WHAT DRIVES AUSTRALIAN HOUSE PRICES OVER THE LONG TERM?

Whitepaper 1
February 2023

LONGVIEW | PEXA

About LongView

New solutions to Australia's housing problems

Wherever you are in your property journey, LongView helps you go further. We are an integrated residential property business, working hand in hand with our clients to provide property buying, advisory and management services, and investment funds.

The Australian housing market today does not deliver for many people. Many renters, aspiring first-home buyers, and residential property investors face a myriad of structural challenges. We are changing these by making homeownership more accessible, empowering buyers with expertise, and improving the rental experience for owners and renters.

Our team of property professionals has decades of real-world experience in buying and managing thousands of properties. We marry this field expertise with proprietary data science and innovative financial structures to deliver superior financial performance over the long term.

About PEXA

Transforming the way we settle property in Australia

Every time a house is bought, sold, or refinanced in Australia your lawyer, conveyancer and lender will most likely use a digital platform to settle your property, this is where PEXA comes in. PEXA's world-first digital settlement platform has revolutionised the way we exchange property in Australia. By providing quicker access to the proceeds of a sale and near real-time tracking on property settlements, our network of financial institutions and legal and conveyancing firms helps over 20,000 families a week safely settle their homes.

And this is just the beginning. Our data and insights are helping organisations unlock the intel they need to drive change and possibilities. We're also bringing our proven financial settlement model and expertise to the United Kingdom, working in collaboration with the housing industry to digitise the house purchase, sale, and remortgaging process.

Foreword

One of the first things many of us in business learn in our working lives is that you must understand the economics of a problem before you have any chance of fixing it. That may be more true of Australia's housing crises than any other societal issue. If we truly understand the drivers of our property market, private capital – working alongside government – could make transformational contributions to solving Australia's housing challenges.

This is the first of three Whitepapers from LongView and PEXA, which aim to understand how Australia's unique property market works. Whitepaper Two will explore private rental affordability and experience, and Whitepaper Three will look at solutions that swim with the tide of the economics of Australia's housing market.

All the Whitepapers meld the deep property expertise of LongView and PEXA with rigorous analysis of the underlying economics. We hope to make a valuable contribution to the conversation about housing in Australia, so that we can work towards fresh, viable ideas for major change, through private capital as well as sound public policy.

Glenn King
CEO, PEXA

Evan Thornley
Executive Chair, LongView

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Executive summary

Everyone needs a home, yet it is becoming increasingly difficult to meet this basic need. Australia faces three related housing crises: purchase affordability, rental affordability, and rental experience. This paper, the first of a series of three, looks at purchase affordability. The second, focusing on rental affordability and experience, and the third, focused on solutions, are due to be released in the second quarter of 2023.

House prices have grown significantly since the 1950s, far outpacing inflation and wage rises. This growth has put owning a home out of reach for many. Home ownership has fallen significantly amongst all age groups, particularly younger Australians, who find it increasingly difficult to afford the deposits required for a mortgage. Many first home buyers now rely on the 'Bank of Mum and Dad' to enter the property market, while those without access to family wealth face an even more uphill battle.

There are many theories about what has caused this phenomenon, including government tax regimes and subsidies, foreign investment, and interest rates. Each of these do play a role, but, for different reasons, are much less important than often assumed.

This paper focuses on the role of the unique demographic profile of Australia, combined with the unusual nature of our cities. Primarily driven by immigration, Australia has one of the highest population growth rates in the developed world. More than half this population is concentrated in just three urban centres: Sydney, Melbourne, and Southeast Queensland. Australia's major urban areas are also unusually spread out, with dense CBDs surrounded by expansive low-density suburbs. This has led to a phenomenon that is unusually acute in Australian cities; namely that well-located land – land where people can live near to job, services, and amenities – is in ever-increasingly short supply. With Australia's population forecast to continue to grow at a high rate, and become even more concentrated, this trend is set to intensify.

Land value therefore plays a critical role in house prices – especially over the long term. Indeed, residential land alone now accounts for almost 50% of Australia's total national assets. Given Australia's still-increasing population, combined with the nature of our cities, this trend is set to intensify. As a result, population growth, urban concentration, and consequently land value, are much more important drivers of long-term house prices than is generally appreciated.

The result is a stark dichotomy of winners and losers in the Australian housing market. The value of land accounts for most of the difference in price growth between houses and apartments over the long term. Owners of houses increasingly benefit from longstanding growth as unit owners experience less growth and first-homebuyers are locked out of the security of owning their own home. Solutions to this significant challenge will need to swim with the tide of the economics, so it is crucial that we understand how Australia's property market really works.

1.

AUSTRALIA FACES THREE RELATED HOUSING CRISES

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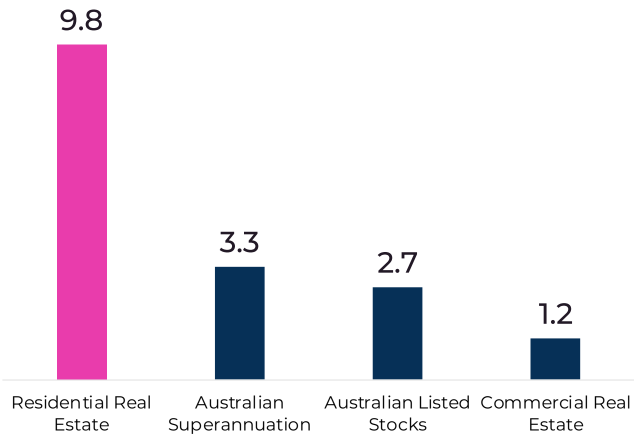
1. Australia faces three related housing crises

1.1. There is enormous scope to improve housing in Australia

Housing is of fundamental importance to Australians for a range of reasons, from basic shelter to the emotional security of a refuge where a family can be nurtured, to an asset against which they can borrow. For many households, the home they own is by far their most valuable financial asset, and their main method of passing wealth down generations. For many, it also houses the thing that is most important to them: their family.

As well as being important for individuals and households, housing is important in a broader economic sense. Australian residential property comprises an enormous asset class, dwarfing equities and other large investment categories (see Figure 1). The return on the stock of residential dwellings is comparable in magnitude to nearly a third of GDP growth in 2021. [1] Dwelling construction and housing finance are vital indicators of economic performance. Land tax and stamp duty provide state and local governments with significant portions of their revenue bases. Housing is also central to monetary policy, with the effect of Reserve Bank (RBA) cash rate decisions flowing directly to mortgage holders.

Figure 1 | Australian Asset Classes & Aggregations 2022 ($'s, Trillion) [2]



Yet the housing market doesn't deliver for many Australians. People trying to get into the market find that deposits are out of reach. The rental system works for no-one: tenants experience undignified, insecure, inflexible rental arrangements, while too many landlords get poor capital growth along with property management headaches.

Perhaps no market in Australia is as misunderstood as the residential property market. Media focuses almost exclusively on shifts in house prices over the very short term, while a great deal of ink is spilled on debates which have been underway for decades – but which would make little difference – and on solutions which have no chance of working.

[1] (Bleby, 2022).
[2] (CoreLogic Australia, 2022a), (ABS, 2022d), (APRA, 2022a), and (ASX, 2022). Note that superannuation is not a distinct asset class and includes portions of the other three categories as part of its total value. It has been included to aid in understanding the scale of Australian Residential Real Estate.

