Final Report

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The benefits and risks of home ownership for low-moderate income households

authored by

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ACRONYMS

ABS	Australian Bureau of Statistics
CURF	Confidentialised Unit Record File
GFC	Global financial crisis
HES	Household Expenditure Survey
SIH	Survey of Income and Housing
SPRC	Social Policy Research Centre

EXECUTIVE SUMMARY

Context

The study emanated from a concern that popular and political support for home ownership is such that critical questions about the degree to which all home owners realise the projected financial and non-financial benefits of home ownership are rarely asked. In particular, do low-moderate income households gain the same benefits as households on middle and higher incomes, and irrespective of where they buy, or are these benefits offset by additional financial risks, including high mortgage burdens, reduced ability to accumulate wealth, locational constraints, and having to sell at a loss if a household moves in the early years of purchase? The US sub-prime housing crisis and its broader implications for national and global financial systems has generated much more attention to the financial and non-financial risks associated with home ownership than previously. This study with its detailed analysis of the benefits and risks of home ownership for low-moderate income households has the capacity to inform housing policy in the post-global financial crisis context (discussed in Chapter 1).

This is the Final Report of the study. It follows, and builds on, a Positioning Paper which:

- Provides a detailed review of the Australian policy context for home ownership by low-moderate income households and contrasts this with the US policy context which led to the sub-prime crisis.
- Develops the conceptual framework for the research which draws on an extensive review of the Australian and international literature on home ownership for low-moderate income households.

Research aim

The study addresses some significant gaps in the research evidence base about the benefits and risks of home ownership for Australian households. It focuses, in particular, on low-moderate income home purchasers (with a mortgage) who could be expected to face the greatest financial risks. The overall aim is to investigate whether, and to what extent, the benefits and risks of ownership are experienced differentially by households with different levels of income, in particular, by low-moderate income households (bottom 40% of the income distribution) compared to those in the middle-higher income range (highest 60%) (discussed in Chapter 2).

The study focuses on four issues:

- An examination of the changing profile of low-moderate income home purchasers over time.
- A comprehensive investigation of the expenditures associated with home ownership including mortgage repayments, additional expenditures such as rates and building insurance, other expenses of living and household debt/savings.
- An examination of the degree to which low-moderate income purchasers are able to increase their wealth compared to middle-higher income households, in the context of an in-depth understanding of change in housing sub-markets over time.
- An exploration of the extent to which low-moderate income purchasers are able to realise the projected non-financial benefits of home ownership such as additional security and more control over living circumstances.

Conceptual framework and research methods

The conceptual framework for the study identified the different types of benefits and risks of home ownership which occur at a number of scales: micro (households), meso (neighbourhood, towns/cities and regional) and macro (societal and economic benefits), as outlined in Chapter 3. In this study we were interested in the household scale and two broad types of potential benefits:

- Financial benefits: the capacity of home owners to enjoy lower housing costs over time such that they can live on a lower income or have more money for non-housing expenditures, and the capacity to build wealth through ownership of an asset which appreciates in value over time.
- Non-financial benefits: the degree of control, freedom and autonomy often associated with home ownership ('a place of one's own') and a range of more indirect health and wellbeing benefits sometimes associated with home ownership.

This conceptual framework shaped the research design which was multi-stage and multi-method, involving both quantitative and qualitative research methods (as detailed in Chapter 4). As the purpose of the study was to open up the field in view of the lack of research evidence, we used a variety of research methods to explore the issues outlined in the previous section. The main methods were:

- Comparing the profile of low-moderate income purchasers and outright owners in 1981–82 and 2007–08, using the ABS Survey of Income and Housing.
- Investigation of the ongoing expenditures associated with home ownership including mortgage and other payments, in the context of household financial commitments and household debt and savings, through analysis of the ABS Household Expenditure Survey 2003–04 and modelling of housing affordability using a residual income approach.
- Measurement of the ability of low-moderate income purchasers to build wealth in view of restructuring of major metropolitan housing markets in Australia, using a case study of metropolitan Melbourne. This involved four separate methods:
  - Analysis of the increment in wealth of households who purchased in metropolitan Melbourne in 1981 and who sold at various intervals up to 2006, using Victorian Valuer-General's Property Sales Statistics.
  - Modelling the changes in housing wealth for households who moved around metropolitan Melbourne over the period 1981–2006, also using Victorian Valuer-General's Property Sales Statistics.
  - Assessment of the change in price of properties bought and resold by households at two points in time, by geographic area. This was achieved by geo-coding repeat sales of (the same) property, using data from the Victorian Valuer-General's Property Sales Statistics 1981–2009.
  - Measurement of the degree to which house purchase decisions for low-moderate income households have been spatially constrained over time, using data from the ABS Census of Population and Housing 1981 and 2006.
- Qualitative research which involved in-depth interviews with recent purchasers to explore the views, expectations and experiences of home purchase among households in locations characterised by lower house prices in the Melbourne metropolitan area.

Research findings

Some of the major findings from the project (presented in Chapters 5 to 8) on the benefits and risks of home purchase are:

Declining opportunity to purchase a home in Australia

- It is getting progressively harder for low-moderate income households to purchase a home and avail themselves of the potential financial and other benefits of ownership. If the purchase patterns of the last decade are sustained into the future, overall rates of home ownership will fall.
- There is a very long lag effect when considering changes in home purchase: small changes accumulate over time into substantial changes. In this respect, it is of concern that the number of all Australian households who are recent low-moderate income purchasers has fallen sharply.
- Low-moderate income purchasers are older than in previous decades. Whilst this reflects in part purchase patterns in previous years, a growing number risk still having a mortgage when they leave the workforce and their income reduces further.
- In 1981–82, most low-moderate income purchasers were families with children; now they are singles and couples without children. Some of this is explained by demographic change but it also appears that families with children, who face higher living expenditures, are being squeezed out of home purchase.

Ongoing affordability for home purchasers

- The scale and intensity of mortgage stress (as measured by the 30/40 ratio of mortgage expenditure to household income) was considerably greater in 2007–08 compared to 1981–82 for low-moderate income purchasers, and much worse than for middle-higher income purchasers.
- A residual income measure of affordability, applying budget standards for different household types, reveals that capacity to purchase is greater above about $60 000 p.a. than is suggested by the 30/40 affordability benchmark. This explains why low-moderate income purchasers have been able to continue to buy. Analysis of residual incomes also explains why families with children are being squeezed out of the market due to their higher non-housing expenditures.
- Mortgage stress measured by an affordability benchmark indicates broadbrush changes over time; other concepts are required to indicate the degree of financial risk facing households. It is useful to think in terms of a continuum of risk from mortgage stress, through financial hardship to financial crisis.
- We estimate that, of low-moderate income purchasers, 43 per cent are in mortgage stress (using the 30/40 benchmark), 25 per cent experience financial hardship (using the Low Cost budget standard in a residual income method) and 8 per cent are in financial crisis when ongoing housing repayments are seen in the wider context of net debt (using indicators of financial stress based on the ABS Household Expenditure Survey.

Wealth generation through home purchase

- There is little doubt that low-moderate income purchasers over the past 30 years have accumulated wealth through home purchase, in large part due to sustained real increases in housing prices in the case study area (metropolitan Melbourne). Depending on where and when they sell, their rates of wealth accumulation can be as great as middle-higher income households but whether this remains so is uncertain in the face of fundamental restructuring of housing sub-markets in Melbourne.

- Low-moderate income purchasers are increasingly constrained to buy in outer suburban and growth zones where their ability to accumulate wealth is less than for middle-higher income households and, increasingly, they are likely to be ‘trapped in space’ as they will have insufficient equity to move elsewhere unless they have a large increase in household income which will sustain a much larger mortgage. This will have implications for access to transport, employment and educational opportunities.
- Despite these difficulties, it appears that low-moderate purchasers buying in outer urban areas will have financial advantages compared to continuing to rent, which can be realised in some cases within four years of purchase.

Non-financial benefits and risk of home purchase

- An exploratory qualitative study of low-moderate purchasers living in three outer areas of Melbourne indicates that such households compromise on location but not on dwelling type, with a strong desire for a house on its separate block and all that this involves.
- The main driver for purchase among these households is to have a home (rather than an investment) in which the psycho-social benefits of owning can be achieved, in particular, security, control and stability of living. It is not possible to say whether these translate into a broader range of social benefits.

Implications for policy

The research findings have a number of important implications for housing and other public policies in Australia:

Cross-portfolio implications (housing, work, income support and retirement incomes policies)

- There is a need for a fundamental review of the housing and non-housing policy context and the market factors which shape the future of home ownership in Australia. The policy levers that underpin the housing system are failing to sustain levels of home purchase, particularly for low-moderate income households, including younger families. People unable to purchase will not be able to achieve the security and control over their housing that they value highly and will face increasing housing expenditures, particularly in older age. This will have major implications for policies on housing, income security, labour force participation and retirement incomes.
- It is increasingly difficult for low-moderate income purchasers to afford to both buy a home and have children. Since such families value highly the security, control and stability associated with home ownership, this implies either a) a need for different types of home ownership products that will enable families with children with their higher household expenditures to buy and/or b) reform of the private rental sector to enable families with children and others who will be unable to purchase to have better security, control and stability of their living arrangements.
- More low-moderate income purchasers will reach retirement age with debt still outstanding against the property they live in. This may have positive effects in view of an economic imperative to retain people in the labour force for longer, and some will want to work for longer, but not all will have this choice. There may need to be schemes for those who face difficulties due to poor health, disability or role as a carer which makes it difficult to remain in work and pay out their mortgage.

- Some older outright owners do not have sufficient funds to pay for housing-related expenses and also face financial hardship although they may own a housing asset of considerable value. Given the priority given to ageing in place and household preferences, it is unlikely that many will 'trade down' to reduce these expenses. This is essentially a problem of low levels of current income and the options available include increasing the level of the age pension; targeted subsidies or discounts to reduce housing-related expenses; and improving the confidence of older people in reverse mortgage products which enable them to draw down on equity in their homes. Other work for AHURI has investigated reverse mortgages including consideration of the Centrelink Pension Loans Scheme. This work includes recommendations which, if adopted, could lead to more informed decision-making by older people and a greater take up of such schemes as a means of financing current housing-related and other expenditures (Bridge et al. 2010).

Housing affordability and the assessment of household risk

- The research distinguishes between housing stress, financial hardship and financial crisis, which represent increasing levels of risk for households who are purchasing their homes. There are two implications for policy: a) the need to use appropriate measures for different purposes and b) to focus on those in financial crisis who are at most immediate risk of falling out of home purchase.
- A specific focus on low-income purchasers who are in financial hardship and risk of financial crisis requires considering mortgage repayments along with other household housing and non-housing expenditures, and net debt position, lending support for consideration of a range of policy issues around lender practices and informed consumer behaviour which are well canvassed in Berry, Dalton and Nelson's (2010) report for AHURI on mortgage default.

Urban policy

- Addressing problems associated with spatial disparities in wealth generation through home ownership in the future will require more than housing policies. In larger part, this is an issue for urban policy, including greater equity in amenity throughout an urban area rather than focusing public and private investment in high value inner city areas.
- There is a mismatch between the profile of low-moderate income purchasers who increasingly comprise singles and couples with no children and the type of housing which is affordable in the outer urban and growth zones. This raises questions about the degree to which governments can use the planning system and other policy levers to enable more appropriate and diverse housing outcomes.

