NZIER PUBLIC GOOD PROGRAMME
THINKING ABOUT AOTEAROA NEW ZEALAND'S FUTURE

NZIER INSIGHT

111-2024

Housing availability and affordability

A case study on the Canterbury region

Last year, we published initial results from our housing shortage model, which estimates the size of housing shortages across New Zealand's regions (NZIER 2023). The results showed that New Zealand could have accumulated a shortfall of over 80,000 dwellings since 2001. The shortfall eased due to a slowing in population growth since the onset of the COVID-19 pandemic.

Our initial results also found that Canterbury stands out from other New Zealand regions – it is building its way out of housing shortages. Each year since 2011, there have been more than 500 new dwellings consented in Canterbury for every 1,000 additional people in the region's resident population. Meanwhile, the average house value in Canterbury increased much slower than in regions like Auckland and Wellington (Fyers 2020).

This *Insight* discusses how Canterbury's housing affordability has improved as its housing shortages have reduced since the earthquake rebuild and how policy changes contributed to this outcome during the Canterbury earthquake rebuild. It concludes with lessons to take away for other New Zealand regions.

Our housing shortage model

NZIER has developed a model to look at housing shortages in New Zealand at the national and regional levels. The model primarily uses Stats NZ data, including population estimates, dwelling counts, and new dwellings consented to as inputs.

The key components estimated by the model are:

- Housing demand due to change in population,[1] overlaid with the average number of people per dwelling.[2]
- Housing demand due to the depreciation of housing stock, which we assumed at a rate of 0.4 percent.
- Supply of new dwellings, based on the number of dwellings consented[3] with adjustments for the lag between dwelling consent issuance and completion (10–15 months) and the completion rate (88–96 percent).[4]

Our model estimates cumulative housing shortages for four different base years – 2001, 2006, 2010 and 2013, which we assume when shortages started to accumulate.

1 Our model estimates the additional housing required to accommodate those changes in population indicated in Stats NZ's subnational population estimates.

2 From Stats NZ's Census data with data interpolated for missing years.

3 From Stats NZ's building consents data.

4 From Stats NZ's experimental building indicators with data interpolated for missing years.

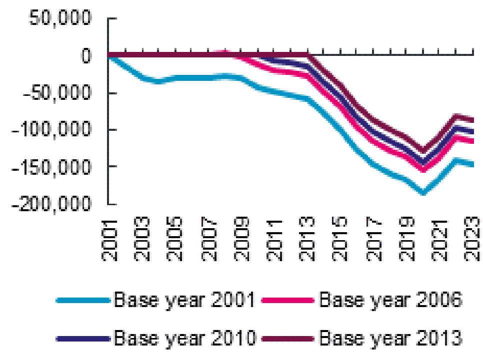
Results from our original model showed that Canterbury has built its way up to a housing surplus over the last decade. However, our model at the time did not account for the loss of housing stock due to the earthquake. We have since revised our model to explicitly include the destruction of housing in Canterbury during the earthquake – estimated at 9,100 homes (Ministry of Business, Innovation and Employment 2013).

Modelling results

Estimates from our revised model point to a greater size of cumulative housing shortages in New Zealand than in our original model. Nonetheless, the results follow a similar trend. Also noteworthy is the pick-up in housing shortages in 2023, given the increased migration-led population since the reopening of international borders.

Figure 1 Housing shortages in New Zealand

Cumulative housing shortages

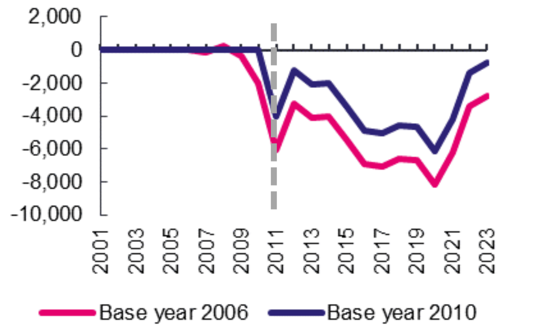


Source: NZIER housing shortage model

After accounting for the loss of housing stock in the 2011 earthquake, our revised model suggests that the Canterbury region has also had some housing shortfall. However, it still outperforms most other New Zealand regions. It has built itself back and is building its way out of housing shortages.