Meanwhile, the politics of reform are fraught with difficulties, since there are clear winners and losers for any policy which might be seen to reduce prices, and thereby potentially the value of homeowner's assets. As a result, governments find it difficult to act, other than to further increase demand – and therefore prices – through policies such as first home buyer grants.

Housing frequently involves the biggest economic decisions in most people's lives and affects almost every aspect of their day-to-day experience. So, it's vital that we understand what is driving the Australian property market so that we can come up with solutions that work.

1.2. Australia faces three related housing crises

There are three related housing crises in Australia: (1) purchase affordability, whereby people cannot afford to enter the market; (2) rental affordability, where people struggle to meet rental costs; and (3) rental experience, where Australians have the poorest experience of renting anywhere in the developed world. They are considered separately because the causes and possible solutions for each differ significantly; considering them together, as they often are, can muddle our understanding of them as distinct issues. This section will introduce each of these crises in turn.

Purchase affordability

Over the last 40 years home ownership has fallen across nearly all age groups. The downturn has been most pronounced within younger age groups. Those aged between 35 and 44 are 18% less likely to own a home today than they were in 1981. Those aged between 25 and 34 are 20% less likely to own than they were in 1981 [3]. Although part of this trend can be explained by changing lifestyles, such as the increased uptake of higher education (which delays earnings and savings), these factors alone do not explain the extent of the fall in ownership rates among younger age-groups.

There is little evidence to suggest that interest in home ownership is declining in Australia, and much evidence to suggest that there is a purchase affordability problem.

Mortgages are the only practical option for most Australians to purchase a home. There are two important barriers to acquiring a mortgage: paying the monthly mortgage ("serviceability") and saving for a deposit. Until recent interest rate increases, the capacity to service a mortgage has held relatively steady over time for most households [4]. Between 2006 and 2018, average Australian mortgage repayments fell by more than 20% relative to household income. [5]

[3] (Yates, 2015) and (ABS, 2022b).
[4] (Bullock, 2022).
[5] (RBA, 2018). Mortgage repayments were 13% of median household income in 2006, and 10% in 2018. This was partially caused by decreases in interest rates; the median household debt-to-income ratio rose from almost 120% to 130% over the same period.

This trend has shifted somewhat in the months prior to this report's publication, with recent rises in the Australian cash rate increasing financial strain for mortgage holders. Nonetheless, even these recent serviceability challenges are likely to only be felt by a small proportion of the overall Australian housing market. Just 35% of properties are owned with a mortgage. [6] Further, most of these mortgages are partly paid off, with the median loan-to-value ratio (LVR) on Australian properties being just 47%. [7]

In contrast, the deposits required to obtain a mortgage are now a significant barrier to home ownership. Higher absolute prices mean that deposits for buyers are a much more significant problem now than in previous years: the time it takes the average first home buyer to save for a housing deposit has increased because prices have grown much faster than wages over the last 30 years. [8] Indeed, house prices are now so high that it takes more than a decade to save a deposit in Sydney and Melbourne, a 40% increase between 2015 and 2021 alone.

Home ownership is now largely only available to people with access to private assistance, which most commonly takes the form of a gift, loan, or inheritance from parents or other close relations: the 'Bank of Mum and Dad' (BOMAD). Parents support their children either by making a cash contribution to the deposit (in the form of either a gift or a loan), or by using their own home equity as security. In 2022, 47% of first home buyers received financial help from their families when buying. [9] Cash gifts (received by 24% of buyers at an average of $99,000 [10]), or an inheritance (received by 19% of buyers), were the most common forms of assistance. The average loan from family members was $112,000. [11]

Not everyone has access to the Bank of Mum and Dad. Migrants, those whose parents never owned a home in Australia, those who do not hold university degrees, and those who were brought up by a single parent, are as much as 65% more likely to have bought without financial assistance from family. [12] This inequity between those with access to BOMAD and those without fundamentally underpins housing inequality in Australia.

Increases in property prices over the long term are also flowing through to inheritances, with the average inheritance growing 2% faster than inflation. [13] Most retirees do not draw down on their savings or downsize, so their property is passed on to their estate.[14] The age of bequests is also increasing. The average Australian is now typically more than 50 years old when their parents die, a stage in their lives when most need the extra help the least. The implication of this is that not only is wealth becoming increasingly concentrated in Australia, but the beneficiaries of wealth transfer from parents are themselves increasingly older. [15]

[6] (AIHW, 2022a).
[7] (ABS, 2023).
[8] (ABS, 1992) and (ABS, 2022a).
[9] Bank of Mom and Dad Report (2022), Where To, Commissioned by LongView.
[10] Ibid.
[11] Ibid.
[12] BOMAD research. Percentage indicates increased likelihood first home buyer does so without financial assistance from family.
[13] (Emslie & Wood, 2021).
[14] Ibid.
[15] Ibid.

Rental affordability

More than 2.9 million households in Australia rent in the private rental system. [16] This represents an increasing proportion of all households. In 2021 31% of Australians rented, up from 26% in 2006 with many renting for longer periods. [17] Consequently, renting can no longer be seen as a form of transitional housing. Rather, it is a permanent reality for an increasing number of Australians, if they can afford to rent at all.

Those who rely on government allowances are increasingly priced out of the private rental market, stuck between rising rents and Centrelink or pension payments which have not risen significantly in real terms for 25 years. This increases the risk of homelessness amongst some of Australia's already most vulnerable groups. Indeed, one of the most pressing issues facing the private rental market in Australia is the lack of affordable housing options, which represents an ever-decreasing proportion of the overall housing market. This has led to a growing number of renters being forced to spend a disproportionate amount of their income on housing costs, exacerbating their financial vulnerability.

[16] (AIHW, 2022a).
[17] (AIHW, 2022).

Rental experience

Much less frequently covered in the media than the cost of renting is the experience of renting in Australia. Most debilitatingly, Australian renters face significant insecurity and instability, with renters moving more frequently than they want. [18] Tenant advocates also highlight the frequency of poor quality and maintenance and a system that promotes insecurity in the rental experience. [19]

Landlords also face headaches. Many have bought properties with poor capital growth. Changing regulations can be complicated, increasing compliance costs. Meanwhile, property management is all too often treated as an 'add-on' business by real estate agents hoping landlords will eventually sell the property through them.

1.3. This paper focuses on purchase affordability

This Whitepaper focuses on purchase affordability, specifically, on what drives Australian housing prices over the long term. A subsequent Whitepaper (due to be published February 2023) will focus on renting in Australia, and a third (due to be published in the second quarter of 2023) will focus on solutions which swim with the tide of the economics of the Australian housing market.

[18] (Caldera-Sánchez, 2011).
[19] (AGPC, 2019).

2.