1 INTRODUCTION

1.1 Context

The genesis of this study was a concern that popular and political support for home ownership is such that critical questions about the degree to which all home owners realise the projected benefits of ownership are rarely asked. In particular, do low-moderate income households gain the same benefits as households with middle-higher incomes or do they face additional risks, in particular if they are constrained to buy, or remain, in lower price areas. It builds on prior research which has focused on home ownership among younger age cohorts in Australia (e.g. Yates 2000; McDonald & Baxter 2005) but takes a different direction. The study was conceived before the sub-prime housing crisis in the US. However, this crisis, and its broader implications for national and global financial systems has generated much more attention to the risks associated with home ownership than previously. This study with its detailed analysis of the benefits and risks of home ownership for low-moderate income households has the capacity to inform housing policy in the post-global financial crisis (GFC) context.

The benefits of home ownership for households are often taken for granted: lower housing costs over time, building wealth as dwelling prices increase, and improved security and wellbeing. The associated risks are seen as primarily financial and usually temporary:

- The 'mortgage stress' experienced by some households on lower incomes, particularly in the early years of purchase (Yates & Milligan 2007).
- A concern about households who face mortgage arrears and potential or actual repossession of their properties due to ongoing affordability problems (Berry et al. 2009, 2010).

This study addresses some significant gaps in the research evidence base about experiences of home ownership by Australian households. The overall aim is to provide more detail on home ownership disaggregated by household income than hitherto available and, more specifically, to investigate whether, and to what extent, the benefits and risks of ownership are experienced differentially by households with different levels of income, in particular, by low-moderate income households (lowest 40 per cent) compared to those in the middle-higher household income range (top 60%).[1]

Many areas could be investigated, but this project focuses on three of these:

- A more comprehensive investigation of expenditures associated with home ownership than included in measures of affordability such as the 30/40 benchmark.[2] This takes in, first, analysis of housing expenditures in addition to mortgage repayments such as rates, insurance and repairs, and second, analysis of the relationship between the household mortgage and all the other expenses of living; to what degree does the former compromise the latter or vice versa?

[1] There are complex conceptual and measurement issues when considering household income quintiles which we discuss further in Chapter 3.

[2] The 30/40 affordability benchmark is widely used in Australia and refers to households with incomes in the lowest 40 per cent (lowest two quintiles) of the household income distribution who are paying more than 30 per cent of their income on housing costs. In the case of purchasers, this usually refers to mortgage repayments only. There are different variants of the 30/40 benchmark (Nepal et al. 2010).

- An up-to-date examination of the degree to which low-moderate income households are able to increase their wealth through home ownership compared to middle-higher income households. In particular, are there additional risks for low-moderate income households who buy in lower price areas and would it have been more financially viable for them to continue renting?
- The extent to which low-moderate income households are able to realise the projected non-financial benefits of home ownership, such as improved security and more control over their circumstances and related benefits such as improved health and higher levels of social connectedness.

The research is part of a suite of projects funded by AHURI which address significant questions about home ownership, particularly for households on low-moderate incomes. These include linked research projects about housing affordability (summarised in Yates & Milligan 2007), research into the potential of shared equity arrangements (Pinnegar et al. 2009) and a recent study of mortgage arrears and defaults in Australia (Berry et al. 2009, 2010).

1.2 Research questions

There are four research questions which derive from the issues identified above.

Research question 1

Who are low-moderate income home purchasers and what changes can be observed over time?

It is essential to have a good understanding of low-moderate income households in home ownership and, in particular, the profile of low-moderate income purchasers, i.e. who are repaying loans secured against the property they occupy for the purpose of construction/purchase. From a policy perspective, it is important to understand whether there have been changes in the composition of low-moderate income home purchasers over time, as this might affect their capacity to afford the ongoing costs of home ownership, to build wealth through owner occupation, and the types of non-financial benefits and risks that they might experience. The answers to these questions may not be static if the population of low-moderate income home purchasers is changing. This was an additional research question to the original project brief.

Research question 2

What differences are there in the financial benefits and risks of owner occupation in terms of ongoing expenditures for households on low-moderate incomes compared to middle-higher income households?

The second research question addresses policy concerns about the ongoing affordability of home ownership. For example, are some low-moderate income households at risk because of the costs of home ownership over and above mortgage costs which they may not have budgeted for, such as council and water rates, body corporate/owners corporation fees, building insurance and repairs/maintenance? We were interested in what level of additional costs of home ownership over and above mortgage costs can be anticipated based on research evidence. Further, to what extent do the total costs of buying a home (mortgage plus other ongoing costs) add to the risks faced by low-moderate income home owners over time?

In the initial analysis, it became clear that there was a relationship between expenditures on home ownership and spending on other goods and services. We therefore expanded the second research question to include an analysis of the degree to which spending on all other goods and services constrains the ability of low-moderate income households to take out a mortgage and, alternatively, whether high levels of mortgage repayments require these households to forego other necessary expenditures. In effect, the question was broadened to provide a better understanding of the dynamics of the behaviour of low-moderate income households in the home purchase market. This addition provides evidence which can inform policy about the most appropriate way of measuring affordability problems for low-moderate income households.

Research question 3

To what extent and how do low-moderate income households build wealth through home ownership compared to middle-higher income households, taking into account the affordability of housing in particular locations and changes in housing markets over time?

The third research question addresses the assumption of households and governments alike that home ownership helps households to improve their wealth position over time, irrespective of where they buy. We investigate whether this is always the case for low-moderate income households and how location of purchase affects capacity to build wealth. Is the case for asset-based welfare so compelling that governments should assist low-moderate income households to exit rental housing and enter home ownership even where they are constrained to purchase in lower price areas? Relatedly, should governments do more do assist purchaser households to retain their home if they face difficulties?

The research was broadened to test the view of many Australians that renting is 'dead money' and households are always better off buying if they can do so, irrespective of income and where they buy. This view is a major driver of first home purchase in Australia, but to what degree does it hold up when we do detailed spatial analysis? A temporal component is also important: over what time period do households improve their wealth through home ownership? For example, do low-moderate income purchasers struggle for years and only achieve financial relief after many years of hardship or is their purchase decision vindicated relatively quickly?

Research question 4

How do low-moderate income home purchasers experience the non-financial benefits and risks of home ownership in different types of residential location?

The fourth research question addresses a significant policy issue for governments: should governments encourage low-moderate income households to enter and remain in home ownership as this leads to better outcomes in health, education and social wellbeing? An important part of this question is to what extent these benefits, and associated risks, depend on area of residence or other factors rather than home ownership per se. The answer to this question might guide policy choices. For example, should governments focus on policies to improve the amenity of particular areas to improve the health and wellbeing of all residents irrespective of housing tenure? Alternatively, should they encourage home ownership as a means of regenerating neighbourhoods?

A study which attempts to answer these four research questions is ambitious. The research design is complex, the research methods are both quantitative and qualitative, and the analysis and interpretation of data are very challenging.

1.3 Outline of the report

This is the Final Report of this study. It follows, and builds on, a Positioning Paper which:

- Provides a detailed review of the Australian policy context for home ownership by low-moderate income households and contrasts this with the US policy context which led to the sub-prime crisis.
- Develops the conceptual framework for the research which draws on an extensive review of the Australian and international literature on home ownership for low-moderate income households.

The Final Report proceeds as follows. After this introduction, we discuss policy context for the research (Chapter 2) before outlining the conceptual framework for the research which draws on our review of the literature on low-moderate income households and home ownership (Chapter 3). We then outline the methodology and research design and provide detail on the research methods (Chapter 4). As the research methods involve considerable complexity, additional information is provided for those interested in more technical details in Appendices 1 to 6.

The first analytic chapter provides detailed contextual information on who are low-moderate income purchasers and the changes that have occurred in the composition of this group between 1981–82 and 2007–08 (Chapter 5).

The following chapter examines the ongoing costs of home ownership, including mortgage and other costs such as council rates and maintenance. Research often takes us down paths, or throws up findings, tangential to the research questions and this study is no exception. Some of the findings generate new insights into the housing market that purchasers, including those on low-moderate incomes, have to operate within. It also addresses a key policy issue in Australia and elsewhere: how best to measure housing affordability (Chapter 6).

We then present findings about the extent to which low-moderate income households build wealth through home purchase on a number of different measures, using Melbourne as a case study, This chapter draws attention to the spatial restructuring of housing markets over the study period (1981–82 to 2007–08) and the consequent effects on opportunities for low-moderate income households to enter home ownership and build wealth (Chapter 7).

This is followed by an exploration of the expectation and experiences of low-moderate income purchasers who have bought within the last five years, focusing on the potential for such households to realise the non-financial benefits of home purchase, and including analysis of household perceptions of financial benefits and risks of purchasing (Chapter 8).

The conclusion discusses the implications of the main findings including, where applicable, where these connect with related AHURI projects about home ownership. We draw out the implications for policy from our study in the context of this developing evidence base (Chapter 9).

2 POLICY CONTEXT

This chapter has two parts. The first discusses housing policy settings on home ownership and the extent to which these are directed at low-moderate income households who wish to buy their own homes. The second outlines the broader context for home ownership in Australia over more than two decades, focusing on the ways in which key non-housing policies have helped shape experiences of home ownership. Where possible, this includes examination of the effects of the GFC and its aftermath. This chapter draws on, and updates, the Positioning Paper for this project[3] (Hulse & Burke 2009).

2.1 Reliance on the market

Australia has long been a society of home owners, with more than half of all households becoming home owners by the late 1880s, a rate not attained by most developed societies until after the Second World War (Beer 1993). Since the 1950s, a raft of housing and non-housing policies encouraged home ownership for a broad range of households (Berry 1999). These included exemption from capital gains tax, discounted/controlled interest rates for home mortgages, cash grants to first home buyers, provision of low interest home loans directly by governments and via intermediary organisations such as state banks, sales of public housing to sitting tenants, mortgage deductibility (for a short period only), development of 'affordable' home ownership lots by state land developers, and planning policies which promoted detached housing, the house type desired by purchasers.

The early 1990s saw a fundamental change in policy settings on home ownership with the elimination of some of the more explicit measures to promote home ownership. In particular, governments no longer saw it as their role to assist the 'marginal would-be home owner' in purchasing a home (Berry 1999, p.116), although they continued to provide tax advantages for those who were already owners through exclusion from capital gains tax. Instead, housing policies focused on providing rental housing assistance to those deemed to have the most urgent and chronic housing needs.

The main driver of this change was the increasing dominance of market liberal ideas which saw markets as the most efficient means of allocating resources and governments as having a reduced role in providing a safety net for some 'at risk' households. One of the biggest changes was deregulation of financial institutions in the 1980s which had the effect of increasing the supply of credit for home lending and a variety of other purposes. A broader range of households were able to access private housing finance and loan sizes increased as criteria such as minimum deposit requirements were relaxed (Schwartz et al. 2006). A further and quite specific factor which led government to retreat from policies to assist households on low incomes to purchase home was the failure of schemes in some jurisdictions to enable households on public housing waiting lists to buy their own home through government support for innovative financing schemes in the late 1980s and early 1990s (Ferris 2008).

