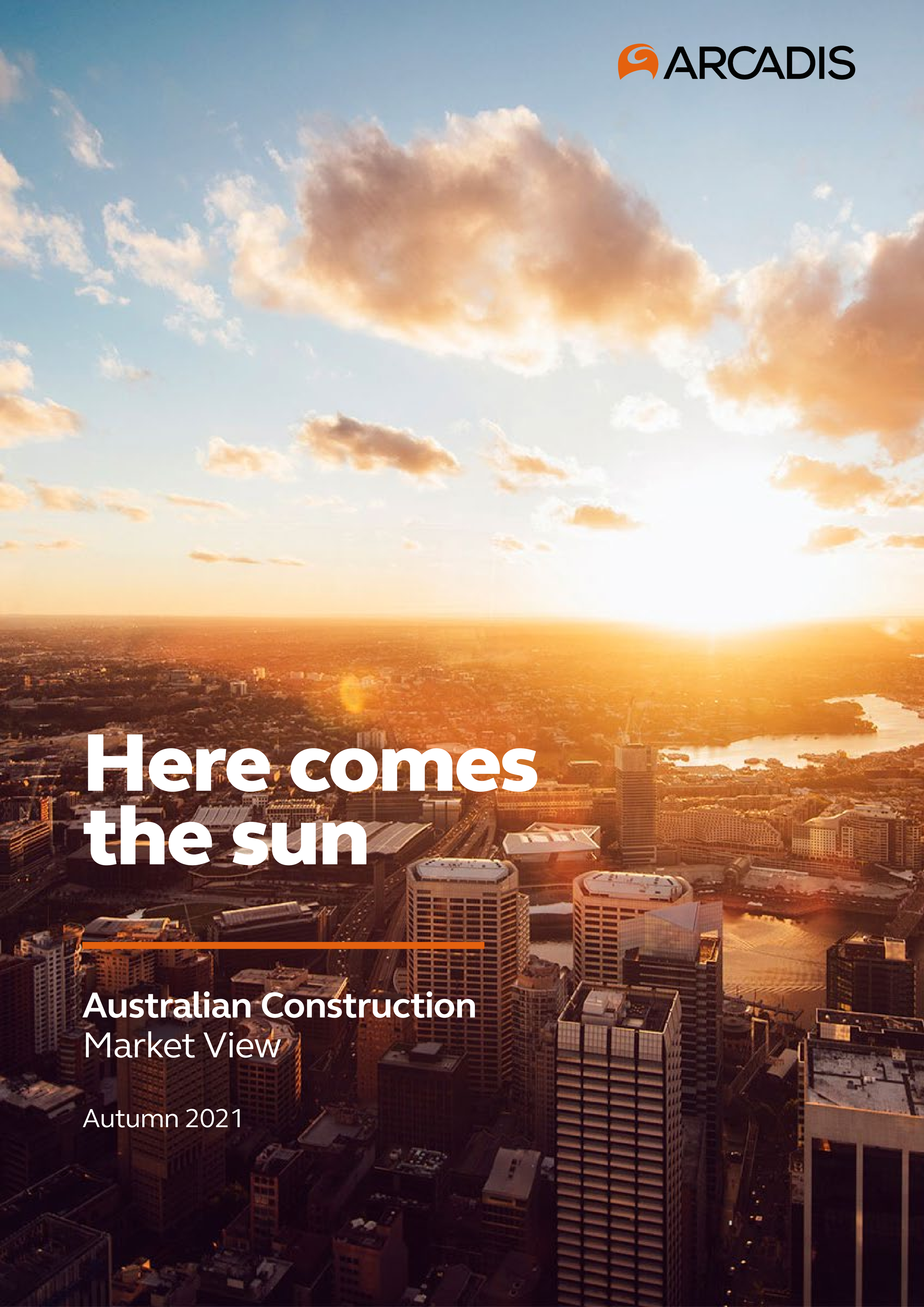


ARCADIS

Here comes the sun

Australian Construction Market View

Autumn 2021

Introduction

Sudden and snap lockdowns make for a bumpy road to recovery. But with an expanded government investment program in place, the vaccine gradually being rolled out, and signs of returning confidence in the private sector, prospects are very bright indeed.