AUSTRALIA FACES A PURCHASE AFFORDABILITY CRISIS

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2. Australia faces a purchase affordability crisis

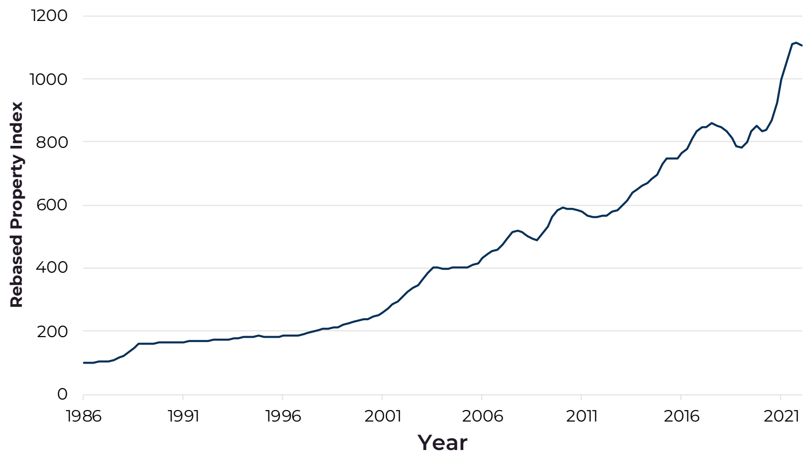
Residential property alone now represents around 47% of Australia's net worth. [20] Chapter 2 explores the long term rise in Australian house prices and asks why this has happened.

We find that while many commonly cited factors – government incentives, foreign investment, and interest rates – do affect house prices, they are insufficient to explain why prices have grown so consistently and significantly over the long term. We argue that unusually high levels of population growth, together with urban concentration and the scarcity of well-located land are a much less well understood reason why houses prices have grown so much.

2.1 Australian house prices have increased significantly over the long term

Since 1986, residential property prices in Australian capital cities have risen almost twelve-fold (Figure 2).

Figure 2 | Australian Capital City Property Index, rebased, Q4-1986 to Q3-2022 [21]



This is much faster than incomes have grown. While prices have increased at a compound annual growth rate of 7.2% since 1968, growth in the full time adult annual salary has averaged less than half that, at just 3.5% a year. [22] Of course, many households have two adults working. Between 1978 and 2018, median household FTE wages (adjusted for gender wage disparity) have increased by 16%, from 1.4 to 1.63 (Figure 3), meaning a household now typically earns 1.63 times the median wage of a single worker.

[20] (ABS, 2021b) and (ABS, 2021c).
[21] (ABS, 2021b) and (FRED, 2022a). The ABS series which concludes in 2021 has been extended with data from the Federal Reserve Bank of St. Louis to incorporate 2022 results.

[22] (Kohler & van der Merwe, 2015), (ABS, 2021b), (ABS,1990), and (ABS, 2022a).

Figure 3 | Household FTE Median Wage Index, showing number of single median incomes in a household. [23]

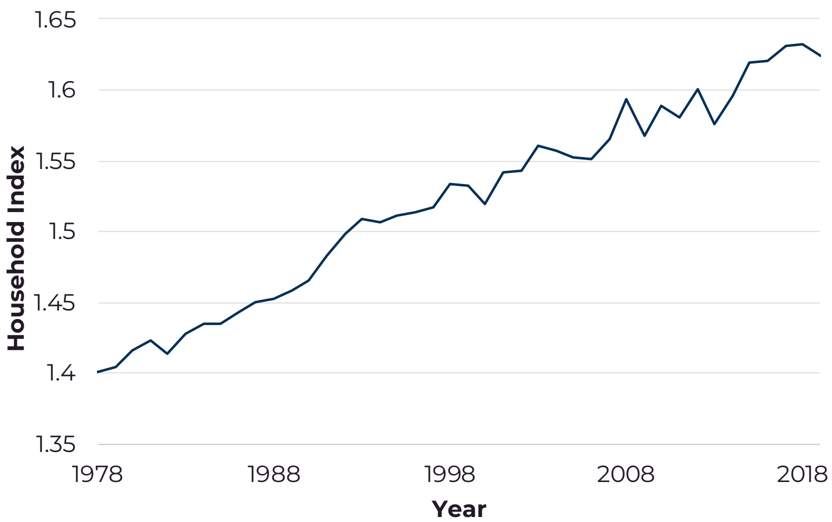
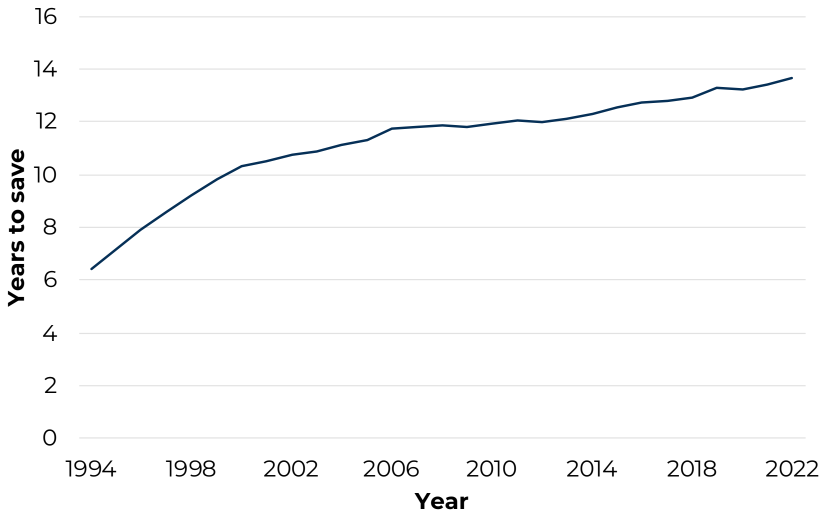


Figure 4 | Average time to save for a median dwelling in Eastern States Capital Cities [24]



Notwithstanding this rise in the workforce participation of women, a factor which is unlikely to grow much further even as prices continue to increase, the time taken to save for the down payment on a mortgage has also risen consistently in recent years (Figure 4).

Australians are also now paying more to secure financing. This problem has been exacerbated by two recent developments. First, monetary policy has begun to tighten, significantly raising interest rates for mortgage holders. Second, in late 2021, Australian Prudential Regulation Authority (APRA), through its prudential lending standards, increased the mortgage serviceability buffer to 3% (up from 2.5% previously). This lowers the borrowing power of homebuyers, pushing homeownership yet further out of reach for many. [25]

[23] (Department of Employment, Skills, Small and Family Business, 2019), (OECD, 2022). Assuming households have 1 male and female. Female addition to household earnings calculated using female labour participation and gender wage gap data. Labour participation data is linearly interpolated from 1978 to 2019.

[24] Calculated using population weighted time to save of Sydney, Melbourne, and Brisbane. Time to save calculated using average weekly earnings (ABS, 2022a), and median house prices (CoreLogic Australia, 2018). Assuming 15% of yearly wages are saved for house deposit that is 20% of the house value.

[25] To secure a home loan, borrowers typically need to prove that they can afford to service a mortgage 300 basis points higher than their current rate. During a downturn, banks become

2.2 Why has housing become so expensive?

Australia's strong economic growth and robust regulatory structures have undoubtedly played an important role in buoying house prices over the long term. However, these factors alone do not explain the higher growth of property values relative to other measures like income growth. In this chapter we explore the effects of the limited supply of well-located land in Australia, combined with demand that is driven by unusually high population growth. Three other frequently mentioned factors, while important, have a lesser and more complex effect on house prices over the long term than is often asserted. These are:

1. Government incentives
2. Foreign investment
3. Interest rates

Here we discuss each in turn.

Government incentives

Over the last 20 years, house prices have grown on average by 7.2% a year, a $7.1 trillion increase. [26] Government policy in the form of preferential tax treatment and incentives for property assets, is often asserted as the main reason for this growth. The RBA, however, has published estimates that the capital gains tax exemption and negative gearing combined account for less than 2% of the multi-trillion-dollar recent growth in house prices. [27] The same report also observed that first home buyer grants had an insignificant effect on price over the long term, and so did not merit factoring into pricing analysis.

