Turner & Townsend

Australia and New Zealand market intelligence report

Q4 2022

making the **difference**

Introduction

Our latest report finds that Australian and New Zealand construction activity remained active, driven by a strong pipeline of public sector projects. However, clients are cautious about investment as costs remain high due to inflation, skills shortages and rising materials costs.

There is a significant volume of work underway across Australian construction markets keeping the activity buoyant. Similarly, in New Zealand, strong construction activity continued over the fourth quarter, primarily driven by public sector projects. In both countries, skills shortages and market capacity constraints continue to keep construction costs elevated, despite some stabilisation of building material costs.

Australia's economy has started slowing amidst high pressure from inflation and rising interest rates. GDP growth dropped to 0.6 percent over the September quarter, down from 0.9 percent in the June quarter. In New Zealand, the economy grew by 2 percent in Q3 2022, and by 6.4 percent through the year to September, supported by the return of domestic and international tourism. Both economies are likely to experience considerable softening over 2023 as a result of high inflation, rising interest rates and growing uncertainty on the outlook.

The global pandemic was the greatest test the modern economy has faced. However, the data centre market continued to boom through COVID-19 and few other industries could say the same. This quarter, we look at how data centre investors and clients that are taking a proactive approach to address market challenges, adopting greater creativity and sophistication in development programs to keep both financial and carbon costs under control.

Australia market overview

A large volume of work is underway across Australian construction markets keeping the market buoyant. New investment has started to slow amid higher borrowing costs and the surge in construction costs. Most supply issues continued to resolve over Q4 2022, however, challenges persist around skills shortages and market capacity.

Over Q4 2022, Australian construction markets remained heated with strong activity recorded across all sectors. For both the non-residential and residential sectors, there is a large backlog of work to be completed due to many builders facing capacity constrains and delays in 2022.

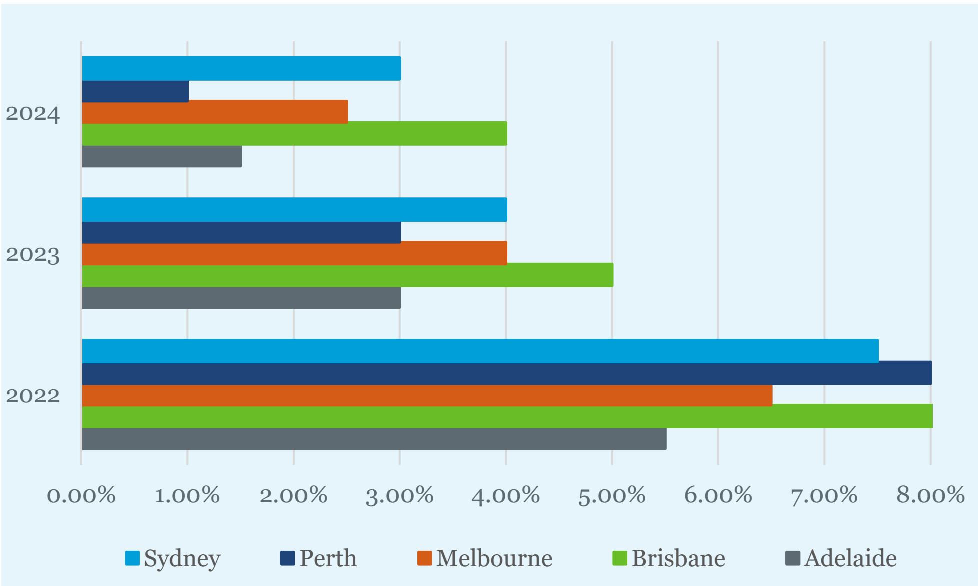
While construction activity was strong, there was a notable decline in new investment recorded across the residential and non-residential sectors. This was driven by the higher cost of borrowing, higher construction costs and growing uncertainty about economic conditions in the year ahead. We expect this trend will continue in 2023, with further slowing driven by the private sector.

Global supply chain disruptions have reduced, which is helping to ease the cost of major construction inputs in global markets. While considerable price falls have been observed for inputs such as steel, reinforcement, and timber, we do not expect this will materialise in the domestic market for some time due to strong domestic demand. However, it is likely that building material costs are close to or have reached their peak with further price stabilisation likely in 2023.

Skills shortages continue to challenge Australian construction markets. While the return of skilled migration will help to lessen this challenge, it will take time for gaps in the market to be sufficiently filled. Accordingly, strong wage growth, resulting from high demand for construction professionals and trades, continues to add to construction costs. The capacity of markets to deliver the volume of both current and planned major infrastructure project across states remains a concern.

Overall construction activity is forecast to remain strong in 2023, which will continue to place pressure on local markets. With building material prices expected to stabilise further in 2023, the key drivers of cost escalation are expected to be labour costs and preliminary costs. Therefore, we forecast that construction cost escalation will ease in 2023.

Figure 1:
Australia construction cost escalation



New Zealand market overview

Strong construction activity continued in Q4 2022, driven by public sector projects in infrastructure and housing. Skills shortages and market capacity constraints continue to keep construction costs elevated, despite some stabilisation of building material costs.

New Zealand's construction sector remained active over Q4 2022, however, uncertainty over the outlook resulted in weaker private sector investment during the quarter. Surging construction costs, higher borrowing costs, and increased uncertainty around a potential recession in 2023 are bruising confidence in the market and resulting in more cautious investment from the private sector. We expect this will translate to a decline in overall building activity in 2023.