- The impact of the pandemic remains the top challenge for most companies and investors. But a combination of vaccination roll-out (albeit a bit slow), State borders opening, ongoing government stimulus, and record low interest rates all contributed to a surge in business optimism. This is confirmed by the latest findings by NAB and Westpac, which indicate levels of confidence among businesses and consumers at their highest level in in recent years.
- According to the latest data by the Australian Bureau of Statistics, national GDP decreased by 1.1% in 2020. Compared to other developed economies, and considering the extent of the lockdown, especially in Melbourne, this is an encouraging result, pointing to the overall resilience of Australian economy. Q1 2021 has already brought signs of economic growth, bringing a quick end to a short recession period. Current forecasts reflect the optimism and output is anticipated to exceed pre-Covid levels by the end of 2021. However, this is subject to a successful roll out of vaccines.
- The beginning of the recovery is also reflected in the decrease of unemployment from 6.3% and 5.8%, as reported by the ABS, which means that employment levels were restored to pre-COVID levels. However, the expiry of the JobKeeper program may cause a temporary increase in unemployment in the first half of 2021. In addition, the closure of international borders, should they remain in place, is likely to increase pressure on the construction labour market further, particularly if labour and skills shortages persist.
- The total value of construction work completed by the end of 2020, comprising both building and infrastructure, is anticipated to have fallen by 1.6% compared with the previous year. This is, bearing in mind the circumstances, a very good outcome, and the evidence of the resiliency of construction sector. And while the residential and broader building sectors were the most impacted, recording an overall decrease of 4%, a continuous good performance in the infrastructure and engineering sectors, which increased their total activity by 1.7% across last year, compensated for these losses to a large extent.

- The growth trend in the infrastructure and engineering sectors is anticipated to continue beyond 2021 and beyond, supported by several significant projects coming to market that were announced by the Federal Government in their 2020-21 Budget last October. This increase is, however, a reason for concern about the possible capacity constraint within the construction sector that may escalate into inability to serve other sub-sectors, and lead to elevated construction pricing. It may be especially worrying to clients in the building and property sector, which has been slightly slower in restoring the confidence.
- Against a backdrop of returning business and investor confidence, it is anticipated that growth in the building and property sector will start to occur towards the end of this year. Towards the end of last year and during the first quarter of 2021, there were early signs of a surge in activity, albeit is limited to specific sectors. This supports the increases in business and consumer confidence that are being reported.
- While the approval and roll-out of vaccines enables us to finally see the sun on the horizon, this is by no means a straightforward recovery to pre-Covid reality. It is just the beginning of a long and bumpy recovery road. With concerns now being raised over the AstraZeneca vaccine, and with no targets being set, it will now take much longer to inoculate the populace. In addition to this, the recovery will most likely be tainted with a few more isolated instances of community transmission, snap lockdowns, and border closures – all potentially impacting the levels of both business and consumer confidence and still very much determining the pace and the shape of the recovery.

Basis of the Forecast

While the shadow of pandemic is still present, there are signs that we are well down the path of recovery. With a strengthening orders pipeline and real inflation in materials and other inputs, we have upgraded our short-term inflation forecast and have greater confidence in our long-term outlook.

Construction output has continued its recovery, and, despite productivity limitations and the introduction of several snap lockdowns, it returned to pre-COVID levels by the end of last year. Growth came mainly from the infrastructure and engineering sectors, which grew 2.31% year-on-year. Looking forward, the commencement of new projects in Q3 2020 indicate that activity will start to exceed the levels achieved before the pandemic. Once again, the key role was played by the infrastructure and engineering sector, whilst the building sector reported a year-on-year decline of 7.19%. This indicates a gap in future workload and creates competitive conditions in the market. How quickly this deflationary climate scenario will turn inflationary will depend on the pace of confidence returning across various construction sub-sectors.