Foreign investment

Foreign investment represents a small proportion of Australia's residential real-estate transactions, with foreign owner accounting for just 1.8% of buyers and 0.5% of sellers in 2019-20. [28] Foreign purchases were overwhelmingly concentrated on new build properties (typically apartments) which represented 57% of all foreign investment property transactions. [29] This suggests that although foreign investment represents a small proportion of the overall Australian residential property market, it exerts some influence on demand and price for new apartments.

Interest rates

At the time of writing, house prices are declining in many parts of Australia. Following unprecedented RBA cash rate increases (from close to zero to over 3%), prices Australia wide have fallen by nearly 10%. [30] Indeed, the RBA predicts that, following these raises, there could be as much as a 20% fall in house prices in major metropolitan centres. [31]

more stringent, further increasing this effect. In practice this means that borrowing power drops faster than house prices, particularly when interest rates are rising.

[26] (CoreLogic Australia, 2018).

[27] (Saunders & Tulip, 2019).

[28] (Owen, 2022) and (FIRB, no date). The number of total transactions is from the period ending March 2020. Note that there is limited long-term foreign investment data publicly available. This information gap arguably fuels unhelpful speculation about the role of foreign investment in driving availability and affordability.

[29] (FIRB, no date).

[30] (Sweeney, 2023).

[31] (Mizen, 2022).

Even experts struggle with property price forecasting

Much of the news cycle is taken up by predictions on short term property price changes, but it is striking how often these forecasts are wrong. For example, few economists predicted that in 2022 house prices would suffer their biggest fall since the GFC. [32] Indeed, even experienced bank economists struggle to forecast property prices in the short term (Table 1).

Table 1 | July 2021 Bank Forecast v Actual % Price Change by State. [33]

2021	WESTPAC	NAB	ACTUAL
SYDNEY	3	7.3	25.3
MELBOURNE	2	8.4	15.1
BRISBANE	8	10.1	27.4
ADELAIDE	5	8.9	23.2
PERTH	8	8	13.1
HOBART	5	9.7	28.1
AUSTRALIA	**4**	**7.9**	**21**

Some commentators have labelled recent record low interest rates as the primary, if not sole, driver of Australian house prices. They go on to suggest that the RBA's signalled intention to return to higher cash rates over the long term mean that Australia's longstanding property price growth is coming to an end.

Yet, while many countries have experienced record low interest rates in recent years, few have seen the same house price growth as in Australia.

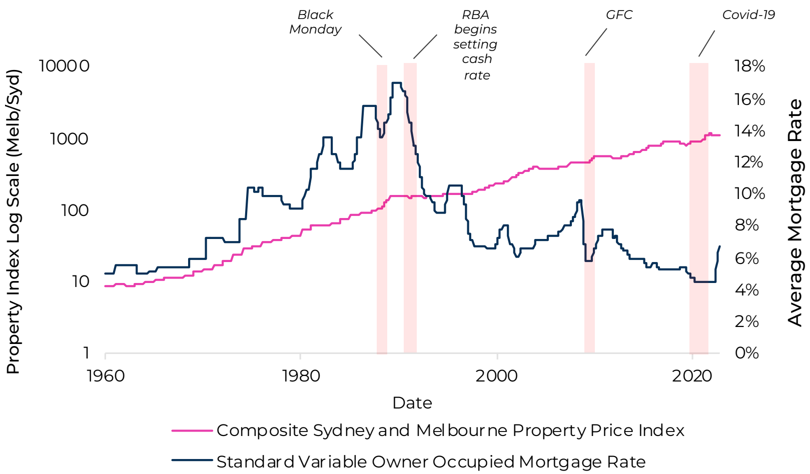
Part of the general misconception about the importance of interest rates in driving Australian house prices over the long term comes from a belief that property is a highly levered asset class, and so more sensitive to rates than other assets. Yet debt accounts for only 20% of the equity in the Australian residential property market. [34]

The far from simple relationship between interest rates and house prices can be seen by observing the history of house price growth and interest rates in Australia over the last 60 years (Figure 5).

[32] (Morgan and Bates, 2022)
[33] Ibid.

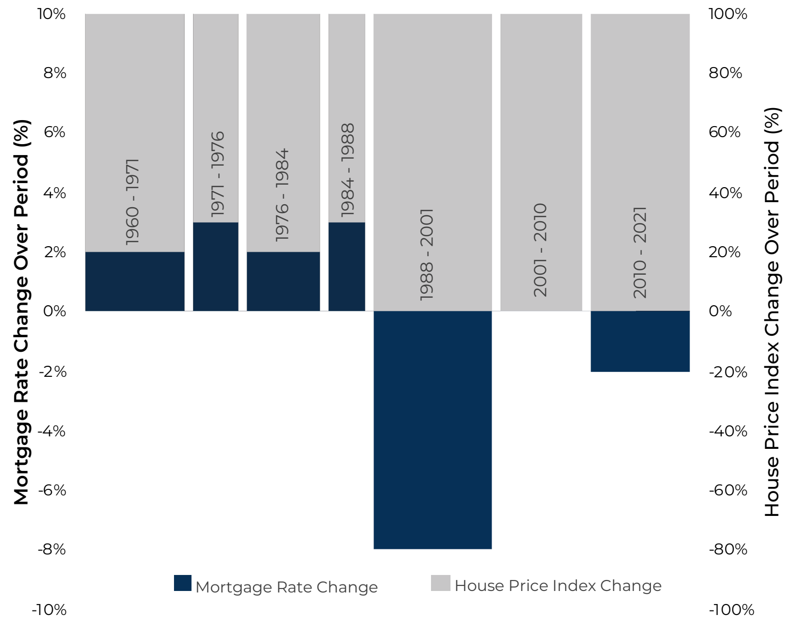
[34] (APRA, 2022b) and (ABS, 2022d).

Figure 5 | Composite Sydney and Melbourne House Price Index vs Mortgage Interest Rates [35]



Indeed, house prices have grown consistently over the last 60 years at an average rate of approximately 7% (without any reductions lasting more than a year) even as the RBA cash rate has varied significantly over the same period. Figure 6 shows the change in interest rates over periods of house price doubling. House prices doubled four times between 1960 and 1988 as interest rates rose and continued to double as interest rates fell between 1988 and 2021. This suggests that house price growth is occurring independently of interest rate movements over the long term.

Figure 6 | Variation of interest rate movements during house price doubling periods.



Interest rates do matter. Using the recent cash rate changes as an example, significant changes can have a notable impact on house prices in the short run. Nonetheless, the consistent growth of house prices, even during periods of high interest rates such as the 1980s or flat rates such as the 2000's, suggests that we must look beyond the role of interest rates to fully understand what drives house prices in Australia over the long term.

35 (ABS, 2022h), (Stapledon, 2012), and (RBA, 2022).

