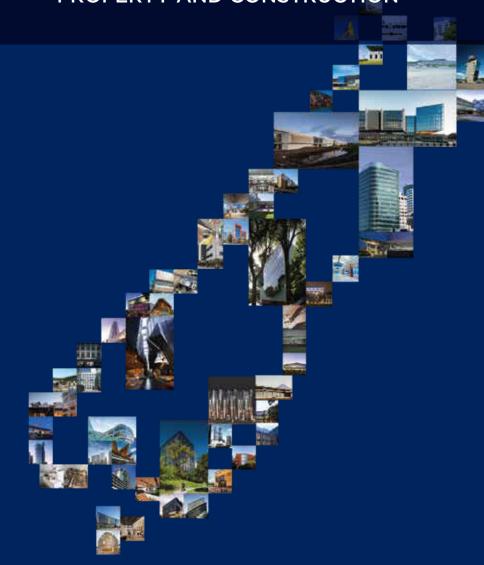


FIRST QUARTER 2022

FORECAST REPORT 100

NEW ZEALAND TRENDS IN PROPERTY AND CONSTRUCTION





OFFICES AROUND THE WORLD

AFRICA

Botswana

Gaborone

Mauritius

Saint Pierre

Mozambique

Maputo

South Africa

Cape Town Johannesburg

Pretoria

ASIA

North Asia

Beijing Chengdu Chongqing Dalian Guangzhou Guiyang Haikou

Hangzhou Hong Kong Jeju

Macau Nanjing Nanning Qingdao Seoul Shanghai Shenyang Shenzhen Tianjin

Wuhan Wuxi Xiamen Xian Zhuhai

South Asia

Bacolod Bohol

Cagayan de Oro

Cebu Davao

Ho Chi Minh City

lloilo

Jakarta

Kuala Lumpur

Laguna

Metro Manila

Singapore

Yangon

AMERICAS

Caribbean

Barbados Cayman Islands St. Lucia

North America

Austin
Boston
Calgary
Chicago
Denver
Guam
Hilo
Honolulu
Las Vegas
Los Angeles
Maui

Maui New York Orlando Phoenix Portland San Francisco

Seattle Toronto Tucson Waikoloa Washington DC

EUROPE

United Kingdom

Birmingham
Bristol
Cumbria
Leeds
London
Manchester
Sheffield
Thames Valley
Warrington/Birchwood
Welwyn Garden City

RLB | Euro Alliance

Austria Belgium

Czech Republic

Finland
Germany
Hungary
Ireland
Italy
Luxemburg
Netherland

Netherlands Norway Poland Portugal

Spain Sweden Turkey

MIDDLE EAST

Oman

Muscat

Qatar

Doha

Saudi Arabia

Rivadh

United Arab Emirates

Abu Dhabi Dubai

OCEANIA

Australia

Adelaide
Brisbane
Cairns
Canberra
Coffs Harbour
Darwin
Gold Coast
Melbourne
Newcastle
Perth

Sunshine Coast

Sydney Townsville

New Zealand

Auckland Christchurch Dunedin Hamilton

Palmerston North Queenstown Tauranga Wellington

Rider Levett Bucknall (RLB) is celebrating the 100th issue of the RLB Forecast Report, which has detailed property and construction trends across New Zealand for the past 35 years.

Disclaimer: While the information in this publication is believed to be correct at the time of publishing, no responsibility is accepted for its accuracy. Persons desiring to utilise any information appearing in the publication should verify its applicability to their specific circumstances. Cost information in this publication is indicative and for general guidance only and is based on rates as January 2022. National statistics are derived from the Statistics New Zealand.

GLOBAL VISION, LOCAL EXPERTISE



Data is the bedrock of good decisions. However back in 1988, New Zealand's property industry was missing the detailed local construction market intelligence and knowledge it needed to make decisions with confidence.

This is why we are so proud to release the 100th issue of the RLB Forecast Report - New Zealand Trends in Property and Construction.

Since launching the inaugural edition in 1988, the RLB Forecast Report has become a trusted source of information for our industry.

As world economies fluctuate through cycles, our insights into national and international costs contribute to the delivery of proactive and innovative client services and successful project outcomes.

As an independent construction cost consultancy, RLB boasts a team of 4,000-plus staff, a presence in 125 countries and long-standing relationships with thousands of clients throughout Africa, Asia, Europe, Oceania, the Middle East and the Americas. This gives us access to unmatched global construction market intelligence.

Our report's reputation has grown through engagement and collaboration with clients, industry associations and leading firms such as the New Zealand Institute of Economic Research (NZIER).

Our combination of on-the-ground knowledge, technical excellence and strong relationships allows us to produce a range of international and local reports, crane indexes and renowned compendiums of cost information and data. We continue to expand on our existing strengths, building the body of knowledge on digital transformation, sustainable practices and renewable solutions, for example.

I would like to take this opportunity to pay tribute to all those who have worked so hard to produce an astounding 100 editions of Forecast – providing insights into important trends to enhance the built environment. We look forward to continuing our important partnership with NZIER to contribute to the future direction of major cities across New Zealand.

Grant Watkins

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100TH ISSUE OF THE RLB FORECAST REPORT

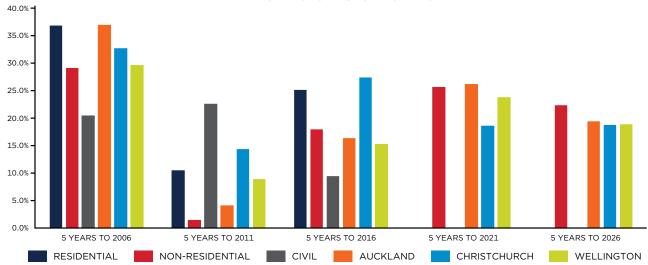
RLB has partnered with the New Zealand Institute of Economic Research (NZIER) to publish the significant 100th edition of Forecast, with the quarterly report initially being published in 1988 – a time when The Right Honourable David Lange was serving as New Zealand's Prime Minister, and when Del Hogg was the RLB Wellington Managing Director.

The NZ property and construction industry has evolved substantially during this time, with key impacts on construction costs and tender prices. This is evident through analysing the Non-Residential Capital Goods Price Index (CGPI-NRB) published by Statistics New Zealand, which is included in each Forecast Report as a historical indicator of national Non-Residential cost escalation.

Whilst this is a national figure, RLB publishes building cost escalation on a regional basis within its published reports and online through its Construction Cost Calculator. The RLB Tender Price Index (TPI) commenced in December 1999 and records the tender price movements observed across the New Zealand offices within the vertical residential, non-residential and civil sectors.

