

Sticker discount for earthquake-prone commercial buildings

Summary Haiku Buildings declared prone To fall in quakes, fall in price.* *Conditions apply.

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Since devastating earthquakes struck Canterbury nearly five years ago, public interest in seismic safety has sharply increased. The economic impact of the rebuild is widely known, however, more subtle economic effects are also occurring.

Researchers at Motu Economic and Public Policy Research Trust and GNS Science have recently published two papers examining the impact of the quakes on the property market that reveal interesting aspects in the psychology of purchasing decisions. Motu is a not-for-profit, non-partisan research institute.

Impacts of Earthquake Regulation and Building Codes on the Commercial Building Market, released today, shows that if a commercial building is declared earthquake prone its sale price falls on average 45 percent.

"Interestingly, the price discount of being declared earthquake-prone is only found in commercial buildings that are officially labelled in this way," said Dr Arthur Grimes, Senior Fellow at Motu.

"If a building has yet to be yellow or red stickered, but an engineer's examination would find it earthquake-prone, the discount does not eventuate. This came as a real surprise, and we believe it may be because the council's policy legally requires remedial action, whereas an engineer's report does not."

Between 1998 and June 2015, there were 832 sales of commercial buildings in Wellington. 16 were properties classified as earthquake-prone at the time of the sale, and 132 properties were declared earthquake-prone after their sale.

In the post-earthquake period 14 earthquake-prone buildings were sold and 14 buildings that were subsequently declared earth-quake prone were sold.

"We don't have large sales numbers, however the effects we found are strong, so we are confident in the significance of the findings," said Dr Grimes.

The research controls for the broader macroeconomic environment (including the global financial crisis).

Within the Wellington CBD, the average value of a commercial building is almost halved if it receives a legally binding earthquake-prone declaration. Discounts on specific buildings will vary around this average level, reflecting a number of factors such as costs of remediation and the nature of existing rental agreements. The estimated discount across the wider Wellington area for commercial properties is an average of 25.5%.

"Following the earthquakes, we also found a significant increase in the probability of sale of a declared earthquake-prone building, especially in central Wellington," said Dr Grimes.

The other paper, *The Changing Price of Disaster Risk Following an Earthquake*, found that understanding the risk of liquefaction caused at-risk houses to fall in price, but this effect faded out and disappeared within three years.

The working papers "Impacts of Earthquake Regulation and Building Codes on the Commercial Building Market" and "The Changing Price of Disaster Risk Following an Earthquake" by Levente Timar, Arthur Grimes and Richard Fabling, were funded by the Natural Hazards Research Platform.

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About Motu

Motu Economic and Public Policy Research is an independent economic research institute which never advocates an expressed ideology or political position. A charitable trust, Motu is founded on the belief that sound public policy depends on sound research accompanied by well-informed and reasoned debate.

Motu is the top-ranked economics organisation in New Zealand. It is in the top ten global economic think tanks, according to the Research Papers in Economics (*RePEc*) website, which ranks all economists and economic research organisations in the world based on the quantity and quality of their research publications.

If you would like to discuss these findings with Arthur Grimes, you can contact him on 027 248 9389 or through Ceridwyn Roberts.