2.3 Australia's highly urbanised population and low-density cities play a critical role in driving house price growth over the long term

Australia has one of the highest population growth rates in the world

High population growth, driven by migration, has been the norm in Australia for many decades (Figure 7). Indeed, for much of Australia's history, migrants have made up a greater proportion of annual population change than natural increase. Apart from four periods (WW1, WW2, the Great Depression, and Covid) net migration in Australia has always been positive (Figure 8). [36]

Figure 7 | Australia's population over time [37]

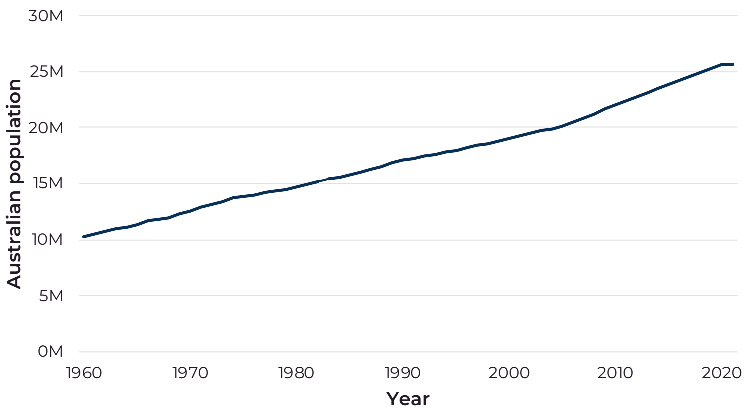
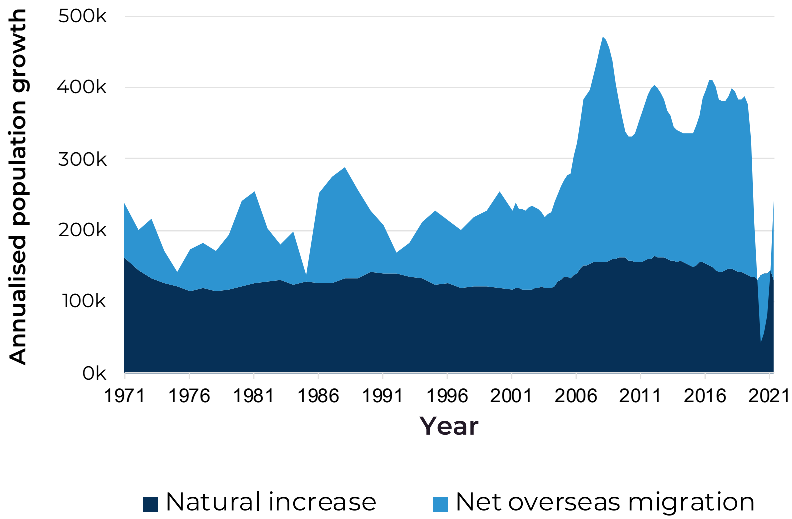


Figure 8 | Annual population growth in Australia 1971-2021 [38]



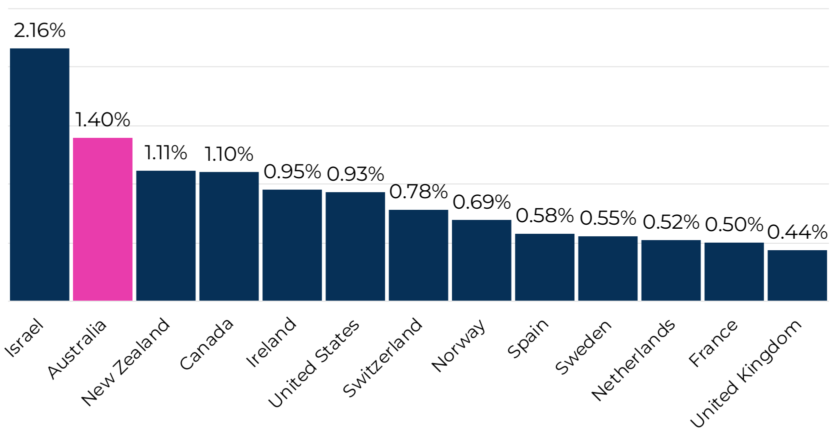
In a global context, population growth rates in Australia are far higher than most developed countries (Figure 9), giving truth to the saying that Australia is a 'nation of immigrants.' There is little evidence to suggest that this growth rate will not continue.

36 (ABS, 2021a).
37 (World Bank, 2022).

38 (ABS, 2022e) and (APH, 2015). Note that net migration includes repatriated Australian residents.

The make-up of this population growth is also notable. Unlike natural increase population, migrant populations are generally adults who have incomes to buy property: while the median age of migrants in Australia is 44, the median age of non-migrants is 34. [39] This means that demand for housing of Australia (and consequently price growth) is so high not only because of high population growth, but also because that population is more likely to be of an age where they would like to purchase housing.

Figure 9 | Average population growth rates of comparable OECD countries 1982-2022. [40]



[39] (ABS, 2021g).
[40] (World bank, 2022)

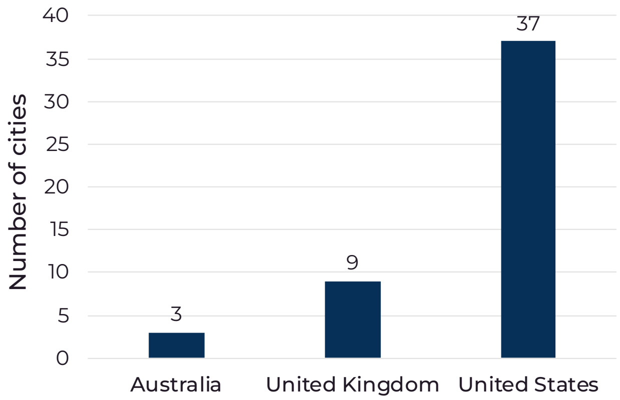
Australia is highly urbanised, with unusual levels of population concentration in a few large, low-density cities

People are attracted to urban centres and are willing to pay more to be near to jobs, services, and amenities. In Australian cities, access to jobs declines significantly with distance from capital cities, reflected in lower labour productivity levels. [41] This is an important reason why the rise in communications technology (including recent work from home trends) has not eliminated the desire for proximity.

This tendency for people to agglomerate in cities can be seen across the world. Even so, Australia's population is unusually concentrated. Most Australians live in a small number of large cities. Specifically, 51% of the population live in Sydney, Melbourne, and Brisbane. This is many fewer cities than the United Kingdom, where half the population lives in the nine largest cities, and even more so compared to the United States, where 36 cities contain half the population (Figure 10). As a result, the amount of desirable land is much more concentrated.

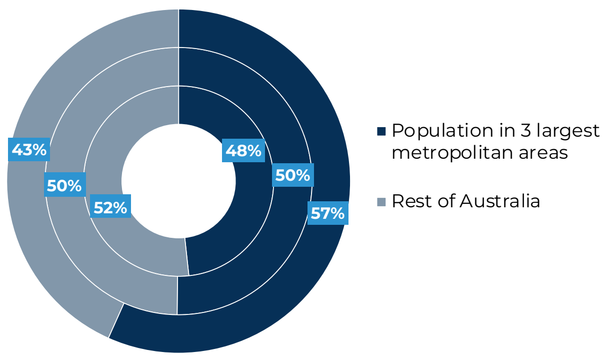
[41] (Kelly & Paul, 2021).

Figure 10 | Number of cities totalling 50% of country's population, 2022 [42]



Over the next 30 years the proportion of Australia's population in its three main capital cities is expected to further increase to 57% (Figure 11).

