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EXTENDING ECONOMIC CASES FOR HOUSING POLICIES: RENTS, OWNERSHIP AND ASSETS

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Community Housing INDUSTRY ASSOCIATION

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Preface

The background research for this paper was conducted in the second half of 2019 to inform the early discussions leading to the formation of the Australian Housing and Productivity Consortium (AHPRC) and to highlight potential research priorities. The draft report was submitted in December 2019. The establishment of the Consortium and the identification of initial research priorities was completed only in May 2020. In the intervening period the spread of the global COVID-19 pandemic shaped public health crises that were strongly influenced by housing arrangements. In turn, urgent public health measures were imposed that impacted not just the daily functioning of housing systems but had economic consequences that have dramatically changed employment and incomes to pay for housing as well as government fiscal and monetary policies.

Pandemic economic impacts have changed the trajectory of housing markets and systems in Australia, as in other countries. There are emergency measures to deal with homelessness as an acute public health issue, the use of homes as places to live and work has changed, demands for travel and business related short-term accommodation have greatly diminished and, despite extraordinary government income supports and lender measures to soften the burden of mortgage payments, levels of rent and mortgage payment stress have risen sharply. Thus, a June 2020 NATSEM survey found that the proportion of Australians reporting inability to make on-time mortgage or rent payments had more than doubled to 15 per cent between April and May (Biddle et al. 2020). Looking to the rest of 2020 and into at least 2022, the country is likely to see high and rising levels of unemployment across a wide spectrum of income and age groups, but with the severest effects for younger, unskilled and female workers. At the same time, significant falls in housing prices, of 10-15 per cent, and a patchwork of rental sector effects are probable.

The significance of these changes posed the question of whether to publish this paper. It has been decided to do so because although some problems have been exacerbated, and others alleviated (such as paying rents and mortgages for those who remain in employment), we believe that COVID-19 has reinforced and laid bare the fundamental issues that the AHPRC work program is intended to address.

The triple crises of rising homelessness, lengthening queues for non-market, affordable housing and the pervasive affordability problems of middle- and lower-income households reliant on market provision are partly driven by key policy settings, not just those labelled as housing policies but also financial, monetary, fiscal and economic measures. The analysis here highlights that affordability problems for renters and home-ownership entrants are also a potentially powerful explanation of why – even before the pandemic – the productivity performance of major cities has been falling back towards national averages and are at the root of potential instability problems for the economy. It is important never to lose sight of the implications of housing outcomes for social and environmental wellbeing in Australia but it is also time to bring into the view of key decision takers in the Australian economy, including business, bureaucrats, bankers and politicians, that housing is a key integrative system in the national economy and that it plays key roles in shaping overall wellbeing, productivity and stability as well as inequality.

This paper's aim is to outline a range of projects that would lay out current understandings of how housing outcomes relate to the economy, probe expectations of how these relationships might change in the future and demonstrate how poor quality and expensive housing impairs inclusion, growth and stability. COVID-19 has changed the context, but it has reinforced rather than removed these concerns. Our next paper, planned for the end of 2020, will review the key housing-economy connections that have become apparent as COVID-19 reinforces the existing three crises.

Executive Summary

ES1 Background and purpose: Changing productivity perspectives

This paper builds on a recent workstream on the under-appreciated linkages between housing and economic productivity. Initiated via an AHURI project (Maclennan et al 2015) and followed up by research sponsored by the Community Housing Industry Association NSW (CHIA NSW) (Maclennan et al 2018, 2019), and the Economic and Social Research Council for the UK (Maclennan, Christie and Long, 2020) this research strand has sought to push the boundaries of academic and policymaker thinking in this area.

The starting position in Australia is one where Commonwealth and state/territory policymakers have historically accorded little if any consideration to housing-economy interactions – a problem compounded by the fragmented official responsibility for housing matters in all tiers of government. In challenging this established norm, our research has begun to tease out the various ways that housing can affect urban productivity, highlighting various respects in which housing system underperformance can significantly impair the functioning of a metropolitan economy. In doing so, the work has sought to develop a new economic narrative for housing, complementing the established social welfare narrative.

Against this backdrop and focusing on the problematic effects of emerging locational outcomes for low to middle income households in Sydney, an exploratory modelling study has quantified the economic productivity benefits that could be generated through well-designed housing interventions. Albeit involving a modest investment of public funds in suitably located housing to be made available at below market cost, the resulting medium-term economic gains for low- and moderate-income households were shown to easily outweigh the initial government outlay. The research also identified, for New South Wales, the extent to which less affluent tenants currently 'overpay' for their housing in terms of a rent widely agreed as being affordable at their level of income (defined as below 30 per cent of household incomes).

The impact of 'excess' housing costs, especially rents, on current consumption and on home-ownership entry and future asset accumulation are two 'productivity impacting' sets of outcomes we have identified as important areas for further investigation. This 'think piece' paper is primarily intended to further explore the problem of high rent burdens and their possible economic consequences, to scope out a research agenda to investigate associated issues in greater depth. Thus, its aim is not only to highlight the aspects of housing system underperformance of prime significance for Australia's economy, but also to identify which of these might be convincingly researchable with existing datasets, methods and feasible resources.

ES2 Prices, rents, incomes and affordability

Despite a media narrative that sometimes appears to suggest this, claims of a general housing affordability crisis in Australia prior to COVID-19 were overblown. Interest rates that have fallen to historic lows have benefited existing mortgaged owner occupiers and investor landlords alike. At the same time, resulting property price increases have harmed prospects for aspiring first home buyers, impeding their exit from an increasingly pressured rental market and thereby inflating rents to the detriment of all tenants. Sub-national data analysis clearly demonstrates that Australia's housing affordability problems are generally more acute for those in the lowest two income quintiles, that this population cohort has been subject to steadily growing stress over the past 10-15 years, and that such problems are particularly serious in the major metropolitan areas. COVID-19 effects appear to have, broadly, reinforced these patterns

Across the country, progressively rising real housing costs have been experienced at the lower end of the income scale over the past decade (though annual rent increases were higher in the period 2010-15 than subsequently, and market price pressures abated from mid-2018-19). Expressed as a percentage of gross income, lowest quintile households' housing expenditure rose from 23 per cent to 28 per cent over this period.

In the home ownership market, during an era where falling interest rates have cushioned the serviceability of housing loans, it has been households' capacity to save for a deposit that has increasingly come to form a critical threshold for access to home ownership. Whilst it is tenants' incomes that primarily limit rent increases, it is borrowing capacity that most directly

limits house prices. Unlike their effect on mortgage charges, falling interest rates provide no benefit in this respect to tenants. Thus, expressed as a proportion of national median annual incomes, a standard 20 per cent deposit for a national median-priced property increased from 0.7 to 1.2 from the 1980s to the 2010s. The equivalent figures for Sydney, Melbourne and other pressured markets were starker. In these circumstances, the prevailing level of private market rents will crucially affect the duration of the ownership-access savings period. Households whose access to home ownership is consequently delayed are therefore spending longer periods in the rental market – compromising the crucial role of home ownership in lifetime savings and asset accumulation strategies. Beyond this, research needs to identify and enumerate the renter cohort aspiring to home ownership but whose limited capacity to accumulate the necessary savings means they will never achieve this objective.

ES3 Housing costs, payment burdens and consumption

Rising real housing costs until 2020 – and experienced especially towards the lower end of the income spectrum (see above) – divert household spending from other forms of consumption that may have greater productivity impacts. They also reduce savings for the longer term. In understanding such effects, it is important to consider household consumption behaviour not only in relation to current incomes, but also expected lifetime incomes. Related to this point, more research attention needs to be focused on how owners and renters adjust their savings and consumption activity in response to rising, and after mid 2020 falling, housing costs. Such analysis should especially target the poorest two quintiles of the income distribution and all households aged under 35.

Higher housing cost burdens, and adaptations to them, can lead to increased homelessness, erode the learning and working capabilities of children and adults and adversely reshape their lifetime income and wealth possibilities. These are economic consequences, not simply social injustices. Concerns on this score are not exclusive to advocacy organisations and housing researchers; rather they are shared by key national stakeholders including the RBA and the Productivity Commission.

In measuring housing affordability and expenditure, a shortcoming of ABS national surveys is the narrow definition attached to 'housing' which excludes complementary outlays – e.g. on energy and transport – that jointly deliver 'housing services' to the household. The relevance of this observation here is that when rent or mortgage costs increase, households may choose to economise by purchasing less energy efficient and/or less accessible homes. Indeed, US research on this topic concluded that the historically rising burden of rent payments in 20 major American cities was absorbed by tenants' reduced consumption of other necessities including clothing, food and transportation.

The implication is that, likewise in the Australian context, research on the real economic consequences of growing rent or mortgage costs must encompass changes in outlays on 'housing services' beyond rent or mortgage expenditures alone. In the absence of such analysis, it is likely that the real housing service costs of metropolitan housing market pressures have been significantly underestimated, and that both the 'affordability' and 'economic impact' cases for housing policy therefore start from a weak evidence base.

In investigating such issues – as demonstrated by parallel work in the US – there is a premium on panel data such as that collected in the ABS Household Income and Labour Dynamics in Australia (HILDA) survey. However, despite its use by housing researchers to probe many significant issues, HILDA data has yet to be fully exploited as a basis for the analysis of changing housing cost burdens and their implications for households. Nevertheless, cross-sectional surveys conducted on a recurrent basis likewise present scope for collection of data that can shed light on high housing costs and their impacts. An Australian case in point is the NAB survey of consumers and financial pressures. Indeed, the published results from the 2019 survey are informative in further confirming that it is younger people and lower income renters who have been most impacted by rising housing costs. However, as indicated by our above analysis there is a need for a more specific focus on young renters in successive survey waves.

ES4 Ownership, assets and ageing

Australia's growing stock of household debt in relation to national income has prompted RBA concerns at the possible consequences for broader economic stability. While maintaining low interest rates, Australian financial authorities have consequently pressed banks and other mortgage providers to tighten lending rules. As a result, recent years have seen less financially secure households being increasingly rationed out of access to home ownership. This raises a question of whether, in determining the home ownership growth versus economic stability trade-off, there has been adequate consideration of the policy costs, and indeed long run costs to government, that will result. COVID-19 has brought this issue into even sharper relief with real threats of financial system instability if house prices crash in 2020, but at the same time government stimulus expenditure for housing as of July 2020 has been primarily aimed at raising house purchase and homeownership.

There is a case to understand better the effects of changed mortgage loan rationing and pricing for younger, poorer households and the consequences for the rental sector and COVID-19 reinforces this. Similarly, there is an argument for examining how equity/deposit schemes could be effectively deployed and how better credit assessment schemes could reduce pressures on rental markets and help ensure a 'fairer go' for younger Australians. The potential role for non-profits in the effective and supply-linked implementation of such schemes, or indeed as more extensive providers of rental housing through the emergency, needs to be explored.

Delayed entry and, for some, permanent exclusion from homeownership has major implications for not just the present government but households and governments in 2050. The potential stability and productivity implications of a long-term reduction in home ownership rates across Australia have received relatively little attention for such a fundamental topic.

A recent AHURI report states 'However we look at it, decline is the only direction for Australian ownership, and this requires a new narrative about tenure futures' (Burke et al. 2020 p72). More specifically – and worryingly, the Grattan Institute estimates that home-ownership rates for the over-65s will fall by 19 per cent by 2056. This implies significant challenges for superannuation/retirement income sectors, as well as fiscal challenges at all orders of government. A sharp expansion in social housing demand from impoverished older private renters would be another implication. Nevertheless, there is a need to develop a more sophisticated projection methodology to address the growing debate about likely future tenure trends and house price changes that will accompany expected demographic change. If COVID-19 further reduces the progression of middle-income households into homeownership, and such a slowing may be consistent with stability and productivity goals, there will be implications for the wellbeing of these households in future retirement.

ES5 Research agenda

The scoping, in this paper, of the key issues arising from high rent burdens has identified seven linked research projects, that are likely to yield further useful insights about how better housing outcomes for poorer and younger Australians could raise growth and productivity. The specification and prioritisation of projects is likely to change as the housing consequences of COVID-19 become apparent. The proposed research projects to be undertaken under the AHRPC program are summarised in Section 6.

1 The economy, housing outcomes and policies: new stories

The City Futures Research Centre at UNSW has been working with housing sector partners and sponsors, largely coordinated through the Community Housing Industry Association (CHIA) and CHIA NSW, to establish a better informed, economic narrative for housing policies. Strong cases for housing investment, and other actions to reduce outstanding, growing housing needs in Australia, as well as the compelling cases to reduce residential environmental footprints, have made little headway in allocations of public resources since the Commonwealth Government's GFC stimulus ended in 2012. The view within politics and in economics ministries, at state and federal levels, that housing is a topic of interest mainly for social policy and is essentially redistributive expenditure with no or low productivity benefits, remains prevalent (Maclennan, Pawson and Gibb, 2019).

This mindset does, however, seem to be shifting. The present Prime Minster, in his former role as Treasurer, noted that housing impacted the economy, that there was a widespread difficulty of housing affordability and that 'we can't keep doing housing business as usual' (Morrison, 2017). The Governor of the Reserve Bank (Lowe, 2019) has more recently highlighted the role of housing in the economy. Some states have recently begun to gear up bureaucratic competences to transcend the notion of 'well-functioning housing markets' as the sole basis for policy thinking and action.

Research has facilitated these searches for new perspectives and narratives, including emphasising that housing is not only social infrastructure but that it has significant economic impacts on growth and productivity. A review of existing approaches (Maclennan, Ong and Wood, 2015) identified how housing outcomes could have complex and significant effects on productivity. It also highlighted how housing-economy interactions often had little impact on local policy decisions as recognising and acting on housing-economy interactions seemed to fall into the cracks between the separate intellectual and policy silos of planning, housing and local economic development. A new framework for assessing housing-economy questions was proposed that stressed the significance of housing as real economic infrastructure that had multiple attributes and that outcomes on these different housing characteristics could then impact growth drivers such as human capital, innovation and business decisions. Subsequent work by Lawson et al (2018) discussed the case for treating social housing as infrastructure. The emphasis here is on the housing system as a whole, not least because many of the major productivity and instability effects of housing outcomes are attributable to market rather than social housing outcomes.

