to immediate requirements. Develop and analyse scenarios that account for demand uncertainty and potential supply chain constraints.



2. Secure essential resources

Compile schedules of essential resources, materials, and products required for business continuity. Beware of the less obvious risks further down supply chains. Plan to mitigate price spikes in the event of a capacity contraction.

3. Mitigate operational and program risks

Plan action to manage residual risks that cannot be eliminated. Based on the risk assessment, discuss rescheduling or de-scoping of work with the client and project team. Review relevant contract clauses (insurance, payment, force majeure and frustration). Consider if any changes can be made that will support business continuity, for example extensions of time and revised payment terms.

Accelerate the recovery

4. Accelerated supplier engagement

Active leadership and strong supplier relationships are essential for maintaining confidence around present and future work programs. Clear, reliable demand signals, advanced orders, capability development, and improved payment terms are all levers that should be considered.

5. Refreshed business continuity management plans

Review and update the pre-existing business continuity plans for readiness to accommodate future shocks. Include tools such as home working infrastructure and emergency command and control structures. Consider the maturity of a business continuity approach when selecting new suppliers.

Futureproof the supply

6. Embedding resilience

Consider the various options for embedding future resilience, such as **redundancy** (increased stocks, spare capacity, and supply competition), **resistance** (automation, so shocks no longer have an impact), and improved **recovery** (rapid response protocols). Commercial mechanisms can also be used to increase **reliability**, for example via improved payment terms which reduce suppliers' cashflow exposure.

7. Strategic supply chain mapping

Implement a **whole-system approach** to create strategic supply chain maps for critical programs and spend categories. The maps can be used dynamically to identify possible points of failure in the event of future shocks and enabling strategic category management. These steps will allow buying organisations to be more informed about barriers to innovation, efficiency, and competition in their supply chains.

8. Digitalising supply chain management

The implementation of smart forecasting and analytics will enable more effective decision-making Cloud-based systems using advanced analytics to manage strategic supply chains will enable organisations to evaluate the effectiveness of existing resilience measures identifying additional mitigation steps where needed.

So many aspects of capital delivery have been disrupted by the Covid19 crisis. It is therefore difficult to highlight where lesson-learned initiatives should be focused. Supply chain resilience is a good area to focus on because of the opportunities to improve wider project and program performance. The eight steps provided above are a program, they reinforce one another and rely on both strong leadership and effective collaboration for successful implementation.



Spotlight on: Innovation in construction

Innovation in the construction industry will always be challenging - the sector operates on significantly smaller profit margins than most industries, a high proportion of SMEs results in fragmentation, and there is a perception that construction can be conservative and slow to move.

The building industry is an enormous contributor to the economy, employing around 1.4 million Australians and representing around 13% of GDP. For decades, the sector has been plagued by rising costs, stagnant productivity, high waste, and low margins – all this making it an ideal target for disruption. And while our industry is slow to change, the world around us is changing quickly. Buildings and infrastructure are becoming more and more complex and expectations around performance and sustainability credentials are increasing. On top of that, construction has a major role to play in addressing the climate change challenge. But to succeed, we need to forget the old ways first. Building 4.0 gives us an opportunity to do this.

The initiative was established as part of the Australian Government's Cooperative Research Centre (CRC) program in 2020. The aim of the CRC is to develop an internationally competitive, dynamic, and thriving advanced manufacturing sector, which will deliver better buildings at a lower cost, as well as create a strong base for an efficient, connected, and customer-centric future.

The Australian Government has provided a grant of \$28M, which together with contributions from industry and research partners brings the research budget to \$131M over seven years. Building 4.0 already managed to attract a number of collaborators including Monash University, Lendlease, the University of Melbourne, Queensland University of Technology, Donovan Group, BlueScope, Sumitomo Forestry, and CSR, along with 23 other partners.



Importantly, the timing of this program – aligned to planned government investment aimed at supporting the economic recovery post Covid19 – reflects a strategic approach to construction transformation.

Building 4.0 is a demonstrator project that is focused on the large-scale application of technologies in a real-life setting, striving to implement a transformative approach to the way that we design, build, and manage the construction process. It will utilise product-based design solutions, with emphasis on design for manufacture and assembly (DfMA), modular construction, and automation.

Completely unique to the Australian market, this initiative will transform the construction sector and put the customer at the heart of each building experience. It is designed to create an ecosystem that will deliver specific and challenging targets. These comprise, but are not limited to:

- **Energy:** a 40% reduction in lifecycle costs
- **Sustainability:** up to a 50% reduction in CO₂ emissions
- **Cost:** up to a 30% reduction in project costs through digital technology and off-site manufacturing
- **Time:** a 40% reduction in project delays
- **Waste:** an 80% reduction in construction waste and re-work for higher productivity
- **Exports:** up to a 25% increase in the export of building products and construction services

The future is a platform

Building 4.0 is also transformative in its approach to construction, promoting a methodology based on platforms. The platform revolution is already well underway, with modular construction and DfMA being one of the first outcomes.

While there is still much to be done, in terms of standardization, technology development and change in our approach to design, it is becoming clear that a successful adoption of a platform solution and underpinning digital tools will contribute to addressing the long-standing issues of productivity, enabling faster delivery, and minimizing the carbon impact of the construction industry. In the longer term, it could also help transform the sector's image into a high-tech manufacturing-based sector enabling it to attract new and diverse talent.

While demonstrator projects like Building 4.0 are still ongoing, anyone who wants to contribute to the transformation of our sector should follow these simple steps:

- 🕒 **Inform yourself about ongoing initiatives.**
- 🕒 **Consider their impact on your business.**
- 🕒 **Spread the word with clients and the supply chain.**

These actions will create a 'market pull' effect, increase awareness of technology solutions, and help prepare the ground for its application.

After all, knowing is half the battle.

**Matthew Mackey**

National Director – Cost & Commercial Management
matthew.mackey@arcadis.com

Arcadis.

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.

www.arcadis.com

Disclaimer

This report is based on market perceptions and research carried out by Arcadis, as a design and consultancy firm for natural and built assets. It is for information and illustrative purposes only and nothing in this report should be relied upon or construed as investment or financial advice (whether regulated by APRA or otherwise) or information upon which key commercial or corporate decisions should be taken. While every effort has been made to ensure the accuracy of the material in this document, Arcadis will not be liable for any loss or damages incurred through the use of this report.

©2020 Arcadis