Still walking on eggshells…

At the moment, the outlook is generally positive. The number of COVID-19 cases are falling, the recession was short-lived, and there are signs that make the swift economic growth forecast plausible. But this does not mean that there are no challenges. Returning confidence should not be taken for granted as its strength is yet to be tested – by the potential increase in unemployment due to the withdrawal of the JobKeeper scheme, the risks presented by merging COVID-19 strains, the slow pace of vaccinations, and finally delays to the procurement and delivery of government-backed infrastructure. The economic recovery is still very fragile, and the probability of a double-dip recession has not disappeared entirely.

...but walking towards the sun

The construction sector has continued working at much higher levels than seen in the first half of 2020 and this trend is likely to uphold in the medium-term. Despite uncertainty still lingering, the public sector has displayed strong leadership and has stuck to its long-term spending commitments at both State and Federal levels. Not only was the record investment in infrastructure confirmed, including $10.4Bn over the next four years on Sydney Metro West and $9.2Bn on the new Western Sydney Airport Metro line, but also new housing schemes were announced across several States, such as Victoria's $5.3Bn Big Housing Build program (which will construct more than 12,000 new homes), and New South Wales' new social housing program (spending $812M to create 1,300 new dwellings). How quickly these and other projects can be brought to market and procured will determine if we are going to face any workload hiatus or if activity will move smoothly from the completion of pre-COVID projects to undertaking the new ones.

With the public sector taking the initiative to drive the recovery, the expectation is that private investors will follow and help fill the order books. The roll-out of vaccinations is expected to help restore confidence further and remove many obstacles – both in terms of productivity on sites and clarity regarding the viability of business cases underpinning projects that are under consideration.

With most of the population likely to be inoculated by early next year, the likelihood of further disruption to the economy will gradually diminish too and we are going to finally see what the post-COVID reality looks like. Undoubtedly, some projects that have been postponed or cancelled may not restart, whilst others may be redefined. There will also be a group that will identify new market opportunities. The situation will be dynamic and clients postponing investment decisions may need to be prepared to face a less competitive market with part of supply capacity absorbed by public sector projects.