Underpinned by a broad evidence review, the strong case for a new economic narrative for housing was developed in 'Making Better Economic Cases for Housing Policies' (Maclennan et al, 2018) and a number of key questions identified. 'Strengthening Economic Cases' (Maclennan et al 2019) then undertook extensive empirical and economic modelling work to identify how locational outcomes in the pressured metropolitan market of Sydney significantly reduced the productivity and lifetime incomes of below middle-income residents and how well-designed housing interventions would produce productivity gains far outweighing any fiscal costs involved.

The Sydney study also highlighted the extent to which households in New South Wales now paid housing costs well in excess of 30 per cent of household incomes (the widely accepted, if somewhat loose, guide to reasonable housing cost burdens). The annual excess amount spent on housing by low to moderate income tenants in rental stress approximated to $6,000 per household (or around 12 per cent of their average income level). In the modelling framework for the Sydney study it was not possible to pursue this issue further. However, rents absorbing in excess of 30 per cent of a household's income will not only alter consumption patterns in the economy, with consequent productivity effects, but is also likely to have significant effects on household savings and the ability to accumulate a deposit for house purchase. The timing of that purchase decision, and its deferral further forward into the household's life-cycle, will have significant implications not only for future consumption but also the accumulation of assets towards retirement. Housing outcomes affect not just productivity now but savings, assets and capabilities for the future. There is little sign that such effects are carefully considered in housing and housing finance policies at state and Federal levels.

The impact of higher housing costs, and especially rents, on current consumption and on home-

ownership entry and future asset accumulation were two 'productivity impacting' sets of outcomes identified in 'Better Economic Cases' as important areas for further exploration. Two other potentially significant areas of housing outcomes on productivity were identified. The first was the impact of housing outcomes in the early life courses of individuals (from childhood to late 20's) on their long-term accumulation and use of human capital (with education, health, neighbourhood and locational influences involved). The second, requiring further spatial economic research, was the emerging concern that high housing costs are shifting households and firms away from peak innovation and future productivity localities in Australia. Whilst recognising the potential significance of the impacts of housing outcomes on the formation and use of human capital and on locational choices of households and firms, and the feasibility of pursuing significant research questions through HILDA and other data sources, this paper focusses on the economic consequences of high rent burdens.

The paper extends the previous work in three ways, in addition to the focus on high rents. First, the framework for exploring housing effects on the economy is extended from market outcomes to include social housing and social consequences of infrastructure (integrating the Maclennan-Lawson approaches). Secondly, whilst a strong focus is maintained on the need to articulate the productivity outcomes of housing infrastructures (and their costs and prices) the paper also recognises that there are strong policy concerns about the stability of the housing system. Finally, economic policy, globally, is beginning to pay more explicit attention to income and wealth distribution patterns (inclusive growth perspectives are now embraced by both OECD and the IMF). In consequence, in focussing on the economic effects of high rent burdens the paper is concerned with both market and non-market sectors and are interested in the productivity, stability and distributional consequences of housing infrastructure outcomes. The paper is, above all, a scoping paper aimed to highlight not only which housing issues are likely to be important for the economy, but which might be convincingly researchable with existing datasets, methods and feasible resources. It is as much about identifying questions as answers.

Researchable questions are highlighted throughout the paper and gathered together in the concluding section (6) of the paper.

The next section of the paper (2) briefly sets out a broad framework for capturing economic effects of housing infrastructure outcomes. Section 3 examines patterns of housing price and rent changes, their relationships to changing patterns of incomes and 'affordability' consequences. Section 4 draws together evidence on the economic effects of rising housing prices/costs on consumption for owners and renters and Section 5 considers how rising rent burdens impact home-ownership choices and asset accumulation by households.

2 Housing outcomes and economic infrastructure cases

Housing policy narratives, and assessment cases have typically focussed on estimating housing needs and the costs and benefits that flow from policy action. In general, formal cost-benefit analysis of housing investment programmes has been typically weak or missing in public resource allocation programmes, particularly when compared with transport cases. The inconsistency of the economic logic of including housing and land value uplifts as measures of project gain when the policy aim is to make housing more affordable has rarely been formally addressed at sub-national levels.

Recent work on Sydney highlights how significant housing productivity gains may be missed through inadequate scoping of what housing investment is and what it does for, or to, an economy. These are international, and not specifically Australian, weaknesses in economic thinking for housing policies (Maclennan, Miao and Crommelin, 2019), (Maclennan and Christie, 2019).

The housing-productivity connections framework set out in Maclennan, Ong and Wood (2015) can be extended to market and non-market outcomes and integrated with measures of social impact (the task involves developing practical metrics rather than any conceptual difficulties).

'Housing' is both a verb and a noun. Houses need to be produced and that involves design, planning, financing, and construction; they then need to be sold, resold and let, and maintained. All these activities have

income and employment effects (that are partially recognised in making economic stabilisation cases for housing investment). In that way, with important links through markets for finance, labour, land and materials, housing activities can directly touch almost a fifth of economic activity in an advanced economy (Maclennan, Ong and Wood, 2015).

It is, however, housing as a 'noun' that most shapes the growth and productivity cases for housing as a product or commodity? Housing is spatially-fixed capital that has multiple attributes, including space, quality, comfort, and accessibility to friends, work and other household activity sites as well as a neighbourhood context of residents, amenities and environments. Homes also have prices, rents, debts and capital gains associated with them. Choices clearly matter for individual wellbeing, workplace connection and asset accumulation. Individual household choices also may shape, not least through residential choice and segregation processes, emergent structures for cities that may influence their evolution (disadvantaged areas, gentrification hotspots, isolated suburbs). Housing processes, individual outcomes and city structures will influence not just current employment and incomes (multiplier effects) but can directly impact economic and financial stability (with cyclical, boom and bust effects).

The core of our research interest has also been to argue, and to evidence wherever possible, that housing outcomes and their associated prices/rents can influence growth and productivity. None of these arguments detracts from 'merit good' cases for housing policy but they add more explicitly to national and local policymaking and advocacy the importance of the stability and productivity gains from housing policies.

Housing policy aims, at present, can be broadly divided into four broad tasks. These are:

- Tackling and preventing homelessness – especially of the visible kind
- Making progress on meeting identified needs for deeply subsidised non-market housing
- Interventions designed to make housing more affordable, and growth processes more inclusive, for a wide range of in-work households who do not need social housing but who require some support to make housing choices with net productivity gains (and the proposals modelled in Maclennan et al (2019b) are of that kind).
- Ensuring that housing and related finance and land markets operate in a well-functioning fashion, given individual and policy goals.

We have not, in this research or earlier papers in the series, encountered a well-developed, explicit, planned and modelled housing market strategy for any metropolitan area or state in Australia. Such a strategy, integrated with related infrastructure and spatial planning frameworks, is clearly an important starting point for any coherent infrastructure programme for a metropolitan area. The information requirements for housing infrastructure provision to meet the other three key policy requirements differ, as will the productivity arguments associated with them. For the homelessness cases the key questions will generally revolve around savings on programs with costs that rise with homelessness, most notably health, social care and policing. The stability of the lives of the individuals involved rather than of the economy is the dominant concern.

Housing research, in Australia (Parsell et al 2017) and elsewhere (Busch-Geertsema 2013; Bretherton & Pleace 2015) now makes strong cases that housing infrastructure and support services to reduce and prevent homelessness will induce a net fiscal gain by reducing other programme costs. Cases for investment in deeply subsidised social housing still have to be made primarily on 'merit goods' grounds (that is essentially redistributive fairness), and in Australia this reflects the disconnection between social housing provision and the economy, as few tenants are engaged in the labour market and few have any savings.

The utility of infrastructure arguments in making the case for social housing investment are discussed in Lawson et al (2018). Beyond this, however, there are some potential productivity issues that do need to be explored in relation to public and deeply subsidised non-profit housing. For instance, some households may be rationed out of the labour market because their homes are too far from suitable job opportunities. And what about the possible long-term employability benefits of a secure social rental home for children otherwise disadvantaged by living in expensive and unstable private rental tenure? This takes us back to the question of housing outcomes for the young and their human capital development in poor public, non-profit and market, homes. More work is still needed on these issues.

The main concern in the CFRC stream of work has been to identify the productivity and stability effects for Australian households and cities of housing policy interventions that address the affordability issues of, primarily, the working, and younger households in the bottom half of the income distribution. They encounter housing cost and accessibility issues in different sectors, as outlined below, in different ways that potentially impact productivity and stability in rather important ways for Australia. Subsidised housing is not just about alleviating poverty but allowing Australians to make the housing choices that will promote economic productivity and stability. The choice is not between deeply subsidised social housing and free market prices but informed, intelligent design of housing policies to support a stable and competitive economy. Infrastructure policy-makers need to know what mix of programmes are required at metropolitan and regional scales and to tie them closely to other infrastructure sector decisions. The sections that follow are intended to indicate ways in which to improve the provision of housing infrastructure by non-profit and market agents.

R1: Placing housing as economic infrastructure in metropolitan investment, planning strategies and policies

Australian research at state and local government levels (Maclennan, Ong and Wood, 2015) has emphasised the absence of discussion, analysis and modelling of the productivity effects of housing outcomes across economic development, housing and planning departments and institutions. The same observation applies to infrastructure agencies and departments and this must change; not just because of a dawning 'housing as infrastructure' perspective, but because infrastructure investment choices are so crucial in shaping housing outcomes. In creating and restoring places the synergies between housing, related infrastructure, planning and economic outcomes are usually strong. But they are often neither well analysed nor delivered. These issues have become apparent in the development of City Deals in the UK, but they also appear to prevail in Australian metropolitan areas. A preliminary assessment (requiring a much more intensive long-term follow-up, not discussed here) of whether high housing costs reflect not just restrictive municipal zoning but other labour and land market behaviours as well as infrastructure shortages could also usefully inform emerging national and state housing debates.

Given the emerging appreciation of housing as economic infrastructure, there is an urgent need to review, for states and metropolitan areas, whether housing market strategies exist, whether there are linked housing and infrastructure investment plans and how they relate to strategic spatial plans. Importantly, such a study also needs to probe how such plans address economic development, productivity and stability issues associated with housing system outcomes. It would investigate how housing as economic infrastructure and the interactions between housing, infrastructure and economic outcomes could be better understood and utilised for better housing-policy design and delivery at federal, state and metropolitan levels. Given the need for national coverage and considering the number of jurisdictions involved, such a study would take a year to complete and would cost $150-$250k.

Research on this topic would require an active co-production partnership with federal and state infrastructure provides and funders.

3 Prices, rents, incomes and affordability

Rising house prices, and market rents, have been key features of economic growth in the advanced economies since the 1970's. Sutton et al (2017) noted, that apart from Germany, Portugal and Switzerland, the advanced economies have experienced house price growth at an average of 6 per cent per year for the last four decades. Australia is the sixth most house price inflation-prone of these advanced economies with annual increases averaging 8.1 per cent since 1961. Over that period house prices have risen at double the rate of average full-time earnings. Thus, as shown by Yates (2016) Australia's house price affordability declined at one of the fastest rates in the world in the period 1985-2015. Although subject to market cycles, Australia's house price boom has been longer-sustained than in any other advanced economy, and this pattern has continued into recent years. RBA Governor, Philip Lowe (2019) noted that from 2012-17 Australian house prices rose by 50 per cent, but by early 2019 a 9 per cent fall in the previous year had restored them to mid-2016 levels. By mid-2019 this 'correction' had halted, and house prices had resumed an upward path in major metropolitan markets until the arrival of the COVID-19 pandemic

In the remainder of this section we examine these changing patterns, and their relationship to rent shifts. Implications for rental payment burdens and economic change are also explored. Some of the general patterns are well-established. However, there is a need for further exploration of these dynamics particularly as they relate to different income and age groups, as well as across different localities. That said, some commentators have already moved to pronouncing, without any substantial empirical evidence, on the causality of price changes, with municipal planning held up as the prime cause of Australian house price rises.

This paper is not primarily concerned with 'causality', but with patterns and economic consequences. That said, sustained house price outcomes of the magnitudes experienced, stem not from a singular cause. In part, they arise from contemporary patterns of economic change, with growth and productivity rising fastest in metropolitan areas with agglomeration economies and strong global connections but where land is scarcest and costliest. They have also been impacted by monetary and fiscal policies that have boosted demand, and by inadequate investment in infrastructure and housing programmes. The balance of these causes of market shortages, that are likely to vary over space and time, and vertical fiscal imbalances[1] in the availability of government resources to deal with them where they occur, should be an important research concern for Australian governments, but 'causality' issues are not pursued here.

The balance of prices and rents in relation to household incomes, and changes in these magnitudes over time, is at the core public, policy and professional concerns about 'housing affordability'. Australia, like most OECD countries, now faces widening and deepening difficulties of housing affordability that can be seen as a triple set of problems (noted above, Maclennan, Pawson and Gibb 2019), namely:

- rising rates of homelessness
- growing shortages of adequate housing, and
- rising payment burdens for low income households and a step up, over the last decade, in the difficulties faced by low to moderate income households, including home-owners as well as renters.

The recent Anglicare (2019) snapshot on rental housing in Australia suggests that a third of households see 'housing affordability' as a 'top-three problem for governments to address and, reflecting the significant spread of the difficulties, some 40 per cent of Australians have some worry about homelessness for themselves or members of their families. Although COVID-19 may induce higher vacancy rates and falling rents in some markets the even faster rise in the risks of income and employment are heightening the payments stress levels of Australian renters in mid-2020. In July 2020, drawing on a rolling survey of 52,000 households, Digital Finance Analytics reported that mortgage stress rates had risen to almost 40 per cent of households with a home loan, and the stress rare for renters was at a similar level. An ANU Centre

[1] Growth processes in local areas often lead to housing and infrastructure shortages within these particular localities. However, the tax revenues accruing from increased wages, profits and rents induced by growth do not stay locally but may accrue to federal or state governments instead. Localities get the growth problems, but state and federal levels get the associated revenue growth. In the economics literature this difficulty is termed 'vertical fiscal imbalance'.

