THE McKELL INSTITUTE

# Mortgaging our Future

## THE EFFECTS OF SUPER FOR HOUSING POLICIES ON AUSTRALIAN PROPERTY PRICES & FINANCIAL HEALTH IN RETIREMENT

DECEMBER 2021

# ABOUT THE MCKELL INSTITUTE

The McKell Institute is an independent, not-for-profit research organisation dedicated to advancing practical policy solutions to contemporary issues.

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## ABOUT THE AUTHORS


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**The authors of this study are involved in the delivery of Australia's oldest Bachelors program in Property – at the University of South Australia. They also have extensive experience researching housing and commercial property markets, econometric modelling, applied economics research and policy analysis.**

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# FOREWORD

In recent years, the pursuit of home ownership has become more difficult for many Australians, and younger Australians in particular. As of October 2021, the median house price in New South Wales exceeded $1.3 million – rendering the purchase of a house out of reach for most unsupported, younger families.

MICHAEL BUCKLAND
CEO, MCKELL INSTITUTE

Despite historically low interest rates, the key barrier to securing a home loan, especially for younger Australians without a family capable of providing financial support, is securing a deposit. A standard 20 per cent deposit for a house in Sydney – where one-fifth of Australia's population resides – is now priced at around $300,000, or close to five times the median annual earnings for an individual.

Clearly, housing affordability is an enormous challenge which policymakers are cognisant of and which demands creative thinking.

But it is also an area of public policy through which certain proposals, even those framed with the best intentions, can exacerbate the problem.

One frequently discussed idea has been allow younger Australians to use their superannuation deposits for a home-loan deposit. This fringe notion, known as super-for-housing, has been circulating for several years, but accelerated after the Federal Government's 2020 decision to allow Australians to access their superannuation savings to provide income support during the COVID-19 recession.

This report, authored by Professor Chris Leishman, Dr. Sumin Kim, Dr. Laurence Lester and Peter Rossini – a team of Australia's leading housing economists based at the University of South Australia – robustly considers the effects on the housing market of the super-for-housing proposal.

It finds that if adopted, super-for-housing would have a significant inflationary effect on house prices across Australia, making home ownership further out of reach for younger Australians.

It also considers the long term effects such a policy would have on household indebtedness, finding that cash invested in superannuation offers more sustainable long-term returns than if that money was held in housing.



# KEY FINDINGS

## FINDING 1

Australian governments have long favoured demand-side interventions in the housing market, which have resulted in higher prices but have not necessarily led to higher rates of home ownership.

## FINDING 2

Allowing prospective buyers to access between $10,000-30,000 in superannuation savings to allocate towards a house deposit would have no material impact on the overall rate of home ownership.

## FINDING 3

Allowing prospective buyers to access $60,000 and above in superannuation savings to allocate towards home ownership would see more prospective buyers transition to home ownership, but place significant inflationary pressure on house prices in Australia's major cities. These price increases identified would be:

| CITY | HOUSE PRICE EFFECT IF $60,000 OF SUPER IS DEPLOYED TO HOME OWNERSHIP (% INCREASE) |
|---|---|
| Sydney | 4.6 |
| Melbourne | 10.4 |
| Brisbane | 14.8 |
| Adelaide | 20.0 |
| Perth | 18.8 |
| Hobart | 22.8 |
| Darwin | 12.7 |
| ACT | 28.3 |

## FINDING 4

In addition to inflating house prices, super-for-housing would lead to increased household indebtedness. This report finds that cash placed in home ownership will likely compound at a lower rate than cash invested in superannuation in the long term.

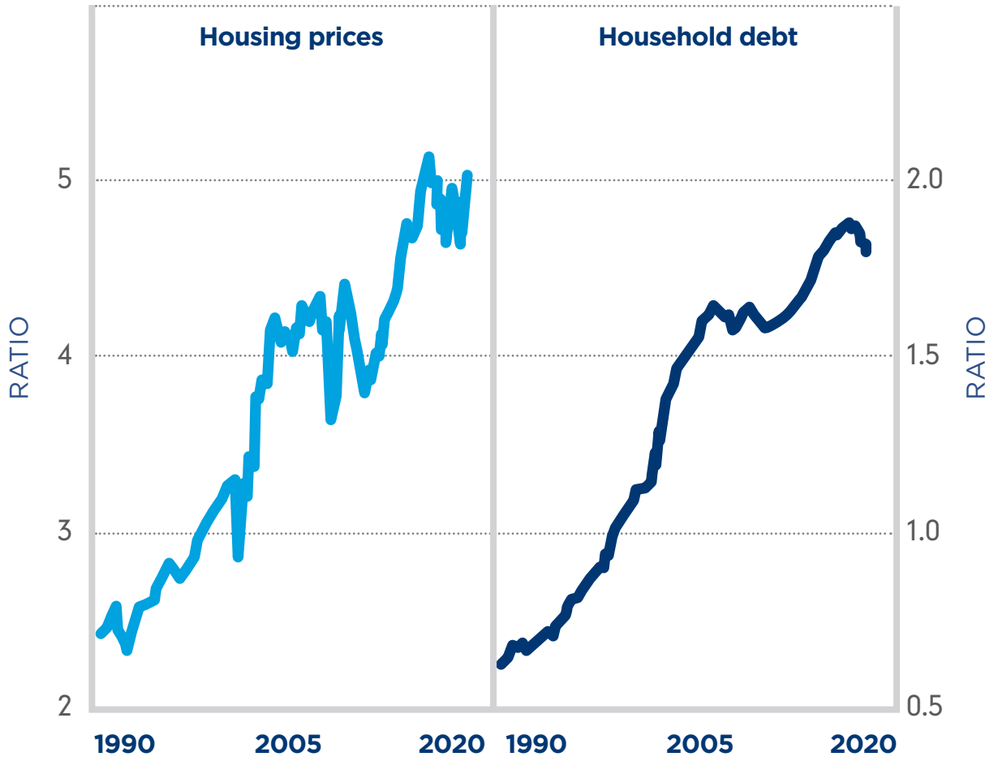
# PART ONE: AUSTRALIA'S HOUSING AFFORDABILITY CRISIS

## KEY POINTS

1. Australia's housing affordability crisis has escalated throughout the COVID-19 pandemic.
2. Australian governments' interventions in the housing market have long favoured the demand side, working to place upward pressure on house prices.
3. Demand-side interventions do little to increase home-ownership, but do help to inflate housing asset prices.
4. As a response to housing affordability challenges, some policymakers are pushing for superannuation savings to be used for home-loan deposits, the effects of which this report examines.

Australia's housing affordability crisis was acute even prior to the COVID-19 pandemic caused by the SARS-CoV2 virus. In the early stages of the pandemic, housing prices were widely tipped to fall dramatically. In fact, a combination of Australia's relatively light case load, economic stimulus measures, a rapid economic recovery, and speculative behaviour, have all come together to trigger another period of very significant growth in housing prices.

**FIGURE 1** HOUSING PRICES AND HOUSEHOLD DEBT*




**Source:** Reserve Bank of Australia, 2021

Home ownership provides stability, security and financial freedom to individuals (Rodrigues 2003), in addition to a financial asset to support a household's future (Yates and Bradbury, 2010). Yet homeownership rates have been falling for young Australians since the mid-2000s (Yates, 2011).