Public sector investment continued to grow in Q4 2022, adding to the large pipeline of major transport and social infrastructure projects in the planning and committed phases. Additionally, there is growing investment into the renewable energy sector, with activity expected to increase over the coming years.

Construction costs remain at a highly elevated level across the country. Over Q4 2022, prices for many building materials have stabilised, which will help to limit strong price growth over 2023. However, skills shortages remain a critical challenge across New Zealand's construction markets, which is contributing to faster and stronger wage growth in the sector. We expect that higher labour costs and market capacity constraints will be the key driver of construction cost escalation in 2023. While international migration has resumed, we expect it will take some time for these labour market gaps to be filled.

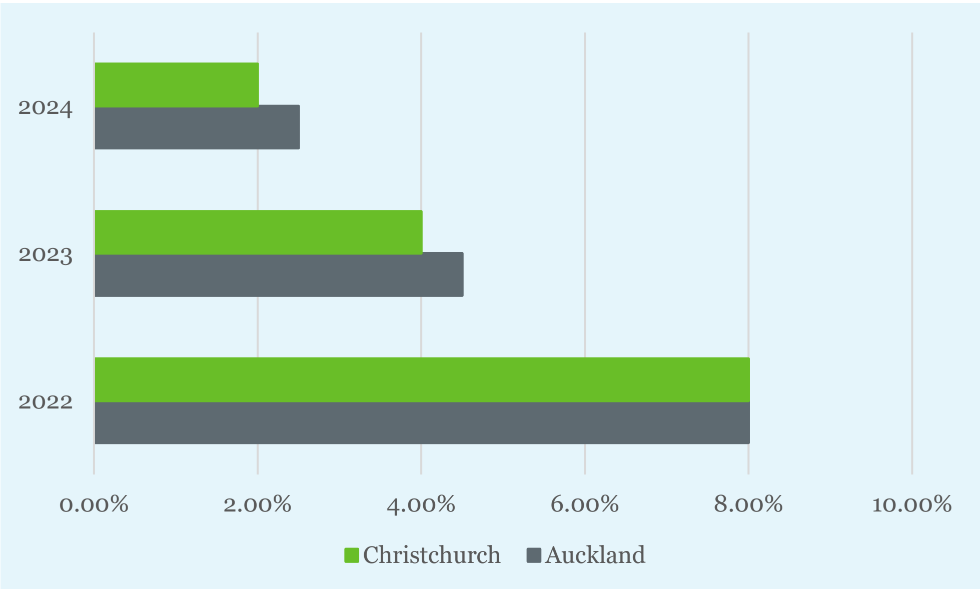


Figure 2:

New Zealand construction cost escalation

New South Wales

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

Movement	Indicator
0%	Site foreman / hr
9.09%	Group 1 tradesman
6.05%	Concrete 32 Mpa / m3
5.26%	Plasterboard 13mm thick to stud wall / m2
6.25%	Structural steel / tonne
25%	Main contractors margin movement

The New South Wales construction market remained active over Q4 2022, supported by a high volume of work across all sectors. New investment remained mostly steady despite surging construction costs, labour shortages and higher borrowing costs. There is a large pipeline of public sector projects across health, education, social infrastructure and transport, which should help to the keep the market active in 2023 should a slowdown from the private sector transpire.

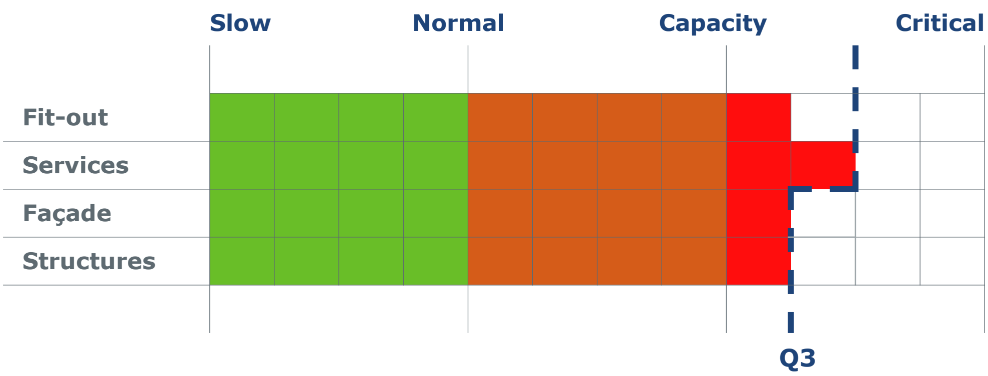
Tendering activity remains strong, however, there is evidence that some clients are delaying tendering their projects as the combination of a potential recession and construction price increases are impacting on the return on investment required to make projects viable. This combination of circumstances is resulting in an increase of business cases needing to be reviewed and revised.

On the supply side, skills shortages continue to be one of the biggest challenges facing the local market, forcing contractors to pay premium prices to attract suitably skilled workers to their projects. Additionally, strong local demand for building materials continues to keep prices of key inputs elevated, which we expect will continue until activity cools.

We continue to see extended lead times for many key items generally related to mechanical and technology/IT equipment. However, these long lead times are now well known and understood and are generally being well managed through early procurement. Additionally, with the relaxing of COVID-19 restrictions in China, we are expecting supply chain issues to ease further over the next 12 months as factories get back up to speed and customs backlogs are cleared. This should help to lower material prices over 2023.

While prices for building materials remain elevated, there has been a notable stabilisation of prices in the market. Therefore, we anticipate that most cost escalation in 2023 will be driven by labour costs, preliminary costs and potentially higher contractor margins.