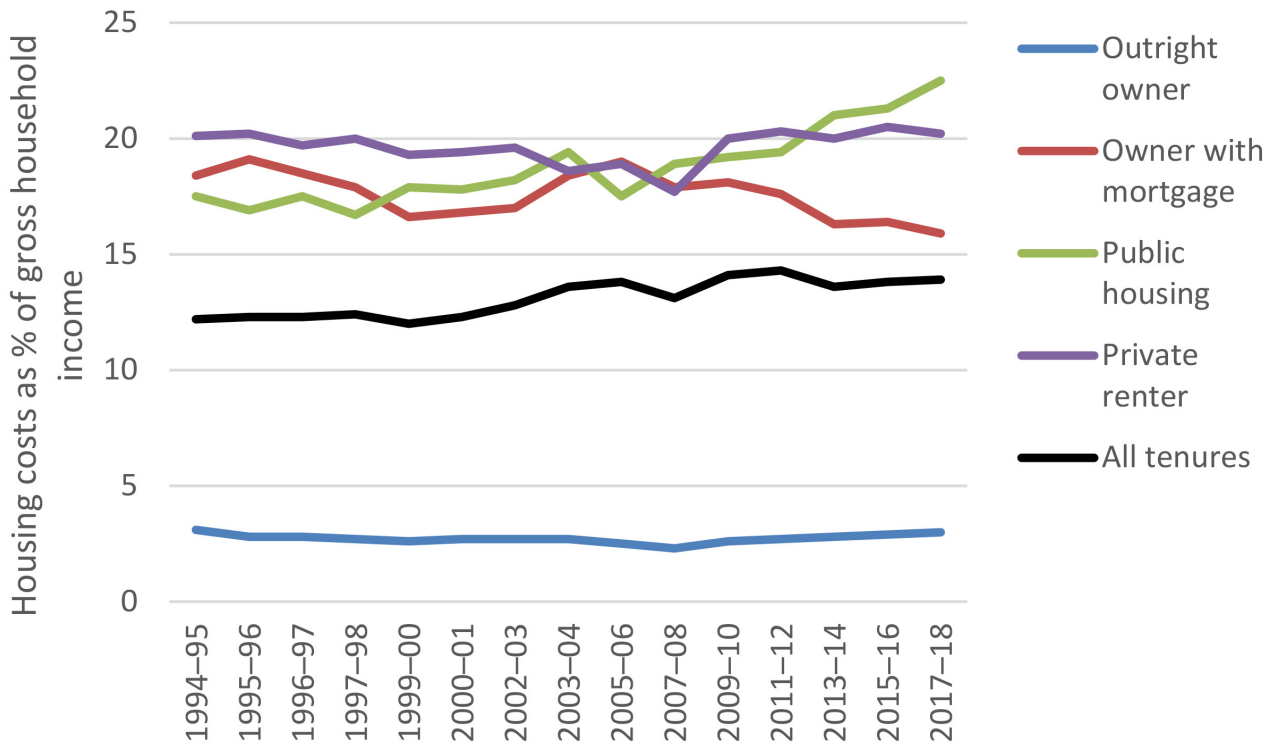
for Social Research and Methods (Biddle et. al, 2020) report for the same week reported that the proportion of Australians unable to pay their rent or mortgage on time had risen from 6.9 per cent in April to 15.1 per cent in May. These ratios were higher for poorer and younger households and 44 per cent of renters between the ages of 18-24 had been unable to pay their rent on time.

There is much debate about the most precise and best concept of affordability to use in describing and addressing housing payment problems. Different ethical judgements are made (the policy use of the term 'affordable' always involves a value judgement) and different technical measures deployed. For example, there are dilemmas about whether housing expenditure should be broadly defined to include expenditures such as energy bills and travel costs, in addition to rent or mortgage payments (Stone, 2006; Metro-Vancouver, 2015). Although side-stepping these often-important issues, this paper aims to use consistent measures while also rejecting the ubiquitously used house price to income ratio as a useful measure of housing affordability in the homeowner sector. Rent to income and residual income measures can still be usefully deployed in describing rental sector changes. The reasons for these choices are set out below. The purpose here is to get to some consistent measure of burdens of housing payments and, then, their economic consequences.

Overall housing costs

The overall trend in housing cost burdens in Australia has been well summarised by the Grattan Institute (2018). Drawing on three different sources, Grattan note a steady post-1980s population-wide increase in housing costs as a proportion of pre-tax household incomes. However, when these data are broken down by tenure a different story emerges. As shown in Figure 1, falling expenditure by mortgaged homeowners are one of the clearest trends over the past decade. This confirms the work of Andre et al for OECD (2014).

Figure 1: Housing costs as a proportion of income, tenure breakdown 1994-2018



Source: ABS Cat 4130.0 Housing Occupancy and Costs, Australia 2017-18

La Cava et al (2017) provide an even more effective demolition of the notion of a ubiquitous, growing affordability problem in home-ownership. They point out that, mainly thanks to falling mortgage rates, mortgage service costs as a share of incomes for first home buyers are no greater post-2010 than in the period 1980-95. This is a very important point explored further in Section 4 below. Investor landlords may also benefit from lower interest rates. However, if their rising property acquisition activity drives up market prices (often in market segments attractive to prospective first homeowners) then rents may rise substantially as the latter are impeded by higher house prices from leaving an increasingly pressured rental market. Thus, lower interest rates do not always benefit renters as opposed to owners.

These observations on static or falling mortgage service costs to income ratios for home-buyers informs a more nuanced explanation of the factors shaping young adult home ownership rates (and by implication their longer exposure to high rent burdens as tenants). Explanations may relate to mortgage availability and rationing rules of lenders, but they may critically involve the deposit capacity of renters aspiring to home-ownership. Calibrated according to economists' favoured measure of the true cost of home ownership, the user cost of housing capital, the burden has been low over the last 20 years.

If mortgage servicing costs are also low (thanks to rock bottom interest rates), then deposit capacity becomes a critical explanator of the growing stock of frustrated home-buyers in the rental sector. And, unless first home buyers receive deposit support from family funds (or, perhaps assistance from the Commonwealth Government such as the First Home Loan Deposit Guarantee Scheme or other State-based schemes), then it is rising rental burdens – rather than high house prices – that lengthen mortgage deposit accumulation periods. Therefore, to the extent that rent burdens are on the increase, they are likely to be crucial in frustrating ownership entry.

Ownership take-up may be more sensitive to rental prices and durations and, paradoxically, rising rents will increase demand for rental housing by elongating periods of residence required for deposit accumulation. There is a potentially important and widely unrecognised market failure in the tenure switch process reflecting the different ways pressures transform into housing cost outgoings for owner occupiers and renters. Unexpectedly, to accelerate younger household home-ownership entry it may be important to limit rent increases!

Evidence from the ABS, the RBA and CoreLogic also highlights marked regional and metropolitan differences in house price/mortgage service costs. As Lowe (2019) observed 'there is no Australian housing market but a series of separate but connected markets'. The RBA (Ellis, 2013) had already noted the important spatial differences in burdens of housing costs, with higher cost to price ratios in cities (and especially in inner ring suburbs) than in regional Australia. In general, over the last two decades the price of cheaper dwellings had risen faster than others. La Cava's later work confirmed inter-metropolitan differences, utilising debt service burden measures, and indicating that by 2015 Sydney first home buyers would able to access only the cheapest 10 per cent of the market with this figure rising to 20 per cent in Melbourne and 32 per cent nationally.

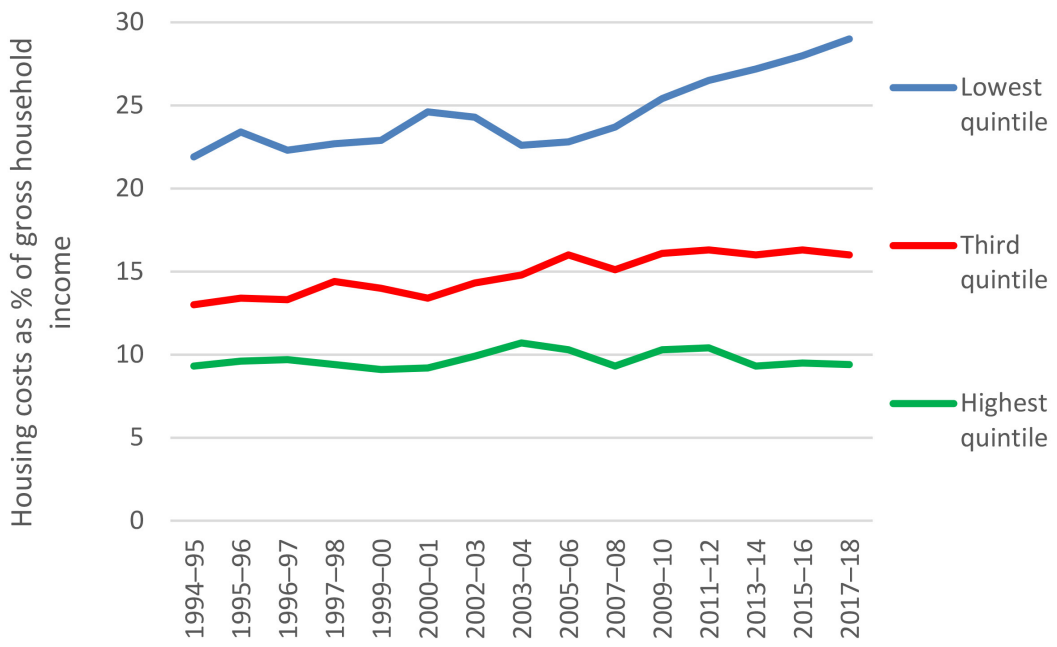
The home-owner payment problem is most acute for the two lowest income quintiles. They had lower and, probably, less certain incomes, an issue further highlighted by the employment consequences of the current COVID-19 pandemic. They probably also had less housing equity rich parents and grandparents. And these groups, see Ellis (2015), had faced the fastest growth in prices with low- or no-income growth; between 2003/2004 to 2015/2016, house prices facing the lowest two income quintiles had doubled whereas they rose by 70 per cent for other income quintiles. These changing patterns constitute a major impediment to social mobility; (or what Australians call 'a fair go'). The Grattan Institute note the particularly steep decline in home-ownership for low-income households, changing the pattern of the early 1990s when the home ownership rate was broadly similar for all income groups. BCEC figures (2018) indicate that reduction in home-ownership rates has been proportionately less (by 2017) for each successively older age group for all income quintiles.

Average figures for home-owners and renters alike suggest that, whilst low income households across most of Australia suffer significant housing costs stresses, these are markedly higher in the major metropolitan areas. Moreover, affluent households have seen little or no increase in their housing cost burdens across all the capital cities (this may reflect differences in income growth as well as housing cost increases for different quintiles). Similar patterns have been identified in comparator countries.

Detailed patterns of changes in housing cost burdens (measured in relation to house prices) for Australian homeowners are presented by BCEC (2019). The analysis of mortgage burdens for low income households for 2005-6 to 2015-6 shows the overall burden rate remaining close to 40 per cent through the period but falling in some capital cities such as Melbourne and Sydney (from 48 to 45 and 53 to 44) and rising in others, with Adelaide increasing markedly from 39 per cent to 45 per cent, Perth 34 per cent to 38 per cent and Hobart from 26 per cent to 32 per cent. Ratios were widely higher in capital cities than 'rest of state' localities. These findings highlight the considerable challenge to low income households in maintaining mortgage payments even where they have been able to secure deposits to access ownership. It will be important to undertake an early analysis of burdens in the COVID-19 recovery period.

At first sight the ABS survey data shown in Figure 1 appear to present a further complication to the 'general affordability crisis' notion. While rents as a share of incomes rose substantially for public housing renters over the period 2004-05-2017-18, the comparable figure for private tenants remained similar at the end of this period to its starting point. However, when these data are broken down by income a clearer and more compelling picture of distributional shifts emerges. As shown in Figure 2, the past decade has seen a sharp and sustained increase in the share of income being consumed by housing as this affects the poorest 20 per cent of Australia's households. Meanwhile, the situation for the highest income quintile remained virtually unchanged.