Figure 2 Housing shortage in Canterbury[5]

Cumulative housing shortages



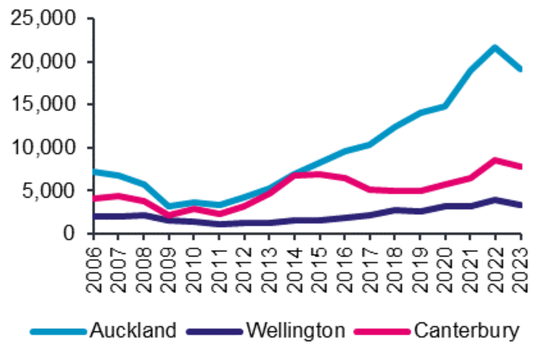
Source: NZIER housing shortage model

What are the factors driving this result for Canterbury?

Over the past 30 years, Canterbury has consented more dwellings on average than other New Zealand regions except Auckland. The annual number of dwellings consented increased rapidly from 2012 to 2015 as part of the earthquake rebuild and still grew strongly post the rebuild.

Figure 3 Dwellings consented by region

Number of dwellings consented



Source: Stats NZ

Trends in Canterbury's housing supply appear more positive when we look at the measure of residential dwelling consents per 1,000 residents. Since 2004, the number of dwellings consented per 1,000 resident population in Canterbury has been tracking higher than

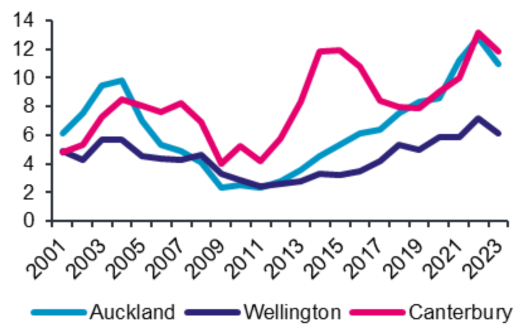
[5] Based on the context of the 2011 earthquake and insights from the experts we interviewed, we only present cumulative housing shortage estimates for the 2006 and 2010 base years for Canterbury.

most New Zealand regions. This is especially during the years of the earthquake rebuild, the time when Canterbury saw dwellings consented per 1,000 residents nearly tripled. The numbers have been at very high levels even after the rebuild.

The strong increase in housing developments in Canterbury since the 2011 earthquake has helped to alleviate housing shortages in the region. This is despite the significant number of houses that needed replacing and the continued growth in Canterbury's population since the earthquake rebuild.

Figure 4 Dwellings consented per 1000 residents by region

Number of dwellings consented



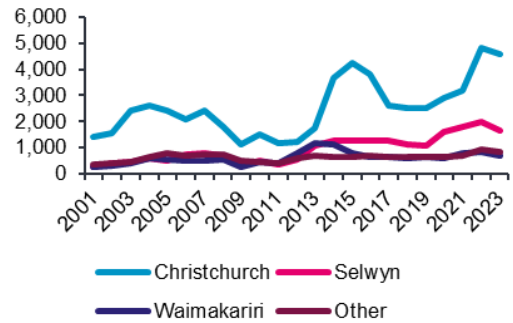
Source: Stats NZ

Looking across the Territorial Authorities (TAs) within Canterbury, dwelling consent issuance data suggests that new housing developments are most concentrated in Christchurch City. Selwyn and Waimakariri also saw strong increases in the annual number of dwellings consented during the first two years of the earthquake rebuild, particularly in the Selwyn district of the Greater Christchurch area. This partly reflects the relocation of the population from Christchurch City to neighbouring areas (Stats NZ 2018).