2.2 Renewed focus on first home buyers

Whilst government housing policies centred on rental from the early 1990s, there was growing pressure to reconfigure housing policies to assist home ownership in the

[3] The Positioning Paper also provided an assessment of the implications of the US sub-prime crisis for assessment of the benefit and risks of home ownership for low-moderate income households in Australia. It found key policy, institutional and housing market differences between the two countries which limited the implications of the US experience insofar as policy on home ownership in Australia is concerned.

2000s. A key policy issue was the challenge of enabling younger households to access home ownership in an environment of sharply increasing housing prices, an issue which drew strong political and public support in Australia. In policy terms, a clear distinction was made between short-term problems related to stage in life cycle (younger households) and long-term problems (insufficient income to sustain ownership), as articulated by the Prime Minister's Task Force on Home Ownership in 2003 (Joye et al. 2003, p.28). The Task Force saw the life cycle problem as capable of innovative housing policy solutions, such as a HECS type scheme[4] to even out repayments over a working lifetime rather than face heavy payments in early family life. However, it saw the latter (insufficient income) not as a housing policy problem but as an issue about income poverty and social welfare (Gans & King 2003).

In 2000, for the first time since 1993, the federal government reintroduced assistance for first home buyers in the form of a non-repayable grant, the First Home Owner Grant (FHOG). Initially this was intended to offset the impact of the new Goods and Services Tax (GST) on home ownership, in particular on the purchase of newly constructed homes. Since then, it has been retained as a means of assisting first home buyers. The amount of FHOG has gone up and down depending on changing perceptions of the problems faced by first home buyers and the economic environment. For example, levels were increased substantially as one of the main economic stimulus measures at the height of the GFC to maintain employment in the residential construction sector. These increases were withdrawn in 2009 as the economic outlook improved. FHOG does not target households on low-moderate incomes who face the greatest affordability problems, as it is not means tested either in terms of household assets or income. Although there is little evidence on the distributional effects of this type of assistance (Wang et al. 2004, p.44–5), an inquiry into first home ownership found that more than half of all households assisted had household incomes in the top two quintiles (Productivity Commission 2004, p.255).

Both federal and state/territory governments also provide additional assistance to first home buyers. These include the federal government's First Home Owner Accounts (FHOAs), designated accounts for households saving for a deposit which attract a partial co-payment from the government as well as tax advantages. Like FHOG, they are available to all potential first home buyers irrespective of income and there is little research and evaluation about their effectiveness. There are also measures at state/territory level, most notably elimination of, or discounts on, stamp duty payable on property purchase and enhanced cash payments to first home buyers.

An underlying and largely unresolved policy issue is the consequences of encouraging additional demand for housing in terms of capacity to supply housing to meet this demand (a problem of quantity) and the sustainability of new housing supply (a problem of quality in terms of urban form and the environment). Lack of housing supply in an aggregate sense has become a major policy issue, recognised in the establishment in 2008 of the National Housing Supply Council and the Housing Affordability Fund. The Supply Council coordinates information on demand for, and supply of, land and housing on a consistent national basis (National Housing Supply Council 2010) while the Fund aims to reduce barriers to supply due to high holding costs and infrastructure costs (Department of Families, Housing, Community Services and Indigenous Affairs 2008). Although there is greater general awareness of the issues of sustainable urban development and the environmental impact of increased housing supply, these are predominantly seen as issues for state and territory

[4] The Higher Education Contribution Scheme (HECS) is a means of spreading out the user costs of tertiary education over working life as the costs are recouped through additional taxation.

governments. The federal government is perhaps re-entering this area with its appointment in June 2010 of a high-level panel to review capital city planning systems as part of the reform process of the Council of Australian Governments (COAG).

Whilst, as indicated above, the policy settings on home ownership have addressed issues of ‘access affordability’, at different times there has also been some concern with ‘ongoing affordability’, that is, the capacity of households to continue to pay their mortgages in the face of external changes such as increasing interest rates and higher rates of unemployment, and household changes such as family breakdown and illness or disability. Difficulties in sustaining ongoing repayments have been part of a policy debate about housing affordability. Whilst researchers have emphasised the ongoing affordability problems of lower income renters (Yates & Milligan 2007), there continues to be political and public concern with difficulties faced by households in repaying their mortgages. However, both the definition and extent of mortgage stress were contested in the context of rapid house price increases in 2001–08. Whilst mortgage stress can have devastating effects on some families, the rate of mortgage arrears and defaults in Australia is very low (Berry et al. 2009, 2010). Perhaps for this reason, the federal government has not implemented policies to provide relief to those experiencing mortgage stress; rather it has encouraged private lenders to make arrangements with households in arrears, particularly during the GFC. Some states/territories also have relatively small-scale mortgage relief schemes.

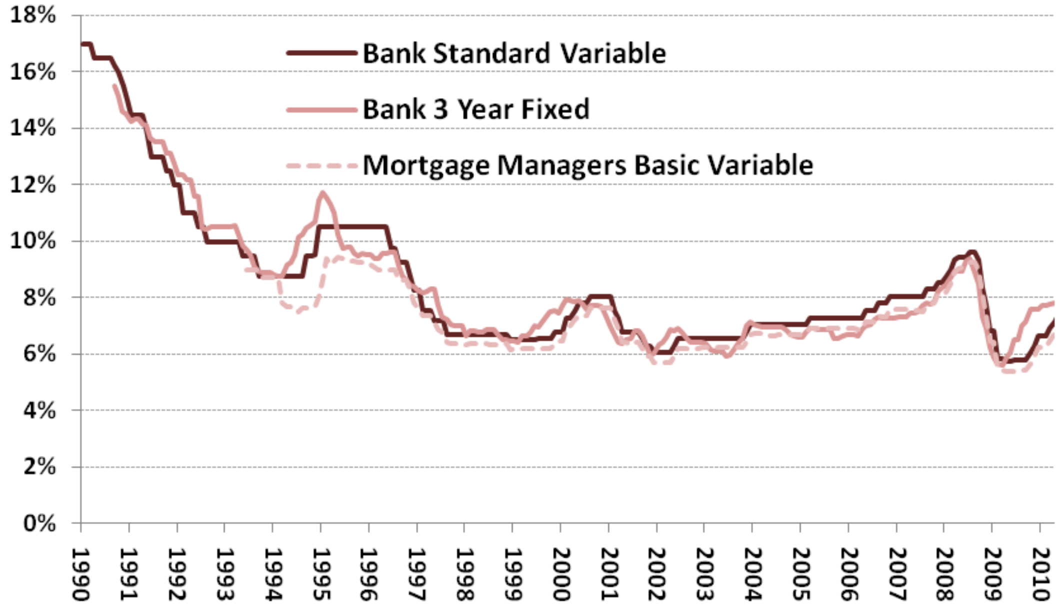
In summary, the renewed housing policy focus on first home buyers appears to have a dual purpose. It is about enabling younger households buying their first home to get into the market and, relatedly, sustaining demand for housing, particularly newly constructed housing. However, as we shall see next, the ability of low-moderate income households to enter and maintain home ownership is affected by a much broader set of factors. As well, as seen throughout this report, a range of household types including but not limited to young and/or first home owners may benefit from assistance.

2.3 The broader policy context

The capacity of households to access mortgage finance, afford mortgage repayments and use the home as an asset to build wealth are affected by a broad range of factors which are outside the domain of housing policy. In this section, we examine some of these factors stemming from non-housing policies which, whilst applying to all home purchasers, are essential context for understanding the circumstances faced by low-moderate income households.

An important factor in sustaining demand for home ownership in the last two decades has been falling interest rates due to a reduction in inflation rates internationally and domestic macro-economic management and monetary policy. Home loan interest rates fell from around 17 per cent per annum in 1990 to just over 6 per cent in the early 2000s, as shown in Figure 1. Whilst interest rates have increased several times in 2009–10 following the GFC, and are still high relative to similar countries in Europe and North America, they are low when viewed in the context of the last 20 years.

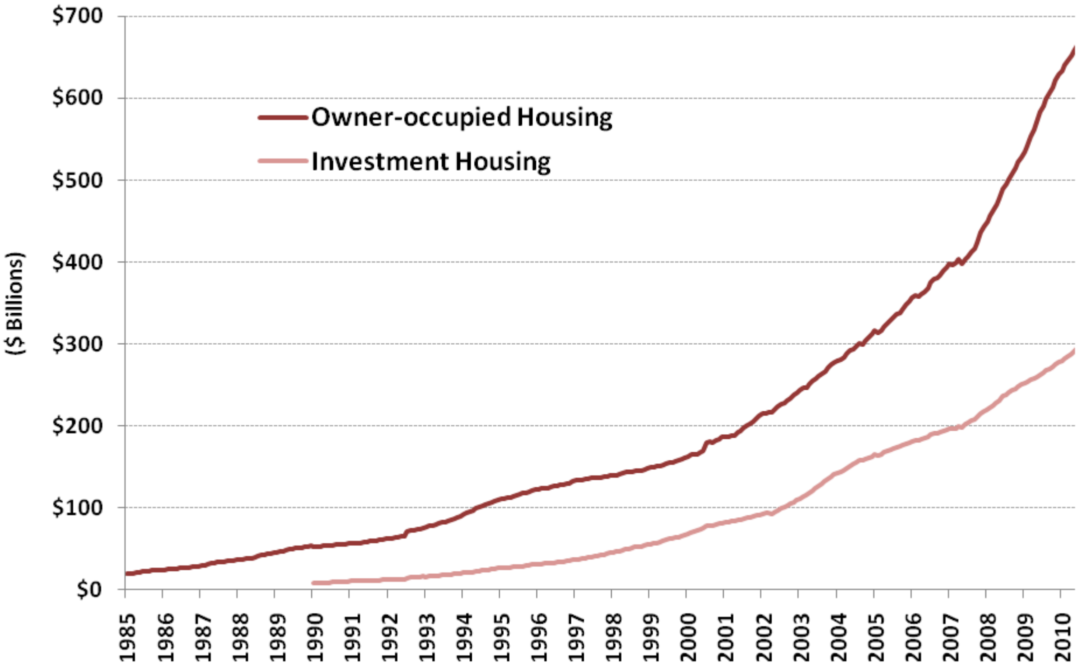
Figure 1: Nominal Interest rates charged on housing loans, Australia, 1990–2010



Source: Calculated from *Reserve Bank of Australia Bulletin*, July 2010 (Table F5: Indicator Lending Rates).

Lower interest rates coincided with relaxation of eligibility criteria for credit as a result of deregulation of financial institutions. In terms of home lending, this meant offering loans to those who had previously been excluded including single people and women, lower deposit requirements, and higher loan to valuation ratios. As a result, there was a huge increase in lending for home purchase over the last two decades as shown in Figure 2. However, it is important to note that relaxation of credit assessment in Australia did not bring with it the widespread use of sub-prime loans, as in the US. Whilst the GFC prompted a temporary decrease in lending in 2008–09, the volume returned to pre-GFC levels in 2009–10.