Figure 3:
Supply chain capacity in New South Wales
Q4 2022



Queensland

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

Movement	Indicator
20%	Site foreman / hr
36.84%	Group 1 tradesman
9.09%	Concrete 32 Mpa / m3
47.06%	Plasterboard 13mm thick to stud wall / m2
0%	Structural steel / tonne
25.0%	Main contractors margin movement

Queensland's construction market remained highly active in Q4 2022, driven by both the private and the public sectors. There is a large pipeline of major projects underway, alongside a significant backlog of housing projects still being completed. This is creating considerable market capacity constraints, which resulted in a sharp rise in construction costs in 2022.

Public sector spending continues to grow particularly in the health sector and in preparation for the 2032 Olympic and Paralympic Games. Additionally, Queensland is becoming one of the fastest growing renewable energy hubs, with new major projects being announced in Northern Queensland. Private sector investment, however, has started to show signs of slowing amid surging construction costs, rising interest rates and declining property values. Despite this softening, the fall in activity is expected to be relatively modest in 2023 and will be supported by the large backlog of work yet to be completed.

Availability of labour and materials continue to be an issue across the South-East Queensland market, however, some of these constraints are beginning to ease with prices for some materials now stabilising. The backlog of housing construction and the anticipation of strong activity ahead are keeping upwards pressure on prices. With limited available contractors in the market, margins and preliminary costs have risen sharply and we expect this will continue while the market is heated.

Contractor and sub-contractor liquidation continues to have an impact on market capacity, particularly amongst smaller sub-contractors and trades. Over Q4 2022, the trades in shortest supply were in structural steel, timber and glazing.

With construction activity forecast to continue to ramp up over the next five years, there are growing concerns around the capacity of the local market to deliver the increased pipeline of work. It is possible that we could see some major projects postponed as a result.

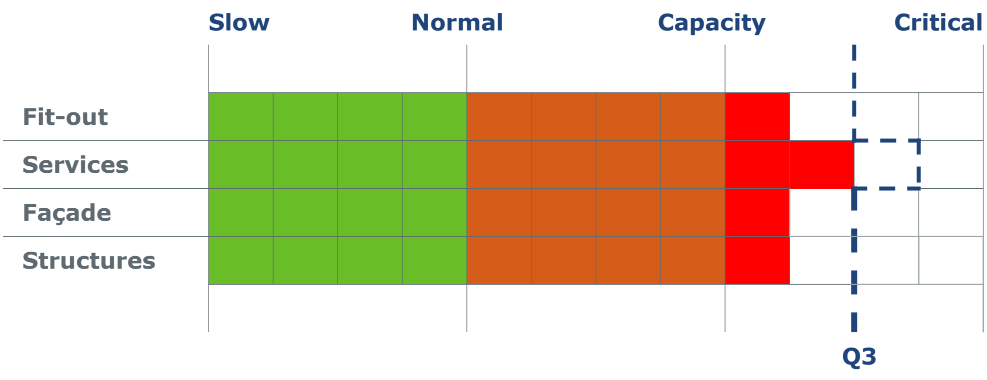


Figure 4:

Supply chain capacity in Queensland

Q4 2022

South Australia

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

30.4% Site foreman / hr	**4.5%** Group 1 tradesman
42.9% Concrete 32 Mpa / m3	**20.0%** Plasterboard 13mm thick to stud wall / m2
20.0% Structural steel / tonne	**40.0%** Main contractors margin movement

Higher borrowing costs, long lead times and skilled labour shortages remain the biggest challenges in the South Australian construction market. Despite this, construction activity remained strong in Q4 2022, with further growth projected for 2023 as new public sector projects get underway.

High construction costs and uncertainty on the outlook are starting to see new private sector investment slow. This will likely result in some softening in private sector projects over 2023 and 2024.

On the other hand, there are several large public sector projects in the pipeline that should sustain overall activity in the market in the years ahead. This includes the $14.5bn North South Corridor road upgrade and the $3.2bn New Women’s and Children’s Hospital. These are significant projects for the Adelaide market and contractors will likely need to draw upon interstate resources to help deliver them. There is also growing investment into renewable energy projects including the Bungama Battery Project and the Blyth Battery project, as well as several recently announced solar projects.

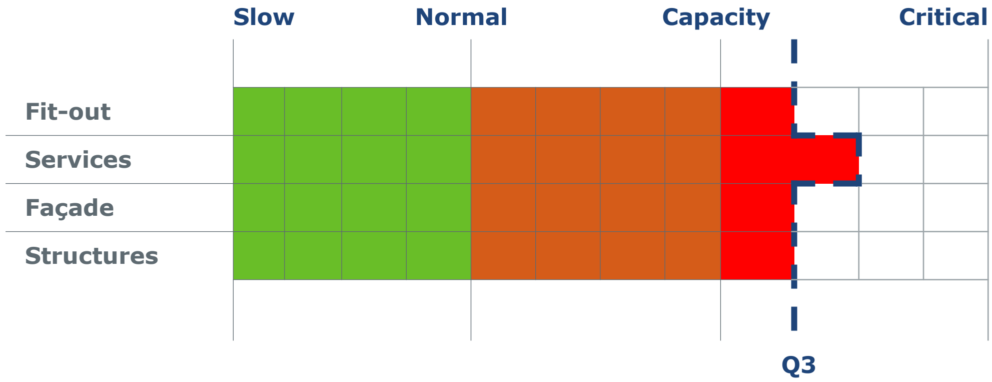
Considerable fluctuations in tender pricing have been observed over the last quarter, which has mainly been driven by shortages in skilled labour and higher preliminary costs.