## Demand-side market interventions favoured by governments

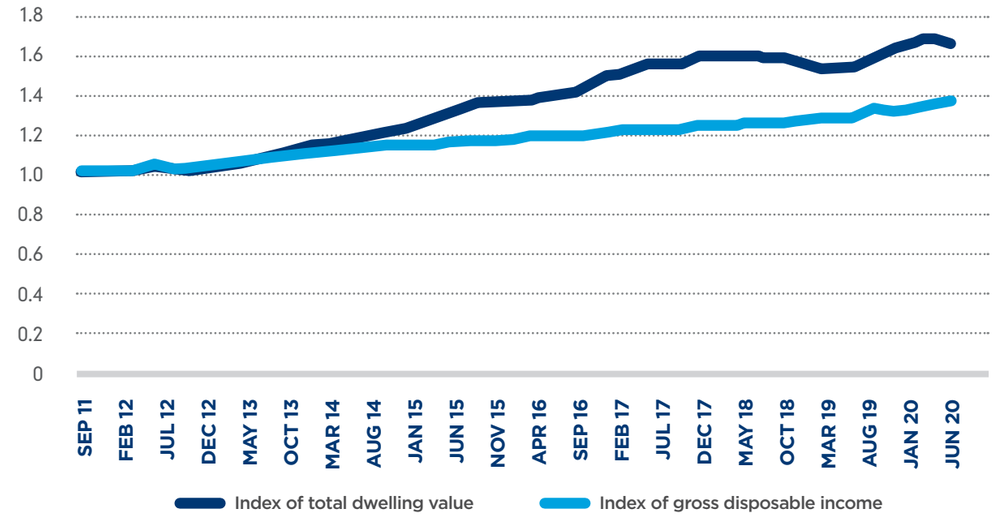
Australian governments' successive policy interventions in the market for privately owned housing have a long favoured demand-side measures, including various forms of first home owner grant, NHFIC's first home loan deposit scheme, the federal government's HomeBuilder policy, and indirect subsidies such as 100% concessions on capital gains tax for owner occupiers, 50% concessions for private rental investors, and negative gearing provisions. In some states and territories, there are also state government sponsored providers of low-cost home finance, low-deposit products and/or shared equity home loan products. These aim to widen the reach of home ownership to those excluded by the lending criteria of traditional home loan providers, who generally require 20% deposits, in addition to other up-front costs being financed from equity.

Research has shown that demand-side interventions have had limited impacts on home ownership rates. Indeed, they have inflated housing prices and exacerbated wealth inequalities by bringing forward the purchase decisions of households ultimately already likely to become eventual home owners (Wood, 2006).

The balance of whether demand-side subsidies ease entry to home ownership as opposed to simply further inflating housing asset prices depends principally on the price elasticity of housing supply. This has been the subject of recent debate in Australia and internationally. In Australia, Kendall and Tulip (2018) have recently argued that planning restrictions (zoning) have greatly contributed to deteriorating housing affordability. In a review of UK policies, Carozzi et al (2019) found that the Help to Buy policy did not increase construction output in London, but contributed to rising prices. They found evidence that in areas with more responsive supply, construction output was correspondingly more responsive, and price effects more muted.

There are also doubts about the effectiveness of demand-side interventions given that housing prices have grown faster than incomes. Real house prices in Australia trebled between 1985 and 2015, and the price to income ratio doubled during this period (Yates. 2016).

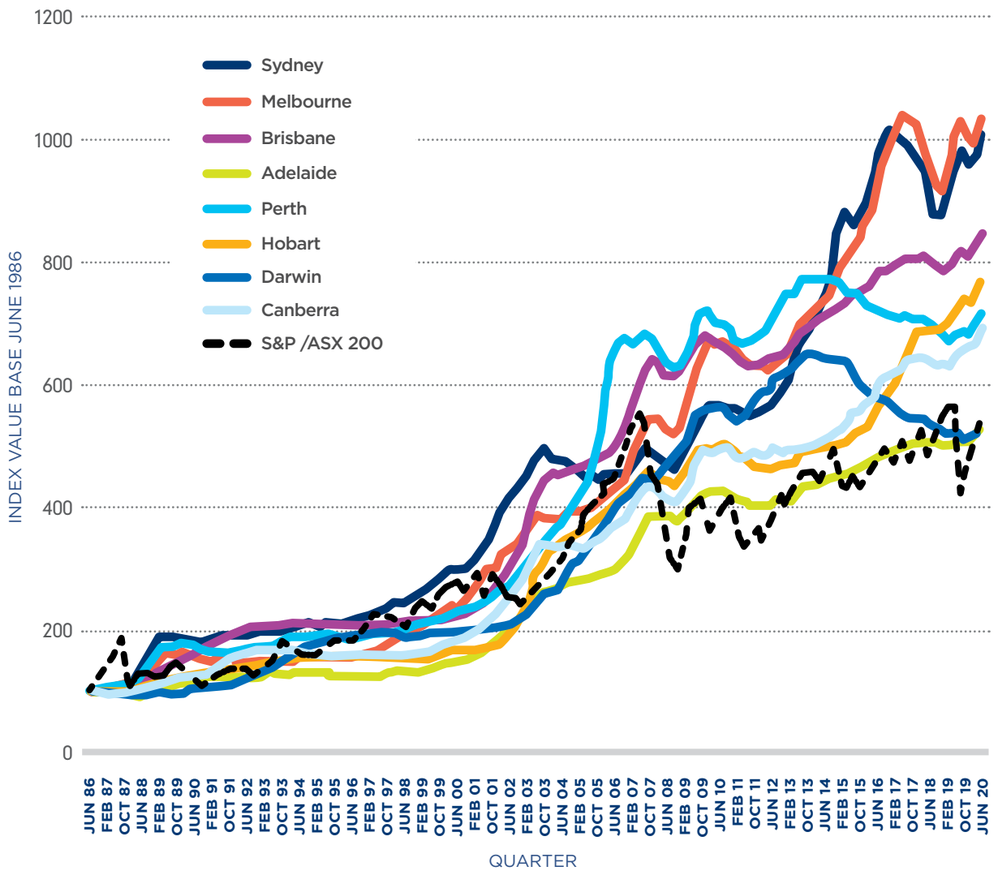
**FIGURE 2** AUSTRALIAN HOUSING STOCK VALUE AND DISPOSABLE INCOME




**Source:** To come

Even more striking is the performance of housing prices relative to other asset markets. This is demonstrated in figure 2 which captures the strong divergence of prices in Sydney, Melbourne, Brisbane and Hobart from the ASX200 index – particularly in the most recent period since 2012.

**FIGURE 3** HOUSING PRICES RELATIVE TO THE ASX




**Source:** Authors compilation from ABS and ASX Data. ©Peter Rossini 2021

It is in this wider context that some policy commentators have recently suggested that early access to individuals' superannuation savings for the purpose of contributing to home loan deposits could pose a partial answer to the housing affordability problem (*Sydney Morning Herald*, 2020). It is already possible for individuals to save up to $30,000 within their super account through additional voluntary contributions, for the purpose of adding to a home loan deposit. This allowance is additional to regular savings, and is limited to $15,000 in any one year.

## House prices have increased further during COVID-19

As table 1 summarises, housing prices have increased significantly during the COVID-19 pandemic, driven by a range of factors including a significant volume of ex-patriot Australians opting to return home, shifts in location preferences, and monetary policy settings leading to record low interest rates. Rental costs, as well as housing asset prices, have been heavily impacted.