Figure 2: Housing costs as a proportion of income: breakdown by (selected) income cohort, 1994-2018

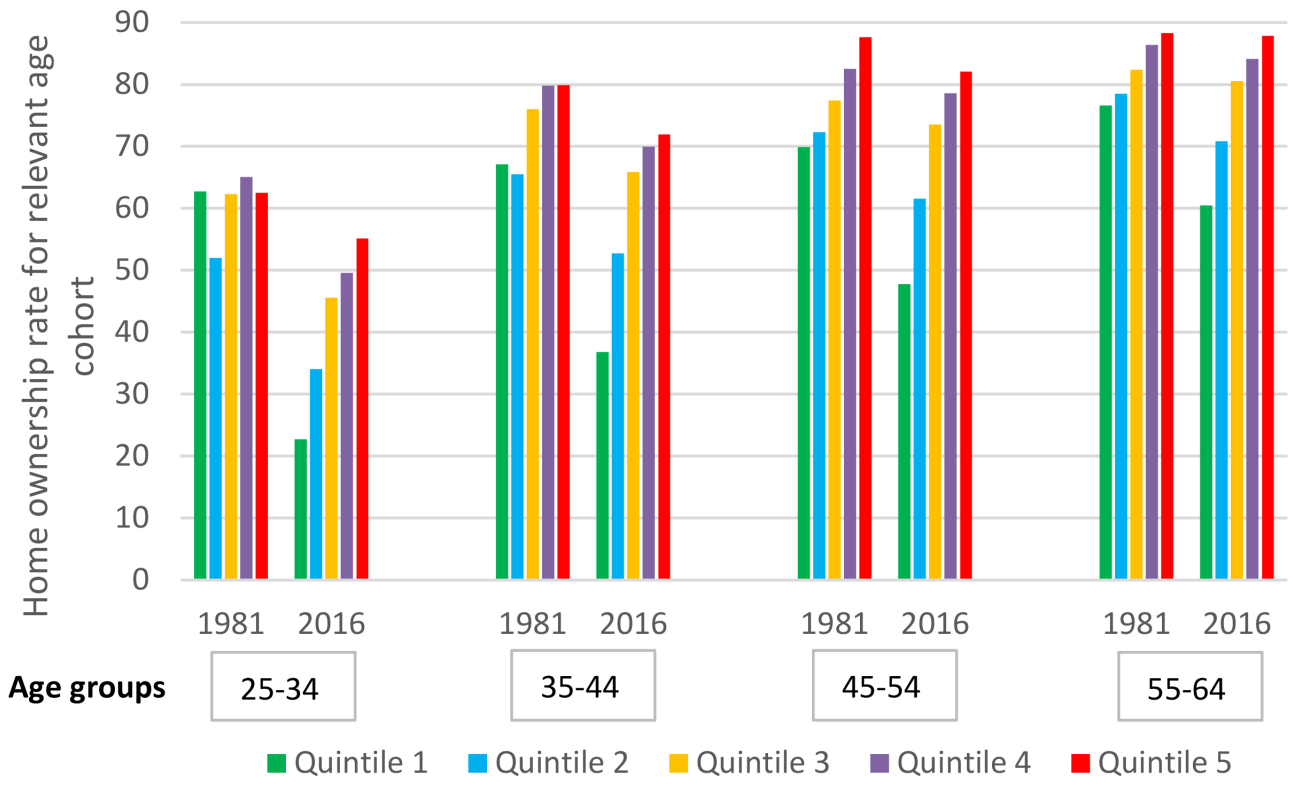


Source: ABS Cat 4130.0 Housing Occupancy and Costs, Australia 2017-18

Changing home ownership rates

The Grattan Institute has summarised shifts in the tenure structure of Australia (see also Hall, 2017). Drawing on the Grattan data, Figure 3 shows that, in every age group between 1981 and 2016, the reduction in home ownership was most marked for lower income groups. Whereas in each age group, home ownership rates in 1981 were relatively similar across the income quintiles, by 2016 rates were sharply lower for Q2 and especially Q1 households than for middle and high earners. Indeed, for the two youngest age groups, 25-34 and 35-44, home-ownership rates have fallen for every income quintile. Per centage point falls have been largest for the poorest groups in each age cohort.

Figure 3: Change in home ownership rates by age and income cohorts, 1981 and 2016



Source: Grattan Institute (2018) – Figure 4.3

The overall consequence of these shifts has been that despite the sustained cross-party rhetoric of growing home-ownership that, notwithstanding substantial real income increases since 1981, overall home-ownership rates in Australia have fallen substantially. The causes and processes have been longstanding, and they primarily relate to the impacts of economic and financial shifts on younger and poorer households. Governments at all levels have been slow to recognise and understand these difficulties. There are more specific housing outcomes that arise now and are likely to arise in the future. Key considerations include:

- The displacement of lower income renters with no prospect of home-ownership in the rental sector by increased numbers of prospective owners living longer in the sector; that is, a 'clogging-up' of the entry channels to the housing system
- The increasing numbers of older Australians reaching retirement either as renters or with substantial mortgage debt on their main (and only) residence; that is, a narrowing of the financial channels for households reaching retirement age. With an aging demographic with a much larger share of retiring households without housing assets, the potential additional fiscal cost of housing, care and health programmes may become significant.

Rents and incomes for tenants

Housing research over a wide range of settings suggests that average rent to income figures, arguably the best available measure of rental sector burdens, usually vary with incomes, family status and age. A consequence of these differences is that variations in rent to income ratios observed over time and space will reflect not only different degrees of market pressure, but also differences in socio-economic composition of residents in the sector. This observation is particularly important in the private rental sectors (PRS) of any housing system. If there is wisdom in Lowe's observation that there is no single

Australian housing market, then it is easily pertinent to recall Priemus and Maclennan's observation (1997) that there is, within even a single metropolitan area, no unitary rental sector. Australian evidence (Rowley and James, 2018) confirms this variety.

Commonly, the private rental sector (PRS) houses between seven and ten different, well defined socio-economic groups, each with different motives for renting homes, and with the rental sector playing quite different roles in their long-term housing and labour market careers. The sector may be a short-term choice for households recently moving into a locality or for those with an intended short duration in the locality. Such households may have high as well as low income renters involved. It may house students, again many with substantial resources to pay for adequate housing. Divorce and separation splinters living groups, often leaving former owners regrouping in the rental sector. There are newly independent young persons, and some recently formed households, residing in the rental housing market as they accumulate either savings to enter home-ownership or social needs points or priority status to secure social housing offers.

The changing balance of consumer groups within the PRS is difficult to identify from official ABS statistics and it requires more fine-grain data on households. The BCEC survey data (for 2016) reported in Rowley and James (2018) show that tenant incomes are diverse; 60 per cent of households have annual gross incomes less than $78k whilst 30 per cent have annual incomes exceeding $100k. The main demographic is still relatively young with 30 per cent of household heads aged 25-34, yet 10 per cent are aged over 55. More than a third of households have children. Three out of ten tenants have been in the sector for more than a decade, and another three for durations of 5 to 10 years. Two out of three tenants aspire to home-ownership, even after long periods as renters. However, a quarter of tenants had formerly been owner occupiers (the vast majority of whom had been forced to leave that sector through financial pressures) and exit from renting to owning is no longer a one-way ticket. One tenant in 12 also owns a home in addition to renting.

The stark reality of the sector is that half of tenants pay more than 30 per cent of their incomes in rent and for older, poorer households (with a growing number of older Australians not being home-owners) this per centage rose to 63 per cent for over 55's. These survey-based results from Rowley and James (2018) emphasise the importance of careful identification and analysis of rental burdens in the sector and official statistics do not allow a coherent understanding of the rental sector as it now exists.

ABS data show PRS expansion from 18-26 per cent of Australia's housing market from 1994-2016. Arguably, this is a measure of the increasing failure of Australian housing policies to see the majority of households achieve their home-ownership goals in early life or, alternatively, to offer a different prospect to poorer households in the non-market sector. However, it is not only the growing scale of private renting that is significant, but the changes in PRS composition – the households and houses involved – that must be noted. This renders long-term aggregate burden measures of limited use.

Some 2.1m households now live in the PRS and the fastest growth has been in the three major metropolitan areas where more than half the sector is now located. Indeed, by 2018 the PRS is the majority tenure in a growing number of census tracts in Sydney. Non-census reports and evidence suggest that all demand segments in the rental market mosaic have expanded (more students, more divorced and separated households, more non-local movers) and the rising entry barriers to both homeownership and social renting housing have significantly added to the stock of, respectively, higher and lower income households in the sector. Clearly, failed entrants to ownership and failed entrants to social renting stockpiled in the PRS imply quite different policy solutions and careful, nuanced, approaches are required for reducing pressures, and for understanding the consequences of high rent burdens in the sector.

The PRS has, within housing research and policy, been traditionally regarded as an essentially transitional tenure for households with those leaving unlikely to return. Neither of these 'stylised facts' now hold true. Durations of residence in the sector have increased markedly as the sector has grown, and these longer stays of subsequent home-owners in the sector are likely to have significant long-term asset and wealth effects for households. Poorer, impoverished households, with growing numbers of children living in the sector, denied access longer to better social housing may well carry effects on health, education and human capital capacity through their lifetimes.

It is also important to note that tax policy choices, interacting with major approaches to monetary

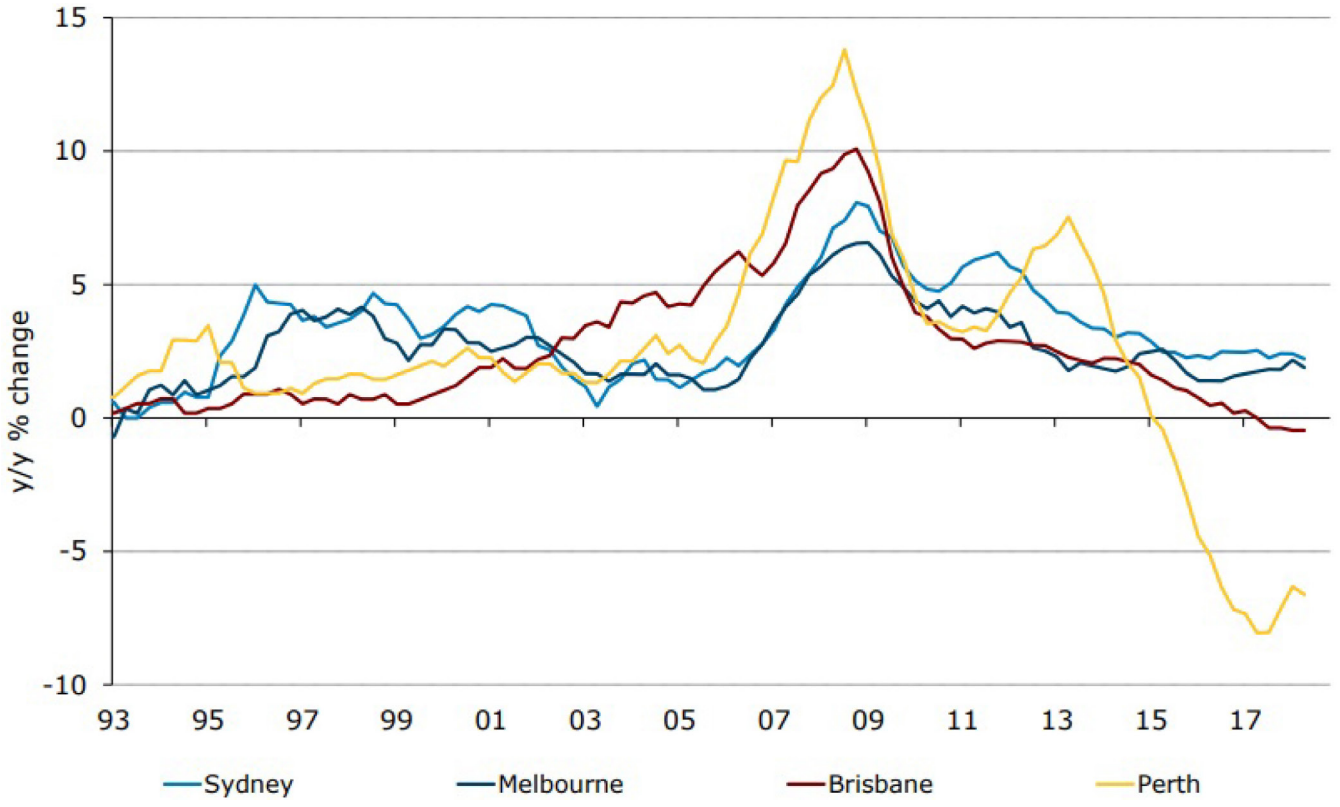
policy, have made investment in housing for rent an attractive proposition. In 2013-14, 1.135 million Australian households were "investor landlords", with 72 per cent owning one rental property. Of course, the early impacts of COVIDCOVID-19 in the major metropolitan areas reported in the Australian Financial Review (AFR 22nd July) suggest signs of highly leveraged, small-scale rental investors seeking to sell rental properties as the year ahead offers both more property management challenges and falling capital values. This point is significant in thinking through the economic implications of increasing rents. First, investor and resident home ownership both play significant roles in the savings and asset accumulation strategies, not least for retirement, and are widely used by Australian households. Changing these patterns, not least via delayed entry into homeownership, will have significant future life-cycle implications for both tenants and landlords and this research and policy question, has largely been neglected. We return to this issue below.

Rents, income and payment burdens

Patterns of rent change do not have a one to one correspondence to prices for owner occupied housing in particular places and time periods (as submarket pressures, supply responses, and fiscal and regulatory policies may differ across the sectors). However, there are some similarities to the house price shifts described above and there are substantial differences in changes across major metropolitan markets. Rent statistics, based on CoreLogic data analysed by ANZ Bank (2019), make the point well (and the four capital cities represented in Figure 4 provide just under six out of ten market rental units in Australia).