Over the last 12 months, building material costs and construction labour costs have increased strongly. A higher volume of work in the market has also driven up margins. While we expect that material costs are likely close to their peak, as we are seeing in other states, the ongoing shortage of skilled and unskilled labour is expected to keep upwards pressure on labour costs in 2023.

Figure 5:

Supply chain capacity in South Australia

Q4 2022



Victoria

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

- **11.1%** Site foreman / hr
- **8.33%** Group 1 tradesman
- **4.88%** Concrete 32 Mpa / m3
- **42.86%** Plasterboard 13mm thick to stud wall / m2
- **28.57%** Structural steel / tonne
- **12.50%** Main contractors margin movement

Construction market activity remains high across all sectors in Victoria. Escalation and material price growth slowed notably over Q4 2022, however, prices remain highly elevated when compared to 2021. Skilled labour shortages and higher borrowing costs are now the main challenges being experienced in the market. We anticipate that this will result in reduced construction activity in 2023, with new private sector investment showing signs of slowing over Q4 2022. While a modest slowdown is likely, we expect that overall activity, particularly from the public sector, will remain at an elevated level in 2023 given the large volume of work in the pipeline.

With Labour securing another term in government, we expect that public infrastructure spending will increase across transport, health and housing. Tendering activity has remained high, in part influenced by the Victoria State Government election.

Contractors have reduced their tender validity period to combat escalation. Market capacity is a key driver and tender pricing seems to be driven by upcoming projects that contractor's have on their books. Where they require more work, pricing is more competitive and vice versa. This is resulting in big variances between tender prices.

In Q4 2022, there was some easing in steel and reinforcement prices, however, prices of materials remain at an elevated level when compared to Q4 2021. International shipping costs have now significantly reduced but this is yet to reflect in lower costs in the domestic market. Additionally, significant pressure due to skilled labour shortages have led to elevated trade pricing.

Increased 'debt costs' is likely to adversely impact profit margins, particularly for the private sector and we expect to see a decline in private sector investment. We anticipate that this will worsen over 2023 given further interest rate hikes are likely.

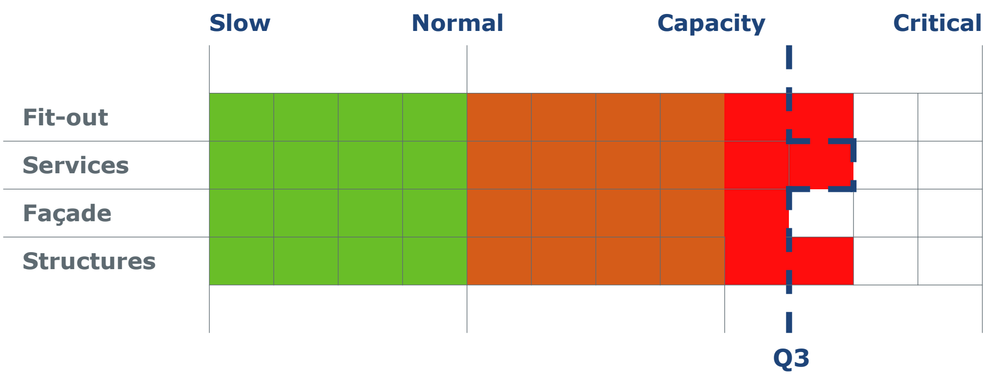


Figure 6:

Supply chain capacity in Victoria

Q4 2022

Western Australia

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

- **3.85%** Site foreman / hr
- **4.17%** Group 1 tradesman
- **12.86%** Concrete 32 Mpa / m3
- **12%** Plasterboard 13mm thick to stud wall / m2
- **10%** Structural steel / tonne
- **0%** Main contractors margin movement

The state government's ongoing investment in major transport and social infrastructure projects has maintained demand for construction skills while supply for labour and materials remains constrained. Over Q4, various government and private sector projects and programs have stalled due to funding constraints or due to global economic uncertainty. This has resulted in competitive tension being re-established in the Western Australia tender market with tender prices stabilising closer to our benchmark data for the first time in 24 months. The risk remains that these government and private sector postponed projects will come back online within the next 12 months with limited multi-sector co-ordination, which may result in significant volatility in construction costs and tender prices.

Several projects are at the planning stage, which should result in stronger levels of activity in the next 6 - 12 months. Within the public sector, activity is expected to increase in the education, justice and health sectors. We may also experience the consequences of the volatile tendering conditions over the last 24 months, with major project cost and time blow outs being funded with additional budget, which may impact the pipeline of new projects.