Figure 2: Volume of lending to individuals to purchase of owner occupied and investment housing, Australia, 1990–2010

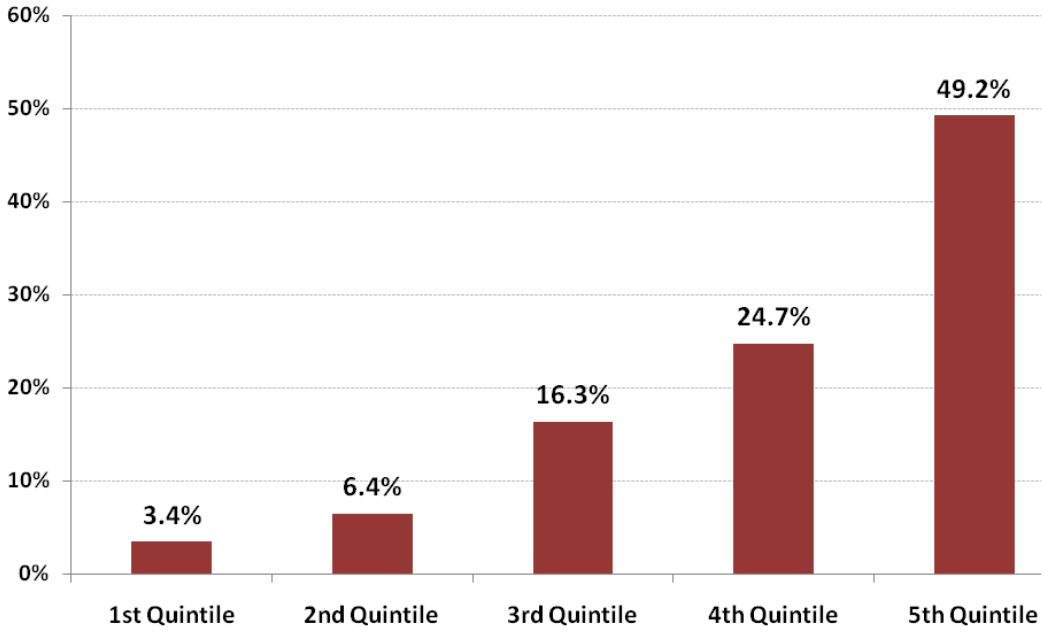


Source: Calculated from *Reserve Bank of Australia Bulletin*, June 2010 (Table D5: Bank Lending Classified by Sector).
Note: Data are in nominal terms.

The same factors (low interest rates and easier access to credit) that affected owner occupiers also induced increased borrowing by rental investors. In January 1990 investors accounted for 14 per cent of the value of all housing loans but 20 years later accounted for 32 per cent (Reserve Bank of Australia 2010: Table D5, Bank Lending Classified by Sector, June). In Victoria, the state in which our case study of Melbourne is located, lending to rental investors accounted for 50 per cent of residential loans in June 2010, the first time that investor lending has exceeded loans for owner occupancy. There are many factors behind investment in rental property with many investors motivated by the prospect of capital gain (Berry 2000; Seelig et al. 2009), but a key factor appears to be greater awareness and use of negative gearing, that is, claiming losses on rental properties against all income for tax purposes. The percentage of individual rental investors claiming a net loss for taxation purposes increased from 58 per cent in 2000–01 to 70 per cent in 2006–07 (Treasury, part 2, vol. 1: 69-70). Other key factors include the removal of penalty interest on non-owner occupier home loans as a result of financial deregulation in the 1980s and the introduction in 1999 of a 50 per cent discount on capital gains tax on rental investment properties. To a large degree, rental investors buy established properties rather than newly constructed ones, adding to demand pressures and prices in the established home market.

The increase in lending for purchase of residential property has also meant a marked increase in the extent of household debt. As data from the Reserve Bank of Australia show, in 1989 households accounted for only 36 per cent of total private debt in the economy (businesses accounted for the bulk) but by June 2009 households were the largest debt holders with 61 per cent of the country's debt, of which most (88% of the outstanding household debt) has been committed to housing. Importantly for the thrust of this study, and a point of importance in any comparison with the problems of lower income home ownership in the US, is that the increased debt has been taken on by those households who have the income to service it. Households in the top two income quintiles account for 75 per cent of all outstanding household debt as shown in Figure 3, while those in the bottom two income quintiles account for only 10 per cent (Battellino 2010). What this means is that the personal financial troubles of some low-moderate income purchasers (see Chapters 6 and 8) are less likely to snowball into broader social or economic problems than in the US.

Figure 3: Share of household debt by household income quintile, Australia, 2006

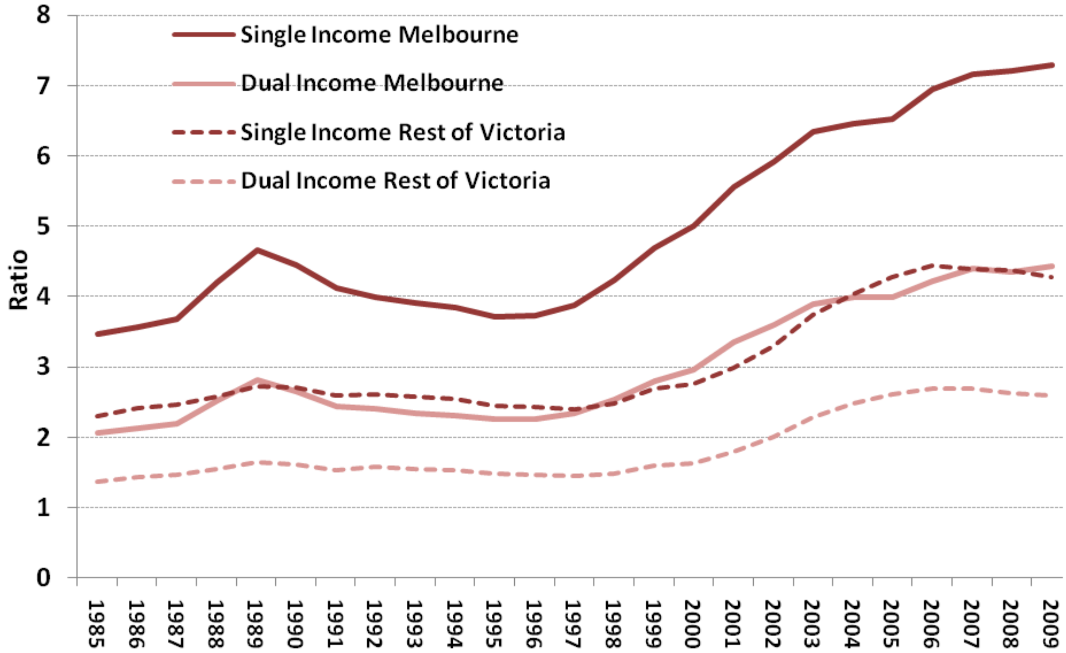


Source: Adapted from Battellino 2010, Graph 4

The surge in lending for purchase of residential property (home purchasers and increasingly rental investors) has reflected and contributed to greatly increased aggregate demand for housing in Australia. Demand pressures have included: increases in female workforce participation rates, an increase in dual income households (related to the first point), sustained high rates of household formation and high rates of additional households through in-migration. A related factor has been the restructuring of Australian cities whereby households have switched their demand to inner and middle ring suburbs where there are significant supply constraints. The combination of these demand pressures, supply constraints and increased lending for property purchase has seen dwelling prices move upwards at a rate much greater than household incomes for a decade and a half.

Using Victoria as an example, we can see in Figure 4 that the ratio of median house prices to household incomes has increased since 1985 for both single and dual income households in Melbourne and the rest of the state. Increases in house prices well in excess of increases in household income appear to defy logic, given that ultimately there has to be some relationship between housing prices and household incomes. There are a number of explanations which, as we have seen, include demand pressures (including the rise of rental investors, supported by tax advantages), supply constraints, relaxation of credit assessment and low interest rates. A further explanation, as we shall see in Chapter 7, is that non-first home buyers can continue buying more expensive property as their equity in a boom market continues to be ratcheted up.

Figure 4: Ratio of median house prices to annual gross household income, Victoria, 1985–2009



Sources:

1. Median house prices from Victorian Valuer-General's Property Sales Statistics (various years).
2. Annual gross household income derived from ABS average full-time weekly earnings (Victoria) (various years). Single income is defined as 'male full-time' earnings and dual income is male and female full-time earnings combined. ABS, various years, Average Weekly Earnings, Australia, Table 11B: Average Weekly Earnings, Victoria (Dollars) – Trend. And TABLE 12B. Average Weekly Earnings, Victoria (Dollars) - Seasonally Adjusted for years 1985–1994.

Note: Melbourne refers to Melbourne Statistical Division and Rest of Victoria refers to all other areas of Victoria.

Whilst Australian house prices plateaued briefly in 2008–09 at the height of the GFC, they increased rapidly again in 2009–10, despite interest rates which, as noted above, are high by the standards of other developed economies. Continuing increases in house prices are not just due to lower interest rates and relaxed credit since these factors apply to similar countries such as the US and the UK where prices dropped markedly in the GFC and are yet to show substantial increases. They appear to derive from some of the unique institutional aspects of the Australian housing system such as the dominance of contract rather than speculative building, the role of small investors in the market, and the spatial concentration of housing markets in a few large cities. These combine to create the paradox of declining affordability yet relative stability of the housing system (Burke & Hulse 2010, forthcoming). However, some housing and non-housing policies along with external events consequent to the GFC have also had an effect. These include the more generous FHOG, discussed above, which stimulated demand from first home buyers, pumping almost $6 billion into new growth funding for the social housing sector, and relaxation of controls on foreign investment in the residential housing market. These policy changes were implemented in the context of a strong Australian economy, which is increasingly linked to the growth economies of Asia rather than Europe or North America through export of natural resources and the strength of Australia's banking system. These factors appear to have allayed consumer fears that have weakened housing markets in many other developed countries after the GFC. At the time of writing (mid-2010), after a year of rapid dwelling price increases, in Melbourne (the case study), housing prices are still increasing although at a slower rate. It should also be noted that controls on foreign investment in residential real estate were tightened again in April 2010 in response to concern about the inflationary effects of such investment on Australian house prices.[5]

Using the ratio of median house prices to annual household income as an indicator of affordability for Victoria, as in Figure 4, we can see that, on the surface, households with a single income face the largest potential affordability problems in trying to buy a home. These problems are particularly acute for single income households in the Melbourne metropolitan area; by 2010 median house prices were more than six times their annual income. However, single income households outside of metropolitan Melbourne have also faced increased ratios. The situation facing dual income (couple) households is less severe although median house prices as a percentage of household income have risen over the past decade for this group as well. However, as Chapter 6 discusses, the story as to who faces the most hardship in entering home ownership is more complex. Whilst prima facie Figure 4 appears to indicate worsening problems of housing affordability, as noted earlier financial deregulation has enabled households to borrow more than they could have in earlier years of the period studied, and interest rates are much lower now than for much of this period. These factors along with trends in household incomes indicate that a more sophisticated approach is required than a crude house price to household income ratio. A contribution of this study is to investigate trends over time using different methods to understand the effects of household type and income levels as well as area of purchase on the financial benefits and risks of buying a home.