**TABLE 1** RENTAL AND HOUSING PRICE CHANGE DURING THE PANDEMIC

| STATE / TERRITORY | MEDIAN RENT % CHANGE (May 2020 to May 2021) | MEDIAN PRICE % CHANGE (May 2020 to May 2021) |
|---|---|---|
| **Australian Capital Territory** | 7.0% | 12.2% |
| **Greater Adelaide** | 7.0% | 8.0% |
| **Greater Brisbane** | 4.9% | 6.5% |
| **Greater Darwin** | 13.3% | 14.0% |
| **Greater Hobart** | 6.7% | 12.9% |
| **Greater Melbourne** | 2.4% | 8.1% |
| **Greater Perth** | 16.7% | 7.4% |
| **Greater Sydney** | 5.7% | 12.4% |
| **Rest of NSW** | 7.5% | 11.3% |
| **Rest of NT** | 4.2% | 6.6% |
| **Rest of Qld** | 6.3% | 4.5% |
| **Rest of SA** | 7.4% | 4.5% |
| **Rest of Tas.** | 12.5% | 13.4% |
| **Rest of Vic.** | 7.1% | 16.9% |
| **Rest of WA** | 8.6% | 15.2% |

**Source:** To come

During the COVID-19 pandemic, 3.5 million individuals initially applied to release up to $10,000 from their super accounts as a result of one of the government's emergency support measures. The limit applied to each of the financial years affected by the early part of the pandemic (2020). APR (2021) data shows that there were 1.4 million repeat applications and that the average amount withdrawn was $7,638.

More recently, there has been some debate about whether individuals should be permitted to withdraw additional funds from their super to add to their home loan deposit (such withdrawals would be from their general balance, rather than a specific or additional saving over and above regular savings). In this report, we consider what the impacts of such a policy could potentially be for individuals and housing markets. The next section outlines the methodology for making these estimates.



# PART TWO:
# TESTING THE EFFECTS OF SUPER-FOR-HOUSING POLICIES

## KEY POINTS

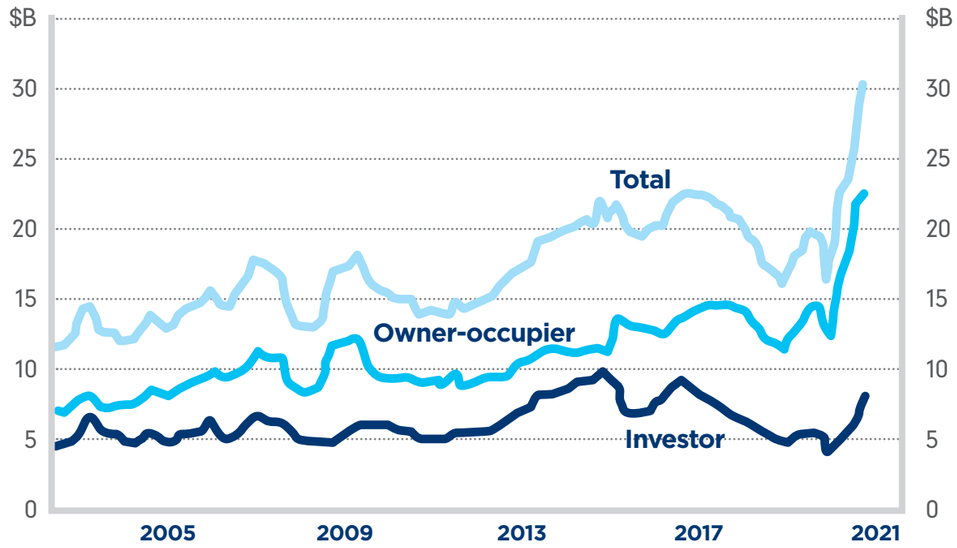
1. The flow of home loan finance into housing markets is a critical determinant of housing price growth.
2. Prospective home owners face significant up-front costs, including the requirement to save for a deposit.
3. Housing market outcomes are therefore linked both to finance markets, and to the conditions that determine how quickly prospective home owners can enter the market.
4. Investment in housing also involves a trade-off, and particularly so if savers are encouraged to divert funds from other investments in order to enter home ownership earlier than envisaged.

Before transitioning to first home ownership, individuals, and their households, often live in either the private rental sector or in the parental home. The *AFR* (2021) reported that one in ten first home owners require at least 10 years to save sufficient equity for a home loan deposit.

We postulate that the effects of early release of super savings to bolster home purchase deposits would affect the housing market in three principal ways:

1. First, the policy would bring forward the transition of individuals/households currently saving with a view to entering home ownership in the future.
2. The process of bringing forward demand would increase the demand for credit (home loan finance) and, in turn, the demand for housing. The latter would lead to an increase in housing prices.

**FIGURE 4** HOUSING LOAN COMMITMENTS*




**Source:** Reserve Bank of Australia, 2021

3. Third, individuals taking up this option will face a different financial future. Whether they will end up better or worse off depends in turn on a number of factors including:
   - The increase in wealth arising from earlier access to home ownership, assuming that housing prices grow over time;
   - The savings made by ceasing payment of rent earlier in the life-cycle, and redirecting the cash flows to savings or paying down a home loan;
   - The decrease in wealth arising from the withdrawal of a significant sum of money from super, with effects compounding over a long forward time period (such as the 30 year period over which home owners typically pay down a home loan).

In order to test these postulated relationships, we set out two econometric analyses using distinct datasets and approaches.

First, we develop a micro-econometric model of transition to first home ownership the Household Income and Labour Dynamics Australia (HILDA) survey dataset. The HILDA longitudinal survey follows Australian individuals and households over time.

The dataset is an annual, nationally representative household-based longitudinal survey of around 18,000 individuals. It has been conducted each year since 2001 and now contains 19 available waves of data is based on a nation-wide probability sample of Australian households, and collects detailed longitudinal information across health, housing, employment and demographic characteristics. Information in this dataset is collected from all household members aged 15 years and over via self-completion questionnaires and face to face surveys (see Wooden & Watson 2007).

The analysis of HILDA data is guided by work by Andrew (2012), which emphasised the role of credit constraints (required down payment, LTV, LMI) in influencing propensities to enter first home ownership.

This is customised to the Australian context by considering the well-documented important roles of cash savings and home loan interest rates in influencing propensities for existing owners to trade up.

The purpose of the micro models is to help identify plausible scenarios about the effect of allowing super to be accessed on the flow of housing finance to the housing market.

HILDA is designed to be nationally representative, and the analysis can make use of grossing weights to predict statistics at national level, including the number of households currently renting privately and accruing savings.

Significantly, HILDA includes additional data on household financial wealth and savings in waves 2, 6, 8, 10, 14 and 18. This makes it possible to track individuals' savings over time, and to note their savings and income levels when transitioning from privately renting to home ownership. The sample size is 22,737 after matching LGA level housing costs to individuals, which causes some attrition to the original HILDA sample size.

The second main element of the methodology involves the estimation of a time series model of housing price growth that accounts for the influence of economic fundamentals (earnings, home loan interest rates, inflation, price growth expectations) and the flow / volume of housing finance, on house price change.

We set out a variant of the asset pricing approach (Poterba, 1984; Otto, 2007) which also forms the basis of recent work by the RBA (Saunders and Tulip, 2019).

$$\Delta \ln\left(P_t^h\right) = \beta_0 + \beta_1 rr_{t-l} + \beta_2 \frac{P^h{}_{t-l}}{R_{t-l}} + \beta_3 D_{t-l}$$

$$+ \beta_4 A_{t-l} + \beta_5 C_{t-l} + \beta_6 UCC_{t-l} + \beta_7 S_{t-l}$$

$$+ \beta_8 I_{t-l}$$

**Where,**

| | |
|---|---|
| $P^h$ | **Median housing price** |
| $rr$ | **Mortgage interest rate** |
| $R$ | **Median rent level** |
| $D$ | **Difference in logs of state final demand** |
| $A$ | **Difference in logs of new building approvals per 1,000 population** |
| $C$ | **Difference in logs of credit (volume of bank lending to home owners)** |
| $UCC$ | **User cost of capital** |
| $S$ | **Real stock market returns (ASX200)** |
| $I$ | **Consumer price inflation** |

Although most variables are shown with the lag specification t-l, in practice we set the appropriate lag structure for each variable empirically, by minimising the Akaike Information Criterion (AIC). The UCC variable represents the user cost of capital, or cost of home ownership relative to renting. This variable is a composite of expected future price growth, taxation on property and depreciation. In practice, we set UCC to equal a lagged moving average of past observed price growth rates.