Figure 11 | Proportion of Australian population in Sydney, Melbourne, and Brisbane, 1984, 2019, and 2054 [43]



Australian cities have unusual density profiles

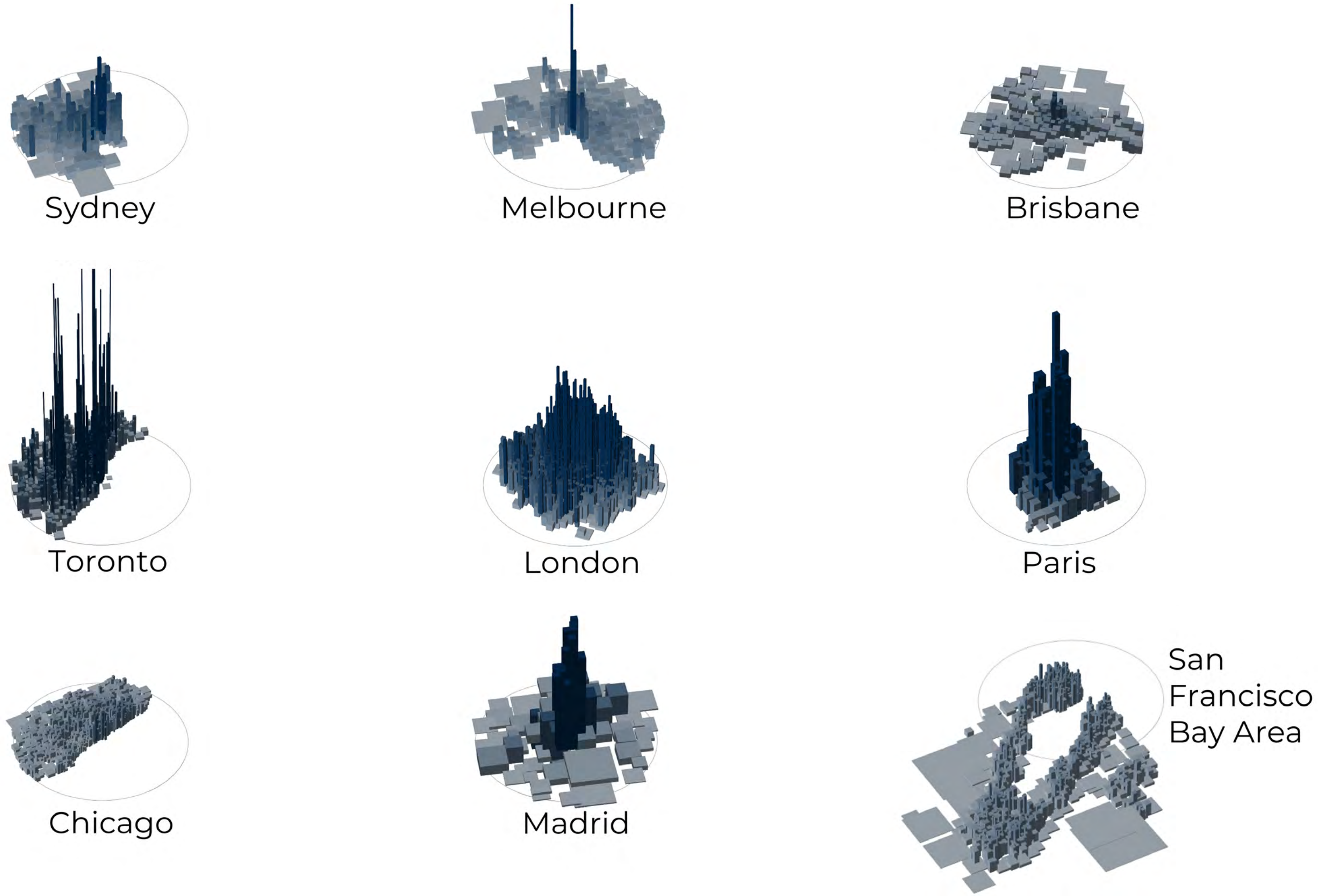
High population densities are concentrated in the CBDs of Sydney, Melbourne, and Brisbane, with geographically large, low-density areas surrounding them. As can be seen in Figure 12, this settlement pattern contrasts starkly to many cities in comparable countries, which are typically characterised by a greater proportion of medium density areas. In these cities, it is therefore easier to locate closer to jobs, services, and amenities than in Australian cities because there is a greater number of residential options near these necessities. [44] Over time however, Australia's cities are continuing to densify. This trend is likely to continue, creating more pressure on a fixed supply of desirable land.

[42] (GeoNames, no date), (USCB, 2021b), and (ABS, 2021e).

[43] (ABS, 2018), (ABS, 2021d), (Macrotrends, 2022a), (Macrotrends, 2022b), (Macrotrends, 2022c), (Macrotrends, 2022d), and (Salt, 2019).

[44] Andrew Spencer, Jeremy Gill, and Laura Schmahmann (SGS Economics)

Figure 12 | Urban density of major metropolitan centres [45]



[45] Circles represent a 30km radius. (ABS, 2021e), (ABS, 2021f), (Insee, 2021), (Statistica, 2019), (iledeFrance, 2019), (Madrid, 2020), (Madrid, 2022), (USCB, 2020a), (USCB, 2020b), (USCB, 2021a), (ONS, 2021), (Statistics Canada, 2021a), and (Statistics Canada, 2021b).

Australia's unusual density profiles are partly a result of zoning laws

Residential zoning, which acts as the key break to building approval rates, plays an important role in the density profile of Australian cities, and in turn, house prices. Building approvals are naturally constrained by the limited supply of available land close to jobs, services and amenities and are further constrained by zoning laws established at local council level. With the total stock of available dwellings relatively stable, the change in building approvals represents the changes in supply of housing in any given year. This relationship has been observed consistently since the 1980s. [46] In this way, housing supply (and thus price) is driven by zoning regulations. [47]

Zoning laws remain controversial. Residents typically see little benefit from zoning changes and community groups often campaign strongly against them. City-wide initiatives to improve density are equally difficult to implement because most cities are made up of many city councils, with their own development plans and policies.

Cities like Auckland have overcome this challenge by amalgamating local councils, thus easing the difficulty of passing zoning reform. Widespread opposition to council amalgamation in Australia makes it unclear whether similar policies are realistic here.

2.4 Land plays a pivotal role in Australian house prices over the long term

Land plays a significant and outsized role in driving house price growth due to unique features that distinguish it from other investments. Unlike many other things for which there is a market, there is a fixed supply of land, and each parcel of land occupies a unique location. Also, we all need somewhere to live, making land different from the kinds of goods where, if the price gets too high, people can opt out of using them.

Australia has an abundance of land, but there is a limited – and fixed – supply of well-located land. Population growth makes all well-located suburban land scarce, especially along rail corridors and relatively affordable outer suburban locations. When a good is scarce, we expect its value to increase.

Just as Australia's urban profile has evolved around concentrations of jobs, services, and amenities, aggregate house price growth has been related to the proximity to city centres. We can see this in the change in aggregated price growth in Melbourne between 1991 and 2006 (Figure 13) and 2006 and 2021 (Figure 14). While the former period was dominated by inner city growth, growth in the most recent period has been concentrated in the middle and outer suburbs. A similar phenomenon can be observed in Sydney and Brisbane over the same period.

[46] (Saunders & Tulip, 2019).
[47] (Kendall and Tulip, 2018).