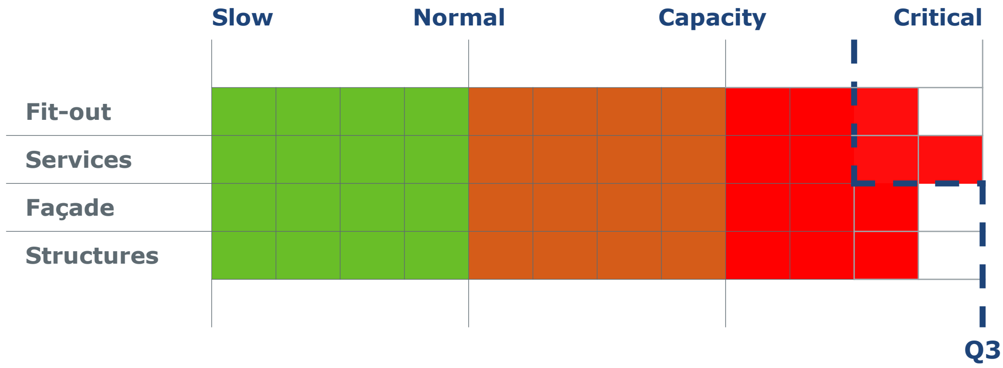
A key concern is the financial stability of the construction supply chain and cashflow related to various fixed priced construction contracts that have been subjected to significant cost escalation with no contractual mechanism for recovery of the price spikes.

The market has experienced significant cost increases in civil construction, steelwork, concrete and reinforcement due to the unavailability of skilled labour related to these trades. Projections around increases in supply of labour and skills following the reopening of the borders have not materialised. With the reopening of the Western Australian borders, the sector experienced more skills and labour exiting the state, thus, worsening the skills shortage problem across the sector. With materials shortages and price increases, there has been explorations around alternative approaches to circumvent materials shortages. Clients are gradually moving away from steel towards concrete structures. Security, site managers and site supervisors remain in high demand.

Figure 7:

Supply chain capacity in Western Australia

Q4 2022



Auckland

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

30.77%
Site foreman / hr

5.88%
Group 1 tradesman

3.03%
Concrete 32 Mpa / m3

40.63%
Plasterboard 13mm thick to stud wall / m2

12.50%
Structural steel / tonne

0%
Main contractors margin movement

Auckland continues to experience a period of significant uncertainty in the construction sector. Capacity constraints, materials and labour shortages, high inflation and unprecedented interest rate hikes continue to heavily impact the construction market. These factors have mostly led to a decline in private investment in construction despite actions aimed to mitigate their effects.

As we do not expect any major change in investment from the private sector, it is likely that the current level of construction activity will be sustained over the next six months, supported by the current pipeline of projects yet to be completed. We also expect the data centre sector to contribute to activity levels as it goes through a stage of significant growth with major support from local governments. The market also continues to attract many of the world's biggest service providers.

Although global supply chain issues have started to ease, some commodities remain heavily impacted. While GIB and structural steel are becoming more readily available, timber and concrete continue to experience supply constraints. We expect work from the public sector to significantly increase in 2023, and this raises major concerns around the capacity to accommodate potential increases in activity levels.

Despite the relaxation of border rules, labour and skills shortages have not seen a notable improvement. We expect this will remain an issue for the foreseeable future and continue to contribute to higher construction costs as very low unemployment rates drive wages higher. These factors have influenced major projects as contractors withdraw from projects citing capacity constraint challenges. Additionally, the shortage of contactors and sub-contractors has resulted in significant variations in pricing of construction work in the region.

As news of a potential recession in New Zealand continues to intensify, many companies are becoming hesitant about hiring new employees. Therefore, we expect some marginal decline in demand for labour, but ultimately, this should not tilt the balance regarding existing tight labour market conditions.

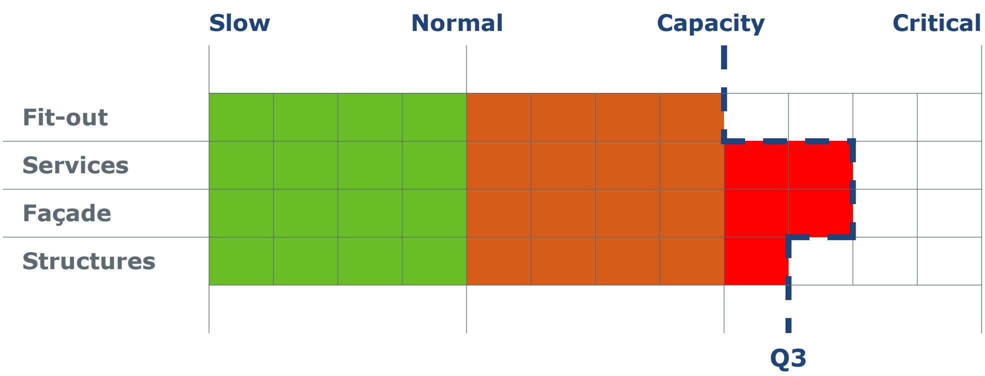


Figure 8:
Supply chain capacity in Auckland
Q4 2022

Christchurch

Key price indicators

Movement (%)
Q4 2021 – Q4 2022

- **17.33%** Site foreman / hr
- **7.14%** Group 1 tradesman
- **-11.21%** Concrete 32 Mpa / m3
- **1.94%** Plasterboard 13mm thick to stud wall / m2
- **0.87%** Structural steel / tonne
- **-23.53%** Main contractors margin movement

Construction is starting to ease in Christchurch as a result of the housing market's vulnerability to changes in mortgage rates. Higher borrowing costs and highly elevated construction costs is dampening demand, with new investment slowing over Q4. As the market begins to cool off, some price decreases are now being observed, however, these are only modest declines at this stage and remain significantly higher than 2021 prices.