The price:income ratio, user cost and stock market return variables capture the essence of the asset pricing approach. Home owners are assumed to arbitrage between home ownership and rental markets, and non-housing assets. As the price:income ratio grows, home ownership diminishes in attractiveness. This is also true for high/growing financial asset returns, proxied by the real rate of return on the ASX200 index. Finally, state final demand and new building approvals act as demand and supply shifters, i.e. we expect to see positive and negative signs on these coefficients, respectively.

# PART THREE:
# ESTIMATING THE PROPENSITY TO BECOME A HOMEOWNER

## KEY POINTS

1. The Household Income and Labour Dynamics Australia (HILDA) survey dataset can be used to monitor and model the rate at which individuals enter first home ownership.
2. The evidence shows that, controlling for other factors, living in areas with higher housing prices lowers the probability of entering home ownership.
3. Higher levels of savings (net worth) are associated with a stronger likelihood that private renters enter home ownership.
4. Additions of between $10,000 and $30,000 to a household's net worth would have little or no impact on the probability of enter home ownership (much larger additions would be needed).

To estimate the models, we first constructed a HILDA data file that contains information on gender, age group, educational attainment, household composition, income and savings for 22,737 individuals monitored over 17 years spread over the 6 waves for which financial variables are available. We restrict the analysis to home owners and private renters, yielding 18,907 observations in total.

We defined heads of households as being the adult household member with the highest record income of any adult household member, and aggregated income and savings to the household level. Next, we created variables to denote the tenure of the household in each wave (restricting to privately renting and any form of home ownership). We also constructed transition variables to flag when households move from privately renting to home ownership. Transition variables also record changes in heads of households' circumstances – principally change in relationship status, and the acquisition (arrival) or children between waves.

A number of model specifications are trialled, and there are two broad forms of model. The first set considers the propensity of heads of household to belong to a tenure (privately renting versus a mortgage holder). The second set considers the propensity of heads of household to transition from being a private renter in a prior wave, to a mortgage holder in a subsequent wave. Within each set, there are four model specifications, designed to explore the relationships between income, savings and local area house price levels in more depth.

Full estimation results are provided in appendix 1. Models 1 through 4 deal with propensity to be a home owner versus a private renter. The results show that being widowed, divorced, separated or never married are statistically significant predictors compared to the base case (being married). Lower levels of educational attainment help to predict being a private renter rather than home owner. All household types (couples, families) are more likely to be home owners than the lone person reference case. However, the presence of children is only statistically significant in two of the models, and only the 2 children level of this variable is significant.

The income band variable shows that, in general, probability of being a home owner increases steadily with household income level. In addition, individuals working more than 10 hours per week are more likely to be home owners, and there is a steady increase in the probability of being a home owner with weekly hours worked (with the exception of the highest band of this variable – 60+ hours per week).

The main difference between models 1 and 2 lies in the treatment of household savings and local (LGA) housing price levels. We expressed household savings as a proportion of LGA median house prices, and as a proportion of the (known) future dwelling purchase price (i.e. two variables). We also banded these two variables as an alternative model specification. This gives rise to the four model variants or specifications. Model 1 shows that savings as a proportion of LGA level median house prices is a significant positive predictor of being in home ownership. Model 2 shows that this effect follows an n-shaped function. That is, the probability of being a home owner rises as we move from 5% to 10% to 15%, but then falls as savings as a proportion of prices increase to 20% then 25%.

Models 3 through 6 concern the probability of an individual transitioning from being a private renter to home ownership between waves. The model results consistently show that this is less likely for older individuals, and for those with lower educational attainment. The probability is higher for those in higher income bands, and this results is broadly progressive, i.e. keeps rising as income band rises. Individuals having recently acquired a partner are actually less likely to transition to home ownership, but note that from the discussion of models 1 and 2 that individuals with partners are more likely to be home owners. This combination of results probably means that new relationships initially suppress the probability of transitioning to home ownership, but that the probability of transitioning rises at some future point – perhaps after a few years.

With regard to number of weekly hours worked, there is a clear finding that the probability of transitioning to home ownership increases, and this is statistically significant, for individuals working more than 30 hours per week. The probability increases further for those working more than 40 hours per week.

The coefficients on the savings variables are interesting and show some instability between model specifications. Model 3 shows that the level of savings is not statistically significant as a continuous variable. However, the banded version of savings relative to LGA level house prices is significant at several levels. When savings reach 10% of LGA median prices there is a positive and statistically significant effect on probability of transition. This effect is larger and statistically significant at the 5% level when savings reach 15% of median prices. Higher levels of savings are not significant.

Model 5 shows that individuals' savings as a percentage of their own future dwelling purchase price is a statistically significant variable in this continuous form. Model 6 shows that the banded version of this variable is a statistically significant variable at all bands/levels, at the 1% level of significance. Interestingly, the magnitude of the coefficients suggests that accumulating savings that represent 10% of the dwelling purchase price increases the probability of transition the most, followed by 15% savings, then 5%. Individuals with savings amounting to 20% or 25% of their dwelling purchase price have a slightly lower probability.

These nuances can probably be assigned to unmeasured heterogeneity among individuals and their appetite for risk. Overall, the results strongly support the idea that the accumulation of cash savings is an important trigger for the transition from privately renting to home ownership.

Appendix 2 sets out the results of the final, preferred model. This has been refined through extensive experimentation with the model specification. The final model shows that the ratio of net worth to house prices is a more powerful and consistent predictor than cash savings. Presumably, this is because most individuals invest savings in financial instruments or long term deposit accounts rather than retaining them in low interest bearing, quick access savings accounts. The measure of house prices used in the new variable is the observed future house purchase price for the individual or, in the case of individuals who do not switch from renting to home ownership, it is the LGA median price level.

The results show that the variable is significant, and that moving up the savings bands progressively increases the odds of switching from renting to holding a mortgage. However, although the bands are all statistically significant, the rise in probability of switching is very gradual. Only when individuals enter the highest net worth to house price band (20%+) does the odds ratio jump very noticeably. This tends to confirm what we already know, i.e. that prospective homeowners generally aim to save up assets equivalent to 20% or more of the intended purchase price.



# PART FOUR:
# MODELLING HOUSE PRICE CHANGE FOR AUSTRALIAN CITIES UNDER SUPER-FOR-HOUSING SCHEMES

## KEY POINTS

1. **The time series modelling shows that house price growth is driven by demand factors including population growth and expected future returns, and pushed down by higher interest rates, higher new-build supply and higher stock market returns.**
2. **The results confirm the important role of the flow of home loan finance in shaping housing price inflation.**
3. **The results vary by city. Sydney and Melbourne have the least responsive housing prices with respect to home loan finance. Darwin and the ACT have the most responsive housing markets relative to this variable.**

The econometric estimation results are summarised in appendix 3. The model is a panel estimation using a pooled dataset for Australia's metropolitan cities, for the time period 1993:Q1 to 2020:Q4. The appropriate lag specification was derived by carrying out a series of VAR estimations and determining the lag length that minimised the Akaike Information Criterion (AIC). For most variables, 3 quarters proved to be the optimal lag. Share returns and building approvals enter the equation with longer lag structures (4 and 6 respectively). In the case of building approvals, this finding makes a great deal of sense given that a lengthy time period would be expected by submitting an application to construction, and new supply actually arriving on the market.