As a comparison, RLB Research and Development has tabulated the RLB TPI for Auckland, Christchurch and Wellington against the three key Capital Goods Indices (CGI) compiled by Statistics New Zealand. Stats NZ does not give a consolidated construction CGI and does not forecast into the future (NZIER does for the Non-Residential CGI only). The data provided highlights the impacts that different regions and the different sectors have on the overall escalation rates within New Zealand.

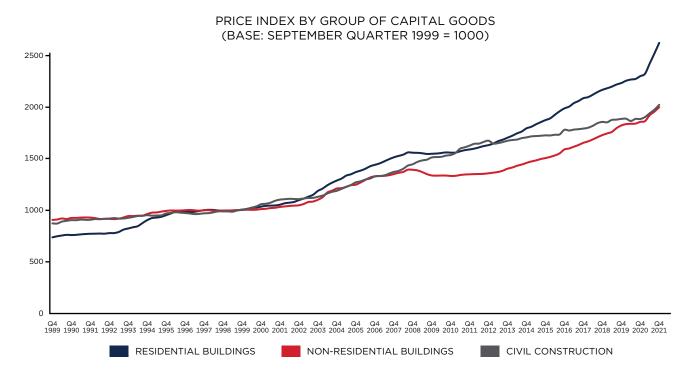
CONSTRUCTION COST INDEX COMPARISONNZ STATS CAPITAL GOODS PRICE INDEX VS RLB TPI PERCENTAGE CHANGE OVER 5 YEARS



	RESIDENTIAL	NON-RESIDENTIAL	CIVIL	AUCKLAND	CHRISTCHURCH	WELLINGTON
INDEX % CHANGE	NZ STATS - CAPITAL GOODS PRICE INDEX			RLB TENDER PRICE INDEX		
5 YEARS CY 2002 - 2006	36.7%	29.0%	20.4%	36.9%	32.7%	29.6%
5 YEARS CY 2007 - 2011	10.4%	1.4%	22.6%	4.1%	14.3%	8.8%
5 YEARS CY 2012 - 2016	25.1%	17.9%	9.4%	16.2%	27.3%	15.3%
5 YEARS CY 2017 - 2021	NP	25.6%	NP	26.1%	18.6%	23.7%
5 YEARS CY 2022 - 2026 (F)	NP	22.2%	NP	19.3%	18.7%	18.8%

Sources: Statistics NZ, NZIER Forecasts, RLB

(F) = FORECAST



Sources: Statistics NZ

Within the first edition of the RLB Forecast Report, the commentary referred to key economic metrics which are quoted in the table below. Fast forward 35 years (100 issues), and the same metrics are still as important as ever in understanding the economy.

Interestingly, over the past 100 issues, the Government Stock rate has remained relatively the same, the inflation rates are similar and the Producer Price Index for both reports are almost identical.

The same cannot be said for the NZ Budget which returned a surplus in 1988/89 yet recorded

a deficit in 2020/21 of \$4.6B. Even with similar inflation rates of around 6%, wage growth was 10% in 1988 and only 2.6% in 2021.

The below table compares Economic Metrics quoted in 1st issue of the RLB Forecast Report (April 1988) to the current 100th issue

METRIC	1ST EDITION	100TH EDITION	SOURCE
WAGE GROWTH	10% 12 MONTHS TO MARCH 88	2.6% CY2021	STATISTICS NZ - LCI
NZ DOLLAR TRADE WEIGHTED INDEX	65.2% FEB 4 1988	71.19% FEB 16 2022	RESERVE BANK OF NZ
AVERAGE OF PRODUCER PRICE INDEX	7.1% CY 1997	7.0% 12 MONTHS TO SEPT 2021	STATISTICS NZ PPI.INZL
NZ BUDGET	SURPLUS \$1.9B 1988/89	DEFICIT \$4.6B 2020/21	NZ TREASURY BUDGET POLICY STATEMENT 2022
GOVERNMENT STOCK RATE	2%	1.87%	NZX NEW ZEALAND GOVERNMENT STOCK PRICE - GOV410
ANNUAL INFLATION	6.38% CY 1988	5.9% CY 21	STATISTICS NZ CPI ANNUAL % CHANGE

CONFIDENCE TODAY INSPIRES TOMORROW

RIDER LEVETT BUCKNALL

With a network that covers the globe and a heritage spanning over two centuries, Rider Levett Bucknall is a leading independent organisation in cost management and quantity surveying, and advisory services.

Our achievements are renowned: from the early days of pioneering quantity surveying, to landmark projects such as the Sydney Opera House, HSBC Headquarters Building in Hong Kong, the 2012 London Olympic Games and CityCenter in Las Vegas.

We continue this successful legacy with our dedication to the value, quality and sustainability of the built environment. Our innovative thinking, global reach, and flawless execution push the boundaries. Taking ambitious projects from an idea to reality.

FORECAST 100

Prepared by the New Zealand Institute of Economic Research (Inc.) exclusively for Rider Levett Bucknall, Forecast is produced quarterly and provides detailed local construction market intelligence and knowledge.

CONSTRUCTION MARKET INTELLIGENCE

Forecast is supplemented by Rider Levett Bucknall's construction market intelligence publications: the International Report, regional (including the Australia Report) and country specific reports.

KEY POINTS IN THIS ISSUE

Despite heightened uncertainty over how the accelerating community transmission of the Omicron variant of COVID-19 will evolve over the coming year, construction demand remains resilient. However, acute capacity pressures in the construction sector will likely constrain the degree to which construction activity ramps up over the coming year.

Prolonged lockdown in Auckland and some neighbouring regions weigh on activity

The prolonged lockdown in Auckland and some neighbouring regions, along with social distancing restrictions, affected construction activity through to December 2021. The effects were both directly through the amount of construction that could take place onsite under lockdown, as well as indirectly through the domestic production of building materials.

Strong residential construction demand drives construction growth

Despite these restrictions' impact on construction activity, demand remains strong. In particular, the latest consent issuance data showed continued growth in dwelling consent issuance. Infrastructure demand has also been strong, as the government invests to support the New Zealand economic recovery.

But hitting up against capacity pressures

Although the relaxation of restrictions in December 2021 allowed more construction activity to take place, capacity pressures in the construction sector are constraining activity. Global supply chain disruptions are affecting the ability of building sector firms to source materials, while international border restrictions are limiting the ability of firms to bring in workers from overseas to keep up with growing construction demand. These capacity pressures have driven a surge in construction costs, particularly in residential construction where demand is strongest.