2.4 Summary

From the early 1990s, Australian housing policy towards home ownership moved away from the comprehensive support that had characterised the 1950s to 1970s, although other public policy settings continued to provide benefits to existing home owners, most notably through the tax system. The main issue on the housing policy agenda has been the difficulties faced by first home buyers, particularly younger households, irrespective of household income. Policy settings indicate a related concern with assisting first home buyers to provide additional demand for new housing. The major concern has been about initial access into home ownership rather than ongoing capacity to sustain ownership, as reflected in contestation in 2001–08 about what constitutes ‘mortgage stress’.

Governments no longer see it as their role to assist low-moderate income households to purchase if they are unable raise finance privately, although there are some small-scale exceptions at a state and territory level, such as low deposit and shared equity schemes. Instead, such households are reliant on access to home ownership through more liberalised credit following deregulation of private financial institutions and their ability to sustain loans with lower interest rates than previously. It is an open question whether the lack of policy focus on low-moderate income households who wish to buy has been offset by an increase in lending by financial institutions to this group. It is equally open to question whether higher house prices flowing from financial deregulation have negated the ability of low-moderate income households to purchase.

The research questions require identification of trends over time: in the population of low-moderate income purchasers, in the ongoing costs of home ownership and in the

[5] Hon Nick Sherry, Assistant Treasurer, Government Tightens Foreign Investment Rules for Residential Housing, Press Release No 074, 24 April 2010, http://ministers.treasury.gov.au/.

relationship between housing asset values and household wealth. The context is that there have been 20 years of consistent upward trend in the house prices of Australian cities with the exception of the early 1990s. This has been fuelled by factors discussed in this chapter, including lower interest rates, relaxation of credit requirements, larger loan sizes, and the rise of rental investors in the established home market. Such is the concern with house prices that as of mid-2010 rarely a week goes by without some media commentary on the worsening housing affordability problem. While a range of research studies has shown the problems faced by low-moderate income households living in the private rental sector are the most acute and extensive, political and media commentary is inevitably about ownership and the declining ability of first home buyers to purchase. This study takes a different perspective by focusing specifically on low-moderate income households.

In the next chapter, we outline the conceptual framework for the study which draws on an extensive review of the literature on home ownership for low-moderate income households.

3 CONCEPTUAL FRAMEWORK AND CONCEPTUAL ISSUES ARISING FROM THE RESEARCH QUESTIONS

In our introduction, we noted that a variety of benefits from home ownership are posited for households but there is a lack of research evidence on whether, and to what extent, low-moderate income households experience these benefits and whether they are sometimes outweighed by the risks. For example, do low-moderate income households who are constrained to buy, or remain, in lower price areas receive the same benefits from ownership as households buying in middle and higher price areas. In this chapter we outline the conceptual framework for the project and then provide a brief overview of some of conceptual issues associated with the research questions. Discussion builds on an extensive review of the Australian and international literature on low-moderate income households and home ownership reported in detail in the Positioning Paper (Hulse & Burke 2009). In this report we refer only to the key studies that have assisted in the development of the conceptual framework and clarification of conceptual issues.

3.1 Conceptual framework

We can conceive of a number of different types of benefits and risks of home ownership which occur at a number of scales: micro (households), meso (neighbourhood, towns/cities and regional), and macro (societal and economic benefits), as illustrated in Table 1.

Table 1: Projected benefits of home ownership by type and scale

Projected benefits	***Household***	***Community***	***Society/economy***
Financial (income)	Lower housing costs over lifetime, particularly in older age	Community able to self-provide	Part of policy settings for older people: reduces pressure on level of age pensions
Financial (wealth)	Ownership of asset appreciating in value in real terms over time	Mutual interdependence via wealth generation through housing assets	Increases national savings and capacity to draw down on equity from housing in older age and/or transfer to next generation
Psycho-social	Personal and family/household independence, autonomy, control, freedom from surveillance, 'ontological security'	Attachment and belonging to local community; enhanced confidence in community interactions	Attachment and belonging to broader society
Social	Safe and stable environment for bringing up children. Basis for participation in education and employment. Good mental and physical health	High levels of economic participation, improved educational outcomes for children, high levels of social capital	High levels of social cohesion
Political	Status of property ownership	Participation in ways to sustain and improve communities	'Property owning democracy'

Source: Review of the international literature (Hulse & Burke 2009).

Note: The projected macro-economic benefits of home ownership are not included in the table. Some of these related to the linkages between home ownership in Australia and demand for new housing rather than home ownership per se.

We are interested in the household scale and four types of potential benefits that have been identified in the research literature, encompassing both financial and non-financial elements, as highlighted in grey in Table 1. Financial benefits refer to the capacity of home owners to have lower housing costs over time such that they can live on a lower income or have more money for non-housing expenditures, and their capacity to build wealth through ownership of an asset which appreciates in value over time. Non-financial benefits refer to the degree of control, freedom and autonomy often associated with home ownership ('a place of one's own') and a range of more indirect health and wellbeing benefits sometimes associated with home ownership.

Table 2: Projected benefits and potential risks of home ownership for households on low-moderate incomes

Type of benefit/risk	*Benefits for households on low-moderate incomes*	*Risks for households on low-moderate incomes*
Financial (income)	Lower housing costs over lifetime, particularly in older age	Unexpected and unpredictable housing expenditures, e.g. variations in mortgage repayments, increases in fixed costs (rates, unexpected repair bills etc.) Unexpected and unpredictable changes in household income, e.g. relationship breakdown and loss of employment
Financial (wealth)	Ownership of asset appreciating in value in real terms over time	Asset increases slowly relative to other types of assets or decreases in value in the short or longer term, leading to loss of initial deposit, negative equity, difficulty in sale, inability to trade up to build wealth etc.
Non-financial (psycho-social)	Personal and family/household independence, autonomy, control, freedom from surveillance, 'ontological security'	Psychological stress associated with difficulties in mortgage payments, insecurity and fear of loss of dwelling due to forced relocation or repossession
Non-financial (social)	Safe and stable environment for bringing up children, children do well at school, participation in employment, good mental and physical health, social connectedness	Living in area with poor schools and lack of employment, health problems associated with physical and neighbourhood environment, little connection with neighbours and low level of social connectedness Constrained mobility by virtue of living in areas where low dwelling prices prevent movement to more expensive areas

Each of these projected benefits also carries risks as highlighted in the shaded third column of Table 2. These risks may be better able to be managed by households on middle-higher incomes. For example, they may have the savings to deal with unexpected increases in housing costs, such as interest rate rises or unexpected repair bills. However, these risks may be attenuated for households on low-moderate incomes. For example, they may not be able to afford additional payments due to interest rate increases or building-related maintenance and may, in consequence, suffer psychological stress (fear of 'losing one's home').

Importantly, the form and scale of benefits and risks in this conceptualisation are likely to differ not only by household income but also, and relatedly, for purchasers and outright owners, who have different risk profiles related to stage in life cycle as well as their household income, expenditures and asset position, as we discuss next.

3.2 Conceptual issues related to the research questions

3.2.1 Low-moderate income households

Research question 1 asks: Who are low-moderate income home purchasers and what changes can be observed over time?

For the purposes of this study, we have defined low-moderate income households as those with incomes in the lowest two quintiles of the household income distribution (lowest 40 per cent), in contrast with those households on middle-higher incomes (top three quintiles or 60 per cent), as illustrated in Table 3. Our purpose is to understand the benefits and risks of home ownership for those on low-moderate incomes.

Table 3: Definitions of household income

Term	*Household income quintile*	*Broad grouping*
Low income	Quintile 5 (lowest 20 per cent)	Low-moderate income (lowest two income quintiles or 40 per cent)
Low-moderate income	Quintile 4	
Middle income	Quintile 3	Middle-higher income (upper three quintiles or 60 per cent)
Middle-high income	Quintile 2	
High income	Quintile 1 (highest 20 per cent)	

This simple categorisation hides considerable conceptual complexity as well technical issues of measurement. Conceptually, there are several means of calculating the 40th percentile based on the incomes of:

- All Australian households (including renter and owner/purchaser households).
- All home owners (purchasers and outright owners).
- All outright owners (no debt secured against the property they live in).
- All purchasers (households with debt secured against the property they live in).

Depending on which of these groups is chosen, the lowest two quintiles differ quite substantially, as illustrated in Table 4. It makes little sense to use the lowest 40 per cent of all home owners (outright owners and purchasers) since this obscures a very substantial difference between the lowest 40 per cent of home purchasers (income below \$76 000 in 2007–08) and the lowest 40 per cent of outright owners (income below \$31 000 in 2007–08). The reason for this difference is the higher income required to sustain purchase and the number of age pensioner households on low incomes who own outright.

Table 4: Comparison of 40th percentiles of household income by home ownership status of households, Australia, 1981–82 and 2007–08

Households	*1981–82*			*2007–08*		
	Household income at 40th percentile	*No of households at or below 40th percentile*	*% of all Australian households*	*Household income at 40th percentile*	*No of households at or below 40th percentile*	*% of all Australian households*
All households	\$12 792	1 994 945	40.1%	\$45 000	3 211 782	40.1%
All owners and purchasers	\$13 780	1 398 505	28.1%	\$49 000	2 048 008	25.8%
Outright owners	\$8 112	738 233	14.8%	\$31 000	1 084 268	13.6%
Purchasers	\$18 876	662 615	13.3%	\$76 000	971 771	12.2%

Source: CURF data, ABS SIH, 1881–82 and 2007–08.

Table 4 also illustrates that the lowest 40th percentile of purchaser household income over time adapts to the problems of housing affordability discussed in Chapter 2. The 40th percentile of purchaser income has increased between 1981–82 and 2007–08 as households at the lower end of the income distribution for purchasers realise that they have insufficient income to buy as house prices have increased. In principle this requires a standardised measure of low-moderate purchaser income to compare the two years. Unfortunately, there is no appropriate index for such standardisation; the consumer price index is not relevant for income changes and there is no consistent index of household rather than individual incomes. In addition, the composition of household income changed over the 26 years due to increasing rates of female participation in the labour force. What we can say is that the 40th percentile of purchaser household income increased from 1.48 times the 40th percentile for all Australian households in 1981–82 to 1.69 times in 2007–08, indicating that the 40th percentile of purchaser household income increased at a faster rate than the 40th percentile for all household incomes.

In this study we use different cut-offs to investigate particular issues. For example, for detailed analysis of the financial benefits and risks of home ownership, we are most interested in low-moderate income purchasers, particularly recent purchasers, since their risks are likely to be greater. On other issues, we are also interested in low-moderate income outright owners, for example, in examining the potential risks for older home owners who may be asset rich but income poor, such that they may find it difficult to pay non-mortgage costs such as rates or repairs. We note in the text which definition we are using for each stage of the analysis.

In considering research question 1 which is specifically about households who are purchasing their homes, we drew particularly on the work of the AHURI National Research Venture 3 on Housing Affordability for Lower Income Australians (Yates & Milligan 2007), which conducted detailed analysis of the means of measuring mortgage stress (Yates & Gabriel 2006). Despite evidence of quite high levels of mortgage stress for home purchasers with incomes in the lowest two quintiles for all households, using the 30/40 benchmark, it appears that the level of mortgage arrears and mortgage default in Australia is still very low (Berry et al. 2009, 2010). This is something of a paradox. Qualitative research suggests that part of the explanation is that households develop strategies to manage financial risk associated with purchase, such as working overtime or two jobs, borrowing from friends and family, and increasing the balance on credit cards or exit from home ownership (Burke & Pinnegar 2007).