Also, Waimakariri and Selwyn already had their district spatial plans and land available to accommodate new housing developments (Environment Canterbury 2013; Fyers 2020; West and Garlick 2023).

Figure 5 Dwellings consented by territorial authorities within Canterbury

Number of dwellings consented



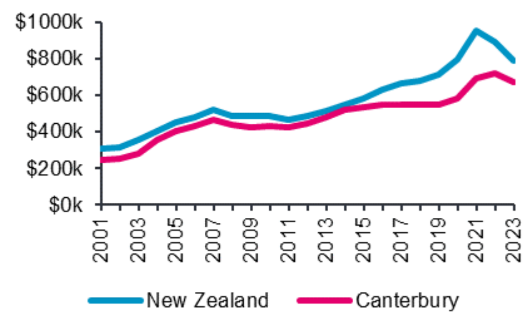
Source: Stats NZ

What has this meant for housing affordability?

As a result of increased housing availability, house prices and rents in Canterbury have grown less than New Zealand as a whole. Although these initially rose in Canterbury between 2011 and 2015, they relatively flatlined between 2016 and 2019 once the destroyed housing stock had been replaced. The gap in house prices and rents between Canterbury and New Zealand as a whole has generally widened since 2015 – the last year of the earthquake rebuild.

Figure 6 Average house price

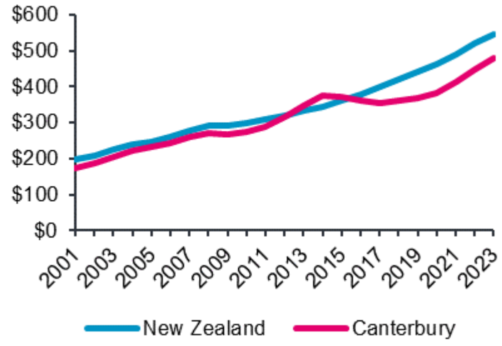
2023 prices



Source: NZIER based on data from REINZ

Figure 7 Average rent

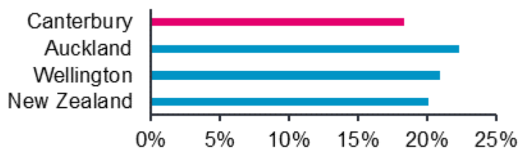
2023 prices



Source: NZIER based on data from MBIE

Housing in Canterbury also tends to be more affordable than in Auckland, Wellington, and New Zealand as a whole. In the year to June 2022, households in Canterbury spent 18.3 percent of their disposable income on housing costs.[6] This was 1.8 percentage points lower than the New Zealand average.

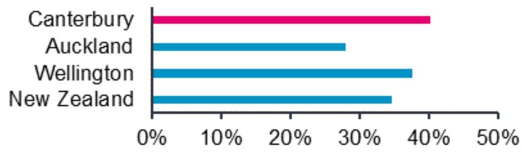
Figure 8 Ratios of housing costs to disposable income – year ending June 2022[7]



Source: Stats NZ

Canterbury also has a higher homeownership rate. Two-fifths of people in Canterbury own or partly own their homes, compared to 35 percent for New Zealand as a whole.

Figure 9 Individual homeownership rates – 2018 Census



Source: Stats NZ

What policy changes during the rebuild have contributed to Canterbury's housing outcomes?

Canterbury's experience shows that it is possible to rapidly increase the housing supply and build a way out of housing shortages, even after a significant destruction of existing housing stock.

So, we ask – what policies and actions before and after the 2011 earthquake contributed to Canterbury's improved housing outcomes?