The results show that population growth, expected future house price growth and real lending to home owners are positive, statistically significant, determinants of house price growth. The nominal mortgage interest rate and the price to rent ratio are significant at the 1% level and are found to exert a negative influence on house price growth. Real stock market returns are also an important, negative, driver of house price growth, i.e. when the stock market is performing well, house price inflation tends to be lower as a consequence. Finally, new-build supply, proxied by building approvals per 1,000 population, is statistically significant, and negatively signed. This variable is lagged by six quarters – this was on the basis of the AIC results, but also sits well with the fact that a long lag would be expected between building approval stage and new supply actually coming onto the market.

All the coefficient signs are in keeping with prior expectations. However, the variable of main interest is the level of lending to home owners. The elasticity is 0.09, which suggests a strong relationship between the volume of home loan finance and price growth. This is also the important variable from the perspective of the simulation exercise summarised in the next section.

The model specification permits the elasticity on the growth of real lending to vary between cities. Sydney represents the base case, and has the weakest elasticity of the eight cities studied. The Melbourne variable proved to be statistically insignificant, so the elasticity was found to be the same as that applicable in Sydney. Interestingly, this means that the elasticity of house price inflation with respect to the real level of home loan finance is smallest for Australia's two largest and most expensive capital cities. In general, the modelling results suggest that markets with lower median prices have housing price inflation rates that are more sensitive to an increase in the flow of home loan finance.

## The simulation shows a significant inflationary effect on house prices

In this section we set out a table of results summarising a simulation exercise based on the panel/time series econometric results reviewed in the last section. We assume that the housing market effect of early super release for home loan deposits would occur through the stimulation of additional lending for home ownership. As this variable is positive and statistically significant in the econometric results, it is possible to simulate the price effect of a range of conjectured increases in that variable. However, some assumptions also have to be made.

We assume that the effect of any policy to allow early super release would cause a one-off effect, by bringing forward the purchase decision of private renters who are already saving for a deposit. The model is estimated on quarterly data and therefore provides predictions on that basis. We assume that an increase in lending would cause prices to increase for 4 successive quarters, after which all private renters currently saving but able to buy earlier than planned will have done so.

**TABLE 2** SIMULATED PRICE EFFECTS BASED ON AN INCREASE IN HOME LOAN FINANCE

| INCREASE | SYDNEY | MELBOURNE | ACT | ADELAIDE | BRISBANE | DARWIN | HOBART | PERTH |
|---|---|---|---|---|---|---|---|---|
| +10% | 3.1% | 6.9% | 18.9% | 13.3% | 9.8% | 8.4% | 15.0% | 12.4% |
| +20% | 4.6% | 10.4% | 28.4% | 20.1% | 14.8% | 12.7% | 22.8% | 18.8% |
| +30% | 6.1% | 13.9% | 38.0% | 26.8% | 19.8% | 17.0% | 30.5% | 25.1% |

**Source:** To come

The results reflect the earlier finding that real lending for home purchase has a weaker effect in Sydney and Melbourne than in the rest of Australia. As a consequence, the predicted inflationary effect of any early super release policy is lower. However, the analysis above is currently disconnected to the earlier analysis of propensities to enter home ownership. In order to complete the simulation it is necessary to make assumptions about the amount of money that might be accessed from super, and to then model the impacts on predicted propensity to enter home ownership (from the HILDA based model discussed earlier).

Our estimates show that accessing $10,000 to $30,000 would have no discernible impact on propensity to enter home ownership early.

At $40,000 and above, there is a progressive increase in the number of private renters, currently saving, who enter home ownership earlier than planned, but the analysis suggests that as much as $80,000 would be needed for many private renters to transition.

Based on the number of privately renting heads of households in the third band (second highest) of our net worth to house price variable, we estimated that there would be a further 209,000 households transitioning to home ownership assuming 25% of households decided to take up the option to access $60,000 from their super. The distribution of these households is not uniform across Australia, as shown in table 3.

**TABLE 3** PREDICTED IMPACTS ON HOME OWNERSHIP, DEBT AND HOUSE PRICES

| CITY | NEW OWNERS | NEW DEBT ($M) | HOUSE PRICE EFFECT (%) |
|---|---|---|---|
| **Sydney** | 63,542 | 23,290 | 2.85 |
| **Melbourne** | 69,340 | 25,415 | 2.85 |
| **Brisbane** | 17,270 | 6,896 | 11.95 |
| **Adelaide** | 18,424 | 4,801 | 11.27 |
| **Perth** | 32,465 | 11,222 | 9.23 |
| **Hobart** | 6,219 | 1,346 | 12.24 |
| **ACT and Darwin** | 1,778 | 618 | 36.14 |
| **TOTAL** | **209,038** | **73,588** | |

**Source:** To come

Table 3 takes account of the projected increase in home loan finance (household debt) and combines the output with the panel/time series model. This arrives at the final house price effects shown in the final column of table 3.

# PART FIVE:
# THE LONG RUN EFFECT ON WEALTH OF EARLY SUPER RELEASE

## KEY POINTS

1. Super-for-housing would lead to an increase in household indebtedness.
2. The analysis in this part finds that cash invested in home ownership is likely to compound at a lower rate than that invested in superannuation.
3. Over time, many individuals would end up worse off financially by diverting cash from their super accounts into earlier home ownership.

In this section we ask the question whether it makes financial sense to access savings held in super in order to bring forward home purchase.

### TO ANSWER THIS QUESTION, WE MAKE A NUMBER OF ASSUMPTIONS REGARDING:

- The historic and likely future real rate of return on super
- The historic and likely future real returns on house prices
- Median rent and house price levels in each Australian capital city
- How much longer individuals would have to save for a home deposit if they do not access super
- How much it might be possible to withdraw from super for the purposes of bolstering a home loan deposit

In Appendix 4 we set out the results of a number of scenarios, comparing two investment strategies. The first strategy assumes early super release, and the second assumes that individuals will rent for a further 5 years, retaining their super savings intact, and then enter home ownership. We value these investment strategies on the assumption that individuals could withdraw $20,000 through $80,000 from their super funds.

As the figures show, real returns on super funds exceeded real house price appreciation over the reference period (2001-2020). Assuming these historic trends are repeated in the future, this means that cash invested in home ownership will compound at a lower rate than cash invested in super. We have assumed that returns are tax free in both the housing market and in super, i.e. the returns are real, net returns.

Individuals accessing super early therefore lower the future value of their super savings. However, they also avoid paying rent for the period in which they are saving (assumed as 5 years in this calculation), and they pay a lower purchase price than they would if they saved for 5 years and the housing market continued to grow at the historic average rate.

The simulation results show that deducting $40,000 from super is the break-even point for a number of cities (Canberra, Brisbane, Hobart and Melbourne). For Sydney, the break point is higher ($60,000), reflecting the historic high rate of housing price growth. For Adelaide, Darwin and Perth the break point is lower ($20,000).

The analysis clearly shows that households end up worse off if they withdraw greater than these amounts from their savings in super.

## Limitations of the study, and further directions

To our knowledge, this report sets out the first sophisticated attempt to model the connections between the flow of home loan finance, and house price growth in Australia. It examines the relationship between savings and propensity of households to transition from privately renting, to home ownership.

It is important to reflect that all econometric modelling approaches are subject to biases arising from data measurement error, and to major structural shifts between key variables. Our modelling has followed best practice as set out in the literature, but nevertheless took place during a global pandemic that brought about very significant shifts in housing market outcomes in Australia. It also ushered in an era of record low interest rates, with monetary policy settings and government economic stimulus measures triggering unexpectedly strong economic and housing market recovery.

A particularly interesting finding from the modelling work is the prediction that smaller and less heavily populated cities in Australia appear to be more heavily driven by shifts in home loan finance availability than Sydney or Melbourne. This may reflect the importance of net overseas migration to Australia's largest cities, the relatively higher importance of apartments than houses in their housing systems, or some other unknown factors. The issue would benefit from further investigation.