The best example is the difference between Sydney and Perth over the past 15 years. During the boom periods, Perth and Sydney both saw rents zoom upwards but, consistent with a state economy dominated by inherently volatile mining revenues, price spikes in Perth were much larger. Rents in Sydney increased more rapidly than house prices

Figure 4: Median rent trends, four capital cities. 1993-2017



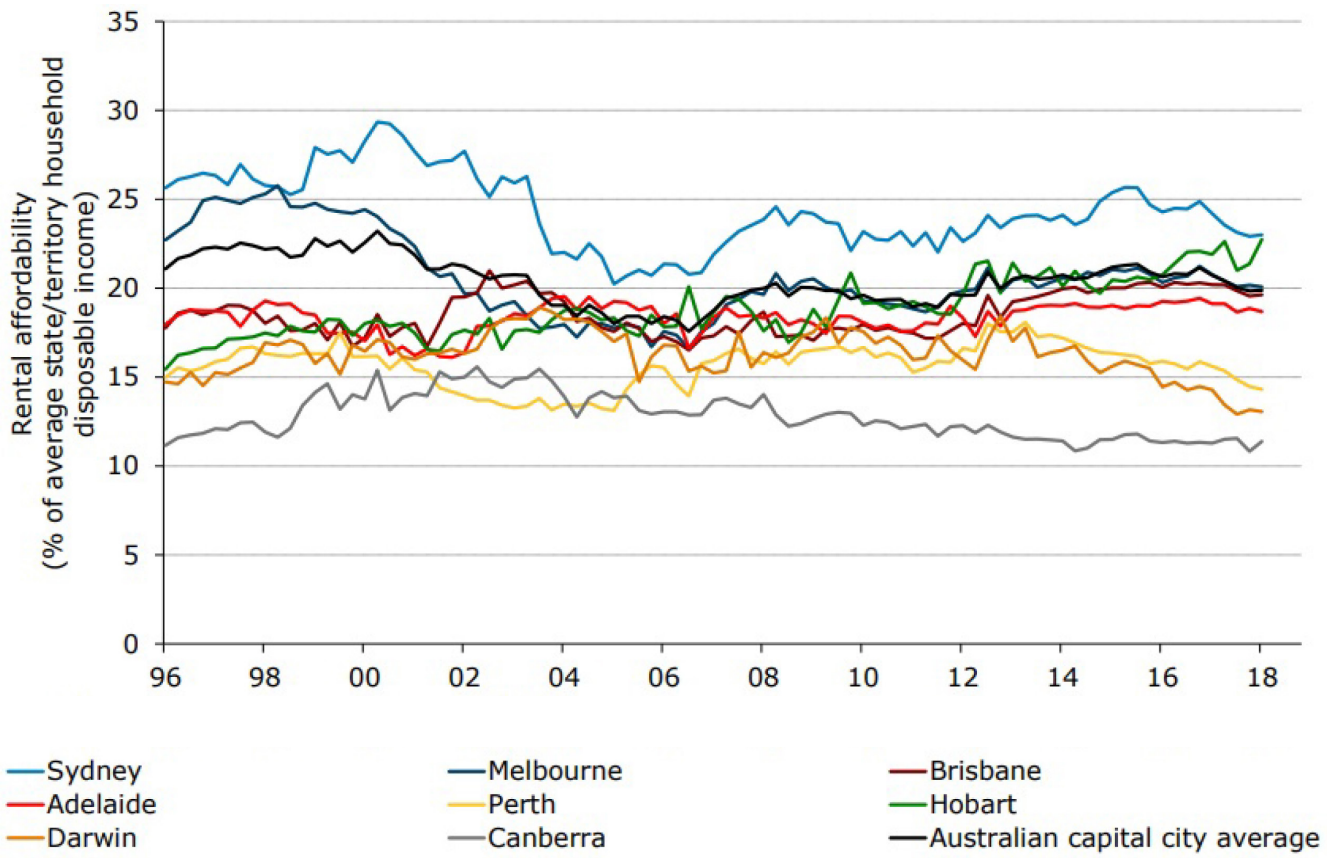
Source: ABS, ANZ Research

there between 2007-13, then house prices led rent increases until 2018. Nevertheless, except for 2018, when rental growth in Australia was at its flattest for a quarter of a century, rents have increased in most localities most years. The extent of growth has reflected local market pressures. Rents in Sydney, until 2018, kept on steadily rising (and are now reportedly rising once again). Permanent, nationwide, affordability improvements via rent decline seem unlikely. Over the period from mid-2018-19, rents increased in all capital cities except for Perth and Darwin, according to property data firm CoreLogic. Capital city rents were 1.4 per cent higher, and in Hobart 10.7 per cent higher, year on year and combined regional rents rose 3.1 per cent.

Incomes and burdens

Anglicare (2019), using data from CoreLogic, note that over the past decade, the minimum wage has risen 31 per cent, the general price level (CPI) has increased 27per cent, but rents have risen by 48 per cent. The Figure 5 below (from ANZ Bank) charts the ratio of market rents to household disposable incomes for the capital cities from 1996 to 2018. It indicates that rent to income burdens for Australians have been, in most capital cities reducing since 2015 (and in Canberra for almost two decades). But while this might be expected to help low-income families, it has done little to undo the massive rent price increases of 2007 to 2012. It is much less affordable to rent now than it was a decade ago.

Figure 5: Share of income spent on rent, all capital cities, 1996-2018



Source: ABS, Residex, ANZ Research

Given sector diversity, median scores rather than averages may better typify sector outcomes. BCEC looked at median rent and median income changes across capital cities and 'rest of state' for the period 2005-6 to 2015-16. Across Australia they established that median rent to median income measures had risen from 24 to 25 per cent. In general, capital cities had higher ratios than remaining areas, but differences varied from state to state and over time. In 2015-16, for instance, Perth (27 per cent) contrasted sharply with the remainder of Western Australia (19 per cent) but there was little difference between Sydney (26 per cent) and the remainder of New South Wales (25 per cent). Ratios had increased almost everywhere from 2005-6 to 2015-16 and typically approximated 25 per cent. Ratios changed at sub-Australia levels in some localities because incomes fell as well as rents rising, with Perth the most obvious example.

BCEC also investigated median rent to median income burden measures for lower income (bottom 40 per cent) households over the same periods and geographies. By 2015-16 burdens in Sydney, Melbourne and Perth had risen to 37-38 per cent (all up from 2005-6) and were above 30 per cent in all other capital cities except for the ACT and the Northern Territories (29 and 22 per cent respectively). For the 'rest of state' areas burdens were typically 3-5 per centage points below capital city pressure measures (with Tasmania an exception) and close to or below the 30 per cent 'affordability' measure. Nationally, the burden measure for lower income households rose from 31 to 34 per cent.

La Cava et al (2017) also explored rental affordability and identified how average rent to income ratios had increased over the two decades to 2016 with the highest rental burdens, and well over the '30 per cent' rule for the lowest income quintiles. The Grattan Institute (2018) further confirm these patterns that the greatest affordability issues confront the lowest two income quintiles and in the capital cities.

Anglicare hammer home the fairness-social justice implications of these now familiar trends. They state "The [rental] situation remains untenable for low-income households in metropolitan areas across Australia". In their 2018 snapshot they reported that of the 67,651 dwellings they surveyed as available for rent (on the weekend of 1-2 April), only 6 per cent were suitable for households on government benefits and 30 per cent for households on the minimum wage (either singles or couples). More specifically, across Australia, there were just 21 available dwellings affordable for a single person on Newstart and just 1.5 per cent of dwellings suitable and affordable for a single parent subsisting on the parenting payment. Even for a single person on minimum wage, just 1.6 per cent of dwellings were affordable. The 2019 snapshot indicated that 'no properties in any capital city were affordable for a single person on Youth Allowance or Newstart' and only 3 per cent were affordable to couples on age support. Rental stresses, burdens exceeding 30 per cent of disposable incomes, are worst in the capital cities and have deepened for the poorest households as rents have risen substantially faster than the CPI indexed Newstart or Commonwealth Rent Assistance.

In this section we have made clear how housing cost burdens have changed in Australia in this millennium. It is important to recognise that the burden of housing payments has not increased for all households, especially for homeowners outside of the major metropolitan areas. It is apparent that housing cost burdens have grown substantially for lower income Australians and especially in the major cities and that the consequent difficulties are likely to be more pronounced for renters than owners. The long-term effects of COVID-19 on these patterns is uncertain and this discussion now serves as a pre-COVID baseline against to which to assess post-2020 developments.

4 Housing costs, payment burdens and consumption

Significant economic consequences may flow from rising real housing costs (with converse effects for falling rents), where rent and mortgage expenditures rise ahead of inflation - regardless of whether they grow faster or slower than income to pay for them. They divert spending from other sectors of consumption that may have greater productivity than the housing sector and they may reduce savings for the longer term. When these housing costs also rise faster than incomes to pay for them there are clear questions of meeting public policy affordability norms (and aims of standard merit good cases for housing policy investment), and meeting social policy aims. As Saunders (2016) notes, regarding Australia, 'Housing costs have long been recognised as a factor contributing to poverty' and 'that taking account of housing costs leads to greater increases in

both poverty and inequality between 2003–2004 and 2007–2008 and to smaller reductions in both since the GFC in 2007–2008'. Taking wealth effects also into account it can be concluded that rising housing prices have increased wealth inequalities that were already much more marked than income inequalities, whilst rent increases have exacerbated residual or disposable income inequalities.

Rent burdens, disadvantage and poverty are important issues and not just because of the social justice or fairness issues involved. Rents, housing prices and rent burdens have other, potentially significant implications for an economy. Individual behaviours regarding consumption, savings, debts and asset accumulation have important macroeconomic consequences. Economics has a series of well-developed models and perspectives for examining household consumption choices. Consumption is defined as using household resources to purchase goods and services that are all used up in the defined period. This is distinct from household resources that are retained and used to save money that may be stored 'under the bed' or more commonly deposited in a bank account and are often used to acquire financial and real assets with future (risky)incomes. Housing plays into this set of issues in at least two important ways. First, making rental, mortgage and other housing-related payments from current incomes will reduce household income available for spending on other consumption activities or for saving. Second, as owner occupied housing is an asset, house price changes will impact incentives to own and the potential returns from holding the asset.

Economics research on consumption and savings behaviours has always placed household incomes at the core of consumption behaviours. However, several nuances must be recognised (Deaton and Muellbauer, 1980; Bosworth et al, 1991) What matters to households in shaping consumption choices and changes is the disposable income available to the household. That income will be influenced by changes in incomes and economic activity rates and, of course, taxes that reduce disposable incomes. Increased rents or (variable) mortgage payments act in a similar fashion (especially where households face high transaction costs to move and readjust).

Theories of consumption behaviour draw attention to short term, or current, incomes and consumption as opposed to choices based upon permanent incomes, that is the current value of expected lifetime incomes. For instance, students in summer employment in the restaurant sector may have current wages similar to non-student workers, but their anticipated lifetime earnings may be much higher, so that they may have higher consumption that reflects that higher permanent income expectation. This point is important in understanding the dynamics of relatively low-income renter choices, for instance their potential to attain homeownership. That is, it not enough simply to look at current incomes but to consider age, household composition, permanent income expectations and, increasingly, potential wealth transfers from other family members (likely to be higher for renters with higher permanent incomes). Changes in permanent income/ current income relations through labour market careers along with changing housing and consumption requirements as households move through (changing) life cycles of single living, household formation (and dissolution), having children, becoming 'empty nesters' and then seniors (with changing housing and care requirements) have given rise to well established life-cycle models of household consumption and saving (Deaton and Muellbauer,1980). Life-cycles of labour market choices and incomes, consumption and housing careers are all intricately interrelated.

Households, drawing on the basic propositions above, save for different reasons. Savings may be undertaken for precautionary motives, namely, to ensure that household living patterns are not unduly disrupted by unanticipated shocks, say by the sudden loss of a job or a family member. Households may also save, recognising the permanent and transitory components, as a means of smoothing out their consumption patterns. Others may save to accumulate deposits for the purchase of durable and investment prospects and to transfer current income to the future (usually, but not inevitably, compensated for their 'patience' by a positive interest rate or other returns).

Many will regard the observation in the previous sentence as rather obvious. It is, yet almost none of these ideas are pursued in looking at housing effects in the economy. Some attract significant attention. For instance, in this millennium there has been growing interest in the accumulation and subsequent use of housing wealth by homeowners. There have been a growing number of studies estimating the marginal propensity to consume out of housing wealth, as rising wealth withdrawal may heighten cyclical peaks in the broader economy and falling wealth, and negative equity, reinforce reductions in spending and consumer confidence when economies are in recession.

There has been much less attention to how owners as well as renters, in response to rising housing costs, have adjusted their savings and consumption behaviours. The 'scoping' of changing burden issue in the previous sections emphasises the need to understand such pressures, responses and impacts for the poorest two quintiles of Australians and households under age 35. Further, in the life-cycle perspective of consumption (and savings) economics it is not enough to only explore the current effects of high housing burdens. If these burdens change current trajectories and experiences, not least when high housing cost burdens prevail over a decade or more, then there are likely to be substantial 'echo' effects of current difficulties. For instance, individuals that delay household and family formation into their late 30's may still have to face education and related costs of raising children as they finally enter owner occupation and then may have limited periods of saving in home-ownership before confronting retirement funding challenges. We have found no life-cycle modelling on the long-term consequences of current high housing costs, and we return to this issue below. In the remainder of this section we focus on consequences of high rental sector burdens.

Burdens and effects

Housing cost outcomes may have significant effects on the economy, on patterns of saving and spending, on asset choices and accumulation, as well as influencing the formation and use of human capital (Maclennan et al, 2018). These productivity, growth and stability consequences of housing outcomes, and not simply fairness issues, should be at the heart of housing policy thinking. They do not seem to be.

It is not hard to envisage what connections might matter, nor how higher housing costs, especially for the poorest 40 per cent have changed the links between housing and the economy. Although primarily concerned with distributional issues, Anglicare (2019) stress that 'for too many people, paying the rent means they can't afford to eat decent food, fill a prescription, pay for transport or buy clothes. Poor food, impaired health and geographic immobility will also impact productivity by impairing the accumulation and use of human capital.

Housing research largely supports these views of sector advocates and makes clear that as housing cost burdens rise households seek to make choices that will reduce their rents and mortgage payments, by purchasing/renting smaller and poorer condition homes in locations inconvenient for access to work and family support or in less attractive neighbourhoods (Maclennan et al 2018). Research in other similar countries, such as the USA, the UK and Canada (Pew 2018; Maclennan, Pawson and Gibb, 2019) reaches similar conclusions. Higher cost burdens and adaptations to them can lead to increased homelessness, erode the learning and working capabilities of children and adults and adversely reshape their lifetime income and wealth possibilities. These are economic consequences, not simply social injustices.

There are powerful centres of economic thinking in Australia that seem to share this view. The RBA (La Cava et al, 2017) notes that the high rent burden for lowest income groups creates and deepens disadvantage 'reducing the capacity to spend on other goods and services, inferior housing and housing insecurity may affect social outcomes and mental and physical health'. The similar view of the Productivity Commission is reproduced in Box 1.

Few, if any, of these effects are measured and weighted in public resource decisions, with – as noted above – housing typically seen as simply a 'merit good/redistributive case'. In 'Making Better Economic Cases' we made the argument for housing as essential economic infrastructure. In 'Strengthening Economic Cases' we demonstrated and modelled how spatial location choices induced by high housing costs reduced income, growth and productivity, that is induced significant pure productivity effects. In the remainder of this section we explore questions of housing burden and consumption decisions and in the next section address tenure choice and future asset accumulation consequences of current burdens.