Higher interest rates will start to bite

Inflation pressures have been rising more broadly. The December 2021 CPI showed annual inflation picking up to 5.9 per cent – well above the Reserve Bank's 1 to 3 per cent inflation target band. The central bank started increasing the Official Cash Rate (OCR) from its record low of 0.25 percent in its October meeting, and followed up with another increase in November. We expect the Reserve Bank will continue to raise the OCR over the coming years in order to rein in inflation pressures and mitigate the risk of longer-term inflation expectations becoming unanchored.

Future outlook remains positive

The property and construction sector's longer-term outlook remains positive despite the challenges from the continued COVID-19 outbreak. As community transmission of the Omicron COVID-19 variant becomes more widespread, constraints from workers who have to stay home as a result of illness or self-isolation will likely present new supply issues for the construction sector.

BUILDING ACTIVITY TRENDS

Construction demand remains strong, particularly when it comes to residential work. The latest consent issuance data showed the annual number of dwellings consented for the December 2021 year hit a new record high of 48,899 - surpassing the previous annual record high of 41,028 in the year to March 2021. Growth in demand for townhouses and flats has been particularly strong, reflecting the shift towards medium-density housing given increased population density.

Despite strong demand, the prolonged lockdown in Auckland and some neighbouring regions, which dragged on into December, weighed on construction activity in recent months. This impact was both directly through the inability to operate at full capacity onsite, as well as indirectly through the operating capacity in domestic manufacturing of building materials. As restrictions have been relaxed, construction activity has recovered. However, as community transmission of the Omicron variant of COVID-19 becomes more widespread it presents the risk of construction activity being affected as workers stay at home as a result of illness and self-isolation.

Despite these constraints, construction demand remains strong across the regions. Growth over 2021 has been particularly strong in Auckland, with dwelling consents issued in the region totalling over 20,500 for the 2021 year. This reflects the effects of the very strong population growth in Auckland in the years preceding the COVID-19 pandemic, with strong house price inflation in the region encouraging new housing supply to come on board. The low interest rate environment has broadened housing demand across the regions, with this flowing through to demand for residential construction.

In contrast, demand for non-residential construction has been mixed across the regions, with some slowing in Auckland in recent months but strong growth in Canterbury. Over the past year, non-residential construction growth in Canterbury has been broadbased, with particularly strong growth in demand for education buildings.

Infrastructure demand in Canterbury is also very strong, with the New Zealand Infrastructure Commission estimating the National Pipeline of infrastructure rising to \$65.8 billion on the back of an additional \$2.2 billion of capital expenditure involving 247 projects in the Christchurch City Council infrastructure programme¹. This new spending includes \$800 million allocated to water infrastructure, \$400 million allocated to transport infrastructure and \$1 billion allocated to community facilities, including the stadium. Most of this construction activity is expected to take place over the next two years.

On a nationwide basis, transport dominates planned infrastructure spending over the coming years. As the New Zealand Infrastructure Commission National Pipeline only includes projects that have a level of certainty around timing, it does not include projects with a longer horizon such as Let's Get Wellington Moving and Auckland Light Rail. The government recently announced as part of its 30-year plan its intention to invest in a highcapacity, linked-up rapid transit network, starting with a partially tunnelled light rail from the City Centre to Mangere and the airport². Current estimates of the cost of this investment are around \$14.6 billion.

Spending on water infrastructure will also grow strongly over the

coming years as the government progresses with its 3 Waters reform programme.

Strong construction demand, alongside intensifying capacity pressures, has driven an acceleration in construction cost inflation. This cost inflation has been particularly high for residential construction, with the Capital Goods Price Index showing annual growth of 10.9 percent for the year to September 2021. More recent December Consumer Price Index data points to further strong residential construction cost inflation in December, which annual growth in this series accelerating to over 15 per cent. A regional breakdown of this construction cost index shows cost inflation being particularly high in Auckland, suggesting this is where capacity pressures in the construction sector are most acute.

The acceleration in non-residential and civil construction (a proxy for infrastructure) has been more modest, with annual growth of 6.3 per cent and 4.8 per cent respectively for the year to September 2021. Given residential construction cost inflation tends to lead other areas of construction cost inflation, we expect further robust growth in non-residential and civil construction cost inflation.

The NZIER Quarterly Survey of Business Opinion (QSBO) shows the intense cost pressures in the construction sector, with a net 92 per cent of building sector firms reporting an increase in costs in the December quarter. However, fewer building sector firms are passing costs on by raising prices, indicating the potential for some moderation in construction cost inflation later this year. Overall, this combination of accelerating cost pressures and more constrained pricing environment is driving weaker profitability in the construction sector.

 $^{1 \}quad \text{Infrastructure Quarterly, January 2022 https://www.tewaihanga.govt.nz/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarterly/quarter-one-2022/projects/infrastructure-quarter-one-2022/proj$

² https://www.lightrail.co.nz/news/media-statement-28-jan-2022/

BUILDING ACTIVITY OUTLOOK

The pipeline of construction across residential, commercial and government work remains solid. This strong demand is reflected in both consent issuance and the NZIER QSBO measure of architects' work in their own office. However, the degree to which construction activity can ramp up to meet this demand is constrained by capacity pressures in the sector.

The latest NZIER QSBO shows the impact of global supply chain disruptions have been particularly pertinent for retailers and building sector firms in New Zealand, with a significant proportion of firms in these sectors reporting the ability to source materials as the primary constraint on their business. Over the coming year, as community transmission of the Omicron variant of COVID-19 becomes more widespread, a shortage of workers as a result of illness and self-isolation presents the risk of disruptions to the domestic supply chain.

When it comes to labour shortages, building construction firms report a slight easing in the ability to find both skilled and unskilled labour. That said, labour shortages in the sector remains at historically high levels, as international border restrictions limit the ability of firms to bring in workers from overseas. These labour shortages are flowing through to a pick-up in wage growth, with annual growth in the Labour Cost Index salary and wage rates for construction of 3.3 per cent significantly higher than the 2.8 per cent annual growth in salary and wage rates across all industries³. The announcement of a staged relaxation of international border restrictions over the coming year with the ability to self-isolate on arrival should allow firms to more easily bring in workers from overseas and hence alleviate labour shortages.