Another interesting finding that would benefit from further study relates to the low transition propensities of private renters to home ownership. Our analysis of HILDA data shows that relatively small (20,000 – 30,000) contributions from super would not have a major effect on these transitions. This may also suggest that the majority of new entrants to home ownership transition from elsewhere (such as the parental home), rather than from the private rented sector. This question deserves further scrutiny.

# CONCLUSION

Allowing individuals to make additional savings for a home loan deposit, with the tax advantages of super, may make financial sense. However, allowing individuals to withdraw their mainstream super savings, intended for late retirement income, is a questionable proposed policy.

This report draws on a set of empirical evidence from a set of robust strands of analysis. A model of house price inflation for Australia's capital cities is developed based on leading, respected, approaches found in the literature. The results show that the flow of home loan finance is an important determinant of price growth in Australia's cities, but the effects are different in each city. We find that super-for-housing would further inflate housing prices through this channel.

Analysis of the longitudinal HILDA survey shows that propensity to enter home ownership rises as net worth (savings) rises, among many other socio-economic and demographic factors. When renters transition to home ownership, this triggers a rise in demand for home loan finance.

The analysis finds that an increase of $10,000 to $30,000 in savings (provided by accessing super savings, for example) would have no material impact on the number of people transitioning to home ownership. A much higher contribution would be required, of at least $40,000, and possibly as high as $80,000.

Given the historical stronger performance of super compared to real housing market returns, the effect of compounding over a long time period (30 years) means that individuals accessing super for housing are likely to end up financially worse off in the end.

It is important to acknowledge that there are likely to be second and third round effects that have not been taken into account by the modelling summarised in this report. In other words, individuals accessing super-for-housing now would drive up housing prices further, in addition to harming their own financial future. Subsequent rounds of prospective home buyers would therefore face higher levels of prices still, and demands on their super would need to be higher again to compensate.



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# APPENDIX 1
# INITIAL MODELS OF PROPENSITY TO OWN AND TO SWITCH FROM RENTING TO OWNING



| | PROPENSITY TO OWN | | PROPENSITY TO SWITCH TO HOME OWNERSHIP | | | |
|---|---|---|---|---|---|---|
| | M_1 | M_2 | M_5 | M_6 | M_7 | M_8 |
| **Sex** | | | | | | |
| [1] Male | (base) | (base) | (base) | (base) | (base) | (base) |
| [2] Female | 1.023 | 1.022 | 0.868 | 0.868 | 0.876 | 0.893 |
| **Marital** | | | | | | |
| Married/Divorced | (base) | (base) | (base) | (base) | (base) | (base) |
| Widowed | 2.257*** | 2.241*** | 1.638 | 1.568 | 1.588 | 1.419 |
| Divorced | 1.429** | 1.430** | 1.245 | 1.224 | 1.281 | 1.304 |
| Separated | 1.415** | 1.415** | 1.689 | 1.661 | 1.695 | 1.769 |
| Never married | 1.904*** | 1.900*** | 0.807 | 0.789 | 0.776 | 0.803 |
| **AgeGp** | | | | | | |
| 16-19 | 0.356*** | 0.360*** | 0.205 | 0.208 | 0.211 | 0.229 |
| 20-24 | 0.577*** | 0.579*** | 0.919 | 0.919 | 0.951 | 1.03 |
| 25-29 | (base) | (base) | (base) | (base) | (base) | (base) |
| 30-34 | 1.509*** | 1.500*** | 0.924 | 0.92 | 0.883 | 0.780* |
| 35-39 | 2.171*** | 2.153*** | 0.848 | 0.841 | 0.794 | 0.689** |
| 40-44 | 2.887*** | 2.878*** | 0.528*** | 0.527*** | 0.478*** | 0.408*** |
| 45-49 | 3.893*** | 3.879*** | 0.442*** | 0.439*** | 0.380*** | 0.325*** |
| 50-54 | 4.537*** | 4.519*** | 0.295*** | 0.293*** | 0.244*** | 0.207*** |
| 55-59 | 5.700*** | 5.671*** | 0.428*** | 0.421*** | 0.331*** | 0.290*** |
| 60-64 | 6.420*** | 6.388*** | 0.434*** | 0.433*** | 0.315*** | 0.291*** |
| **Education** | | | | | | |
| Degree+ | (base) | (base) | (base) | (base) | (base) | (base) |
| Cert/Diploma | 0.998 | 1.007 | 0.721*** | 0.728*** | 0.726*** | 0.735*** |
| Year 12 | 0.866** | 0.876** | 0.598*** | 0.605*** | 0.591*** | 0.595*** |
| Year11 and less | 0.682*** | 0.693*** | 0.667*** | 0.679*** | 0.692** | 0.771* |
| **Household** | | | | | | |
| Lone Person | (base) | (base) | (base) | (base) | (base) | (base) |
| Couple | 3.679*** | 3.685*** | 0.983 | 0.964 | 0.974 | 0.963 |
| Family 2 Adults | 5.495*** | 5.524*** | 0.654 | 0.644 | 0.657 | 0.639 |
| Family Lone Parent | 1.322*** | 1.331*** | 1.241 | 1.257 | 1.282 | 1.332 |

| | PROPENSITY TO OWN | | PROPENSITY TO SWITCH TO HOME OWNERSHIP | | | |
|---|---|---|---|---|---|---|
| | M_1 | M_2 | M_5 | M_6 | M_7 | M_8 |
| **Kids 0 to 14 years** | | | | | | |
| 0 | (base) | (base) | (base) | (base) | (base) | (base) |
| 1 | 1.007 | 1.014 | 0.876 | 0.877 | 0.855 | 0.839 |
| 2 | 1.284*** | 1.289*** | 0.842 | 0.845 | 0.801 | 0.751 |
| 3 | 1.059 | 1.076 | 0.761 | 0.765 | 0.732 | 0.754 |
| 4+ | 0.834 | 0.844 | 0.605 | 0.613 | 0.597 | 0.614 |
| **IncomeBands** | | | | | | |
| 1 | (base) | (base) | (base) | (base) | (base) | (base) |
| 2 | 1.233*** | 1.227*** | 1.401 | 1.395 | 1.397 | 1.302 |
| 3 | 1.440*** | 1.430*** | 2.772*** | 2.755*** | 2.724*** | 2.434*** |
| 4 | 1.565*** | 1.542*** | 2.080*** | 2.047** | 2.022** | 1.654* |
| 5 | 2.157*** | 2.122*** | 2.582*** | 2.540*** | 2.479*** | 1.943** |
| 6 | 2.682*** | 2.621*** | 2.996*** | 2.923*** | 2.819*** | 2.109** |
| 7 | 2.951*** | 2.879*** | 3.160*** | 3.069*** | 2.898*** | 2.123** |
| 8 | 2.669*** | 2.597*** | 4.397*** | 4.231*** | 4.060*** | 2.998*** |
| **AquirePartner** | | | | | | |
| NoChange | (base) | (base) | (base) | (base) | (base) | (base) |
| AquirePartner | 1.097 | 1.096 | 0.362** | 0.362** | 0.379** | 0.404** |
| **AquireFirst Child** | | | | | | |
| NoChange | (base) | (base) | (base) | (base) | (base) | (base) |
| AquireFirstchild | 0.267*** | 0.270*** | 0.972 | 0.986 | 1.089 | 1.233 |
| **AquireAdded Child** | | | | | | |
| NoChange | (base) | (base) | (base) | (base) | (base) | (base) |
| Aquire Child | 1.02 | 1.012 | 0.926 | 0.915 | 0.921 | 0.922 |
| **Urban** | | | | | | |
| Urban | (base) | (base) | (base) | (base) | (base) | (base) |
| Regional | 1.354*** | 1.380*** | 1.345*** | 1.363*** | 1.327*** | 1.301*** |
| Remote | 0.912 | 0.92 | 0.949 | 0.955 | 0.943 | 0.946 |
| **Permanent Income** | 1.000*** | 1.000*** | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| **Temporary Income** | 1.000*** | 1.000*** | 1.0000 | 1.0000 | 1.000* | 1.0000 |
| **Inheritance Dummy** | 1.000** | 1.000*** | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