Box 1: Possible impact of disadvantage on future wellbeing

Economic disadvantage can have a range of dynamic effects, where a lack of resources in one period affects a person's future resources and the resources (and opportunities) available to their children. For example:

- people with few resources can suffer poor physical and mental health, which undermines wellbeing directly and can also affect access to education and employment opportunities
- a lack of goods and services that are typically available to the average person (such as communications technologies, clothing for attending job interviews, or access to transport) could also constrain a person's employment opportunities, affecting current and future resources
- inadequate resources could affect children's social and educational opportunities — such as by affecting their ability to engage in school or to participate in extracurricular activities
- being unable to deal with unexpected events could be harmful to future material resources and, therefore, wellbeing — for instance, a lack of insurance, savings or access to credit leaves people vulnerable to a sudden drop in income or an unexpected event (such as a broken appliance, medical emergency or car accident).

Extract from Productivity Commission (2018)

Expenditure, consumption and housing costs

National governments typically produce regular (annual) statistics on household expenditures that describe patterns of expenditure in relation to incomes at aggregate scale, and for selected socio-economic categories of households, for different (broad) categories of expenditure, including housing costs. These exercises give a broad sense of how housing costs, as defined by the particular survey approach, change over time.

However, they have limitations, especially in relation to owner occupied housing. National income accounting conventions estimate household incomes in ways different from widely understood meanings of the term 'income' used in housing, and related research. Incomes as calibrated in National Accounts include not only diverse income sources, including returns on capital as well as labour income and government transfers, but also imputed income streams from assets held by the household. The most important example of 'imputation' is the assumption that home-owners earn from the home they occupy an income equal to the rental income stream the house would command in the marketplace. Whilst this imputation leaves rent to income measures unchanged for tenants it means that imputed income raises the denominator in the mortgage cost to income ratio, thus lowering the resulting statistic. This accounting convention does not seem to accord with the interpretations of housing market participants including consumers and lenders.

A further difficulty is that the definition of housing implied is quite narrow so that expenditures on the activities closely complementary to housing that jointly deliver housing 'services' to the household such as comfortable shelter and accessibility, involving energy costs and transport costs, are omitted from the housing expenditure category. When the costs of housing rise households may economise and adapt by purchasing less energy efficient and less accessible homes so that housing cost burdens may not increase but rising energy and travel costs will mean that comfortable shelter and residential accessibility have in fact risen. In researching real economic consequences of rising house prices, it is essential to understand how the real cost of 'housing services' consumed by the household have actually changed. There is scope for research in Australia to improve the understanding of the relationships between observed housing costs (rents and prices) and the costs of housing services (accessibility, comfort etc) and to understand how the burdens of achieving the latter have changed over time. The likelihood is that the real housing service

costs of metropolitan housing market pressures have been significantly underestimated and that both the 'affordability' and 'economic impact' cases for housing policy start from a weak evidence base.

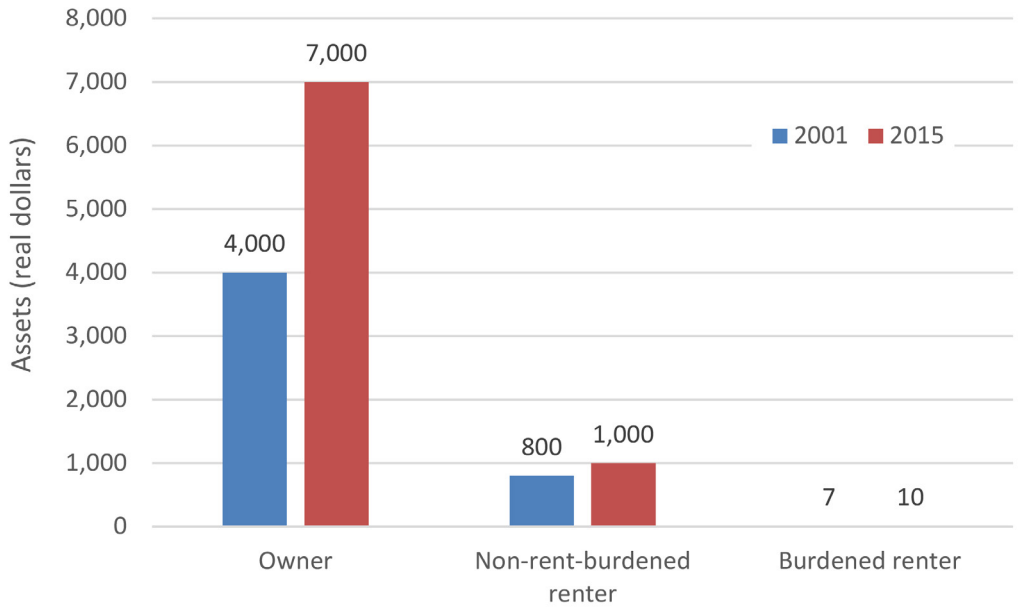
There has been relatively limited use of the ABS Housing Occupancy and Costs (HOC) survey data that does exist. A perusal of the HOC data from 2004-5 to the present does show housing expenditures, narrowly defined, rising for renter households. Di Pasquale and Murray (2016) examine similar data for the USA from 1940 to 2010 and for 20 major cities.

They note that from 1940 until the end of the 1960's the price of rental housing fell while tenants' incomes rose. In contrast thereafter, rents increased, renters' incomes declined in real terms, but their consumption of rental housing increased. Through that period the burden of rental payments increased steadily and peaked in the last year of their analysis. By examining the statistical relationship between different shares of expenditures they concluded that the rising burden of rent payments was absorbed through reductions in consumption of other necessities including clothing, food and transportation. An equivalent understanding for Australia could reveal how the deeply embedded problems of paying for housing endured by the two lower income quintiles lie at the core of their difficulties of earning as well as living over the last few decades.

Research in comparator countries provides useful examples of other, survey-based approaches for investigating the burden of paying for housing, both for renters and owners. However, because such techniques tend to involve one-off, cross sectional surveys and they may be limited in the scope of issues covered (de-emphasising long-term effects) and restricted in their shelf-life as regards influencing policy decisions (see for example Maclennan and More (1991) for a major UK effort). A recent major study in the USA by the Pew Charitable Trust takes a more fruitful, longitudinal approach and uses the Panel Study of Income Dynamics to examine how American households used financial services, accumulated savings, paid for housing and transitioned to home ownership between 2001 and 2015.

Such longitudinal studies, using expensively collected pre-existing data, can generate firmer evidence foundations for identifying the economic effects of high housing costs (and some similar research has been undertaken using ESRC panel data in the UK). For instance, Pew (2018) concluded that high rent burdens do decrease household savings as well as consumption and had long-run as well as short term effects, see Figure 6.

Figure 6: Asset accumulation over time by housing type and burden, 2001 and 2015

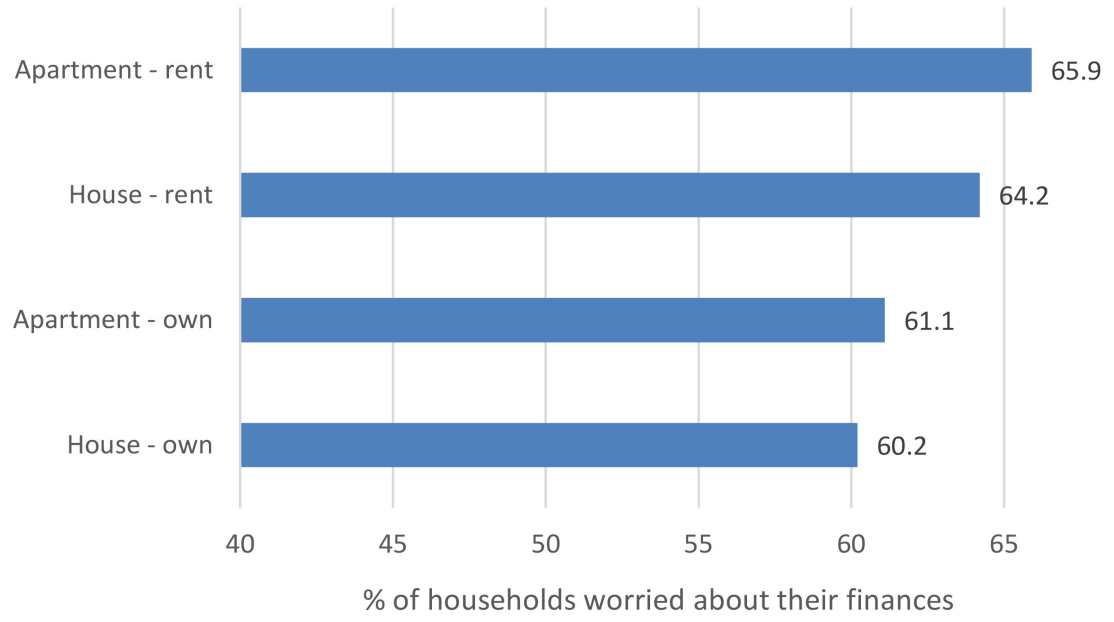


Source: Pew Charitable Trust (2018)

There is an important and well-developed panel survey database for Australia, namely HILDA. HILDA has been extensively used in Australian housing research, particularly in relation to issues concerning home-owner choices, wealth accumulation and spending (see Ong and Wood, 2019, as a recent example). It has not, however, been used systematically to 'mine' the data to address the issue of changing housing cost burdens and their consequences for households. Surprisingly, despite their wide coverage of Australian housing policy research issues, AHURI has not commissioned a research programme looking at the longitudinal interactions of changing housing costs, incomes, savings and financial accumulation. The potential for work in that area requires a much more considerable scoping exercise than there is space for here.

Further insights about effects of rising housing cost burdens on households can be derived from more traditional cross-sectional, recurrent surveys of the kind undertaken by BCEC (referred to above) and by industry participants, such as the NAB survey of consumers and financial pressures. The NAB survey (2019) highlights that consumer concerns about their financial security fell from 2013 to 2018 (house price rises comforted owners and slower rent rises and employment security reassured renters) but they rose significantly into 2019. Six out of ten NAB survey respondents expressed concern about household financial stability – see Figure 7. These concerns were most acute, and rose most significantly between 2013 and 2018, for households aged 18-29 and for households with incomes less than $35k. In general women were more worried than men. Renters, see the figure below, were more worried than owners. It was noted above that by mid- 2020 these concerns had reached significantly higher heights.

Figure 7: Proportion of households worried about their finances, 2018



Source: NAB Survey Data, 2018

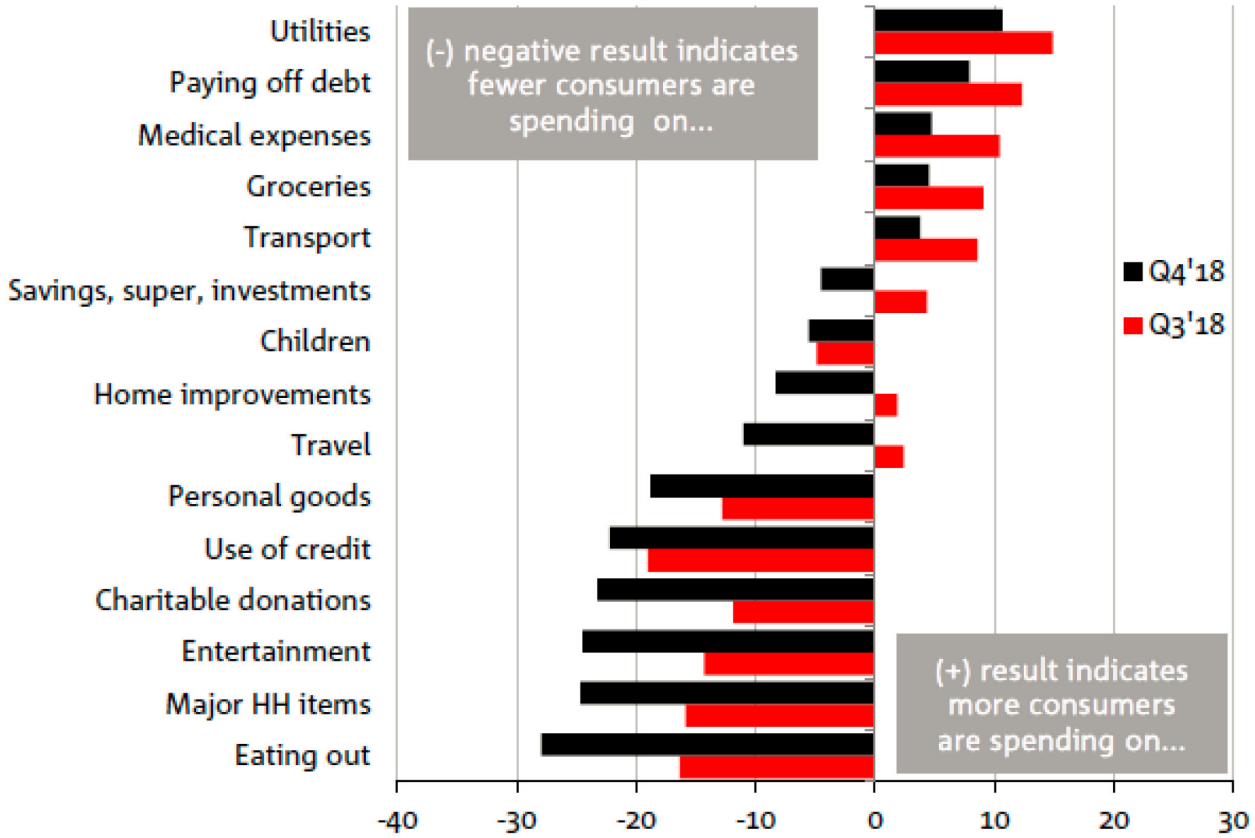
The NAB survey also explored how consumer spending changes as financial worries deepen. The responses, confirming the broad findings from other research approaches reviewed above, suggest that rising rents and/or falling income will see households curtail spending on, first, travel, eating out and entertainment, and later, and mostly for poorer households, retirement and medical services. The extent to which rising rents and mortgage costs drive financial concerns and non-housing expenditure reductions differs across income and age groups. A useful summary of the main results of the NAB survey is presented in the chart below with 18-29-year-old renters significantly impacted by housing costs in their general financial situation with 30-49-year-old mortgage holders also impacted.