ECONOMIC BACKDROP

The latest NZIER Quarterly Survey of Business Opinion (QSBO) indicates the prolonged COVID-19 outbreak and containment measures has weakened business confidence and firms' own trading activity. A net 34 per cent of businesses expected a deterioration in general economic conditions over the coming months, while a net 1 per cent reported a reduction in activity in the December 2021 quarter. The pessimism was widespread across the sectors, but particularly so in the manufacturing and services sectors. Across the regions, Wellington was the only region where businesses were not feeling downbeat with a net 0.4 per cent of businesses expecting an improvement in general economic conditions over the coming months. This difference in confidence likely reflects the region being relatively insulated from the impact of the prolonged lockdown in Auckland.

Against this backdrop of heightened uncertainty and weaker confidence, inflation pressures are accelerating as capacity pressures build in the New Zealand economy. These pressures reflect the effects of labour shortages becoming even more acute, while global supply chain disruptions make it difficult for businesses to source materials for production and sale. The latest Consumer Price Index (CPI) showed annual inflation surging to 5.9 per cent for the year to December 2021 – the largest annual increase since June 1990 (when a GST increase contributed to higher prices).

We expect annual CPI inflation to edge up above 6 per cent and remain elevated over 2022, before moderating back towards the Reserve Bank's inflation target band mid-point of 2 per cent in the subsequent years. Supply chain disruptions will continue to keep costs high across many sectors, and firms are finding it easier to pass higher costs on by raising prices in the face of resilient demand. There are already signs of longer-term inflation expectations rising, with the risk of this leading to a shift in the price and wagesetting behaviour of firms and households.

INTEREST AND EXCHANGE RATES

The Reserve Bank of New Zealand commenced its tightening cycle by increasing the OCR from its record low of 0.25 per cent by 25 basis points in its October meeting, and followed this up with another 25 basis point increase in November. We expect the Reserve Bank will continue to raise the OCR over the coming vears in order to rein in inflation pressures and mitigate the risk of longer-term inflation expectations becoming unanchored from the central bank's inflation target band of 1 to 3 per cent. The Reserve Bank in its November Monetary Policy Statement indicated further interest rate increases were likely "given the medium term outlook for inflation and employment".

We expect the Reserve Bank will increase interest rates over the coming year and for the OCR to reach 1.75 per cent by the end of this year. Beyond 2022, we expect the OCR to reach around 3 per cent over the longer term. However, with over 60 per cent of mortgages currently not due for

The labour cost index measures changes in salary and wage rates for a fixed quantity and quality of labour input. Service increments, merit promotions, and increases (or decreases) relating to performance of the individual employee are not shown in the index. https://datainfoplus.stats.govt.nz/ltem/nz.govt.stats/9007195c-8dc3-4dfb-b5da-1b12c32e90ac?_ga=2.75913564.817057502.1619417816-730143600.1617836679

repricing for at least another six months, we expect the impact of these interest rate increases will not become apparent until later this year.

The US Federal Reserve is also grappling with an acceleration in inflation, with the surge in annual inflation to 7 per cent largely reflecting supply constraints in the economy. The Federal Open Market Committee (FOMC) in its January meeting indicated it would cease bond purchases in March and then start raising its policy rate in order to rein in inflation pressures.

Higher interest rate expectations in the US are underpinning US dollar strength. As a result, the New Zealand dollar has depreciated, reflecting the reduced yield attractiveness of NZD-denominated investments. We expect a further modest easing in the New Zealand dollar over the coming year, as other central banks also turn their attention to lifting interest rates.

BUILDING INVESTMENT

The pipeline of construction is solid across residential, commercial and government work. The low interest rate environment is encouraging new housing supply to come on board, while the government is continuing to support the New Zealand recovery through increased spending on infrastructure.

Over the coming year, we expect heightened uncertainty over how the Omicron outbreak will evolve and higher interest rates will start to weigh on construction demand. We expect this impact will be more apparent for commercial construction demand, as businesses become more cautious about investment.

BUILDING CONSENTS

The continued recovery in non-residential consent issuance reflects stronger demand for health, industrial and education buildings. In contrast, demand for hotels has declined, reflecting the significant negative impact of lockdown and border restrictions on the tourism sector.

Building consents by sector

Growth in consent issuance over the past year continues to be driven by demand for industrial, healthcare and education buildings. The government's focus on increasing infrastructure investment to support the New Zealand economic recovery should continue to drive strong demand for construction in these areas.

Meanwhile, supply chain disruptions and the shift towards online shopping in the wake of the COVID-19 outbreaks has supported demand for industrial buildings, as businesses focus on improving the resilience of their logistics systems. The International Monetary Fund (IMF) in its latest World Economic Outlook report indicates it supply chain disruptions will persist well into 2022 globally4. The flow-through impact of these disruptions should continue to drive demand for industrial buildings here in New Zealand.

While the government has indicated restrictions to contain COVID-19 will be progressively relaxed over the coming year, concerns over the spread of the Omicron variant of COVID-19 will likely weigh on tourism and in-store retail activity. Hence, we expect construction demand for retail outlets and accommodation will remain subdued over 2022.

Building consents by region

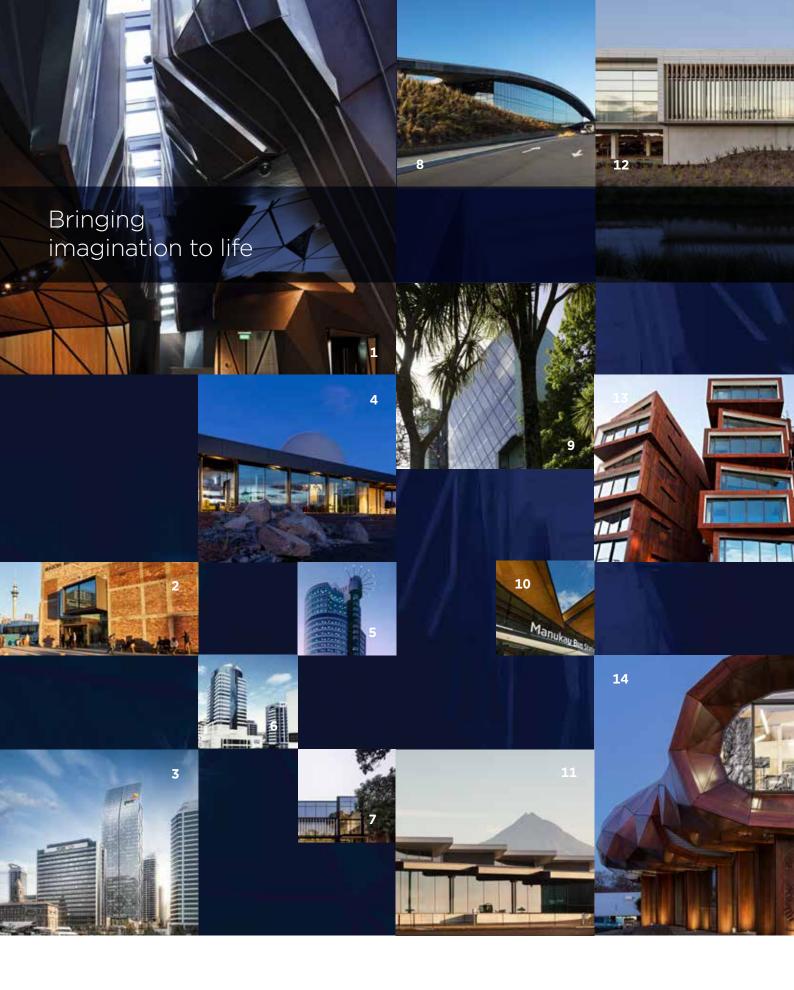
Non-residential construction consent issuance increased across most regions over the past year. Waikato, Southland and Wellington were the only regions where non-residential construction consent issuance declined. For these regions, the declines were broad-based across the sectors.