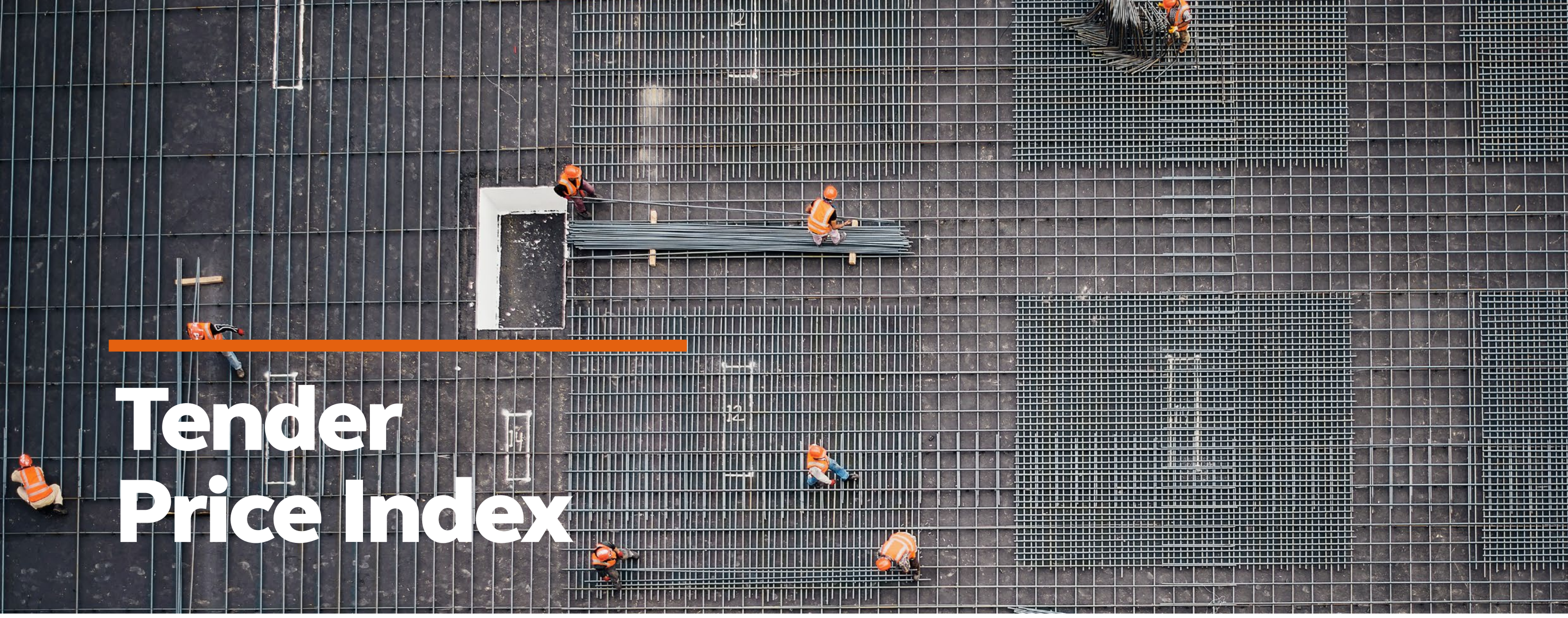
Forecast overview

In our Spring Forecast, we continued to advocate for a Swoosh-type recovery underpinned by better-than-expected GDP growth, a relatively mild impact on overall construction output, and a strengthening new orders pipeline. At present, these factors are still valid, further supporting the forecasts assuming a swift economic recovery.

For the construction sector, a strengthening new orders pipeline means less pressure on being competitive, although these are still early days and contractors will be motivated to secure their workload longer-term. This, combined with the fact that construction wages have not yet recovered, creates some deflationary space. The Australian dollar also remains strong, especially against the US dollar, which helps mitigate some import costs. But there are also strong inflationary factors at play, such as the shortage of materials caused by rapid growth in global demand and still insufficient manufacturing capacity. While we think these are not going to become permanent issues, it will still take some time before they are resolved and should be seen as a risk to the resilience of projects.

We have adjusted our short-term forecast to reflect the extremely short-lived nature of the recession, improving business and consumer confidence, and a quicker-than-expected growth in new orders and private sector activity, as well as materials inflation. Our long-term forecast does not change, and we anticipate that the public sector will continue to spearhead the recovery, which is reflected in the Infrastructure Tender Price Index returning to long-term trend during 2021. The Buildings Tender Price Index will follow, supported initially by Government investment and then by the gradual return of private sector investment.

Short-term Q1-2021 to Q2-2022	Long-term Q2-2022 onwards
INFLATIONARY FACTORS	
• Expansion of activity in social and economic infrastructure.	• Continued investment and expansion of activity in social and economic infrastructure.
• Increased costs of logistics for material imports.	• Labour shortages due to international border restrictions.
• Increased material costs due to shortages.	• Increased material costs due to shortages.
• Increasing demand from the private sector.	• Recovered demand from the private sector
DEFLATIONARY FACTORS	
• The need to secure short-term workload.	• Productivity gains to digitalisation, standardisation. And innovation.
• Heightened uncertainty could derail private sector demand.	



Tender Price Index

Arcadis Buildings Tender Price Forecast

	Adelaide	Brisbane	Canberra	Darwin	Melbourne	Perth	Sydney
2021	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.5%
2022	2.0%	2.5%	2.5%	0.0%	2.5%	0.5%	2.5%
2023	1.5%	2.0%	2.5%	0.0%	2.5%	0.5%	2.5%
2024	2.0%	2.0%	2.0%	2.5%	2.5%	0.5%	2.5%
2025	1.5%	2.0%	2.0%	2.0%	2.5%	0.5%	2.5%
TOTAL	**7.0%**	**8.5%**	**9.0%**	**4.5%**	**11.5%**	**2.0%**	**10.5%**

Arcadis Infrastructure Tender Price Forecast

	Queensland	Victoria	New South Wales
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	**16.5%**	**22.0%**	**27.0%**

Zoom into: The Construction Playbook

The UK Construction Playbook is intended to reset the relationship between government and industry and will enable the public sector to deliver whole-life value from expanded investment programs more effectively. It aims to support the transformation of the construction industry into a more profitable, sustainable and resilient one.