An important conceptual issue highlighted in the Australian and international research is that risk and vulnerability of low-moderate income households who purchase their homes can reflect structural issues as well as life events (e.g. Ford & Burrows 1999; Khoo 1993; Burke & Pinnegar 2007):

- *Structural* sources of risk are factors such as restructuring of labour markets with more contract and casual employment, fluctuating interest rates following the deregulation of housing finance since the 1980s, house price inflation, and home loans with higher loan to valuation ratios.
- Risks from *life events* include loss of employment, family breakdown, illness, disability, and changes in family circumstances such as having a baby, which reduce household income.

Identification of these sources of risk highlights an important conceptual issue. Household income is *dynamic* and may change over time. Thus households may enter home ownership as low-moderate income purchasers and their household income may not improve. They may enter home ownership with middle-higher incomes but subsequently drop down to low-moderate incomes for a variety of reasons including life events identified above. Some decide to 'downshift' and voluntarily reduce their income for a variety of reasons (Hamilton & Mail 2003). Recent work for AHURI by Wood and Ong (2009) indicates some of this dynamism in respect of housing affordability problems in Australia.

Finally, some international research, particularly from the US, indicates that household type is important in considering the financial risks of home ownership. In particular, Reid (2004, cited in Herbert & Belsky 2006, p.50) and Haurin and Rosenthal (2005b) in their statistical estimates of the causal factors underlying exit from home ownership found that single people and single parents have higher rates of exit than the high rate for lower income households generally. This suggests that having one income is a risk factor in sustaining ownership for lower income households. The methodology for the research discussed in Chapter 4 investigates whether there has been a change in the composition of low-moderate income home purchasers (one and two income households) over time.

3.2.2 Ongoing costs of home ownership and associated risks

Research question 2 asks: What differences are there in the financial benefits and risks of owner occupation in terms of ongoing expenditures for households on low-moderate incomes compared to middle-higher income households?

Most of the research into low-moderate income households and the costs of home purchase in Australia and internationally deals only with mortgage costs, referring to repayment of loans secured against the property occupied by the household. As discussed, this has been an important strand in research into housing affordability in Australia, as evidenced by the work of the AHURI National Research Venture. Some work on housing affordability (e.g. Yates & Gabriel 2006) does take council and water rates into account but this is relatively uncommon.

There is very little Australian analysis of other ongoing costs of home ownership for low-moderate income households other than research by Wulff (1990, 1992) and Smith (2009), with the former evaluating a Victorian low-start home loan scheme targeted at households on public housing waiting lists. This found that maintenance and home improvements added on average 5 and 20 per cent respectively to ongoing monthly housing expenditures, defined as mortgage repayments, rates and property insurance (Wulff 1992, p.238). In the US, where there is also little research about the non-mortgage costs of home ownership, a recent study found that whilst median household incomes increased by 36 per cent in the decade to 2005, property insurance increased by 83 per cent, property taxes by 66 per cent, mortgage payments by 45 per cent, and utilities by 43 per cent (Brennan & Lipman 2008). Whilst different factors apply in the US, in particular, a more important role for local property taxes in funding essential services, this analysis raised questions about the risks associated with the addition of non-mortgage costs to regular mortgage payments.

In this study, ongoing expenditures on home ownership include additional expenditures which home owners may incur but not renters, e.g. council and water rates, building insurance and repairs and maintenance. We had to consider conceptually which types of expenditures are compulsory; for example, rates are compulsory for all but building insurance is not compulsory for outright owners, although highly desirable, as shown in Figure 5. Other types are associated with housing type, e.g. sheds and fences for owners of houses, and body corporate/owners corporation fees for owners of apartments.

Figure 5: Ongoing expenditures associated with home ownership

Ongoing housing expenditures	*Purchaser*	*Outright owner*
Mortgage repayments: → Interest → Principal	Compulsory	
Council and water rates	Compulsory	Compulsory
Strata title/body corporate fees (if applicable)	Compulsory	Compulsory
Building insurance	Compulsory	Highly desirable
Repairs and maintenance (internal and external)	Highly desirable	Highly desirable
Floor and window coverings Insulation	Desirable	Desirable
Outdoor: garden and structures	Desirable	Desirable
Contents insurance	Desirable (non-tenure-specific)	Desirable (non-tenure-specific)

Note: Loan repayments and expenditure on major alterations and additions not included. Repayments on principal are included in the figure but we note that the Australian Bureau of Statistics considers that 'for many purposes it is more appropriate to consider repayments of principal as a form of saving rather than as a recurrent housing cost. It reflects the purchase of a housing asset by increasing the equity in the property held by the household and is an addition to the wealth of the occupants' (ABS 2006, p.28).

The study also explored other commitments home owners take on and the degree to which these may accentuate financial risk. One advantage that home owners value over rental is the lifestyle that a household can build around it. Elsewhere we have called ownership in the Australian context the 'wrap around' housing tenure (Burke & Hulse 2010 forthcoming) because it is the form of tenure which enables households to add on, or wrap around it, the privatised lifestyle that Australians value. Its ability to do so flows from a close association with the dominance of the single detached dwelling on its own block of land, such that ownership and housing type blur into one tenure-type category. Ownership of a detached house enables a household to extend upwards or outwards, to build a garage or carport for one, two or more cars, to put in an outdoor entertainment area based around the barbecue, and to have a large garden and landscape it. The large size of dwellings, however, also has implications for household expenditures, including heating and cooling.

Such a lifestyle has to be financed, with the result that many Australian households have substantial debt over and above that incurred through their initial mortgage for purchase or construction of the dwelling they occupy. This includes loans taken out for alterations and additions and credit card debt for a variety of housing-related purposes such as furniture. Thus for many home purchasers, housing-related debt repayments are not just about initial purchase or construction but also for a range of other expenditures. We decided that it was necessary to look at all forms of debt as well as the levels of savings to get a better picture of the financial risks confronting purchasers, particularly those on low-moderate incomes.

3.2.3 Home ownership and building wealth

Research question 3 asks: To what extent and how do low-moderate income households build wealth through home ownership compared to middle-higher income households, taking into account the affordability of housing in particular locations and changes in housing markets over time?

Whilst considerable attention has been paid to the credit risk faced by low-moderate income households (the ability to repay a mortgage), little attention has been paid to the risks of dependence on home equity as the major component of household wealth. This is of concern when house prices historically can be quite volatile and runs contrary to established principles of spreading risk through diversification of investment (Smith et al. 2009). Whilst this is the case, tracking the effects of home ownership on wealth, defined as net assets (assets minus liabilities), over time is very complex and our review of the international literature indicated that there is no one definitive approach to measuring the effects of home ownership asset values on building wealth over time.

Understanding of the linkages between home ownership and wealth is informed firstly by the US literature, in which can be found the most comprehensive empirical research dating back to the 1990s. The research has found that lower income households[6] do have the ability to build wealth through home ownership, but whether this is so, and the extent of wealth creation, is dependent on timing, where a purchase is made, what was purchased, whether one remains a purchaser and whether one trades up to more expensive dwellings over time or is forced to exit home ownership due to financial stress or other reasons (e.g. Herbert & Belsky 2006; Belsky & Duda 2002b; Goetzmann & Spiegel 2002; Boehm & Schlottmann 2004). The US studies also find there are substantially different outcomes in terms of housing equity and building wealth between ethnic groups, after controlling for variables including socio-economic status (e.g. Krivo & Kaufman 2004; Glick 2008; Sykes 2008). Most of these studies predate the rapid decline in housing prices in some US states as a result of the credit crunch and GFC.

The relevant research in the UK is framed more in terms of home ownership and (in)equality rather than building wealth (see Winter 1994 for a review). There is a fundamental disagreement as to whether home ownership is basically progressive in its effects since differences in capital gains accruing to households at different income levels are less than differences in their incomes (Saunders 1990) or whether housing wealth is closely related to employment history such that ownership reinforces labour markets in creating greater inequality (e.g. Forrest & Murie 1989, 1991).

Parallel with this study, work was being conducted on an major international study on the relationship between housing and wealth (Smith & Searle 2010), but the details of the international study were not available to the research team either during the research or the writing of this report. We are confident, however, that this chapter does not appear to duplicate the work of Smith and Searle and may be seen as a complement to it.

In conceptualising the issue of building wealth through equity in owner occupied housing, we draw on key empirical studies in Australia and New Zealand. Some of these resonate with the UK research tradition in investigating the linkages between home ownership, housing wealth and inequality. In particular, the work of Thorns

[6] Although the term ‘lower income home ownership’ is widely used in the US literature, there is no agreement as to what constitutes lower income. A variety of measures are used, including a percentage of the federal poverty line, e.g. 150 per cent (Harkness and Newman 2002), some percentage of median household income, e.g. 75 per cent (Boehm and Schlottmann 2004), and lower household income quintiles or quartiles, e.g. lowest household income quartile (Haurin and Rosenthal 2005a). The latter most approximates the accepted Australian definition, although it refers to a lower income group than in Australia.

(1981, 1989) in New Zealand and an Australian study by King (1987) investigating capital gains found that, while higher income purchasers increased their wealth vis-à-vis lower income purchasers, the latter were still better off in this period than low income renters who had no opportunity for any increments in wealth. However, Badcock's (1990, 1992) study of Adelaide had somewhat different results, finding some redistribution of wealth amongst households through capital gains as a result of home ownership.

Three major Australian contributions are most pertinent to the research question. Studies by King (1989, 1990) and Badcock (1992, 1994) reflect a concern with globalisation and economic restructuring in the post-financial deregulation area and the ways in which this played out in local housing markets. Research by Burbidge and Winter (1996) and Burbidge (2000) is more explicitly grounded in assessment of the benefits and risks of home ownership generated by Saunders' (1990) work but is also concerned with the effects of deregulation of financial and labour markets on housing markets. These and other studies reviewed involve several different approaches to measuring the effects of home ownership on building wealth for households on different income levels. In the Positioning Paper, we outlined in detail these methods and their advantages and disadvantages (Hulse & Burke 2009, p.25–27).

The measurement wealth building through home ownership can be enormously complex and sophisticated. We decided not to rely on a single and highly technical method but to use four different methods, as shown in Table 5, on the principle that if any findings are to hold they will need to be consistent across all four methods, i.e. each method is a form of validation. Each has its own methodological challenges as noted in Table 5 column 3, and the means of addressing these is through complementary methods.