In contrast, growth in non-residential construction consent issuance in Canterbury was broadbased, with demand for education buildings particularly strong.

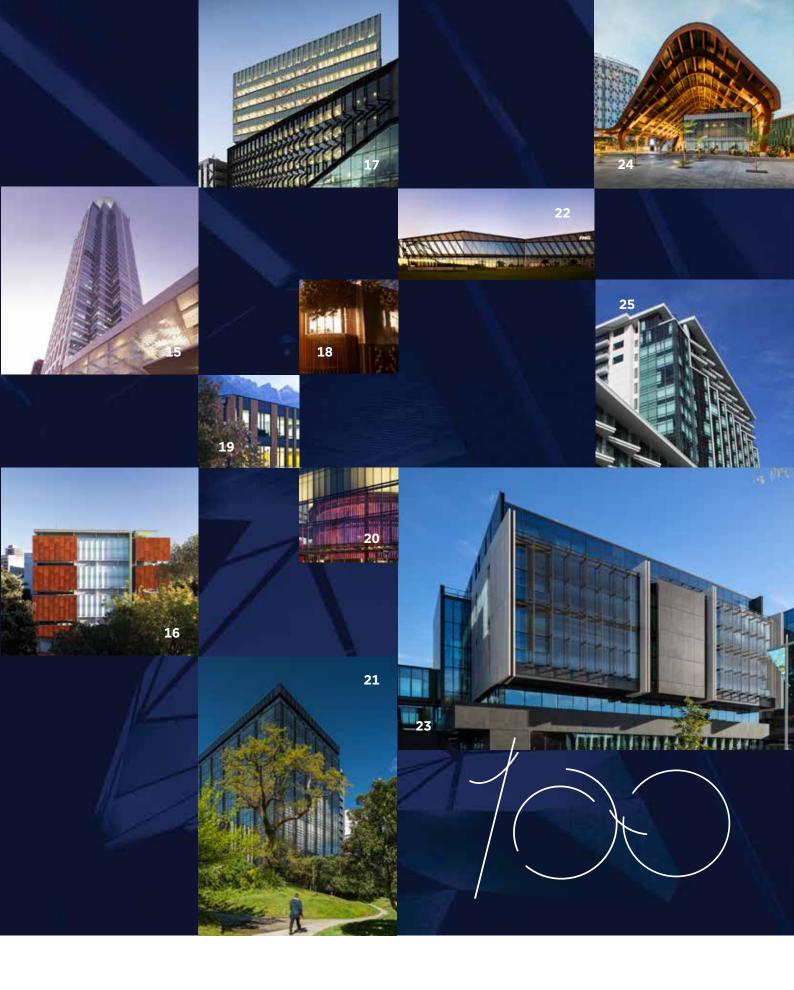
Meanwhile, stronger demand for healthcare and education buildings, as well as new office space, underpinned growth in non-residential construction consent issuance in Auckland. For Taranaki, stronger demand for healthcare facilities was the key driver of growth.

Heightened uncertainty over how the spread of the Omicron variant of COVID-19 will evolve is likely to reduce the appetite for non-residential construction over the coming year. Businesses' confidence across most regions has weakened, and this should weigh on investment in commercial buildings. However, government spending on infrastructure should remain a key support for non-residential construction demand across the regions.

⁴ https://www.imf.org/en/Publications/WEO/Issues/2022/01/25/world-economic-outlook-update-january-2022



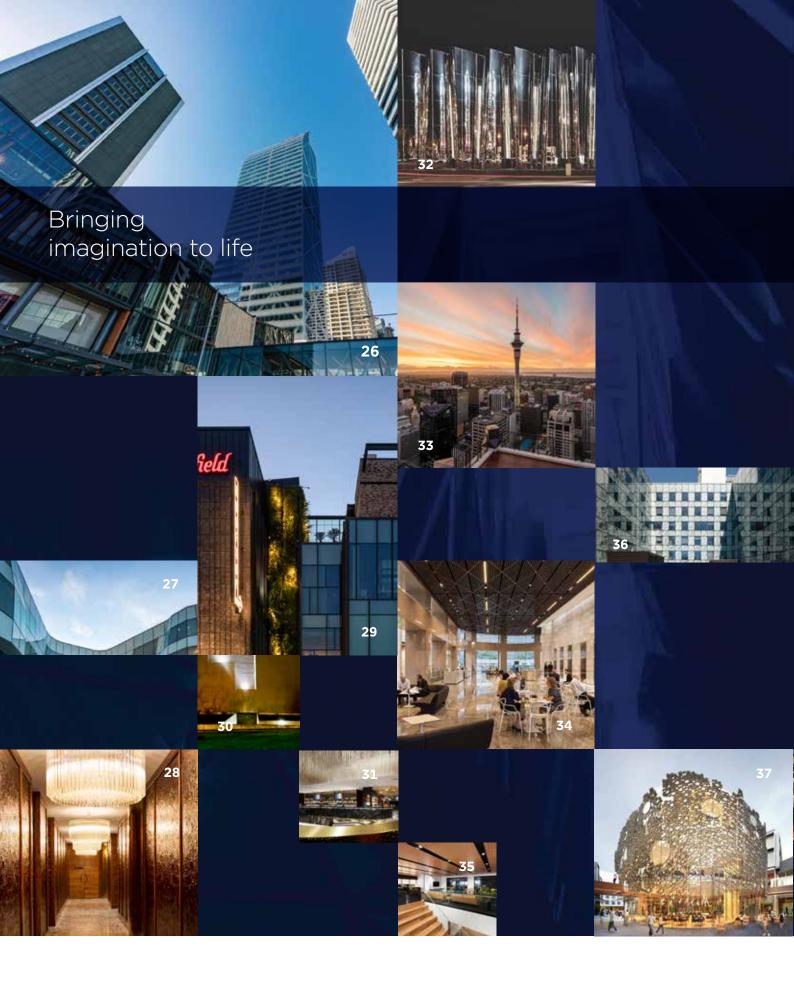
1 The Rock, Wellington Airport International Terminal, Wellington 2 Mason Brothers, Wynyard Quarter Innovation Precinct, Auckland 3 Commercial Bay, Auckland 4 Dark Sky Observatory, Tekapō 5 Majestic Centre, Wellington 6 Mobil on the Park, Wellington 7 Kings School Centennial Building, Auckland 8 Foodstuffs North Island HQ, Auckland 9 Lopdell House and Te Uru Gallery, Auckland 10 Manukau Bus Station, Auckland 11 Te Hono New Plymouth Airport Terminal, New Plymouth 12 Fisher & Paykel Healthcare Daniell Building, Auckland 13 Ironbank, Auckland 14 Te Oro Music & Arts Facility, Auckland