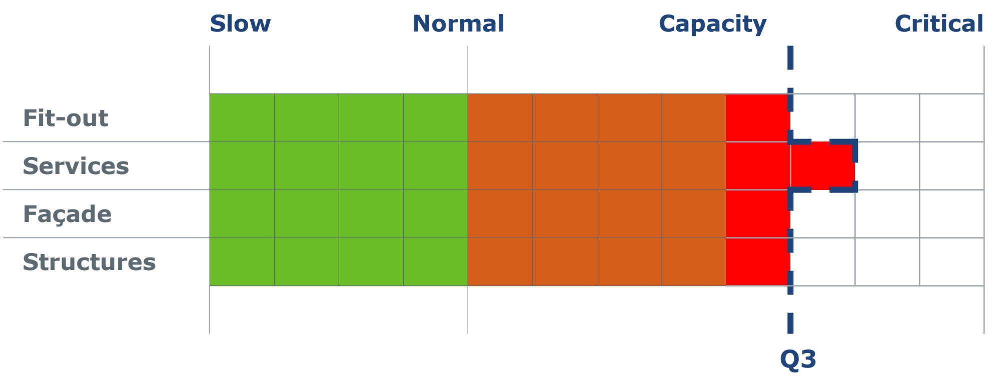
While confidence in the economy is generally low, we expect growth in the construction market to be driven by government spending. Christchurch is still undergoing regeneration, albeit be on lower trajectory than the last six months. This regeneration process should sustain activity levels. Major projects currently underway in Picton and Dunedin are expected to contribute to ongoing demand pressures for resources and labour.

Over Q4 2022, there have been limited tenders being put up for procurement as relevant stakeholders are taking a more cautious approach given major market and economic uncertainty. Improvements on the global market with regards to supply chain disruptions have not materialised in the Christchurch market. Thus, supply issues are still being felt for major commodities and materials including plasterboard and window supplies. These challenges are expected to remain at least over the first half of 2023.

Figure 9:

Supply chain capacity in Christchurch

Q4 2022



Australia economic overview

Australia's economy has started slowing amidst high pressures from inflation and rising interest rates impacting households. GDP growth dropped to 0.6 percent over the September quarter, with further softening expected over 2023.

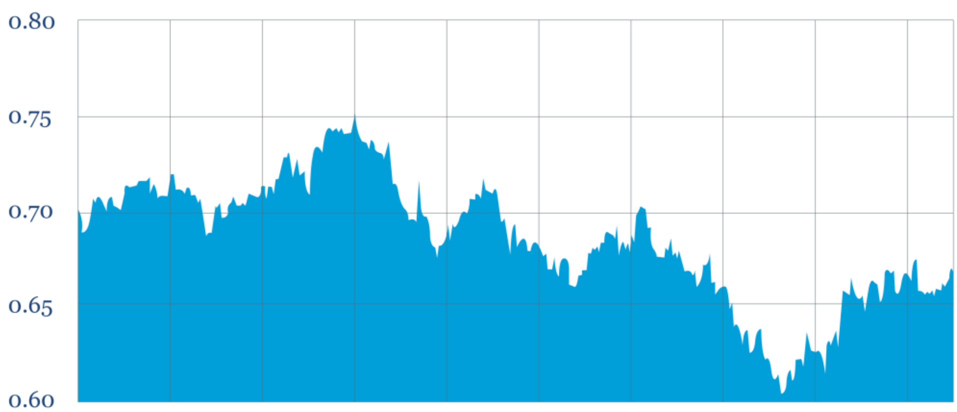
High cost of living pressures continue to impact households and businesses across Australia, which is dampening economic activity in the Australian economy. In December, inflation jumped to 7.8 percent, up from 7.3 percent in November. This is the highest inflation in Australia since 1990 and was primarily driven by domestic holiday travel and accommodation, electricity, housing, food and transport.

The latest data indicates that high inflation is now flowing through to the services sector. Unemployment remains historically low between 3.4 – 3.5 percent, with skills shortages still being felt across most industries. Higher cost of living pressures coupled with acute labour shortages are pushing up wages, which is now adding to inflation pressures in the services sector.

In the second half of 2022, immigration rebounded sharply, with the number of permanent migrants expected to be close to 300,000 in FY2022/23. This large number of arrivals will help to alleviate labour market tightness and will drive new demand and boost economic activity. However, the challenge that is emerging from this influx of arrivals is the growing shortage of dwellings to house people. With demand increasing and a limited supply, this is likely to add to domestic inflationary problems.

With inflation remaining stubbornly high, we expect the RBA will respond with further rate hikes over February and March 2023. While we expect that inflation is likely getting close to the peak, if not already at it, high inflation is expected to persist for some time due to steady demand and growing labour costs.

Figure 10:
AUD USD performance
Q4 2021 – Q4 2022



Forex movement of -3% in 12 months

Figure 11:
AUD forex forecasts

	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
USD	0.71	0.74	0.76	0.78	0.78
GBP	0.58	0.58	0.59	0.60	0.60
EUR	0.65	0.66	0.66	0.67	0.66
YUAN	4.79	4.88	4.94	5.07	5.03

	Current		Previous	
GDP quarterly growth rate	0.6%	Jun 22 – Sept 22	0.9%	Mar 22 – June 22
GDP annual growth rate	5.9%	Sept 21 – Sept 22	3.6%	Jun 21 – Jun 22
Inflation (annual)	7.8%	Dec 21 – Dec 22	7.3%	Nov 21 – Nov 22
Unemployment rate	3.5%	Dec 22	3.5%	Nov 22
Business confidence index	-4	Nov 22	0	Oct 22
Retail sales	7.7%	Nov 21 – Nov 22	13%	Oct 21 – Oct 22
Interest rate	3.1%	Dec 22	2.85%	Nov 22