Table 5: Approaches to measuring the effects of home ownership on building wealth

Approach	*Advantage*	*Disadvantage*
Net equity (wealth) accumulation for households remaining in place	Measures the increase in housing wealth for different locations and time periods Takes into account borrowing costs, stamp duty, real estate fees	Is not specific to low-moderate income households: middle-higher income households may also be resident/investor in lower income areas It is impossible to tell how much of the increase/decrease is due to additional household expenditure on capital improvements or lack of expenditure on maintenance/repairs which may diminish the quality of the dwelling
Estimated gross equity (wealth) accumulation scenarios of trading up and down	Measures the increase in housing wealth for different locations and time periods, but assumes households move around the metropolitan area and trade up and down	Is not specific to low-moderate income households: middle-higher income households may also be resident/ investor in lower income areas Sensitive to timing (when bought and sold) It is impossible to tell how much of the increase/decrease is due to additional household expenditure on capital improvements or lack of expenditure on maintenance/repairs which may diminish the quality of the dwelling
Repeat sales	Measures risk of loss through selling at different time periods and for different locations	While household specific, actual household income cannot be determined
Net yield on ownership versus renting	Enables assessment of whether low-moderate income purchaser would have been financially better of renting	For ownership, same as row 1 For renters, requires heroic assumptions as to saving capacity

Finally, one of the messages from the US literature on lower income households and home ownership (Belsky & Duda 2002b) is the importance of contextualising any data analysis on wealth appreciation as it is often specific to a certain time period and/or a geographic area reflecting different housing sub-markets. The methods we have adopted include ones in which long time periods are chosen (as often in wealth analysis the time period used is too short) and, whilst we use a Melbourne case study, we have chosen geographic areas for in-depth analysis that are similar to other housing sub-markets around Australia. Comparing household housing wealth at two points of time does not imply that there is a linear trend between these points. We acknowledge that the choice of time periods is important and that two time points can disguise major market fluctuations. However, a period of more than 25 years irons out short-term fluctuations in the property cycle to a great extent. Moreover, the analysis does include shorter time periods to illustrate the importance of such fluctuations and the base year 1981 was not an unusual year, being characterised as a year of stability, not one at the peak of a boom (e.g. 1973 or 1989) or bust (e.g. 1976 or 1995).

3.2.4 Non-financial risks and benefits of home ownership

Research question 4 asks: How do low-moderate income home purchasers experience the non-financial benefits and risks of home ownership in different types of types of residential location?

The aspiration to own a home is strong in Australia, not only because of the projected financial benefits, but also because ownership is assumed to provide various non-financial benefits. Some of these are psycho-social and, as articulated by Saunders (1990, p.84), include ‘the sense of independence and autonomy which ownership confers – the freedom from control and surveillance by a landlord and the ability to personalise the property according to one’s tastes’. Saunders (1990, p.293) further argues that ownership ‘enables a greater sense of emotional security and a stronger development of self and identity’ drawing on the concept of ontological security. Whether the desire for home ownership is ‘natural’ or refers to cultural norms which are shaped and reinforced through policy setting is controversial. Some researchers suggest that home ownership is not a universal and natural desire but a product of social norms which are in part shaped, and reinforced, by government housing policies which posit it as a natural preference: ‘cultural influences and attitudes are generalised into owner occupation being regarded as a “good thing” and the natural tenure of choice, with no profound thought being given by individuals to their unique situations. It is a cultural and social phenomenon’ (Livette 2006, p.476).

UK and New Zealand research suggests that home ownership provides households with psycho-social benefits such as security, privacy, control and freedom from surveillance to a greater extent than households who rent (for reviews of the literature, see Dupuis & Thorns 1998; Kearns et al. 2000; Hiscock et al. 2001; Hulse & Saugeres 2008). These are thought to be important not just in themselves but also as mediating factors in associated outcomes, including improved educational levels for children, better mental and physical health, and higher levels of social connectedness and participation in community and voluntary organisations. However, some of these effects can be attributed to either middle-higher incomes and/or long-term residence.

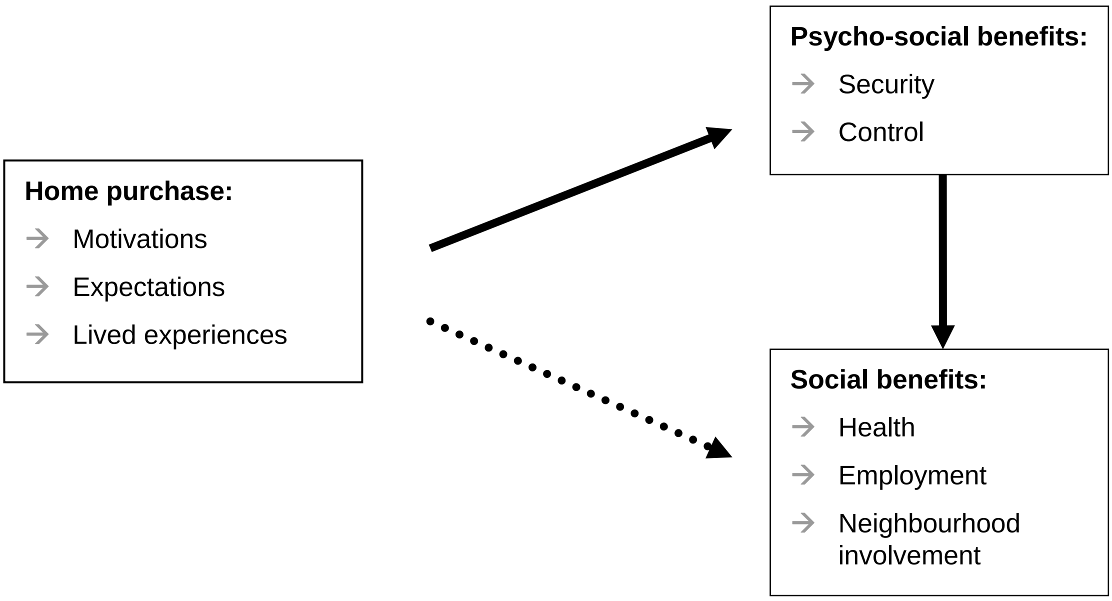
In the US, there has been a much more specific literature examining the non-financial benefits and risks for lower income households. A recent review of research into the social impacts of ownership for such households finds that the strongest evidence is for the positive effects on the children, in particular, their level of school achievement (Herbert & Belsky 2006, p.101–107), although there may be differential effects according to level of household income (Harkness & Newman 2002). Evidence about other impacts is less strong (Rohe & Watson 2007). Herbert and Belsky (2006) find that the research evidence about the impact of home ownership on psychological and physical health for lower income households is too thin to draw any conclusions.

Internationally, research generated in times of economic recession has suggested that some households who purchase homes may also risk psychological stress to the detriment of their health and wellbeing, and that of their children, if they accumulate mortgage arrears, face repossession of their homes or end up with mortgages greater than the value of their property (Nettleton & Burrows 1998, 2000; Ford et al. 2001; Cairney & Boyle 2004). Some of these problems stem from disruptive life events but there is increasing recognition, as highlighted earlier in this chapter, that in the early years of purchase, households may face risks attributable to structural factors such as the effects of labour force restructuring, volatility in house prices, and credit risks such as variable interest rates (Ford & Wilcox 2005; Burke & Pinnegar 2007).

There is very little empirical research in Australia which investigates whether low-moderate income households themselves feel that they have achieved the projected psycho-social and social benefits of home ownership. A small number of international qualitative studies suggest that purchasers have not thought about the risks associated with home ownership and that a significant minority chose not to do so (Jones et al. 2007). There may well be a halo effect around home ownership such that people want to feel that they have made the right decision for themselves and their families, notwithstanding some of the financial pressures (Smith et al. 2009).

Research question 4 is therefore quite exploratory in the Australian context and, as discussed in the next section, involves qualitative research framed as in Figure 6.

Figure 6: Home purchase and its potential psycho-social and social benefits



3.3 Summary

The conceptual framework for the study considers the potential benefits and risks of home ownership which differ in type and are experienced at different scales. The particular focus is at the household level and on the financial (income and wealth) and non-financial (psycho-social and social) benefits and risks. Each research question raises further conceptual issues which we have discussed in this chapter, referring to key research from our review of Australian and relevant international research:

- Definition of low-moderate income home purchasers.
- Identification of the mortgage and non-mortgage costs associated with home purchase.
- Articulation of ways in which home ownership can impact on equity and debt and subsequently an increase in wealth.
- Exploration of ways in which the non-financial benefits and risks of ownership may be experienced and, relatedly, how these link to household financial circumstances.

In the next chapter, we outline the methodology, research design and research methods that derived from this conceptual understanding of the benefits and risk of home ownership for low-moderate income households.

4 RESEARCH DESIGN AND METHODS

This chapter outlines the research design for the project and provide details of the methods used in relation to each of the research questions, building on the conceptual framework and discussion of key conceptual issues in Chapter 3. The purpose is to provide an overview of the research design and sufficient detail on the research methods to enable the reader to understand, and have confidence in, the basis for the research findings outlined in subsequent chapters. Some of the issues we confronted in applying specific methods are technical and require innovative responses. We provide additional detail on these matters in Appendices 1 to 5.

4.1 Research design

The research design was multi-stage and multi-method, involving both quantitative and qualitative research. It had five stages (including additional sub-stages) and used different research methods as highlighted in Table 6. Whilst the research design is presented in a linear fashion, for purposes of clarity, in practice there was considerable iteration between resolution of the conceptual issues discussed in Chapter 3 and application of the research methods discussed in this chapter. For example, detailed analysis of secondary data sets on house prices, household incomes and household expenditures over time changed and refined ideas about building wealth through home ownership. Further, there was iteration between and within the stages where more than one research method was used. For example, analysis of data from the HES on ongoing mortgage and non-mortgage costs of home ownership raised questions about the financial risks of home ownership for low-moderate income households which were then analysed in more depth, using the same data set but a different research method.

Table 6: Research design by stage, approach and method

Stage	*Research approach*	*Method(s)*
Conceptual framework and context	Literature review and investigation of policy context for trends in home ownership affecting low-moderate income households (from early 1980s)	Review and analysis of Australian and international literature on low-moderate income households and home ownership; review of key Australian policy documents Analysis of data from Reserve Bank of Australia on key variables affecting home ownership over time (e.g. interest rates)
Profile of low-moderate income purchasers over time (research question 1)	National level. Analysis of existing secondary data to investigate changes in type and composition of home owners (outright owners and purchasers) 1981–82 to 2007–08, with particular emphasis on low-moderate income purchasers	Analysis of Confidentialised Unit Record Files (CURFs) from ABS Survey of Income and Housing (SIH), 1981–82 and 2007-08
Ongoing costs and affordability of home ownership for low-moderate income households (research question 2)	National level. Quantitative analysis of existing secondary data to investigate mortgage and non-mortgage costs of home ownership for low-moderate income households Modelling of 'budget standard' approach to affordability to understand dynamics of low-moderate income home ownership Assessment of level of financial risk for low-moderate income home purchasers (an addition to original research approach)	Analysis of CURF data from ABS HES 1981–82 and 2003–04. Application of SPRC low income budget standard indexed to 2009 to model borrowing capacity/residual income for households of different types and on different income levels Analysis of CURF data from ABS HES 1981–82 and 2003–04: questions on financial hardship
Building wealth through home ownership (research question 3)	Melbourne case study involving quantitative analysis of existing secondary data sets. Map changes in purchase opportunities for low-moderate income households in Melbourne metropolitan area by local area (an addition to original research approach)	Analysis of median house price data from CURFs of Victorian Valuer-General's Property Sales Statistics 1981–2009 Analysis of geo-coded repeat sales from CURFs of the Victorian Valuer-General's Property Sales Statistics 1999–2008 Modelling of case study households buying and selling homes in Melbourne metropolitan area 1981–2006 using Victorian Valuer-General's Property Sales Statistics

Stage	*Research approach*	*Method(s)*
		Analysis of Victorian Valuer-General's Property Sales Statistics 1981 and 2009 applying 30/40 method of calculating housing affordability, disaggregated spatially
Non-financial benefits and risks of home ownership (research question 4)	Melbourne case study. Qualitative exploration of perceptions and experiences of low-moderate income home purchasers buying in lower price areas	In-depth semi-structured interviews with low-moderate income home purchasers in areas with lower house prices

4.2 Research methods

4.2.1 Conceptual framework and context: Review of research and policy literature on low-moderate income households and home ownership

We conducted a review of the Australian and international literature on low-moderate income households and home ownership. This is a very specific part of a voluminous research literature on home ownership generally. Given the timing of this review (2008–09), during the GFC, we made a particular study of US literature since the GFC starkly highlighted risks associated with low-moderate income households purchasing homes at different levels (household, community, societal/economic). This stage also involved a review of key documents in the Australian policy context.