15 Vero Building, Auckland 16 Mt Eden Corrections Centre, Auckland 17 University of Auckland Science Centre, Auckland 18 Tauranga Police Station, Bay of Plenty 19 Remarkables Park Primary School, Queenstown 20 ASB Waterfront Theatre, Auckland 21 Mayfair House, 56 The Terrace, Wellington 22 Agri Export Precinct, Christchurch 23 Justice & Emergency Services Precinct, Christchurch

24 Star Mountain Plaza, Port Moresby / Papua New Guinea 25 Holiday Inn, Wellington





26 PwC Tower, Auckland 27 ANZ Centre, Christchurch 28 SkyCity Casino & Hotel, Auckland 29 Westfield Newmarket, Auckland 30 Trafalgar Centre, Nelson 31 SkyCity Casino Flare Bar Level 2, Auckland 32 Len Lye Centre / Govett-Brewster Gallery, New Plymouth 33 Sky Tower, Auckland 34 ANZ Centre, Auckland 35 12 Madden Street, Wynyard Quarter Innovation Precinct, Auckland 6 Christchurch Hospital Waipapa, Christchurch 37 The Crossing, Christchurch 38 Ernst & Young, Auckland 39 Rotorua Hospital, Rotorua 40 New World Birkenhead, Auckland



Te Wharewaka o Poneke, Wellington **42** Victoria University of Wellington, HUB, Wellington **43** St Mary of the Angels, Wellington **44** Bethlehem Shopping Centre, Bay of Plenty **45** Chews Lane, Wellington **46** Shanghai Expo New Zealand Pavilion, Shanghai **47** Sylvia Park Retail Centre, Auckland **48** University of Waikato Tauranga Campus Building, Bay of Plenty **49** University of Auckland Engineering Centre, Auckland **50** University of Auckland Park West, Auckland





51 1 The Terrace, Wellington 52 Te Ara a Tāwhaki Otaki, Wellington 53 151 Queen Street - Fay Richwhite Building (SAP Building), Auckland 54 Maritime Towers, Wellington 55 David Jones, Wellington 56 West Plaza, 1 Albert Street, Auckland 57 Eccles Building, Dunedin 58 University of Auckland Waipārūrū Hall, Auckland 59 Manukau Police Station, Auckland 60 Basin Reserve Museum Stand, Wellington 61 Christchurch Civic Building, Christchurch 62 Wellington Regional Hospital, Wellington 63 Defence House, Wellington 64 Massey University Te Ara Hihiko, Wellington

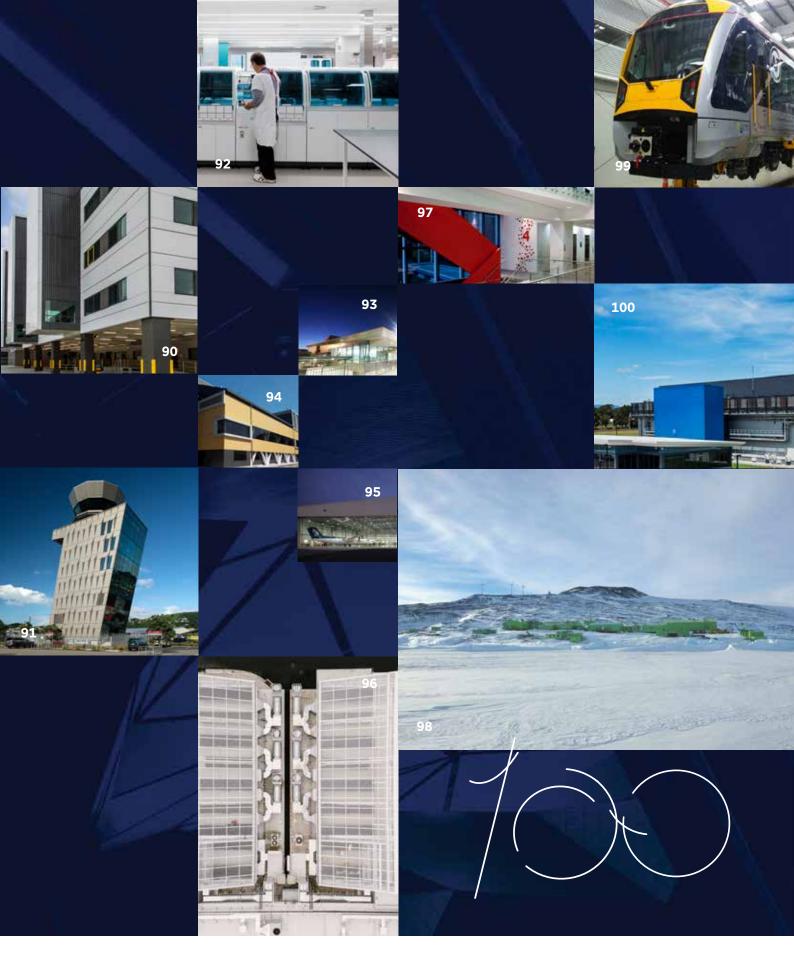


65 Russell McVeagh Office, Auckland 66 Victoria University of Wellington, Te Toki a Rata, Wellington 67 Zespri, Bay of Plenty 68 85 Fort St, Auckland 69 Wellington Railway Station, Wellington 70 Te Atātu Peninsula Library & Community Centre, Auckland 71 Minter Ellison Rudd Watts, Auckland 72 University of Auckland, Sir Owen G Glenn Building 73 Te Omanga Hospice, Wellington 74 Clyde Quay Wharf, Wellington 75 Burwood Hospital Redevelopment, Christchurch