New Zealand economic overview

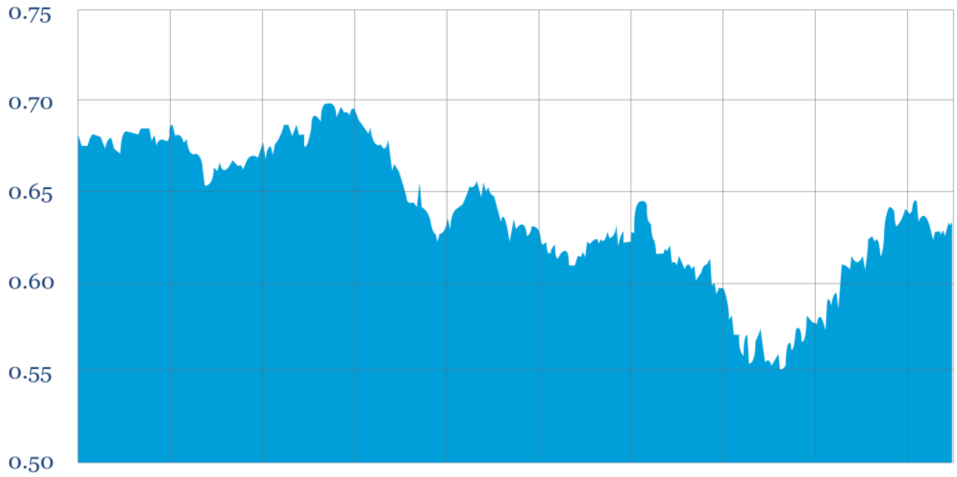
Despite a decline in household spending, economic growth in New Zealand was strong in Q3 2022, supported by the easing of COVID-19 restrictions and the return of international and domestic tourism. However, this momentum is expected to slow over 2023 amidst major challenges from high inflation and the tightening of monetary policy aimed at addressing it.

New Zealand's economy grew by 2 percent in Q3 2022 and by 6.4 percent through the year to September. Inflation remained at 7.2 percent in December 2022 and continues to be the biggest challenge in the New Zealand economy. Strong global inflationary pressures coupled with tight labour market conditions pose further upside risk to inflation. This has prompted swift action from the RBNZ, who have undertaken an aggressive rate hiking cycle over recent months. The latest increase brought the cash rate to 4.25 percent in November, with further increases likely in 2023 if inflation remains at this elevated level.

The unemployment rate remained unchanged in September at 3.3 percent. Skills shortages continue to be felt across most industries, despite the return of immigration earlier in 2022. Subsequently, stronger wage growth is emerging, with average hourly earnings up by 7.4 percent in the year to September 2022. While the labour market remains tight, stronger wage growth is likely to continue which will contribute to inflationary pressures in 2023.

As firms contend with high inflation and the prospect of a slowdown in 2023, business sentiment fell sharply in December with the Business Confidence Index dropping to -70.2 in December 2022 from -36.7 in September 2022. Persistently high inflation and the response from the RBNZ will be a key determinant of how the economy performs in 2023.

Figure 12:
NZD USD performance
Q4 2021 – Q4 2022



Forex movement of -8% in 12 months

Figure 13:
NZD forex forecasts

	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
USD	0.65	0.66	0.66	0.67	0.66
GBP	0.52	0.53	0.54	0.54	0.55
EUR	0.59	0.60	0.60	0.61	0.61
YUAN	4.44	4.49	4.51	4.55	4.55

	Current	Previous
GDP quarterly growth rate	2.0% Jun 22 – Sept 22	1.9% Mar 22 – Jun 22
GDP annual growth rate	6.4% Sept 21 – Sept 22	0.3% Jun 21 – Jun 22
Inflation (annual)	7.2% Dec 21 – Dec 22	7.2% Sept 21 – Sept 22
Unemployment rate	3.3% Sept 22	3.3% Jun 21
Business confidence index	-70.2 Dec 22	-57.1 Nov 22
Retail sales	4.9% Sept 21 – Sept 22	-3.7% Jun 21 – Jun 22
Interest rate	4.25% Nov 22	3.5% Oct 22

Client teams become more hands-on to hit delivery targets

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The global pandemic was the greatest test the modern economy has faced. However, the data centre market continued to boom through COVID-19 whilst few other industries could say the same. Growth has come on the back clients meeting demand for an ever-increasing appetite for fast, secure access to personal and professional data storage.

Data centre investment across the Asia-Pacific (APAC) region has become especially buoyant. Throughout the market, growth is being led by hyperscale data centre end users and developers who are racing to fulfil demand.

This growth is creating an added challenge to the supply chain capacity that is driving up costs, with APAC already showing average costs per watt increasing at a rate that outstrips other global regions. High energy, labour and material costs are being sustained through a combination of specific data centre demand and wider construction market forces. The ongoing impacts of COVID-19, particularly in China, have been felt keenly. As restrictions have eased, we've then seen a resurgence in the region's activity as industries release pent-up investment.

Our data centre cost index (DCCI) has tracked these trends. It reveals that across the board there has been an average 15 percent uplift in local currency construction costs driven by market and supply chain turbulence. Within APAC, Tokyo and Singapore find themselves in the top five most expensive markets for data centre construction to build worldwide, at an average of USD$11.40 and USD$11.30 per watt, respectively. Seoul, Auckland and Jakarta sit not far behind.

