# Ripple effect: Population changes impact house prices near and far



**Based on AHURI Final Report No. 421:** House price dynamics and internal migration across Australia

#### What this research is about

This research analyses how changes in housing submarkets—house prices in different suburbs and regions across Australia—affect and are affected by one another, and how population migration interacts with submarket changes.

#### The context of this research

With the COVID-19 pandemic, regional cities and fringe areas became important players in house price dynamics across Australian housing submarkets. This is reflected in population movements, particularly in the eastern states of New South Wales, Victoria and Queensland, demonstrating a population trend away from the innermetropolitan areas of state capital cities and towards suburban fringe and regional city areas.

Fewer people were moving into the densely populated cities, and fewer people were moving out of regional and rural cities, while working from home and remote working were embraced by a large proportion of workplaces.

#### The key findings

This project examines local housing market spillovers arising from population change. In economics, a 'spillover' is a consequence of the functioning of a market that has an impact on the running of another market. House price spillovers from one housing submarket to another submarket happen when increasing house prices in one market lead to predictable increases in other markets. Spillover measures capture the source, direction and strength of interconnectivity in house price changes between each pair of submarkets:

- a spillover 'contributor' is a market that influences others
- a spillover 'receiver' is a market that is influenced by the spillover contributors.

Local government areas (LGA) were aggregated into one of the following four geographical submarkets based on common characteristics, such as access to transport, infrastructure and amenities:

- Metro refers to LGAs within the main cities of Australia, representing economic, political, and cultural centres, and hubs for international connections, commerce and communications.
- Fringe submarkets refer to LGAs in suburbs surrounding the Metro area, reflecting urban sprawl.
  These areas can still be classified in the urban region and provide access to the benefits and services of a metropolis.
- Regional City refers to LGAs in large regional noncapital cities. Regional cities offer services and amenities and are hubs for regional connections and commerce.
- Rural areas include LGAs in rural towns that typically have lower access to services and amenities and infrastructure.

## Australians move and relocate often, with lower wages encouraging people to leave high housing cost areas

Between 2015 and 2020, 42.1 per cent of Australian households reported moving home at least once.

Migration away from major city centres has been broadly documented, and has been attributed, at least partially, to city wages not keeping up with housing costs. In order to access more affordable housing, whether through home ownership or renting, households moved away from cities and towards either the suburban fringes or regional areas outside the city. For these households, such a move potentially involves reductions in income and access to services.

## When local house prices rise, house prices nearby and in more distant areas may also increase

When people move into a particular region house prices increase not only in that region and close surrounding areas, but may also rise in other, more distant locations, and can extend as far as non-contiguous areas (that is, areas not adjoining the original area).

People moving into a region and the consequent house price impacts of that movement may also trigger successive population movements of people moving out of that region, perhaps because they were displaced by rising house prices and therefore moving to other parts of the state or to other states, triggering a succession of house price impacts in these other areas.

Internal migration changes the dynamics of local and nearby housing markets:

- a 1 per cent increase in the proportion of the population migrating into an LGA will increase the house-price net spillover index by 3.12 per cent. This increases the probability that the LGA will generate house price spillovers to other submarkets.
- a 1 per cent increase in the proportion of the population departing from an LGA will decrease the net spillover index by 3.70 per cent. This increases the probability that the LGA will be a receiver of house price spillovers from other submarkets.

In other words, while internal arrivals are likely to contribute to house price spillover to other markets, internal departures will contribute to receiving house price spillovers from other markets.

## COVID changed how people migrated, which changed housing market dynamics

The COVID-19 pandemic appeared to influence not only the likelihood that people might move to other areas in response to housing preference adjustments but also due to house price affordability. The pandemic made it more likely that they would move to regional areas beyond the metropolitan area and maintain city salaries with broad flexible and remote working arrangements.

Housing demand decreased the most in dense neighbourhoods, explained by both the diminished need for living close to jobs and the declining value of access to nearby amenities. Although it is too soon to tell how large these shifts are likely to be, and how long they will persist, the work-from-home (WFH) effect of COVID-19 may continue due to people's better-than-expected WFH experiences and the surge in technological innovations that support WFH.

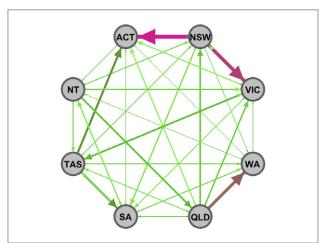
'During the 2020–2021 pandemic, Victoria became the strongest contributor to house price changes in other states and territories, highlighting the interconnectedness of Australia's housing markets in response to localised pandemic shocks.'

Pre-pandemic, Queensland, NSW, Tasmania and the Northern Territory (NT) were net contributors of house price spillovers to other states and territories. House price changes in these states and the NT influenced house prices in the net receiver states—ACT, Western Australia, Victoria and South Australia—to varying degrees. Geographically, house price movements in NSW strongly contributed to house price dynamics in Victoria and the ACT, while house price dynamics in Queensland strongly contributed to house price movements in WA following industry-related patterns.