76 Point Resolution Bridge, Auckland 77 Victoria University of Wellington, Rurtherford House, Wellington 78 Wānaka Recreation Centre, Wānaka 79 Wellington East Girls College, Wellington 80 Tauranga ASB Arena, Bay of Plenty 81 UC Canterbury Engineering The Future (CETF) Building, Christchurch 82 Tauranga Hospital, Bay of Plenty 83 Christchurch Outpatients Facility, Christchurch 84 Waitohi Johnsonville Library, Wellington 85 Wellington City Council Housing Central Park, Wellington 86 Northern Busway, Auckland 87 ASB North Wharf, Auckland 88 Vogel Building, Wellington 89 Middlemore Hospital Acute Mental Health Unit, Auckland

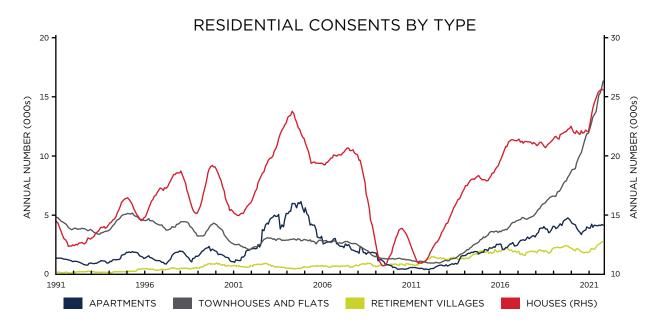


90 Middlemore Hospital Clinical Services Building, Auckland 91 Wellington Air Traffic Control Tower 92 Harley Gray Clinical Services Building, Auckland 93 Wellington International Airport, Wellington 94 National Biocontainment Laboratory, Wellington 95 Nelson Airport Hangar, Nelson 96 Header House & Glasshouses, Palmerston North 97 Westpac E&Y Britomart, Auckland 98 Scott Base Hillary Field Centre, Ross Island 99 EMU Depot Auckland Wiri, Auckland 100 Gemini Spark Data Centre, Auckland



FIGURE 1
Strong demand for medium-density housing

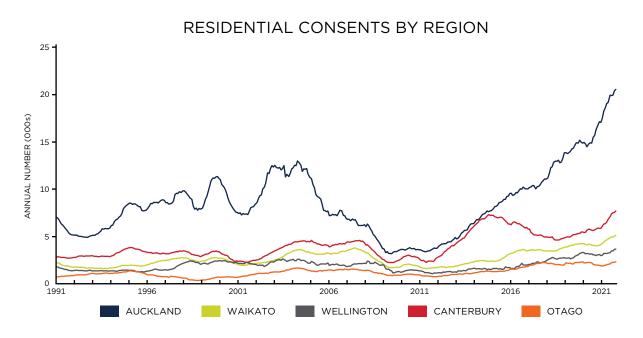
Annual number of consents



Source: Stats NZ

FIGURE 2
Construction demand robust across the regions

Annual number of consents



Source: Stats NZ

FIGURE 3
Capacity pressures drive construction costs up

Annual % change

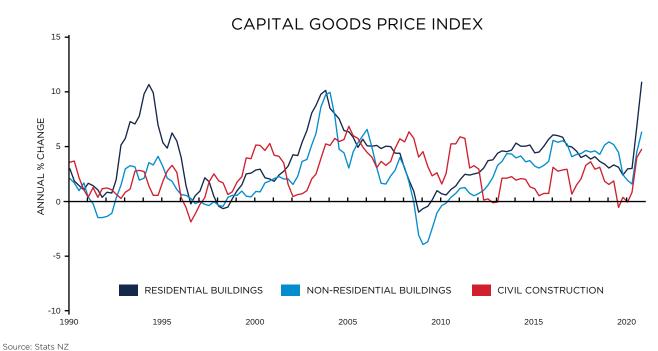
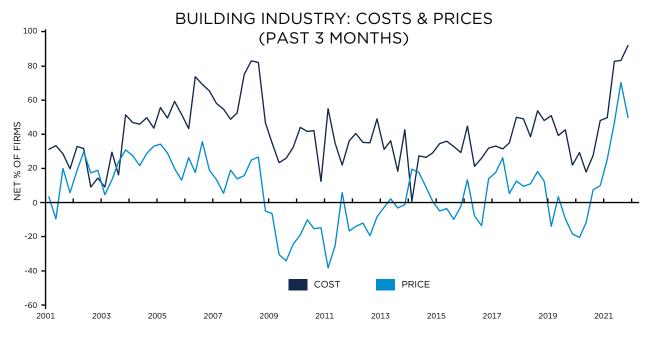


FIGURE 4

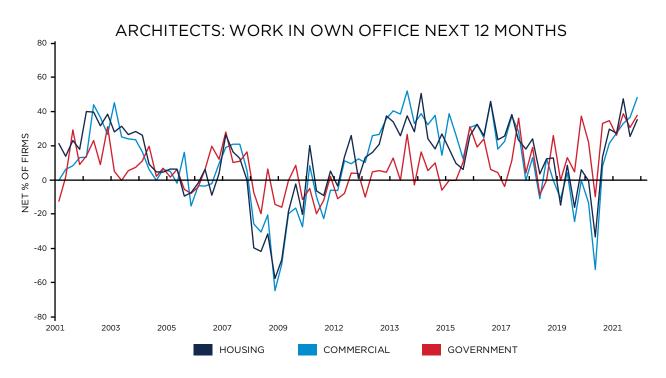
Cost pressures intensify

Net % of firms



Source: NZIER

FIGURE 5
Solid pipeline of construction work



Source: Stats NZ

FIGURE 6
Strong demand for health and industrial buildings
Change over year to December 2021