| | PROPENSITY TO OWN | | PROPENSITY TO SWITCH TO HOME OWNERSHIP | | | |
|---|---|---|---|---|---|---|
| | M_1 | M_2 | M_5 | M_6 | M_7 | M_8 |
| **GFC Dummy** | 0.553*** | 0.544*** | 0.771** | 0.759*** | 0.737*** | 0.726*** |
| **WorkHours Bands** | | | | | | |
| Zero | (base) | (base) | (base) | (base) | (base) | (base) |
| 1-10 | 1.101 | 1.092 | 0.837 | 0.833 | 0.836 | 0.856 |
| 11-20 | 1.322** | 1.310** | 0.58 | 0.581 | 0.588 | 0.537 |
| 21-30 | 1.475*** | 1.461*** | 0.913 | 0.913 | 0.903 | 0.827 |
| 31-40 | 1.913*** | 1.899*** | 1.522* | 1.516* | 1.461* | 1.303 |
| 41-60 | 2.055*** | 2.037*** | 1.651** | 1.645** | 1.599** | 1.362 |
| 60+ | 1.624*** | 1.619*** | 1.525* | 1.513 | 1.457 | 1.271 |
| **Saving-MedianHousePrice LGA** | 1.204*** | | 1.032 | | | |
| **Saving-MedianHousePrice LGA** | | | | | | |
| 0 | | (base) | | (base) | | |
| 1 | | 1.449*** | | 1.142 | | |
| 2 | | 1.692*** | | 1.445* | | |
| 3 | | 2.526*** | | 1.697** | | |
| 4 | | 1.817*** | | 0.603 | | |
| 5 | | 1.754*** | | 0.912 | | |
| **Saving-NewHousePrice** | | | | | 1.302*** | |
| **Saving-NewHousePrice** | | | | | | |
| 0 | | | | | | (base) |
| 1 | | | | | | 4.279*** |
| 2 | | | | | | 4.688*** |
| 3 | | | | | | 4.304*** |
| 4 | | | | | | 3.993*** |
| 5 | | | | | | 2.807*** |
| **_cons** | 0.059*** | 0.056*** | 0.024*** | 0.024*** | 0.027*** | 0.025*** |
| **N** | 18907 | 18907 | 18907 | 18907 | 18907 | 18907 |

# APPENDIX 2
# FINAL PREFERRED MODEL OF TRANSITION FROM PRIVATELY RENTING TO MORTGAGED HOME OWNERSHIP



| **Sex** | | **AgeGp** | |
|---|---|---|---|
| [1] Male | (base) | 16-19 | 0.437*** |
| [2] Female | 0.975*** | 20-24 | 0.870*** |
| | | 25-29 | (base) |
| **Marital** | | 30-34 | 0.813*** |
| Married/Divorced | (base) | 35-39 | 0.496*** |
| Widowed | 1.158*** | 40-44 | 0.458*** |
| Divorced | 0.910*** | 45-49 | 0.406*** |
| Separated | 1.014 | 50-54 | 0.186*** |
| Never married | 0.518*** | 55-59 | 0.219*** |
| | | 60-64 | 0.130*** |

| **Household** | | **Kids 0 to 14 years** | |
|---|---|---|---|
| Lone Person | (base) | 0 | (base) |
| Couple | 0.773*** | 1 | 1.215*** |
| Family 2 Adults | 0.399*** | 2 | 0.898*** |
| Family Lone Parent | 0.991 | 3 | 0.742*** |
| | | 4+ | 1.404*** |

| **Education** | | **Urban** | |
|---|---|---|---|
| Degree+ | (base) | Urban | (base) |
| Cert/Diploma | 0.605*** | Regional | 1.464*** |
| Year 12 | 0.671*** | Remote | 0.538*** |
| Year11 and less | 0.622*** | | |

| **IncomeBands** | | **WorkHours Bands** | |
|---|---|---|---|
| 1 | (base) | Zero | (base) |
| 2 | 1.703*** | 1-10 | 0.169*** |
| 3 | 2.718*** | 11-20 | 0.649*** |
| 4 | 1.787*** | 21-30 | 0.710*** |
| 5 | 1.853*** | 31-40 | 1.339*** |
| 6 | 2.634*** | 41-60 | 1.054*** |
| 7 | 1.947*** | 60+ | 1.098*** |
| 8 | 3.748*** | | |

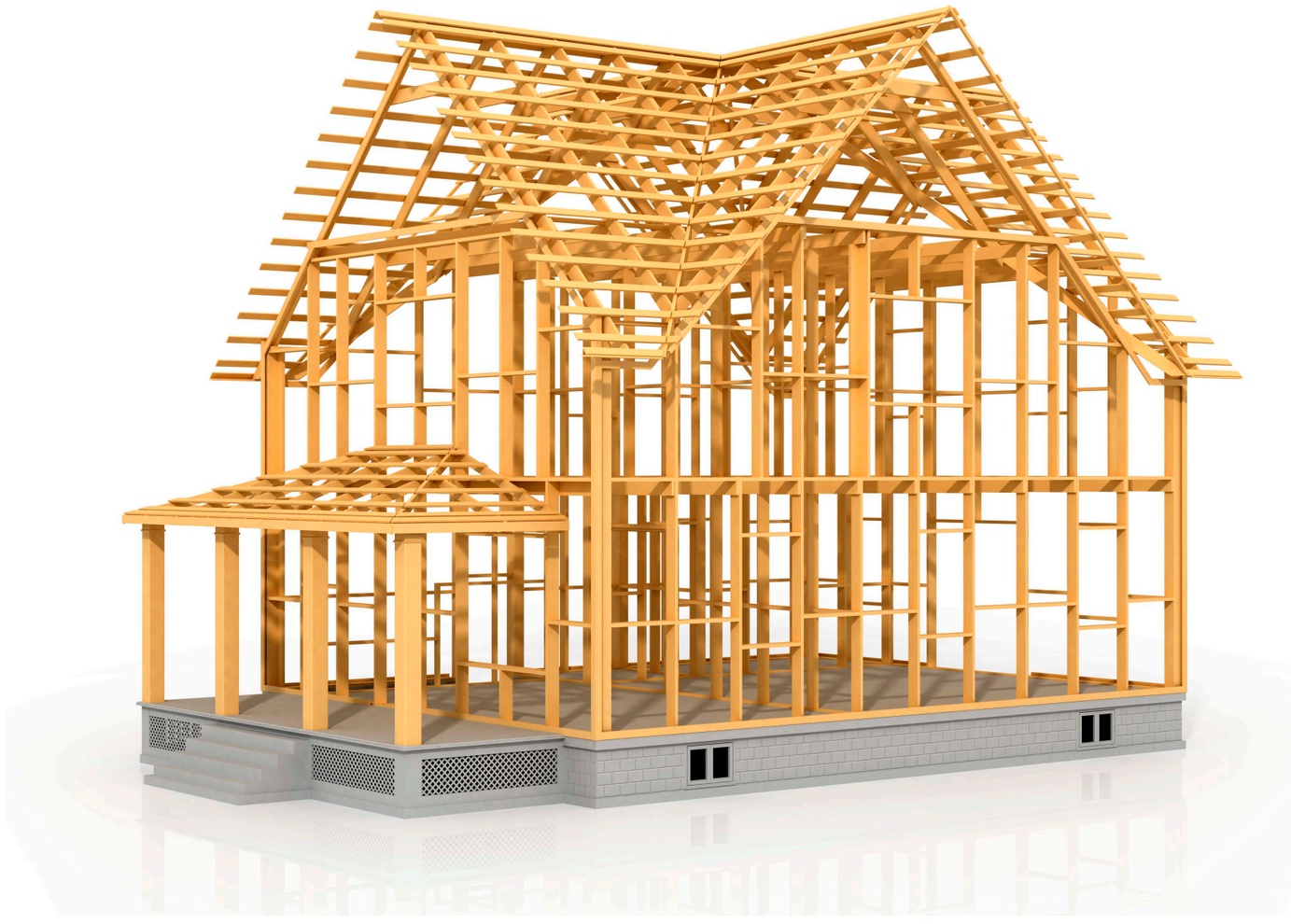
| | | | |
|---|---|---|---|
| **Permanent Income** | 1.000*** | | |
| **Temporary Income** | 1.000*** | | |
| **Inheritancenc Dummy** | 1.000*** | | |
| **GFC Dummy** | 0.986*** | | |

