



Hot Property in New Zealand: Housing bubbles in the metropolitan centres

Dr Ryan Greenaway-McGrevy, University of Auckland

Distinguished Professor Peter C.B. Phillips, University of Auckland; Sterling Professor of Economics, Yale University; University of Southampton; Singapore Management University



Housing has become prohibitively expensive in many regions of New Zealand, putting home ownership beyond the reach of a growing number of New Zealand households, particularly those

without wider sources of family financial support. When measured relative to household income, house prices in Auckland are among the most expensive in the world, and now exceed those of London and San Francisco. The expensive nature of New Zealand real estate is due, at least in part, to the sustained market exuberance that has produced a broad-based bubble in house prices.

This research uses recently-developed statistical bubble-detection tests to document evidence of episodic bubbles in the New Zealand property market over the past two decades. The results show clear evidence of a broad-based New Zealand housing bubble that began in 2003 and ended in mid-2007 to early 2008 with the onset of the worldwide recession and the financial crisis. In addition, market contagion from Auckland clearly spilled over into the other major urban regions in New Zealand.

MAY 2017: The latest OECD data shows the house price-to-income ratio in New Zealand is the highest in the world

Auckland has persisted despite the cooling measures imposed by the Reserve Bank, and also suggests that the Auckland bubble is now spilling over into nearby regions such as Hamilton and Tauranga.

Key Questions:

- **Is there an ongoing property bubble?**
- **Which regions have been affected?**
- **Is the present high cost of housing sustainable?**

'Escalating house prices also exacerbate inequality by increasing the wealth gap between home owners and renters, raising social tensions.'

Policy-makers, as well as the public, should be concerned about the rising house prices in Auckland and elsewhere in the country for three key reasons:

1. The major intergenerational wealth effects, reducing the relative wealth and welfare of younger generations, renters and first-time home buyers in relation to extant property owners.
2. Large mortgages and high rates of leverage put financial stability at risk to housing market downturns, as the financial crisis and Great Recession have illustrated dramatically in the US.
3. For the labour market, high housing costs can impede growth by inhibiting labour mobility and preventing labour from moving from depressed outlying regions to booming city centres.

How to spot a bubble

Not so long ago, the conventional wisdom was that you could spot an asset bubble only after it burst. But new statistical tools allow us to identify a bubble when it's expanding. And there's a growing consensus that we must try. In 2014, the soon-to-be US Federal Reserve Chair Janet Yellen testified "it is important for the Fed, as hard as it is, to attempt to detect asset bubbles when they are forming".

Statistical bubble detection tests are based on the concept of a "rational bubble", which occurs when demand for an asset increases because market participants expect future capital gains – not because they expect an increase in the income from the asset. This generates a self-fulfilling prophecy, in which asset prices accelerate upwards simply because enough market participants *think* that prices will increase. Bubble detection tests are based on identifying this sustained, explosive growth in prices as the bubble expands.

It is possible that asset prices are growing exponentially because of concurrent explosive growth in the income offered by the asset. To guard against this possibility, we normalize house prices by a 'fundamental' – a measure of the income offered from the asset – before applying the statistical tests. In the case of house prices, we use either average regional rents or average regional household income. The figures below exhibit the price-to-rent ratios for the major cities around New Zealand.

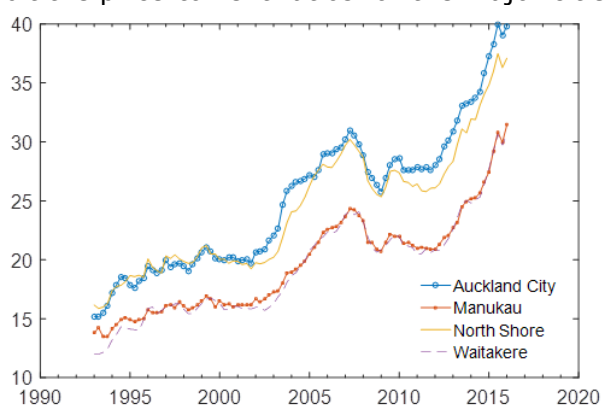


Figure 1: Price-to-rent ratios in the Auckland metro area

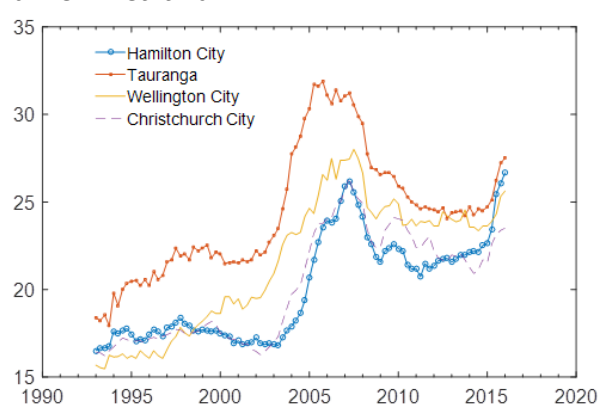


Figure 2: Price-to-rent ratios in the main centres

But don't high migration and low interest rates justify sky-high prices? Every bubble has a rationalization that contains more than an element of truth. The dotcom bubble of the early 2000s appeared reasonable because IT was going to permanently change the way we do business – and it did. But the market still over-reacted and bid up share prices to astronomical levels.

We would argue that it is likely that the housing market has overreacted to immigration and interest rates. Immigration is indeed at record levels, but rents have only risen by a small fraction of the increase in house prices. And while mortgage rates are low, interest rates are low when income growth is sluggish, and, moreover, will only remain low for a fraction of the lifetime of the typical thirty-year mortgage.

Will the real estate bubble burst?

Economic Sciences Nobel Laureate Jean Tirole showed that it is possible for rational bubbles to persist indefinitely, provided that the asset is scarce and durable, and that market participants share common beliefs. Land proximate to city centres certainly ticks two of those boxes. But in reality, the housing bubble – and the record high levels of household debt that accompany it – make the economy fragile. A hiccup in the global economy can quickly turn into a full-blown recession as mortgagee sales bring prices crashing down. Unfortunately, forecasting when a bubble will burst is very difficult.

A slow, widely-anticipated deflation in house prices would be a far better end to the bubble. By relaxing land use regulation, the Auckland Unitary Plan could improve supply over the coming decade, potentially easing dwelling prices and bringing more affordable housing options to the market. But should the plan fail to soften the market, history suggests that unanticipated future shocks will likely do so and in more dramatic measure. As Yellen's testimony put it, the authorities have a responsibility, hard though that may be, to inform themselves and to act.

To find out more about this research, please see the full article at:

<http://dx.doi.org/10.1080/00779954.2015.1065903>

¹<https://sites.google.com/site/greenawaymcgrevy/hot-property-2016-quarter-1-update>

Or contact Dr Ryan Greenaway-McGrevy: r.mcgrevy@auckland.ac.nz

Adapted with assistance from Suzanne Woodward, PPI