



Economic Insights

Peter Nunns
Director of Economics,
Te Waihangā

Construction cost inflation – how does New Zealand measure up?

Construction costs are rising rapidly in New Zealand. Residential and non-residential costs rose by more than 10% last year, and similar increases are forecast for the upcoming year. Construction costs are rising at their fastest rate since the Global Financial Crisis.

Construction cost inflation reflects rising demand colliding with constrained supply. Infrastructure providers, property developers, and households are trying to build more than ever, but shortages of construction labour, material supply chain bottlenecks, and Covid-induced slowdowns have gotten in the way. Other countries are also facing similar issues, which raises the question: How do we stack up when it comes to cost inflation?

Benchmarking construction cost inflation

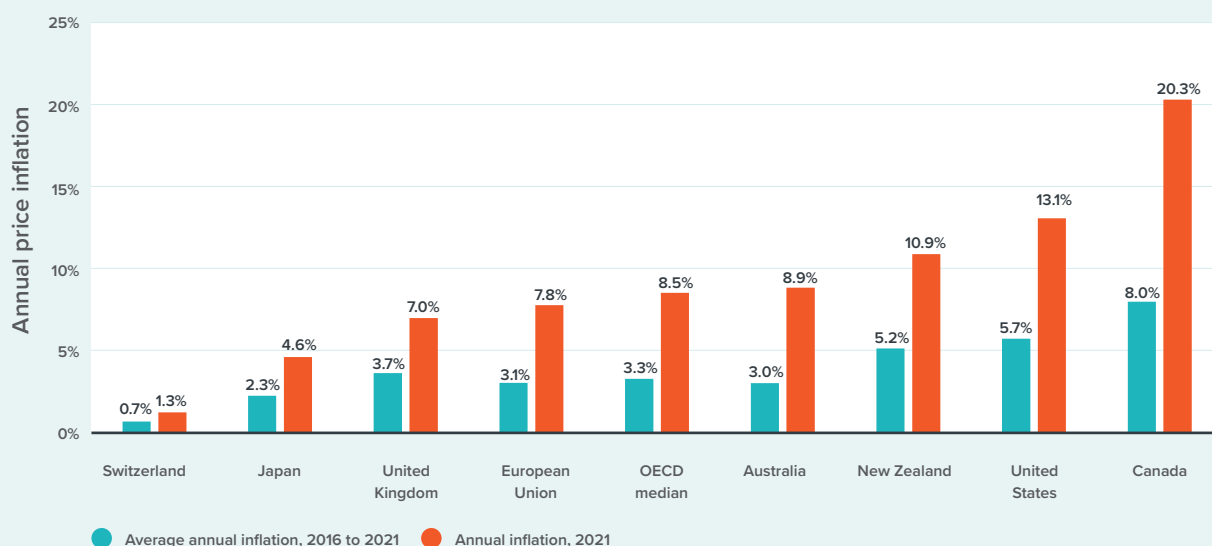
We sourced residential construction price indices for New Zealand and 30 other OECD countries, plus the European Union as a whole.¹ This data shows that New Zealand has experienced above-average construction price inflation over the last year: We had the 10th-highest construction price inflation in the OECD during this time.

However, high construction price inflation isn't just a Covid-era phenomenon. Over the last five years, New Zealand had the seventh-highest construction price inflation in the OECD. Our residential construction price inflation averaged 5.2% per annum from 2016 to 2021.

The following chart shows how New Zealand's construction price inflation compares to selected OECD countries. Switzerland has experienced the lowest inflation – 1.3% over the last year – while Canada has experienced the highest inflation – 20.3% over the last year.

Figure 1: New Zealand construction price inflation is high by OECD standards

Residential construction price inflation, 2016-2021, selected OECD countries



Source: ABS, Eurostat, StatCan, SNZ, Census Bureau

Scaling up to build?

Prior to the Covid pandemic, OECD countries had diverging housing construction trends. In some countries, including New Zealand and Australia, rapid population growth has increased demand for housing, while others, like Japan, are growing more slowly. In some European countries, like Ireland and Greece, housing construction still hasn't recovered from the Global Financial Crisis.