Before the earthquake, there was a history of local government, central government and tangata whenua working together on urban development. For example, several organisations came together in 2007 to develop the Greater Christchurch Urban Development Strategy – a shared plan for how the city would develop over 35 years (Environment Canterbury et al. 2007). The strategy envisioned a consolidated model that looked to redevelop existing urban areas in a more concentrated form to optimise the use of urban land, infrastructure networks, and funding. This provided a good foundation for post-earthquake recovery plans.

Strategies and plans prior to the earthquake recognised the need to accommodate growth through intensification. The city had become spread out, and the centre was in gradual decline. Although the city council had developed a Central City Revitalisation Strategy in the early 2000s, the city was

6 Housing costs include expenditure on rents and mortgages, property rates, and building-related insurance.

7 Stats NZ's household income and housing cost statistics. At the time of our analysis, the latest data available was for the year to June 2022.

showing limited signs of improvement (Department of the Prime Minister and Cabinet 2017; Canterbury Earthquake Recovery Authority 2016b).

After the earthquake, central government established the Canterbury Earthquake Recovery Authority (CERA) to lead and coordinate the earthquake recovery effort (New Zealand Government 2011a). The enactment of the Canterbury Recovery Act 2011 required the CERA to develop and implement the Recovery Strategy in partnership with councils within the Greater Christchurch area, Environment Canterbury and iwi stakeholders (Department of the Prime Minister and Cabinet 2017).

The centralised leadership role of the CERA helped to provide certainty over the earthquake rebuild. It used special powers included in the Canterbury Earthquake Recovery Act 2011 to expedite the rebuild.[8] Some examples of actions undertaken to fast-track infrastructure and housing developments for earthquake recovery included:

- Providing owners of damaged properties and land the certainty over insurance coverage, to help incentivise repair and rebuilding of the affected stock by property owners (Canterbury Earthquake Recovery Authority 2016a; Department of the Prime Minister and Cabinet 2017)
- Opening up more greenfield land to enable more residential development (Department of the Prime Minister and Cabinet 2017; Canterbury Earthquake Recovery Authority 2013; Environment Canterbury 2013; Fyers 2020)
- Over-riding local councils to bring forward rezoning of residential land to allow for the development of denser housing (West and Garlick 2023; Fyers 2020)
- Use of power to fast-track Resource Management 1991 processes required for consenting (Department of the Prime Minister and Cabinet 2017), which limited the scope for appeals and enabled construction to happen faster
- Replacing damaged and demolished Housing New Zealand stock with higher density social housing (New Zealand Government 2016)
- Forming collaborative alliances amongst central and local government agencies and major construction companies to fast-track recovery works for horizontal infrastructure (Department of the Prime Minister and Cabinet 2017)
- Direct funding from central government for recovery of infrastructure and housing (New Zealand Government 2011b; 2014; Office of the Auditor-General New Zealand 2012).

Of course, not everything went well. As time passed, tensions arose between the CERA and local government. For example, after the Christchurch City Council developed a draft Central City Plan in 2011 and gained widespread community support, central government intervened and gave the CERA responsibility for leading the central city recovery. This led to a perception that central government had interfered with a local initiative, giving rise to feelings of disempowerment and disillusionment (Department of the Prime Minister and Cabinet 2017).

Also, with the rapid building of housing in greenfield areas (e.g. the eastern suburbs), the urban form in Greater Christchurch has become more peripheral, which is not the urban form model the original 2007 Urban Development Strategy had intended. This could mean increased infrastructure costs

8 These included the two statutory forums for input into decision-making, planning instruments and work powers (e.g. demolition, acquisition of land) and the power to fast-track Resource Management Act 1991 and planning documents (e.g. district plans) if necessary.

facing councils and local communities in the future.[9]

What are the lessons for other regions?

The most important lesson from Canterbury's experience is that addressing the housing shortage and improving affordability is not impossible. Two ingredients are needed:

- A shared plan for development
- The political will to make it happen.

Better coordination between central government and local government is key. Canterbury's experience demonstrates the need for a true partnership, where governance and decision-making are aligned, and local authorities are fully involved in shaping their city.

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