Published in the UK in December 2020, shortly after the Government Spending Review and the National Infrastructure Pipeline, the Construction Playbook is part of a wider program of reforms known as 'Project Speed'. These reforms are intended to create the conditions for investment into productivity improvements on infrastructure projects and programs. The playbook's main objectives are underpinned with three cross-cutting themes:

- Health, safety, and well-being (workforce)
- Building safely (quality of product, process, and people)
- Building back greener (sustainability and net-zero carbon)

The measures included in the Playbook are mandatory and will apply to all Central Government Departments as well as their arms-length bodies from December 2020. Fourteen formulated policies will inform the way that projects are assessed, procured, and managed, and will be enforced through spending controls. These policies address many of the long-standing pain points of the UK construction sector.

Low productivity and innovation update

The lack of appetite to invest in new technologies and the slow pace of innovation is often explained by the lack of visibility of future projects and too-short contracts. A beefed-up central government **procurement pipeline for public works** projects will give long-term visibility and demand, while a shift to

portfolios and longer-term contracting will create the certainty required to invest in new technologies. Project and program teams conducting **market health and capability assessments** will be informed about emerging technologies, opportunities, and limitations, and will be able to adjust requirements accordingly.

The implementation of platform approaches, standard products and components will be accelerated through **harmonized, digitized, and rationalized demand**. Widespread use of the UK BIM Framework and a standardized approach through Information Management Frameworks are ways to **further embed digital technologies,** harvest the potential of data and enable continuous asset optimization through the creation of the National Digital Twin.

Siloed project functions and inefficient delivery

Lack of cooperation between stakeholders often results in multiple changes further down the delivery line and leads to delays and escalating costs. Therefore, the Playbook advocates early **supply chain involvement** by creating integrated teams including designers, Tier 1, 2 and specialist contractors, as well as asset operators. When providing their input into business case development, they are expected to adopt an **outcome-based approach**, which puts an emphasis on whole life performance. The collaborative spirit of the initial project stages will be extended into delivery phases through evidence-based selection of the most suitable delivery model, as well as an **effective contracting strategy** intended to support an exchange of data, drive collaboration, improve value and manage risk.

Misplaced risks, escalated costs, and threat of insolvency

Inappropriately allocated risk, incorrect pricing and faulty payment mechanisms often lead to “quality shortcuts”, cost escalations and can even result in contractor’s bankruptcy, which impacts both the client and the rest of the supply chain. **Benchmarking and ‘should cost’ models** use lessons from previous projects to improve investment decisions. Suppliers will be incentivized to deliver agreed outcomes through an **adequate payment mechanism and pricing approach**, and more scrutiny given to **risk allocation** should help to make the public sector a more attractive client.

However, scrutiny will work both ways and suppliers must be ready to undergo an **assessment of their economic and financial standing**. They should also prepare a **resolution plan** to mitigate risks to continuity of critical public works resulting from potential business failure.

The proposed interventions will have a direct impact on ways of working for everyone involved in projects or programs, including the client, design teams, as well as multiple contractor tiers, including specialist contractors. And while the Construction Playbook lists multiple actions to be undertaken both by contracting authorities and on the supply chain side, the key messages for the latter are:

1. You need to be proactive in implementing the Playbook, ensuring that both your own organization and your sub-contractors are ready to act on the Government’s recommendations. There is an increased focus on participation from SMEs, especially ones pioneering new technologies. The nature of relationships between stakeholders needs to continue shifting, moving from highly transactional towards a collaborative and enterprise-like relationship, in which both risks and rewards are shared.
2. Establish a manufacturing mindset. Adopting modern methods of construction (MMC) involves automation, process standardisation, implementation of digital tools and the use of data, all aiming to instill manufacturing-led solutions. But to generate anticipated benefits, these technologies need to be accompanied with the adoption of a manufacturing mindset – that is, an approach that uses data on a regular basis to monitor, optimize and continuously improve the process, targeting both efficiency and quality.
3. (Re)consider your business model. Adopting an outcome-based approach to projects involves a shift from cost-based to value-based procurement. Contractor-led teams will need to understand the value that is sought and work closely with the client on the best (not the cheapest) way to deliver it. New commercial models, such as alliances, are likely to emerge.