Table 1: Household spending behaviours – spending category (net balance – spending more/spending less)

	Q4 2017	Q3 2018	Q4 2018
Travel	-9	2	-11
Eating out (coffee, take-away, restaurants, etc.)	-18	-16	-28
Entertainment (movies, sports, concerts, etc.)	-19	-14	-24
Groceries (food, alcohol etc.)	6	9	5
Home improvements and maintenance	0	2	-8
Major household items (appliances, furniture etc.)	-17	-16	-25
Utilities (electricity, gas, phone, etc.)	22	15	11
Personal goods (clothes, toiletries, sports, pets, etc.)	-13	-13	-19
Medical expenses (doctors, pharmacy, optical etc.)	11	10	5
Transport (car running costs and public transport)	11	9	4
Children (school fees, childcare, activities etc.)	-1	-5	-6
Paying off debt	7	12	8
Use of credit	-11	-19	-22
Savings, investments and super contributions	-4	4	-5
Charitable donations	-16	-12	-23

Source: NAB survey data, 2018

Figure 8: Change in household spending behaviours (Q/Q) – net balance



Source: NAB survey data, 2018

Table 2: Factors affecting current financial position of 'highly concerned' households: by gender, age and high/low income

	Overall	Women	Men	18-29	30-49	50+	Low Income	High Income
Utility bills	46%	50%	42%	33%	43%	55%	49%	46%
Pension / other benefits too low	24%	25%	22%	9%	11%	42%	45%	4%
Grocery bills	22%	25%	18%	21%	23%	21%	26%	21%
Insufficient savings	20%	19%	20%	23%	21%	17%	18%	19%
Rental payments	19%	19%	21%	33%	21%	12%	21%	13%
Wages too low	17%	17%	18%	29%	23%	6%	9%	16%
Medical expenses	15%	16%	15%	11%	12%	21%	16%	13%
Transport expenses	14%	12%	17%	25%	15%	8%	10%	19%
Insufficient superannuation	13%	13%	14%	2%	9%	22%	11%	13%
Mortgage repayments (home)	13%	13%	12%	13%	19%	7%	4%	24%
Not enough work	13%	13%	12%	22%	13%	7%	15%	6%
State of Australian economy	11%	8%	16%	10%	9%	14%	8%	15%
Level of personal household debt	11%	11%	11%	16%	14%	7%	5%	21%
Children expenses	9%	11%	5%	11%	16%	1%	5%	14%
Low interest rates	7%	6%	8%	4%	3%	12%	4%	5%
Absence of a pay rise	6%	6%	7%	12%	8%	2%	2%	13%
Poor investment returns	5%	3%	7%	1%	3%	8%	3%	4%
Home improvements & maintenance	5%	5%	4%	3%	4%	6%	4%	7%
State of global economy	4%	2%	7%	6%	4%	4%	2%	7%
Other	2%	3%	2%	2%	2%	3%	4%	2%
Major household items	2%	3%	1%	3%	2%	2%	3%	2%
Mortgage repayments (investment property)	2%	2%	3%	4%	3%	1%	1%	6%

TOP 5	1	2	3	4	5

Source: NAB survey data, 2018

From this different, direct survey approach there is further confirmation that it is younger and lower income renters who have been most impacted by rising housing costs and often to a significant extent. Unless the collection of such survey data is repeated over time and the analysis focussed on young renters, data of this kind has limited usefulness in exploring the economic impacts that arise. It may be possible for the housing sector to persuade NAB and others to take such an interest as the implications for economic stability, productivity growth and increasing home-ownership rates may be significant.

Research on rental burdens and their consequences

R2: Changing patterns of rent burdens, savings and consumption: A statistical analysis.

There would be merit in a longer run analysis of the changing patterns of rent burdens, revealed in HOC data by socio-economic group and available spatial categories. This would also include probing statistical relationships between rental burden growth and changes in spending on other key items of expenditure and, where possible, drawing on other sources of data, on observed savings behaviours. Such a study could be undertaken quickly by a single individual with economics/econometric skills and would cost an estimated $50k. It would be useful background rather than breakthrough research.

R3: Rents and their consequences for households and the economy: A consumer-survey based approach.

Survey-based research for BCEC in Western Australia, the Pew study in the USA and the more limited NAB study provided cross-sectional data on how the burdens of housing payment for different age-income groups are impacted by changes in incomes and rents. This approach, especially if it included effects on related spending such as travel and power costs and information on what spending households reduced as burdens rose, could provide insights into how rising rent burdens impacted household capabilities and connections from renter household budgets to the wider economy. The former would be extremely useful in framing understandings of the long-term effects of current cutbacks on future capabilities (productivity effects) and the latter could frame help produce useful scenarios to simulate and model shocks of increasing burdens to the economy, say through CGE modelling. Such research is expensive, it would require, at a minimum, 3000-4000 interviews across the country, unless an entity such as NAB could be persuaded to include questions in the survey they already undertake. Such work would, however, produce potential breakthroughs in modelling the impacts of rent increases across the range of groups within the rental sector. It would take 1 to 2 years to complete and would be likely to cost close to $500,000 unless questions became a supplement to existing work.

R4: Gainers and losers from high and rising rents.

In the research for 'Strengthening Economic Cases' CGE modelling of the economic effects, including productivity effects, of excess rent burdens was not undertaken. There was no prior basis on which to differentiate the consumption and savings of landlords (the gainers) from that of tenants (the losers). There has been some recent work on patterns of ownership of rental property in Australia. That literature could be reviewed and some broad categories of landlord 'economic' types (commercial, individual, or overseas) could be constructed and used to simulate the economy effects of rising rents. That work is likely to take 6 months and cost $50k.

R5. Productivity and employment effects of changing housing costs.

CGE modelling of rising rents, bringing together the key results of R3 and R4 could provide critical information, on both productivity and employment effects of changing rents, for housing policy debates and choices in Australia on a recurrent basis. Such an exercise is likely to cost around $150k and would take a few months to undertake.

R6: Housing costs and their consequences for the formation and use of human capital.

It has been stressed that rent burdens lead to household adjustments to more adverse housing conditions, such as poorer, smaller, remoter homes. These poorer outcomes may

impact the development and use of human capital. Longitudinal or panel studies are the only credible approach to understanding what adjustments are made and their consequences over time. The Australian HILDA survey appears to be an appropriate basis to support such investigation. This would potentially be a breakthrough project. It would require a prior assessment of the issues that could be examined and the geographies for analysis and then the detailed specification of the models to be tested and the methods to be used. A strong team of economists and statisticians would be required for such work as well as involving housing expertise and it is unlikely to take less than two years to develop and implement. The prospect of methodological and theoretical development in such a study is sufficiently strong that this may be a suitable case for exploring co-sponsorship with the ARC. It will not cost less than $500k.

The research topics identified above tackle questions at the core of housing, and related, polices aimed at lower income, but economically active, renter households. They might be best pursued by a research partnership between non-profit housing peak bodies, financial sector agents and economics ministries and agencies.

5 Ownership, assets and ageing

Home-owners, prices and consumption

Rising house prices, and through their effects both on consumer confidence and rising housing wealth, do impact the consumption behaviours of households. There is now a growing international literature on this topic, including Campbell and Coccob (2006), Cho (2011), Attanasio et al (2011) Burrows (2017), Berger et al (2018) and specific Australian studies, Fisher et al (2010), Atalay et al (2014) and May et al (2019). Although the studies differ in methods, countries examined and detailed results, two general conclusions seem valid. First, rising housing wealth raises consumption, with a marginal propensity to consume from that wealth in the range of 0.7 to 0.10 not uncommon. The effects tend to be destabilising in economic cycles, with equity withdrawal boosting spending towards the peak of booms and negative equity and falling house prices having a capacity to deepen recessions. There has been much less attention to longer term effects of changing home ownership rates and housing wealth.

Burdens, savings and tenure choices

The rising rents facing younger potential home-owners, and an increasing number of middle- aged renters, reduce their disposable incomes and, in consequence, their ability to save. This is likely to mean a longer duration as a renter to build an adequate deposit for entry to a median value homeowner property. The figures in section 2 above suggest that duration, with house prices sometimes rising faster than savings can accumulate, has increased by at least five years for typical younger purchasers unless they receive equity transfers from parents, relatives or friends. Some households also 'queue even' longer and some households ultimately abandon the aspiration to save for home-ownership entry. A decade ago, research in New Zealand (Coleman and Turnbull, 2008), where ownership rates fell faster earlier than in Australia, indicated than an estimated 8 per cent of tenants aspiring to ownership would never build the savings needed to exit the sector. The same phenomenon, but unresearched, appears to be happening in Australia.

There are clear reasons, including overall housing market stability, not to force the rate of homeownership thereby pushing households with limited and unstable incomes to take on mortgage repayment obligations. Such over-extension of home ownership was one of the key factors in the collapse of the badly organised US housing finance system that gave rise to the GFC in 2007-8. It also must be recognised that access to mortgages (and home ownership) has been a

key route to asset accumulation over the life cycle. Mortgages represent a classic borrow early, repay and consume later mechanism. Critical issues now arise on how rental sector payment burdens now and over the last, and next, decade will impact Australian national stability and prosperity in 2030-50. Although sector reports and published data hint at the potential significance of these issues they have not really been centrally addressed in Australian housing research.

There is a well-established literature, both theoretical and empirical in nature, that explores the economics of housing tenure choices including, specifically, the transition from renting to homeownership. Roya and Garcia (2012) note that 'Results show the best performance for the models in which the variable to be explained is the transition from renting to ownership and highlight real determinants of tenure (lifecycle variables) and transition (life-cycle variables, prices and transaction costs)'. Household age, structure and income have significant effects on the switch from renting to owning. The effect of local contexts is also emphasised by Frame (2013) who stresses that in building deposits 'residential saving is determined not only by wealth, income, and market prices, but also by city-specific factors such as population, supply constraints, and the opportunity cost of land, suggesting a novel and important role for regional and geographic differences in consumer behaviour'. Sheiner (2013) notes that there are significant effects of rent burdens on savings behaviours and deposit formation. She observes that 'Theoretically, the effect of increases in house prices on savings is ambiguous, because households can increase their saving to afford the larger down payment or decrease their saving because they have chosen to delay or forego purchasing a house'. This emphasises the importance of empirical exploration of these relationships and Sheiner finds that in the USA for the period pre-2010 that 'empirically, the effect of increased housing prices on saving is positive, and quite large relative to the savings of young households'. Now, in Australia, savings may increase, but do they increase as fast as house prices rise?

In a recent UK study of similarly pressured housing markets Sissons and Houston (2019) find that 'three key changes in behaviour associated with the emergence of the housing crisis: (i) increasing acceptance of long-term renting; (ii) the emergence of local house prices as a factor inhibiting entry to homeownership at district level; and (iii) the cessation of moving to a lower cost district as a strategy to enter homeownership.' And they 'interpret these findings as some private tenants reducing their aspiration for homeownership, and those seeking entry to homeownership shifting strategy from moving to cheaper districts in favour of staying put and saving'. The refashioning of savings behaviours changing rents and entry to homeownership appears to be a significant gap in strategic housing research for Australian housing policy.

House prices, wealth instabilities and prudential policies

The unintended, in government circles, unrecognised, re-engineering of how changing housing investment and home-ownership has changed patterns of savings and wealth accumulation has now become a critical issue in national economic and social policies. The housing sector has shaped significant redistributions of wealth (increasing inequalities between older and younger generations and between renters and owners) that have increased wealth inequalities, as in other OECD countries (Soaita, Gibb and Maclennan, 2019). Housing wealth changes in countries such as Australia have been a greater driver of the rising inequalities identified by Piketty than pay-setting in corporate boardrooms (Maclennan and Miao, 2017) And there is renewed policy attention to dealing with causes and consequences of these shifts. However, it should be recognised that housing ownership builds wealth not solely by effortless speculation but by saving for mortgage deposits and then regular repayment of mortgage loans. Indeed, the first pro-homeownership policy cases, for instance in the US housing Act of 1935, were made in a world in which regular real house price rises were close to zero, were based on a recognition that home-ownership would raise individual savings and provide both a rent- free home and an asset for households in retirement.

The inflationary experience of Australian home-ownership since the 1970's has witnessed growth in savings for housing but also increased borrowing and leverage rates so that the national savings rate has fallen and (gross) household debt to income ratios (that do not net out the increased value of assets generated by the debt taken) have reached record and internationally peak values in recent years. The RBA presented evidence to the Review of the Financial System that between 1997 and 2014 household leverage had increased from 0.8 times gross disposable incomes to around 1.5 by 2008. The current figure is closer to 1.85 (IMF, 2019).

Atalay et al (2016) stress the importance of mortgage growth in rising indebtedness from 2004-14, commenting that 'Overall, we find that approximately one quarter of the growth in household debt during this period can be explained by rising house prices. This rise is mostly driven by the wealth effect associated with rising house prices, and a collateral effect which is present for households that are collateral, and liquidity constrained.'

These rising debt to income ratios, and the key roles that rising mortgage debt has played in overall debt growth, has raised important questions about the potential for housing market instabilities with systemic negative effects on the wider economy if future negative shocks occur. Concerns of this kind, either by the Reserve Bank or individual lenders concerned about possible loan defaults, have led both to pressures to maintain low interest rates but to ration out apparently riskier loan prospects. A stream of advice about how to avoid housing bubbles and busts, not based on detailed research and modelling of the Australian experience, has flowed from OECD and the IMF, though rising metropolitan housing prices arguably reflect, over the longer term, the fundamentals of contemporary Australian growth patterns and housing supply systems rather than the 'animal spirts' of speculative housing investors.