Figure 13 | Melbourne aggregated price growth 1991 to 2006 [48]

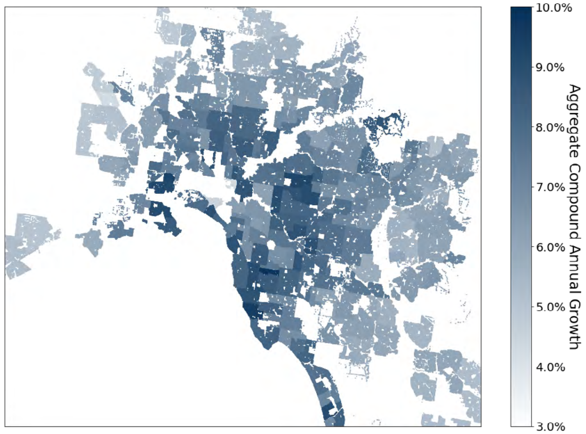
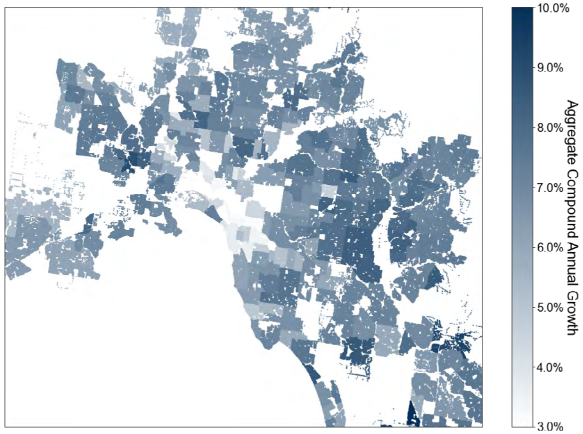


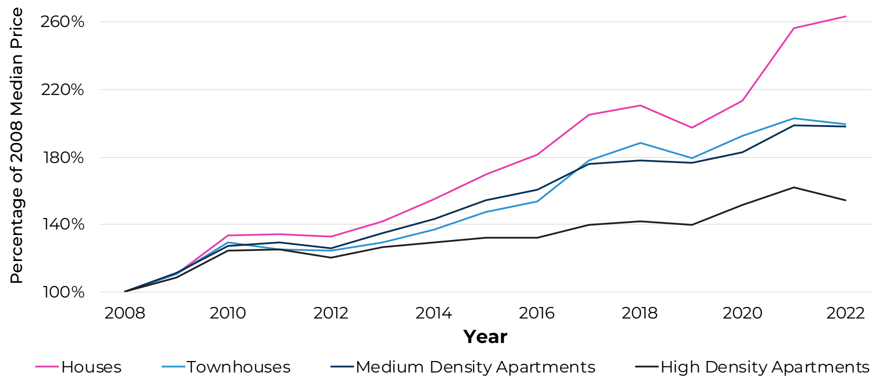
Figure 14 | Melbourne aggregated price growth 2006 to 2021 [49]



Land value also accounts for the difference in growth between house and apartment prices over the long term

The gap between house and unit prices is steadily increasing in Australian cities. We can see this relationship in Melbourne (Figure 15) where freestanding houses have grown at 7% annually followed distantly by townhouses, medium-density apartments, and high-density apartments. [50] Because the amount of land within each type of property follows a similar pattern, there is good evidence to suggest that the difference in price growth over the long term is driven primarily by land. The same methodology shows similar patterns in all our major cities.

Figure 15 | Relative change in median established house and unit prices Melbourne 2008-2022 [51]



[48] LongView analysis of Propic residential property data.
[49] LongView Analysis of Propic residential property data. Note that the lack of growth in inner-city areas between 2006 and 2021 is primarily caused by a change in housing type mix; specifically, these suburbs have largely been transformed into high density apartment dwellings which have poor growth.
[50] LongView Analysis of Propic residential property data. Considers the period 1990-2021. Excludes dwellings without a sales history before 1990 to prevent new builds from influencing the result.
[51] LongView Analysis of Propic residential property data. Data contains only Melbourne properties and excludes new builds by only considering properties with a sales history before 2008. Medium density refers to less than eight apartments in a property and High Density refers to at least eight apartments.

Land appreciates, buildings depreciate

When evaluating property prices in Australia over the long term it is important to distinguish between land value and building value. By building value, we mean the value of the structure that sits on the land lot. The reason that it is important to distinguish between these two features is that they have different growth relationships. Buildings typically depreciate over time, as wear and tear erode their value, and desirability decreases relative to newer buildings.

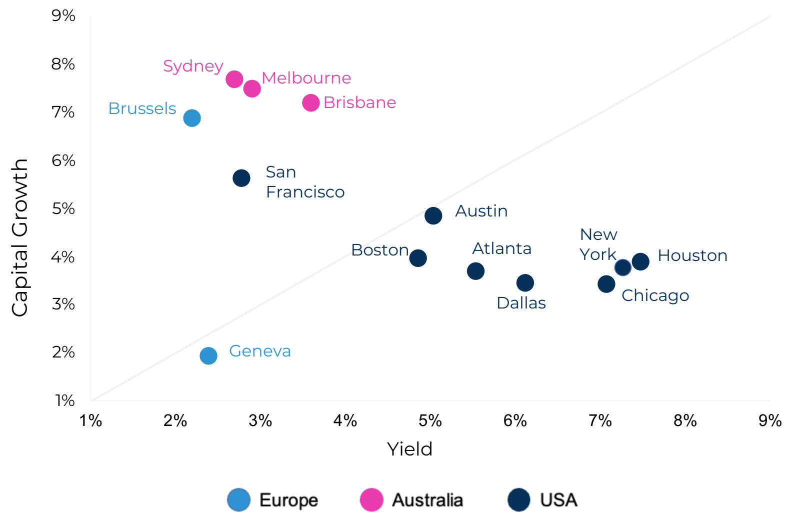
Conversely, land, particularly well-located land, increases in value over time, because it is limited and scarce. Different types of property operate on a scale in terms of what proportion of their total value is comprised of each type. Houses and other detached dwellings typically have a significant proportion of their value comprised of land value. Townhouses and semi-detached dwellings typically have a medium proportion of their value comprised of land value. Units and apartments typically have a low proportion of their value comprised of land value.

Consequently, we see distinct growth profiles for different property types: detached dwellings show the strongest growth; semi-detached dwellings and small apartment buildings show modest growth; and higher density apartments typically show the lowest growth.

As a result, Australia's residential property market is characterised by high capital growth - and low yields

Australian rental yields have not kept up with the increases in property value.[52] Average house rental yields have fallen from 4.0% in 2012 to 3.5% in June 2022 and unit rental yields have fallen from 4.6% to 4.1%.[53] This is much lower than comparative yields internationally, such as the 7.7% average yield in America in 2021.[54] Figure 16 compares CAGR and yield between 1986 and 2021 in select cities globally.

Figure 16 | CAGR (1986-2021) and Yield (2021) selected cities comparison [55]



52 Rental yield is equal to the ratio of annual rent paid by tenants (minus maintenance and management costs) and overall property prices. If property prices increase and rent remains the same, then yield decreases. If property prices decrease and rent remains the same, yield increases.