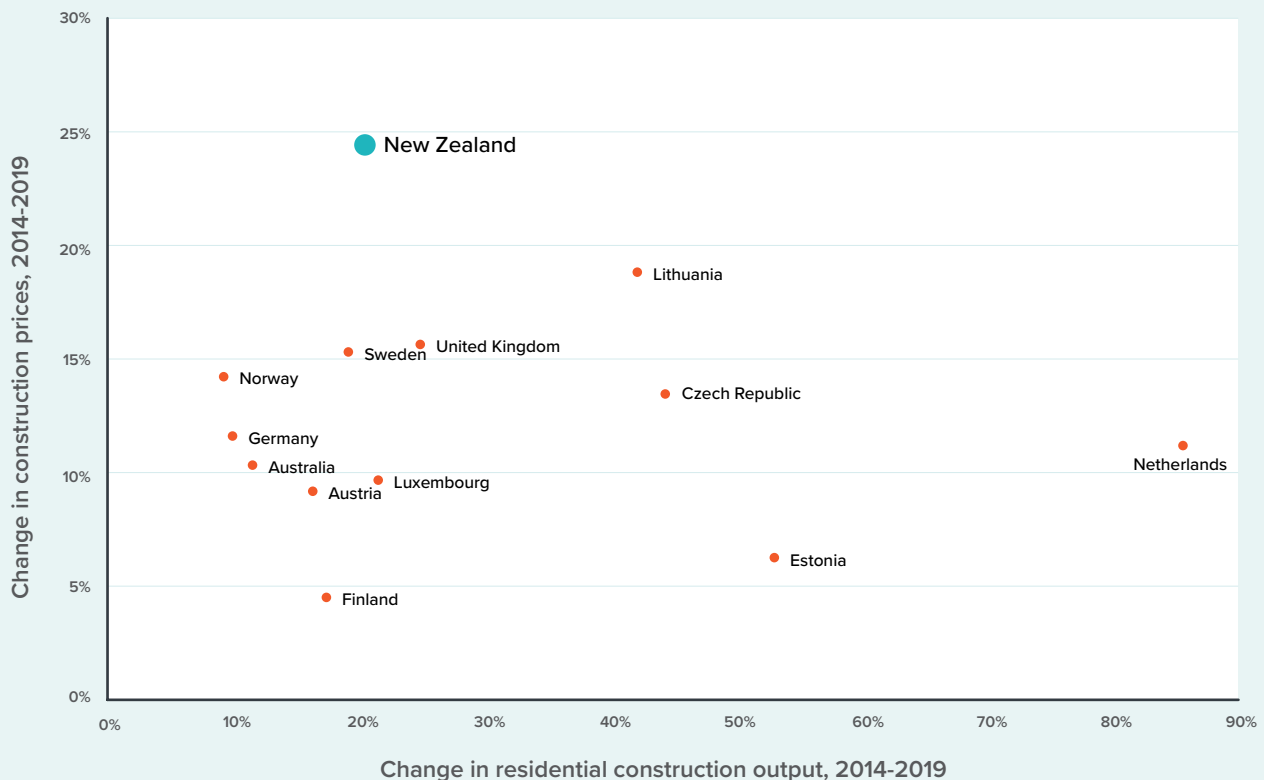
All else equal, we would expect faster growth in residential construction to lead to higher construction price inflation. However, some countries may be better at scaling up to build while keeping price inflation at more moderate levels.

Figure 3 shows the pre-Covid relationship between growth in residential construction investment and growth in residential construction prices in New Zealand and twelve other OECD countries that had fully recovered from the GFC.² Between 2014 and 2019, the median country experienced 21% growth in residential construction output and 12% growth in residential construction prices.

The relationship between construction output growth and price growth varies between countries. For instance, Sweden and Finland both experienced similar growth in construction output (19% vs 17%), but construction price inflation was three times as rapid in Sweden (15% vs 5%). This suggests that Finland is better at scaling up to meet increased construction demand.

Figure 2: New Zealand's construction market struggled to scale up prior to Covid

Changes in residential construction output and prices among selected OECD countries, 2014-2019



Source: ABS, Eurostat, SNZ, OECD.Stat

Prior to Covid, New Zealand had higher construction price inflation than other OECD countries with comparable housing market trends. Residential construction output rose by 21%, but construction prices rose by 24%. When we try to build more, we must ‘buy’ each 1% increase in residential construction output at the cost of 1.2% inflation. On average, our peer countries can ‘buy’ each 1% increase in output at the cost of 0.6% inflation – half as much construction price inflation as we incur.