An important study by Simon and Stone (2017) for the RBA notes that the 'Parallel concerns, flowing from the rapid growth in housing prices in Australia and focusing on first home buyers, have also emerged. Some are concerned that this rapid growth is shutting a generation out of the home ownership market. Others are worried that those who do manage to buy a first home are taking on inadvisable levels of debt to do so'. They asked 'Is 'generation rent' an important trend? Are people buying first homes taking on 'too much' debt? And what implications does this have for our understanding of the growing level of aggregate household debt?'. They concluded that 'fewer people are making the transition from renters to owners than prior to the crisis. Those that do, however, are more financially stable than earlier cohorts. Thus, 'generation rent' is an important trend but a consequence is that those who do step onto the property ladder are, on average, better placed to pay off their loans. While saving a deposit is a stretch, it is also a sign of financial discipline that is associated with fewer subsequent difficulties. Whilst the research is informative, the conclusion is definitively financial stability biased. We need to ask whether the ownership growth/ stability trade-off chosen considered the policy costs, and indeed long run costs for excluded individuals, of more restrictive loan rationing.

It seems that the housing sector needs to better understand arguments on 'prudential policy' about economic instability, not least as instability arguably reduces long term productivity, as the processes of entry to home-ownership have been significantly changed, arguably, hampered by these shifts in monetary and macro-prudential policies. There is a case to understand better the effects of changed mortgage loan rationing and pricing for younger, poorer households and the consequences for the rental sector. And there is a clear case to consider how equity/deposit schemes could be effectively deployed in the sector and better credit assessment schemes (as undertaken in Western and Southern Australia) could reduce pressures on rental markets and help a 'fairer go' for younger Australians. The potential role for non-profits in the effective and supply-linked implementation of such schemes needs to be assessed and argued promptly.

Burdens now, saving later, and retiring

Of course, delayed entry and, for some, permanent exclusion from homeownership has major implications for not just the present government but households and governments in 2050. The potential stability and productivity implications of a long-term reduction in home ownership rates across Australia have received relatively little attention for such a fundamental topic. Making forward forecasts of future home-ownership rates requires much insight and even more fortitude. The Grattan Institute have publicised a figure that home-ownership rates for the over 65's will fall by 19 per cent by 2056, implying significant challenges for superannuation/retirement income sectors as well as fiscal challenges at all orders of government. The modelling basis for these estimates is not yet in the public domain but it seems to be a linear extrapolation of changes in age specific tenure rates forward to 2056. More serious research and forecasting of such changes is required because there is much debate about how to model likely future tenure rates and house prices changes with projected demographic changes. Soaita et al (2019) note:

The transfer of wealth from older, richer generations to younger cohorts seems to be of growing significance in facilitating the entry of younger households in home-ownership. House price changes, and expectations about them have a potentially significant effect on bequest behaviours (Begley 2017). The direct support of younger family members by parents and grandparents has been noted in Australia (Cadge and Whelan, 2017). Similar patterns are reported by lenders and the press in the UK. Interestingly, there has been little policy discussion of how such cross-generational transfer of housing wealth within families might be best organised. Longer-term work for the USA and Australia (Guest and Swift 2010; Takats 2012) using econometric models with housing and demographic components stresses that properties released into the housing market as elderly home-owners die are likely to have a downward influence on house prices especially for 'late-boomers'. This conclusion is highly contingent on other growth drivers, and the literature (e.g. Green and Lee 2016), at this stage, is sparse and indicative more of important questions to ask than definitive conclusions.

Cigdem and Whelan's work (2017) indicates that, for Australia in recent decades, 'intergenerational transfers are associated with a higher probability that recipients subsequently transition into home-ownership. For those at the edges of homeownership, intergenerational transfers potentially play an important role in facilitating homeownership. Moreover, given the central role of homeownership for the savings and wealth accumulation of Australians, such patterns may exacerbate existing inequality and potentially undermine the role that housing may play in a broad-based policy of asset-based welfare.' Wealth transfers, demographic changes and house price changes are likely to have complex and changing relationships in the decades ahead.

Entering homeownership, future price effects and modelling

It is important to understand and model two important influences. The first is to understand how wealth transfer from older to younger generations may increase over time, as they have in similar countries, since this will have a critical influence on how many and what kinds of younger renter can garner deposits to leave the rental sector promptly. The second is to recognise how the extinction of households at the end of their aging process increases as the baby boomer demographic wave dissipates. Arguably if present fertility and immigration rates persist then there will likely be a net downward pressure on housing costs. Clearly different assumptions about immigration rates and indeed about future economic adjustments to adapt to and mitigate climate change are likely to be in play by 2030 let alone 2050.

Research in this topic area involves demographic and economic modelling skills working with 'futures' specialists and it is of a 'blue skies' nature. It would require close collaboration with the superannuation industry in Australia.

R7: Housing and savings scenarios for Australia to 2025 and 2045.

One approach to thinking through more or less likely futures is gauging expert opinions using 'Delphi' techniques (what do they think the future will be and why). This approach may generate useful ideas and debate and attract much attention, be completed in three months and cost around $50k.

R8: Demographic change, housing prices, wealth transfers and retirement savings in Australia.

A second approach would involve an expert team using modelling and simulations of potential outcomes. The latter would potentially involve at least a year of work by a team of three skilled modellers/analysts and is unlikely to cost less than $300,000.

6 Research Priorities Established by AHPRC.

The research questions explored in the draft report, and set out in the sections above, were reviewed by the potential members of the Australian Housing and Productivity Research Consortium and commented upon by academic and policy experts. In May 2020, as the COVID-19 crisis was unfolding, the organising group for the AHPRC identified key priorities to take forward for funding and research. Some of these priorities may change as housing, growth and fiscal patterns change in Australia through 2020 and 2021. However, it is useful to indicate more widely the current concerns of AHPRC. The research programme priorities identified below are still largely provisional as project funding is continuing and wider interest established.

Proposed research projects and other currently identified activities are presented here in relation to proposed Programme Phases. The nature of each activity, such as the proposed colloquium, short study of a specific policy interest or longer-term basic research project is indicated.

Phase 1: July 2020 -March 2021

Activity 1. Programme 'soft' launch: publication of (this) ***Extending Economic Cases Paper***: August 2020.

Activity 2. Work has commenced and been funded on two initial linked papers. The first is a conceptual/ literature review on housing-economy links: ***Housing Affordability: Inequality, Stability and Productivity (Exploring the Evidence for Links between Major Economic Outcomes and High Housing Costs)***. This is being undertaken by Duncan Maclennan, Chris Leishman and Jinqiao Long with a draft report due on November 2020.

Activity 3. **(EEC R7)**[i]: The second is ***Housing and savings scenarios for Australia to 2025 and 2045*** by Bill Randolph, Hal Pawson, Chris Leishman and Duncan Maclennan. This paper will gauge expert opinions using 'Delphi' techniques (what do participants think the future housing market will be and why, best ways to model this, consequences of demographic change and ageing, etc.). This approach aims to generate ideas and debate and attract significant policy and media attention. Commissioned August 2020; daft report December 2020.

Activity 4. 'Housing Outcomes and the Economy: Exploring Affordability, Productivity and Stability. The Program, if supporting funding is forthcoming, will host a major summit in February 2021, subsequent to the launch of the Reports for Activities 2 and 3, intended to involve all the leading economic and housing policy institutions and government interests in Australia, to explore their interests and perspectives and consolidate the different evidence they might bring to the summit. There is an intention to invite participation from the UK, Canada, New Zealand, OECD and the IMF. Event in February 2021 with a colloquium report summary circulated March 2021.

Activity 5. Changing patterns of rent burdens, savings and consumption: A statistical analysis **(EEC R2).** This is a short research project. There would be merit in a longer run analysis of the changing patterns of rent burdens, revealed in ABS Survey of Housing Occupancy and Costs (HOC) data, by socio-economic group and available spatial categories. This would also include probing statistical relationships between rental burden growth and changes in spending on other key items of expenditure and savings behaviours. Such a study could be undertaken quickly by a single individual with economics/econometric skills. It would be useful background rather than breakthrough research. Commission January 2021, Report April 2021.

Activity 6. Gainers and losers from high and rising rents **(EEC R4).** This is a short research project, of around 3 months duration. In the research for 'Strengthening Economic Cases' (Maclennan et al 2019) CGE modelling of the economic effects, including productivity effects, of excess rent burdens was not undertaken (as explained above). There was no prior basis on which to differentiate the consumption and savings of landlords (the gainers) from that of tenants (the losers). There has been

some recent work on patterns of ownership of rental property in Australia (Wright & Yanotti 2019; Pawson & Martin forthcoming). That literature could be reviewed and some broad categories of landlord 'economic' types (commercial, individual, or overseas) could be constructed and used to simulate the economy effects of rising rents. Commission January 2021, Delivered March 2021.

Activity 7. Commission short, 3 month international review study on ***Strategies for safer borrowing and equity deposits to support renters moving to irst-home ownership: International experiences and Australian challenges*** **(EEC R9)***:* The Commonwealth Government is exploring ways of reducing the growing number of frustrated home-buyers living in rental housing (or at home with parents). The Government of New Zealand has followed the introduction of government assisted equity deposits in Canada and the UK government has renewed help-to-buy measures (with somewhat mixed evaluation outcomes) until 2022. A short study reviewing published materials and interviewing key policymakers in each country (and across Australian states) would review potential outcome measures and effective design to avoid capitalisation of scheme benefits. It would also review available material on defaults and arrears of homeowner, over time, in the countries included and other lending measures and regulations to promote safer borrowing by lower income and younger households. This project is of relatively urgent interest to state and federal policymakers and to non-profits and the NHFIC. Commission January 2021, Report March 2021.

At this juncture the program will have engaged with major institutions, developed a coherent perspective on the core issues, attracting much 'launch' attention and begun to follow-up with shorter term activities that will both maintain a momentum of sector interest and provide essential inputs to further work. At this stage commissioning, (with a call for proposals or search for relevant expertise and good proposals undertaken in January to March 2021) and launching medium and longer-term projects then becomes the priority.

Program Phase II: April 2021 – March 2023

Activity 8. Productivity and employment effects of changing housing costs **(EEC R5).** This project will be of particular importance to those organisations making policy cases for increased housing investment. CGE modelling of rising rents, building upon the key results of Activities 5 and 6, could address the important issues deferred from earlier CGE modelling of the Sydney market (discussed above) and, if successful, could provide a modelling basis for delivering critical information for housing policy debates and choices in Australia on a recurrent basis. Commission April 2021, Report July 2021.

Activity 9. Placing housing as economic infrastructure in metropolitan investment, planning strategies and policies **(EEC R1).** Given the emerging emphasis of housing as economic infrastructure, there is an urgent need to review, for states and metropolitan areas: whether housing market strategies exist, whether there are linked housing and infrastructure investment plans and how they relate to strategic spatial plans and, importantly they address productivity and stability issues associated with housing system outcomes. The aim is to address how housing as economic infrastructure could be better understood and utilised for better housing-policy design and delivery at state and metropolitan levels. Considering current concerns about population growth pressures, this project is important to housing policymakers and advocates but needs significant engagement and support from state and federal infrastructure departments and agencies. Commission March 2021, Report March 2022.

Activity 10. Housing Costs and the Economy: Potential Uses of Consumer-Surveys and Big Data **(modified EEC R3).** This will involve a short review paper followed by a Colloquium. Survey-based research to provide cross-sectional data on how the burdens of housing payment for different age-income groups are impacted by changes in incomes and rents would be an important research resource. For instance , if surveys included effects on related spending such as travel and power costs and trade-offs made by households to afford housing, they could help frame understandings of the long-term effects of current policy settings on future capabilities (productivity effects) and produce useful scenarios to simulate and model shocks of increasing burdens to the economy through CGE modelling. Surveys are expensive and beyond the spending scope of this program. It would be useful, however, to review what relevant and robust household survey data exists in Australia

and to discuss with financial institutions that conduct nationwide annual or intermittent survey data what they might do to support the program. It would also be useful to consider big data now being developed in the property sector could inform recurrent policy research requirements. Commission June 2021, Report Delivered September 2021.

Activity 11. Demographic change, housing prices, wealth transfers and retirement savings in Australia. This is a major new long-term project and would involve an expert team using modelling and simulations of potential outcomes. It would draw on the findings of the earlier Delphi exercise and summit insights. It would require innovation in modelling both the longer-term evolution of the housing market and the progress of age cohorts through that changing system. It would provide a more sophisticated analysis of the likely outcomes of rising housing costs on these essentially interrelated matters which impact on wealth generation to support an aging population and the role that housing assets will play in future retirement wellbeing in Australia. Research proposals for this project should be designed and tendered in early 2021, following the expert summit in February 2021. The project should end in February 2023.

A***ctivity 12. Housing costs and their consequences for the formation and use of human capital.*** This is also a major new long-term project. The processes and durations are equivalent to Activity 11. It has been stressed that rent burdens lead to household adjustments to more adverse housing outcomes, such as poorer, smaller, less accessible homes. These poorer outcomes may impact the development and use of human capital. Longitudinal or panel studies are the only credible approach to understanding what adjustments are made and their consequences over time. The Australian HILDA survey appears to be an appropriate basis to support such investigation. This would, like Activity 11, potentially be a major breakthrough project. It would require a prior assessment of the issues that could be examined and the geographies for analysis and then the detailed specification of the models to be tested and the methods to be used. A strong team of economists and statisticians would be required for such work as well as involving housing expertise and it is unlikely to take less than two years to develop and implement. The project would run from February 2021- February 2023.

Phase III: February 2023 to (say) July 2023

If the program is successful there will undoubtedly be new support for smaller policy projects. And policy interests may shift and develop in ways that HPRC will seek to inform with new ideas and evidence. By early 2023 the program should start to draw together and synthesise the key evidence and lessons from the work of Phases I and II. This would lead to three related activities.

Activity 13. A review of the major findings of the program by the Research Director and key individuals involved in the programme. Conducted February to June 2023.

Activity 15. A review of next steps for the Consortium (led by the Chair of AHPRC). July 2023.

Activity 16. A Final Summit to revisit the conclusions of the launch summit and place of the results of the program on local, national and international policy agendas. July 2023.

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[i] To allow readers to cross reference the projects proposed in the draft report with the priorities subsequently established by AHPRC the original project identifiers from earlier sections in this report are identified. For example, the 'argument' underlying Activity 3 is that developed for Research Project 7, EEC7 in the earlier sections of the report.