In Australia, and during the initial months of the pandemic, much was said about the unprecedented efforts that both clients and supply chains had put into enabling the continuity of construction work. This provided an early sign that clients and the broader construction industry could indeed work together on a more equitable and collaborative basis as the need arose.

The UK Construction Playbook is looking longer-term and is providing a platform to lead the industry towards a more sustainable future. All the long-standing pain points that the Playbook is trying to overcome are the same ones that afflict the Australian construction industry. Sadly, the industry has demonstrated over the last few decades that it is incapable of changing on its own – which is why it needs effective government leadership to drive the kind of evolution that is badly needed.

Spotlight on:
Construction materials - short term pain?

An unexpected side-effect of the COVID19 pandemic is starting to impact the Australian construction market – a world-wide shortage of materials.

Whilst global activity levels are down compared to 12 months ago, many aspects of the materials supply chain, manufacture, transportation, and logistics are coming under pressure. Not only are prices likely to increase, but more significantly in the short-term, it may become difficult to source key materials.

A complex global issue

Materials availability was a major problem at the peak of the first wave of the virus in May/June 2020, when domestic and Asia-based manufacturers closed in response to a drastic fall in demand, resulting in a sudden drop in supply of key materials. The current problems, however, are tied to the global recovery from COVID19, and as a result will be more difficult to resolve in the short term.

Raw materials and products that are being affected by shortages include timber and structural steel, as well as smaller components imported from Asia. A review of the causes of these shortages highlights just how complex the issues are, as supply constraints are not universal. Some manufacturers have built stockpiles, and locally manufactured products such as precast concrete are mostly not affected.

Causes and impacts of materials shortages

Material Type	Impact	Cause of disruption
Timber	• Timber products being made available upon allocation.	• Shortfalls in timber imports during H12020. • Significant increase in global demand in H22020, particularly in the US. • Loss of European and Asia production due to COBID19. • Reduced volume of European felling during 2019/20 due to poor weather conditions and pest control activity.
Structural Steel	• Extended lead-in periods for steel sections. • Price rises of between $100 and $250/tonne on structural steel declared in the last few months with pricing expected to rise further during 2021.	• Reduced global steel production in H12020. • Increased global demand.
Electrical Products (i.e. switchgear, cable terminations, cable trays etc)	• Impacts currently unknown.	• Manufacturing constrained by the availability of critical materials – e.g. specific steel grades.

Fixings, components, and small tools
(i.e. products imported from Asia using global logistics networks)
	• Lack of availability of components in local supply chains - potentially affecting manufacture or completion of works on site.
	• Premium costs associated with accelerated transport – e.g. air freight.
		• Shipping constraints including:
		  • Increased volumes of global container traffic.
		  • Shortages of empty and available containers in Asia.

Shipping costs generally	• Container freight rates have increased more than 2.5 times for a 40-foot container.	• Shipping constraints as noted above.

Anticipated project impacts

These developments can be expected to filter into project costs during the first half of 2021. New projects may potentially be more vulnerable, as material shortages might result in the need to schedule a project commencement in line with product availability. Furthermore, as recovery accelerates, additional categories of products may become exposed to material shortages. Our assessment is included in the forecast section.

Looking at projects in procurement, the critical question is whether the price increases are temporary or permanent, and how long the disruption might last. Our view is that the current burst of inflation is temporary for the following reasons:

- Overall global trend is for low inflation related to slow growth and excess capacity.
- Material shortages have been caused by one-off COVID19 related factors – e.g., production shut-downs, crew shortages and container traffic disruption.
- Demand has been triggered and exacerbated by one-off events – e.g., the Australia Homebuilder program.

Some highly demand sensitive markets such as container traffic will continue to see disruption and potentially higher prices continuing into the second half of 2021 but should then start to return to normal conditions. By contrast, for sectors such as structural steel, where price inflation has been quite suppressed in recent years, it may prove harder to bring costs down to previous levels.

Material price inflation has not been a significant problem for the Australian construction industry since before the financial crisis in 2008. The current episode is more likely to be a blip than the start of a trend. However, it is a useful reminder that resilient supply chains are essential for the reliable delivery of capital projects.

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

Agnieszka Krzyzaniak
Market Intelligence Lead, Construction
agnieszka.kryzaniak@arcadis.com

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