| | | | |
|---|---|---|---|
| **AquirePartner** | | | |
| NoChange | (base) | | |
| AquirePartner | 0.429*** | | |

| | | | |
|---|---|---|---|
| **AquireFirst Child** | | | |
| NoChange | (base) | | |
| AquireFirstchild | 2.593*** | | |

| | | | |
|---|---|---|---|
| **AquireAdded Child** | | | |
| NoChange | (base) | | |
| Aquire Child | 0.984 | | |

| | | | |
|---|---|---|---|
| **Net worth** | | | |
| Net worth < 4% | (base) | | |
| Net worth 5-9% | 2.310*** | | |
| Net worth 10-14% | 2.457*** | | |
| Net worth 15-19% | 2.936*** | | |
| Net worth 20%+ | 8.894*** | | |



# APPENDIX 3
# PANEL TIME SERIES MODEL RESULTS



**Dependent variable = growth in real housing prices**

| VARIABLE | DESCRIPTION | COEFFICIENT | SIGNIFICANCE |
|---|---|---|---|
| **constant** | Constant | 0.041645 | *** |
| **nmr(-3)** | Nominal mortgage rate | -0.0031669 | *** |
| **price/rent(-3)** | Price:rent ratio | -0.001218 | *** |
| **asxnom(-4)** | Nominal ASX200 returns | -0.1086886 | *** |
| **appkcap(-6)** | New dwelling applications per 1,000 population | -0.0011754 | ** |
| **rpopg(-3)** | Population growth rate | 0.0355406 | *** |
| **sfdg(-3)** | Growth in state final demand | 0.0005365 | |
| **eg(-1)** | Expected future house price growth | 0.4217887 | *** |
| **lrlen(-2)** | Log of real mortgage lending level (Sydney) | 0.084598 | * |
| **act_lending** | Log of real mortgage lending level (ACT) | 0.3636365 | *** |
| **adel_lending** | Log of real mortgage lending level (Adelaide) | 0.2375035 | *** |
| **bris_lending** | Log of real mortgage lending level (Brisbane) | 0.1546826 | * |
| **darw_lending** | Log of real mortgage lending level (Darwin) | 0.2057798 | ** |
| **hob_lending** | Log of real mortgage lending level (Hobart) | 0.274228 | *** |
| **pert_lending** | Log of real mortgage lending level (Perth) | 0.2147573 | ** |
| **melb_lending** | Log of real mortgage lending level (Melbourne) | 0.0913547 | ** |
| **cpig(-4)** | Growth in the consumer price index | 0.0112883 | *** |
| **1.q2** | Quarter 2 dummy variable | 0.0072862 | |
| **1.q3** | Quarter 3 dummy variable | -0.0114039 | |
| **1.q4** | Quarter 4 dummy variable | 0.0253214 | * |
| **gfc** | GFC dummy variable | -0.0138451 | *** |
| **covid** | Initial recovery from COVID dummy variable | 0.022435 | *** |
| **Darwin2007q2** | Dummy to address presumed measurement error | -0.4792136 | *** |
| **sigma_u** | 0.00573125 | | |
| **sigma_e** | 0.03882459 | | |
| **rho** | 0.02132669 | | |
| **R square** | 0.3571 | | |

***** significant at 1% ** at 5% * at 10%**

# APPENDIX 4
# LONG RUN IMPACTS ON WEALTH

| Scenario input variables | ACT | ADELAIDE | BRISBANE | DARWIN | HOBART | MELBOURNE | PERTH | SYDNEY |
|---|---|---|---|---|---|---|---|---|
| **Median rent** | 585 | 390 | 410 | 460 | 450 | 430 | 380 | 540 |
| **Median house price** | 780,005 | 510,000 | 575,000 | 515,000 | 580,000 | 800,000 | 518,000 | 1,030,000 |
| **Historic real house price growth** | 3.9% | 1.4% | 1.5% | 2.3% | 5.2% | 5.2% | 2.5% | 5.2% |
| **Recent 5 years super returns** | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% |
| **Historic mean home loan rate** | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% |
| **Investment strategy 1** | | | | | | | | |
| **Purchase house at current value** | -780,005 | -510,000 | -575,000 | -515,000 | -580,000 | -800,000 | -518,000 | -1,030,000 |
| **Future value** | 2,463,799 | 784,024 | 898,137 | 1,022,519 | 2,674,696 | 3,675,885 | 1,083,154 | 4,744,745 |
| **Future net worth** | 1,683,794 | 274,024 | 323,137 | 507,519 | 2,094,696 | 2,875,885 | 565,154 | 3,714,745 |
| **Investment strategy 2** | | | | | | | | |
| **Pay rent for 5 years while saving** | -152,100 | -101,400 | -106,600 | -119,600 | -117,000 | -111,800 | -98,800 | -140,400 |
| **Purchase house at 5 year future value** | -944,819 | -547,894 | -619,365 | -577,366 | -748,289 | -1,031,499 | -585,765 | -1,328,617 |
| **30 year future value** | 2,463,799 | 784,024 | 898,137 | 1,022,519 | 2,674,696 | 3,675,885 | 1,083,154 | 4,744,745 |
| **Outstanding home loan (5 years)** | -62,379 | -36,173 | -40,892 | -38,119 | -49,404 | -68,102 | -38,673 | -87,718 |
| **Retain savings in super for 30 years** | | | | | | | | |
| **Avoid deducting $20,000** | 175,099 | 175,099 | 175,099 | 175,099 | 175,099 | 175,099 | 175,099 | 175,099 |
| **Avoid deducting $40,000** | 350,198 | 350,198 | 350,198 | 350,198 | 350,198 | 350,198 | 350,198 | 350,198 |
| **Avoid deducting $60,000** | 525,297 | 525,297 | 525,297 | 525,297 | 525,297 | 525,297 | 525,297 | 525,297 |
| **Avoid deducting $80,000** | 700,396 | 700,396 | 700,396 | 700,396 | 700,396 | 700,396 | 700,396 | 700,396 |
| **Future net worth** | | | | | | | | |
| **Avoid deducting $20,000** | 1,479,600 | 273,656 | 306,379 | 462,533 | 1,935,104 | 2,639,584 | 535,015 | 3,363,109 |
| **Avoid deducting $40,000** | 1,654,699 | 448,755 | 481,478 | 637,632 | 2,110,203 | 2,814,683 | 710,114 | 3,538,208 |
| **Avoid deducting $60,000** | 1,829,799 | 623,854 | 656,577 | 812,731 | 2,285,302 | 2,989,782 | 885,213 | 3,713,307 |
| **Avoid deducting $80,000** | 2,004,898 | 798,953 | 831,677 | 987,830 | 2,460,401 | 3,164,881 | 1,060,312 | 3,888,406 |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