The good news is that these kinds of pressures can incentivise innovation. We're seeing encouraging signs from across investors and clients that are taking a proactive approach, adopting greater creativity and sophistication in development programs. This came across strongly in a recent panel discussion with data centre leaders across APAC, which showed a growing acceptance of the need to engage proactively with the supply chain to drive down costs and meet demand.

Building supply chains

The major trend is towards a more hands-on approach from clients and collaborative working to combat supply chain pressures that should not be underplayed. The sector is currently operating alongside continued logistical disruption, including port closures, competition for shipping and increased fuel costs.

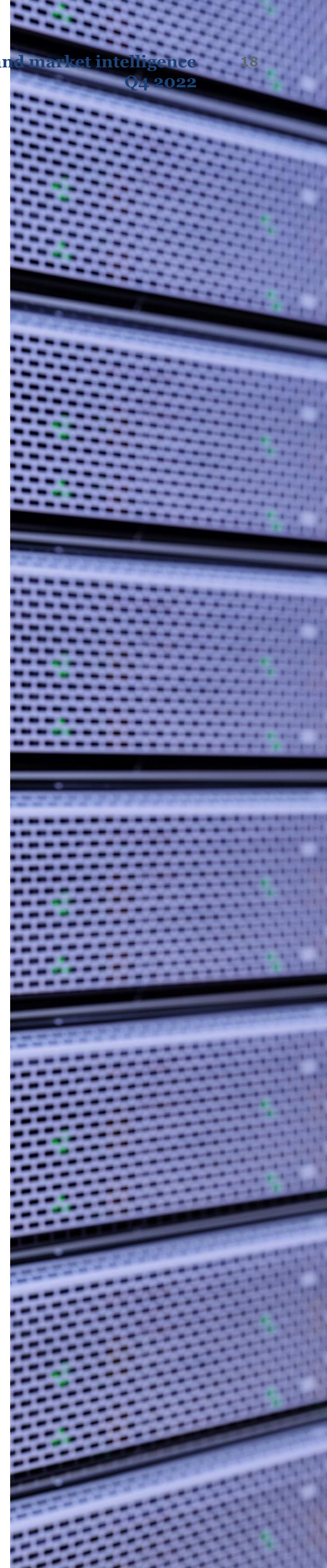
Our DCCI research reveals that 78 percent of respondents report lead time for prices of major equipment have extended by 12 weeks or more. Getting close to suppliers is essential to navigating these hurdles and securing the best price. Diversification is an important trend to de-risk over-reliance on overstretched resources – with clients increasingly exploring alternate points of origin for the assembly of long-lead equipment to address time constraints.

This exploration also includes homing-in on the role of specialists when it comes to contracting. The industry in APAC is having to become more confident in working with a wider pool of partners to get work delivered to strict timetables. In the long-run this could be a positive move which ultimately builds greater capacity and diversifies the skills base to deliver future projects.

78%
report lead time for prices of major equipment have extended by 12 weeks or more.

95%
report that material shortages have caused delays to data centre construction over the past 12 months.

56%
don't think the data centre sector has a clear, measurable plan to achieve net-zero carbon.



Supporting new markets

The pressures around supply chain are even more acute when we look at emerging markets in Asia, where we are seeing particularly strong construction activity in secondary, less saturated markets.

Countries such as Vietnam, Malaysia and the Philippines are entering a new phase of development, with greater local demand for data storage. In Australia, the sector is turning to hyperscale, with schemes underway or planned in Melbourne, Brisbane and Perth.

To make the most of the opportunities, clients are finding an even-greater need for proactivity. They need to work with local partners in these newer markets to help them understand the construction conditions and how they can ensure consistent standards when it comes to health and safety, build quality, time and cost certainty.

Before entering the market, investors are looking at models which establish centers of excellence that can be used to oversee and manage operations, being direct and clear about expectations to encourage a race to the top on quality. Likewise investing in the education of the supply chain will also help ensure a resilient and fit-for-purpose product in the long run.

Embedding sustainability

These more mature and diversified delivery strategies can support the next stage of the industry's evolution in APAC – which is to go for green growth.

Our research shows that opinions are mixed on the delivery of carbon emission improvements in the sector. 56 percent of our DCCI respondents believe their programs do not yet have a clear plan in this area. Nevertheless, our recent panel discussion in APAC reveals that the sector is keenly aware of its net zero responsibilities and of the need to put firm plans in place as investors and end-users drive demand for greater sustainability in the sector.

Increased sophistication in contracting will lend itself to meeting these demands, as clients take a stronger lead on setting sustainable design standards and bolting-in expertise to reduce both embodied carbon during construction alongside emissions from assets to operation.

The industry has an obligation to itself and its customers to be more transparent about its capabilities, what it can and can't do and try to solve these challenges together. Within APAC specifically, the availability of renewable and green energy can be of huge benefit, while the move to more local supply chains can help to reduce emissions. Ultimately, operators need to map out clear route maps that identify how they will decarbonise in line with global climate goals.

What is clear from our work in the region, and from our recent panel discussion, is that leaders in the APAC data centre market are ready to invest in a positive way. Despite the multi-faceted challenges to address, our latest DCCI points to a sector that remains upbeat about its prospects. While headwinds are being seen, there is confidence across the market that the industry can remain resilient while managing the growing pressures of both financial and carbon costs.

About Turner & Townsend

We are an independent professional services company specialising in programme management, project management, cost and commercial management and advisory across the real estate, infrastructure and natural resources sectors.

With 112 offices in 46 countries, we draw on our extensive global and industry experience to manage risk while maximising value and performance during the construction and operation of our clients' assets.

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