

# TWO COUNTRIES, 16 CITIES, 5,000 KM: HOW MANY HOUSING MARKETS?

## An Executive Summary

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## INTRODUCTION

This paper examines whether the major cities in Australasia make up a single housing market. If there is a single housing market across both countries, then Kiwi and Aussie house prices are primarily being driven by the same forces, rather than by local factors. In addition, a single housing market would imply that macroeconomic policies in the two countries are either run on similar lines or are incapable of independently controlling real house prices, despite both countries running independent monetary and fiscal policies.

## METHODOLOGY

Our focus is on eight main cities in each of Australia and New Zealand. The Australian cities are Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart, Darwin, and Canberra. The New Zealand cities are the eight largest metropolitan urban areas (Auckland, Wellington, Christchurch, Hamilton, Tauranga, Dunedin, Napier-Hastings, and Palmerston North). There is an equal balance of Australian and New Zealand cities to ensure that the results are not biased towards one country.

For each city we deflate the house price index by a consumer price index. We refer to these as real house price indices. Each is normalized to one at the beginning of the sample. For the Australian cities we obtain a CPI for each individual city from the Australian Bureau of Statistics. Comparable data for the New Zealand cities is lacking, and so we use the national CPI from Statistics New Zealand.

We obtain quarterly house price data for New Zealand cities from Quotable Value New Zealand and for Australian cities from the Australian Bureau of Statistics. In each case, the series are quality-adjusted and are recognised as the official or principal house price series for their respective country's cities.

## RESULTS

Our results demonstrate that there is just one aggregate source of shock that drives the non-stationary (i.e. permanent) trend component of all sixteen cities across the two countries. All other idiosyncratic shocks to city prices are stationary (i.e. temporary) and so their effects wither in the long run.

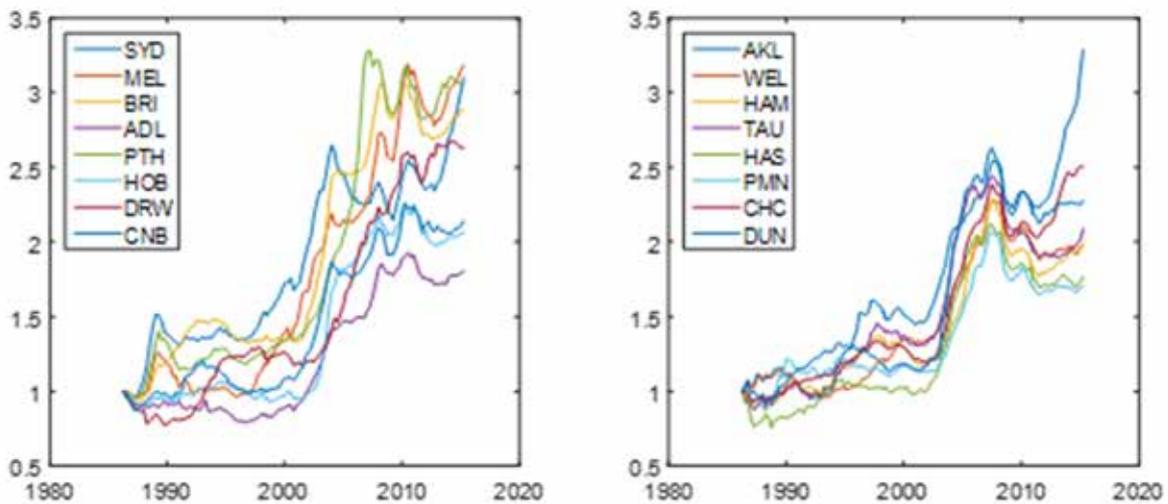
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The dynamic structure of price adjustment, however, reveals a more differentiated pattern. There are three groups of cities in terms of price dynamics: leaders (Melbourne, Sydney, Adelaide, Canberra, Brisbane ); followers (Perth, Hobart, Wellington, Auckland, Darwin); and laggards (Dunedin, Christchurch, Palmerston North, Hastings, Tauranga, Hamilton).

All leader cities are within Australia and all laggards are within New Zealand, while the (mid-group) followers comprise a mix of Australian and New Zealand cities. These results indicate that non-stationary shocks to Australasian house prices are first experienced in the major Australian cities, then flow through to the more peripheral Australian cities plus Auckland (New Zealand’s largest city) and Wellington (New Zealand’s capital city), and subsequently flow through to the more peripheral New Zealand cities.

**Figure 1: Real House Prices, 16 Cities (1986q1 = 1.0)**





The next step in this research would be to analyse whether Australasian real house prices may be hostage to broader international forces. A second extension would be to examine the economic forces that determine individual cities' responsiveness to shocks and, in particular, to examine the impact of different planning regimes.

### **A SINGLE HOUSING MARKET?**

We adopt a strong and a weak definition of a single housing market.

In the strong case:

- ratios of real house prices between all city pairs stay the same in the long run.
- long-run responses of housing, land supply, and migration to a common shock are identical across cities.

In the weak case:

- house price ratios between cities will tend to diverge even though they are affected by the same long run influences.
- supply (including regulatory policies) or migration responses may have modified the impact of identical shocks across cities.

### **CONCLUSION**

Our results demonstrate a weak form of a single housing market. This means that house prices in cities across Australasia will diverge over time, but are influenced by the same long-term factors.

These differences may be caused by differences in house price responses to land prices, migration responses to house prices or to land price responses to migration flows. The latter may reflect either geographical or planning constraints. These constraints may affect how much land is available and therefore how land prices respond to population flows (i.e. to migration).

Our findings also have implications for macroeconomic policy. We find little evidence that the countries' independent monetary and/or other macro-economic policies have been instrumental in determining long run real house price outcomes in either country. In interpreting this finding, recall that our focus is on real house prices, a relative price variable. The implication that monetary policy has been ineffective in controlling this relative price variable is consistent with standard monetary theory, i.e. with the classical dichotomy.

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