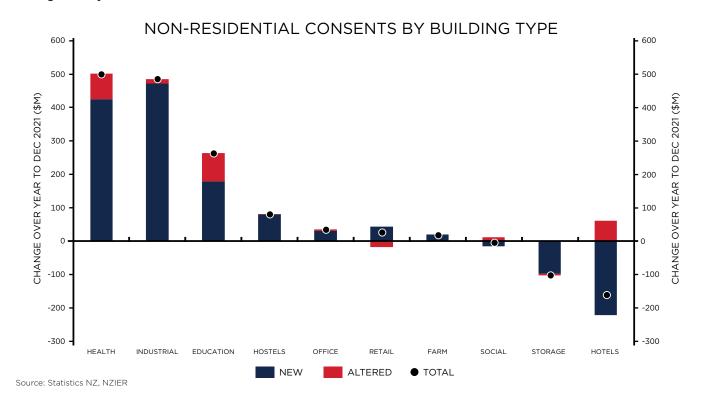


TABLE 1
Non-residential building consents by region and sector

\$m of consents for the year ending December 2020; red colour shading for decline in consents from previous year

					SECTOR					
REGION	HOSTELS, PRISONS ETC	ACCOMODATION	HEALTH	EDUCATION	SOCIAL, CULTURAL, RELIGIOUS	RETAIL	OFFICE	STORAGE	INDUSTRIAL	FARM
NORTHLAND	0.0	2.7	42.3	30.1	20.3	48.7	46.6	43.4	20.3	17.6
AUCKLAND	105.3	227.2	307.3	629.5	105.9	290.5	473.9	510.7	295.3	28.4
WAIKATO	74.1	14.0	36.0	58.9	19.6	39.5	63.2	76.9	105.9	76.7
BAY OF PLENTY	3.2	1.4	62.0	51.2	53.7	52.9	32.1	90.3	227.5	15.4
GISBORNE	0.3	9.9	0.2	6.0	10.2	2.3	5.3	6.4	16.0	5.8
HAWKE'S BAY	16.8	14.8	81.3	32.3	47.5	46.5	27.6	25.1	70.1	6.3
TARANAKI	0.0	0.1	225.6	20.3	46.4	4.0	6.5	14.7	17.3	13.4
MANAWATU-WANGANUI	1.7	3.7	19.1	41.9	10.7	29.7	33.0	26.2	134.4	19.1
WELLINGTON	1.0	23.9	92.7	139.2	63.4	64.4	174.8	37.8	99.3	12.6
NELSON	0.0	0.2	3.7	10.3	2.2	2.2	4.9	9.5	10.1	0.1
TASMAN	0.2	1.7	1.9	7.7	7.1	5.7	2.3	12.4	14.8	3.1
MARLBOROUGH	4.7	0.1	16.2	7.4	2.2	5.5	5.0	7.5	30.1	4.4
WEST COAST	0.0	0.6	13.2	1.8	2.4	8.6	2.5	0.2	9.3	8.5
CANTERBURY	37.0	52.2	109.0	320.1	119.5	127.1	69.7	164.8	136.4	48.3
OTAGO	75.3	31.6	15.8	87.1	62.7	53.9	41.0	11.7	71.8	26.5
SOUTHLAND	0.0	1.0	3.3	12.8	19.0	6.6	6.7	15.4	4.0	21.7

Source: Statistics NZ, NZIER

BUILDING COSTS

The Capital Goods Price Index for Non-Residential Buildings (CGPI-NRB) (the Index) is an official measure of cost movements in the sector. The Index excludes GST. We use the Index as an indicator of cost escalation.

The Index is a national average across all building types. We therefore advise caution in applying the increase in the CGPI-NRB as an indicator of cost escalation for specific projects.

Non-residential construction cost inflation moderated in the September 2021 quarter, from the substantial 3.1 per cent quarterly increase in the previous quarter.

Nonetheless, construction cost inflation remains high, with annual growth of 6.3 per cent for the year to September 2021. We expect a further pick-up in annual construction cost inflation, given intense capacity pressures in the construction sector. We forecast annual non-residential construction cost inflation will

peak around 9 per cent in March 2022. Beyond that, a relaxation of border restrictions later this year should alleviate labour shortages and drive a moderation in construction cost inflation from late 2022.

While we now forecast a lower peak in annual construction cost inflation than that seen in the 2004 building boom, we expect a protracted period of elevated construction cost inflation.

FIGURE 7

Non-residential building cost escalation

CGPI-NRB index, annual % change



Source: Statistics NZ, NZIER forecasts

TABLE 2
Non-residential building cost index

YEAR	QUARTER	INDEX	QUARTERLY % CHANGE	ANNUAL % CHANGE
	MARCH	1601	0.6	5.4
2017	JUNE	1618	1.1	5.5
2017	SEPTEMBER	1635	1.1	5.3
	DECEMBER	1656	1.3	4.1
	MARCH	1670	0.8	4.3
2018	JUNE	1689	1.1	4.4
2016	SEPTEMBER	1711	1.3	4.6
	DECEMBER	1731	1.2	4.5
	MARCH	1747	0.9	4.6
2010	JUNE	1762	0.9	4.3
2019 -	SEPTEMBER	1799	2.1	5.1
	DECEMBER	1825	1.4	5.4
	MARCH	1838	0.7	5.2
2020	JUNE	1841	0.2	4.5
2020	SEPTEMBER	1843	0.1	2.4
	DECEMBER	1860	0.9	1.9
	MARCH	1867	0.4	1.6
2021	JUNE	1925	3.1	4.6
	SEPTEMBER	1960	1.8	6.3
	DECEMBER	1999	2.0	7.5
	MARCH	2034	1.8	9.0
2022	JUNE	2067	1.6	7.4
2022	SEPTEMBER	2096	1.4	6.9
	DECEMBER	2122	1.2	6.2
	MARCH	2145	1.1	5.4
2027	JUNE	2167	1.0	4.9
2023	SEPTEMBER	2189	1.0	4.4
	DECEMBER	2209	0.9	4.1
	MARCH	2230	0.9	3.9
2024	JUNE	2251	0.9	3.8
2024	SEPTEMBER	2271	0.9	3.8
	DECEMBER	2291	0.9	3.7
	MARCH	2311	0.9	3.7
2025 -	JUNE	2331	0.9	3.6
	SEPTEMBER	2351	0.8	3.5
	DECEMBER	2370	0.8	3.4
	MARCH	2388	0.8	3.3
2026	JUNE	2407	0.8	3.2
2026	SEPTEMBER	2425	0.8	3.2
	DECEMBER	2443	0.7	3.1

Notes: The current and forecast CGPI-NRB is a national average, which does not differentiate between regions or building types. We therefore advise caution in applying the increase in the CGPI-NRB as a measure of cost escalation for specific building projects.

Source: Statistics NZ, NZIER forecasts





