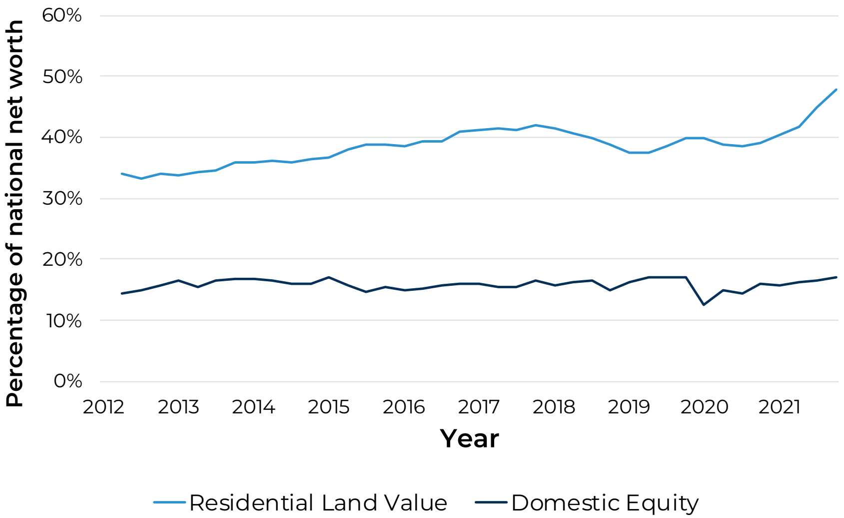
53 2022 Rental Yields (Kusher, 2022), 2012 Rental Yields (Fox & Tulip, 2014).

54 (Collins, 2022).

55 (ABS, 2021b), (CoreLogic, 2022b), (FRED, 2022b), (Zillow, 2022), (BIS, 2022), (RealAdvisor, 2022).

Not only does this make residential land a relatively low yield asset in Australia, but it also has significant implications when considering the nation's net wealth. Specifically, residential land makes up an increasingly large proportion of Australia's national net worth. We estimate that 48% of Australia's total national assets currently consists of just residential land, compared to 34% in 2012 (Figure 17). Critically, residential land eclipses all other Australian asset classes in scale, including physical residential structures, commercial real estate, bonds, and equities.

Figure 17 | Residential land value as a proportion of total national assets. [56]



[56] See Appendix A. (ASX, 2022), (ABS, 2022c). This analysis is partially based on ABS property price index data which concludes in 2021. As such, we only compute the ratio until the fourth quarter of 2021. It is likely that the proportion will have dropped in 2022.

Land proportion of national net worth –methodology

LongView's methodology to compute residential land as a proportion of national net worth is based on the movement of ABS property indices in comparison to construction indices. We assume that:

$$\textit{Property Price Index} * \boldsymbol{a} = \textit{Property Prices}$$

$$\textit{Construction Price Index} * \boldsymbol{b} = \textit{Physical Structure Prices}$$

And therefore:

$$\frac{\textit{Construction Price Index}}{\textit{Property Price Index}} * \frac{\boldsymbol{a}}{\boldsymbol{b}}$$

$$= \frac{\textit{Physical Structure Prices}}{\textit{Property Price}}$$

This ratio represents the proportion of residential property value that consists of structure rather than land. We use ABS estimates of total residential land value and total residential property value to anchor this index. We then calculate a land value proportion as the remainder after subtracting structure value from 100%. Residential land value as a proportion of national net worth is obtained by multiplying the land value proportion with the total value of residential property in Australia and then dividing by Australia's national net worth.

3.

AUSTRALIAN HOUSING ECONOMICS CREATE CLEAR WINNERS AND LOSERS

3. Australian housing economics create clear winners and losers

House owners are big winners, with some other property owners also winning, though less so

Detached house owners have benefited from the highest growth in land value over the last 30 years. The long-term growth in house prices alone has seen the average Australian become wealthier than the average citizen of any other country. [57]

Australia's population is likely to continue to increase at unusually high rates, and proximity to urban centres will remain a major determinant of quality of life and access to opportunities. As a result, price rises over the long term are likely to be greatest in existing detached dwellings, as opposed to new-build apartments in urban centres or new-build houses on urban fringes. Detached home owners are set to continue to be big winners.

Owners of apartments, for whom land value represents a lower proportion of total property value, have benefited less – with the age, location, and size of the block driving varying outcomes (smaller and older apartments do better, newer and higher apartments do worse). These groups have also missed out on the capital growth opportunities which have benefited owners of detached dwellings over the last three decades.

Those pushed to the edges of our cities face long commutes and fewer opportunities

Many first home buyers will be forced to buy far from the centre of cities. People living far from the centre of cities are denied various opportunities that may increase quality of life, including access to higher paying jobs which are in the central city and employment hubs.

They aren't reaping the economic benefits that living in a city should bring them, benefits that previous generations of Australian city and suburb-dwellers have enjoyed. Our largest cities are now too big for this.

For many, long commutes come at the expense of family life. People with very long commute times have the worst reported work-life balance of any group in Australia. [58] The distance to many jobs is a particular problem for mothers. Because women still do most of the caring work in Australian households - whether looking after children or older family members - they are more likely than men to reduce their work hours from full-time to part time or casual, and to be constrained in how long they can spend commuting to work. [59]

Many mothers living far from city centres would like to work but are cut off from choices that families in suburbs with better connections to jobs and transport take for granted. What should be a boon of city living – both members of a couple being able

57 (Read, 2022).
58 (HILDA, 2019).

59 (Pocock, Skinner, and Williams, 2012).

to work in jobs that make the most of their skills – is a mirage for many Australians.

Low-income homeowners face ever growing burdens

As property prices have grown, so too have proportionate costs like council and insurance rates (which grow based on property value) and transaction costs like stamp duty.

Rising house prices don't automatically improve a homeowner's ability to buy a better house (since the prices of all properties are increasing) and they mean that the cost of owning a house of the same quality is increasing. This phenomenon is particularly harmful for low-income homeowners like pensioners who might own a property outright but lack the ability to service these ever-rising proportionate and transactional costs. Thus paradoxically, many low-income homeowners can be disadvantaged by Australia's long term housing growth.

Those trying to enter the housing market face growing hurdles

Deposits have become further out of reach for many, with access to family wealth increasingly necessary to enter the housing market.

Meanwhile, renters also lose out on access to the most highly protected asset class in the country. Government subsidy of home ownership and property investment reaches many billions of dollars each year, and tax advantages such as negative gearing and capital gains discounts have proved difficult to change. In any given year, homeowners significantly outnumber home buyers, and so the use of political levers to rebalance these advantages is likely to be extremely difficult.

4.

SOLUTIONS NEED TO SWIM WITH THE TIDE OF THE ECONOMICS

LONGVIEW | PEXA

4. Solutions need to swim with the tide of the economics

As Australia's population continues to grow and become more concentrated, purchase affordability is a challenge that is likely to further intensify. We have argued that long-term increases in house prices are driven by a combination of our unusual demographic and geographic makeup – in particular, high rates of population growth and high levels of urban concentration. These in turn make well-located urban land increasingly scarce in our cities, and its value will only continue to go up.

Whitepaper 2, on the private rental system in Australia, will be published in February 2023.

Solutions to the challenges of purchase affordability, rental affordability and rental experience will have to engage with the realities of Australian housing economics. These cannot be wished away: rather than trying to overturn the realities of Australia's housing market, solutions will have to swim with the tide of the economics.

Whitepaper 3, to be published in the second quarter of 2023, will explore what kind of solutions won't work, and, much more importantly, the kind of solutions that will.

Click HERE to read Whitepaper 2
Click HERE to read Whitepaper 3

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