Covid revealed our problems – it did not cause them

Construction price inflation has reached unprecedented levels during the Covid pandemic.

While New Zealand is not an outlier, it has experienced more rapid construction price inflation than most OECD countries over the last year.

Even before the Covid pandemic, New Zealand struggled to scale up to build. Relative to other OECD countries, we purchase increased construction output at the cost of high construction price inflation. This reflects long-term issues around workforce capacity and capability, material supply chains, and volatility of investment. These ‘preexisting conditions’ have made our construction market unusually vulnerable to Covid – highlighting the importance of solving those issues to build resilience and meet our long-term infrastructure challenges.

Appendix: Residential construction cost inflation data

Country	Source	Most recent available data	Annual inflation over last 5 years	Annual inflation over last year
Australia	ABS	Q3-2021	3.0%	8.9%
Austria	Eurostat	Q3-2021	4.3%	14.0%
Belgium	Eurostat	Q2-2021	2.5%	4.9%
Canada	StatCan	Q3-2021	8.0%	20.3%
Czech Republic	Eurostat	Q3-2021	5.0%	10.7%
Denmark	Eurostat	Q2-2021	1.5%	3.0%
Estonia	Eurostat	Q3-2021	3.4%	12.2%
European Union	Eurostat	Q3-2021	3.1%	7.8%
Finland	Eurostat	Q3-2021	2.1%	7.9%
France	Eurostat	Q2-2021	2.3%	3.9%
Germany	Eurostat	Q3-2021	3.8%	9.4%
Greece	Eurostat	Q3-2021	1.0%	3.9%
Hungary	Eurostat	Q2-2021	9.4%	16.0%
Ireland	Eurostat	Q3-2021	3.2%	7.4%
Italy	Eurostat	Q3-2021	1.6%	4.8%
Japan	MLIT	Q3-2021	2.3%	4.6%
Latvia	Eurostat	Q3-2021	5.6%	9.4%
Lithuania	Eurostat	Q3-2021	4.5%	8.5%
Luxembourg	Eurostat	Q2-2021	3.0%	5.2%
Netherlands	Eurostat	Q3-2021	3.1%	5.8%
New Zealand	SNZ	Q3-2021	5.2%	10.9%
Norway	Eurostat	Q3-2021	4.3%	11.1%
Poland	Eurostat	Q2-2021	2.9%	3.5%
Portugal	Eurostat	Q3-2021	3.1%	6.4%
Slovakia	Eurostat	Q3-2021	4.6%	9.4%
Slovenia	Eurostat	Q3-2021	5.6%	14.1%
Spain	Eurostat	Q3-2021	2.9%	11.5%
Sweden	Eurostat	Q3-2021	3.3%	7.4%
Switzerland	Eurostat	Q2-2021	0.7%	1.3%
Turkey	Eurostat	Q3-2021	22.1%	41.9%
United Kingdom	Eurostat/ONS	Q3-2021	3.7%	7.0%
United States	Census Bureau	Q3-2021	5.7%	13.1%

Source notes:

ABS = Australian Bureau of Statistics: <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/producer-price-indexes-australia/sep-2021#data-download>

Eurostat: https://ec.europa.eu/eurostat/databrowser/view/STS_COP1_Q_custom_1809990/default/table?lang=en

StatCan = Statistics Canada: <https://open.canada.ca>

[ca/data/en/dataset/6c365b33-43fb-45aa-9e7b-5f5765d771ba](https://data/en/dataset/6c365b33-43fb-45aa-9e7b-5f5765d771ba) [Canadian data only covers 2017-2021 period]

MLIT = Ministry of Land, Infrastructure, Transport and Tourism: https://www.mlit.go.jp/sogoseisaku/jouhouka/sosei_jouhouka_tk4_000112.html

SNZ = Statistics New Zealand: <https://www.stats.govt.nz/methods/price-indexes-for-the-construction-industry>

ONS = Office of National Statistics: <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/interimconstructionoutputpriceindices>

Census Bureau: <https://www.census.gov/construction/cpi/>

Data not gathered for the following OECD countries: Chile, Colombia, Costa Rica, South Korea, Iceland, Israel, and Mexico.