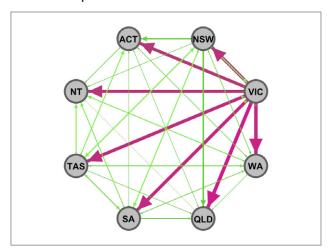
During the 2020–2021 pandemic, Victoria became the strongest contributor to house price changes in other states and territories, highlighting the interconnectedness of Australia's housing markets in response to localised pandemic shocks. NSW was also a net contributor of house price spillovers, albeit to a smaller degree, while states with fewer COVID-19 outbreaks and fewer restrictions were net receivers of house price spillovers.

Figure 1: The pandemic changed population movement patterns within Australia

#### a. Pre-pandemic period



#### b. Pandemic period



In Figure 1, the pre-pandemic graphic shows major population moves were from NSW to ACT and Victoria, or from Queensland to Western Australia. During the pandemic the strongest population moves were from Victoria to all other states and territories.

### Changes within NSW submarkets due to COVID

In NSW, Metro and Fringe areas were net contributors of house price spillovers, while regional City and Rural areas were net receivers of house-price spillover effects in the pre-pandemic period (2009–2019).

During the pandemic period (2020–2021), the direction of spillover influence changed, with Fringe and regional City areas becoming the net-house-price contributors to other NSW submarkets.

### **Changes in Victoria submarkets due to COVID**

Victoria's shift in spillover patterns during the pandemic is striking. Pre-pandemic, Metro was the only net contributor of house price spillovers in Victoria, while Fringe, regional City, and Rural were net receivers.

During the pandemic, the direction of influence of Victoria's submarkets flips. Metro becomes a strong net receiver of house price spillovers, while Fringe, regional City and Rural become net contributors.

## Overall Australia's major cities have been losing population

The 2021 ABS Census data shows a net decrease of 160,000 people from Australia's capital cities over five years (2016–2021). This loss is reported as 'significantly greater than the last two census periods'.

Sydney recorded the largest population loss of all capital cities in the period, with a net decrease of 154,800 people, representing 3 per cent of the city's overall population. On the other hand, Brisbane experienced positive net migration, with an increase in population of 54,400, representing about 2.2 per cent of the city's population.

Regional areas show more gains than losses. In the period 2016–2021, regional Australia recorded a net gain of 184,000 people (up from 81,600 in 2016). While non-capital-city areas of Queensland (+63,700), Victoria (+62,900) and NSW (+59,000) showed significant net gains, the non-capital-city areas of WA (-9,000) and NT (-3,800) recorded small net losses.

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Overall, net population growth is concentrated in the eastern states of Queensland, NSW and Victoria. Queensland has the highest population growth from internal migration, while NSW is experiencing net population loss, with residents migrating to Queensland and Victoria. Within each state and territory, the trend has been a population movement from inner-city suburbs towards outer city areas and regional areas.

### The impacts on regional housing for lower income households is worsening

The influx of people into regional cities has led to a worsening of housing affordability issues, with limited stock and very low vacancy rates in regional areas, in part due to the lack of social and affordable housing options in regional areas. Given the traditional attraction of regional areas as relatively affordable locations, these areas are also home to a high proportion of low-income and tenant households. While owner-occupiers and investors benefit from price appreciation, a substantial negative effect is disproportionately experienced by low-income households and renters in regional areas.

Regional housing stress has the potential to create a migration ripple effect, where low-income and vulnerable households are forced to move out to less-expensive and lower-resourced areas.

## What this research means for policy makers

Targeted policies that provide financial support for households experiencing housing stress in regional areas could minimise social disruption and maintain community cohesion, along with other supports such as rental assistance and rental reform. Policy considerations should include other factors that contribute to demand imbalances and erode community cohesion, such as the role of short-term holiday letting in regional areas—for example, Airbnb.

Furthermore, policy makers should be aware that place-based approaches should consider potential spillover effects into other regions and recognise the interconnectivity between such places. This may require a review of current policy and practice that crosses state borders and moves beyond housing-specific policy. In the short-term, demand-side policies that target home purchases in regional areas can contribute to population migration by putting additional strain on property prices. The Regional First Home Buyer Guarantee is one current policy that may have adverse consequences in a post-pandemic context.

In the longer term, increases in appropriate and diversified housing supply (including social and affordable housing) is required in regional areas.

Regional investment policy needs to ensure that additional pull factors to regions are balanced with sufficient and appropriate housing supply and services, and should focus on the strategic growth and development of regional and rural areas, including education and employment opportunities.

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This research also shows that policy makers could use housing market data relating to sales price and price changes as indicators of population migration to inform more timely decisions relating to regional investment, internal migration incentives and policy.

#### Methodology

This research tracked annual changes in median house prices for LGAs in all Australian states using data from CoreLogic and studied population movements within and between the LGAs as recorded in changes between the 2011 to 2016 Census and the 2016 to 2021 Census.

The research is part of the Inquiry into `Projecting Australia's urban and regional futures: population dynamics, regional mobility, and planning responses'.

#### To cite the AHURI research, please refer to:

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