Stage 1 resulted in the Positioning Paper for this study (Hulse & Burke 2009). This informed the framing of subsequent stages of the research including developing a clearer profile of low-moderate income home purchasers and outright owners, the importance of the institutional environment, and the need to understand housing market structuring and restructuring from the early 1980s to the present.

4.2.2 Profiling low-moderate income home purchasers and owners over time (research question 1)

This stage involved building a profile of low-moderate income home purchasers and outright owners separately and examination of changes in these profiles over the last 25 years in terms of key characteristics such as household type, composition of household income and age of household reference person. The analysis is quantitative and uses Confidentialised Unit Record File (CURF) data from ABS Survey of Income and Housing (SIH) 1981–82 and 2007–08. It is based on gross unequivalised household income[7] excluding the income of adult children living at home. We used unequivalised gross income, i.e. household income which is not adjusted to take into account the different expenditures of households of different types/sizes. This was done so as not to obscure changes to the household composition of low-moderate income purchasers and owners over time (see Appendix 2 for further discussion).

An important methodological point is that we use cross-sectional data at different points of time, not household panel data. Cross-sectional means that the data are collected at a point of time and, in the case of sample surveys like the SIH, a different set of households is selected for each survey. Household panel data track the same households over time. The most relevant data set is the Household, Income and Labour Dynamics in Australia (HILDA) survey but this has only been collected over the last decade and does not enable the analysis over more than 25 years that was required for this study. We wanted to explore changes in the composition of low-moderate income purchasers since before the financial deregulation of the 1980s. We also note that for individual households, income is dynamic not static and is affected by how many household members earn an income (in turn linked to marriage, divorce, child rearing and illness or disability) and employment changes.

In considering changes in the profile of home purchasers over time, it is important to recognise that household practices have changed in a deregulated financial environment and as household incomes have risen. In 1981–82 a mortgage could only be used for home purchase (i.e. buying or building a dwelling to live in) but in

[7] Refers to the household income of the reference person and adult partner before tax and the Medicare levy. Equivalisation is a procedure which adjusts household income (gross or net) to take into account the different levels of expenditure required to support households of different sizes.

2007–08 a household could borrow against the equity in their property for other goods, e.g. a car, a second home, renovations or travel. The effect of this is that some households who previously would have been outright owners continue to borrow and therefore swell the purchaser ranks. For this reason—and we believe it is the first time an Australian analysis has done this—we have deleted, where possible, household loans that are held against the equity value of the property but which have not been used to purchase/construct that property. In 2007–08, this was about 10 per cent of all borrowers.

Analysis of data from the SIH from two dates which span more than 25 years is complex and other methodological issues had to be addressed which will be discussed at the relevant point in the text or outlined in Appendices 2 and 5.

4.2.3 Analysis of data on household expenditure to investigate the ongoing costs of home ownership for low-moderate income households (research question 2)

This stage involved analysis of the ongoing costs of ownership and its relationship to risk, taking into account all ongoing costs including the mortgage and other housing-related expenses, e.g. rates and maintenance, using the conceptual framework outlined in Figure 5. The primary method was analysis of mortgage and non-mortgage housing expenditures incurred by home owners (both purchasers and outright owners) using the HES 2003–04. Data collected for the HES is extremely detailed and enables identification of the full range of ongoing household expenditures as well as level of household income. Analysis of this stage in part builds on the work of Yates (2007) and her analysis of housing affordability and financial stress, but with more specificity in terms of ownership and with the additional costs of home ownership factored in.

We also used the HES to investigate other types of debt that low-moderate income purchasers and outright owners had, including credit card debts and additional borrowing for non-mortgage purposes. We were testing the hypothesis that it may be some of these additional costs of servicing non-mortgage debt that lead to low-moderate income households accumulating mortgage arrears and putting their ownership at risk. This part of the analysis is in many respects a companion piece to an AHURI project on mortgage arrears and foreclosures (Berry et al. 2009, 2010).

Finally, in this stage, we modelled housing affordability for low-moderate income home purchasers using the residual income approach (applying to budget standards) rather than the 30/40 method which has been used in much Australian research. This was done to understand better the dynamics of low-moderate income home purchase. Our aim was to understand how many low-moderate income households are purchasing homes when the 30/40 affordability benchmark would suggest this was a non-rational and potentially financially problematic decision. Budget standards are calculated by the Social Policy Research Centre at the University of New South Wales (Saunders et al. 1998) and were indexed to 2009 to model borrowing capacity/residual income for households of different types and on different income levels. Applying the relevant budget standard expenditure for the income of each family type and taking this from the disposable income for the same household type created the residual income that was potentially available for a mortgage and enabled us to assess the degree to which a purchase was affordable. This approach takes into account the different expenditure levels of households of different sizes and offers a more nuanced approach to this issue than equivalisation of household income according to a simple formula. Further details of this method are given in Appendix 3.

4.2.4 Home ownership and building wealth (research question 3)

We carried out a detailed Melbourne case study to investigate to what degree low-moderate income purchasers have been able to build wealth through home ownership, taking into account time of purchase and spatial dimensions. This stage builds on prior work in Australia and New Zealand (see Section 3.2.3) but adds to the research evidence base by (a) using more recent data, (b) taking a longer time period 1981–2008 which includes periods of economic growth and recession, (c) having a particular focus on low-moderate income households or areas where low-moderate income households are more likely to purchase and (d) using data sets not available at the time of previous Australian studies, such as state Valuers-Generals' CURFs. Unfortunately there is no one data source that provided the necessary information for this research stage and thus a variety of sources are used.

During the analysis, it became clear that there had been significant housing market restructuring since 1981 which affected the range and type of areas in which low-moderate income households could purchase and the extent to which they were able to build wealth through accumulation of equity in their home. We investigated this further using four methods:

- Assessment of the change in price of properties bought and resold by households at two points in time, by geographic area. Using median price data of the Victorian Valuer-General's Property Sales Statistics, a calculation of net capital gains or losses was made for different areas of Melbourne, particularly lower price areas where there are likely to be higher proportions of low-moderate income purchasers.
- Modelling of case study households buying and selling homes through multiple transactions in the Melbourne metropolitan area 1981–2008 using Victorian Valuer-General's Property Sales Statistics. Households' dwelling consumption decisions are not static and many trade up, down and across a metropolitan housing market and may make a number of moves. The objective of the case study simulation is to assess whether such movement is important to building wealth.
- Analysis of repeat sales data from 1999 to 2008 by geographic area. This was achieved by geo-coding repeat sales of (the same) property using CURF data from the Victorian Valuer-General's Property Sales Statistics. The purpose of this was to assess the risk of households making a loss on their dwelling.
- Use of Victorian Valuer-General's Property Sales Statistics 1981 and 2008 and the 30 per cent affordability benchmark to calculate the spatial opportunities for low-moderate purchasers to acquire a dwelling.

The data sets used in this stage have a number of caveats. In particular, there is limited capacity to link household income data to sales data over time; in other words, it is difficult to relate household income data directly to wealth. Thus surrogates have to be used such as wealth changes in areas where there are high concentrations of low-moderate income purchasers. The problems here are:

- Not all low-moderate income purchasers live in lower price areas; many—perhaps most—are outside such areas, although as the market polarises (see later discussion) such concentration is becoming more common.
- Not all areas affordable to households on low-moderate incomes remain this way. Gentrification over time means areas become less affordable to such households as middle-higher income purchasers move in.

- → Household income is dynamic, and households are mobile and trade up and down, therefore we cannot assume that they stay in areas that were initially chosen because they were lower price and more affordable.

Where possible we recognise and adjust the method and data to accommodate at least in part these caveats and specific reference is made in the text where this has been done. More detail is also given in Appendix 5.

Finally, whilst this is a Melbourne case study, it should be possible to translate the findings and implications beyond Melbourne as major metropolitan housing markets across Australia with some minor differences in timing and geography traced much the same pattern of dwelling price growth and declining affordability over the study time period (which we discuss in detail in Chapter 7 and Appendix 5).

4.2.5 Qualitative research (research question 4)

In contrast with the statistical data explored above, the qualitative component of this study sought to explore the views, expectations and experiences of home purchase among households in a variety of locations characterised by lower house prices in the Melbourne metropolitan area.

The original research design envisaged interviews with up to 30 households. In order to achieve this number, several complementary sampling strategies were employed, but each with more limited success than anticipated. Sampling was targeted in three locations in outer metropolitan Melbourne (see area and sample characteristics at Appendix 6). Each was selected due to its relatively high proportion of low-moderate income recent purchasers, as well particular location characteristics.

Initially, a story about home purchase in each of the three regions was placed in local newspapers, with contact details about the study. A letterbox drop of flyers about the study was distributed to 600 households across the three locations, inviting participation in the study, followed up with a further advertisement in the local newspapers and another small letterbox drop. Flyers were also posted on noticeboards in public libraries, community and medical centres. Finally, snowballing from interviews was also attempted.

Despite these efforts, there was limited response. In almost all cases where potential participants contacted the research team, interviews were achieved. In those cases where they did not wish to participate, reasons given related to the time required for in-depth interviewing, rather than to content or other concerns. As will be seen in the analysis in Chapter 8, it appears that low-moderate income recent home purchasers have very limited time due to the demands of commuting to work and pressured family time, coupled with somewhat limited involvement in local activities. It is also possible that, as recent migrants form one of the groups participating in the study, language barriers may have made some households reluctant or unwilling to participate (given the small size of the study, interviews were conducted in English only).

The qualitative component is based on detailed, in-depth interviews with either one or two adult members of twelve households who volunteered to participate. Most were conducted in households' own homes. In the small number of cases where this was not possible, telephone interviews using the same semi-structured interview schedule were undertaken.

Consistent with the aims of this component of the research, in-depth questioning was undertaken about both expectations and experiences relating to financial, psycho-social and social factors. Interviews sought three main types of information:

- → Motivations for and expectations of home purchase.

- Experiences relating to the process of purchasing a home, including any trade-offs made in terms of house purchased or neighbourhood purchased in.
- Experiences of being a home purchaser, including how these have 'matched up' with expectations.

Additionally, a series of scenarios was presented to participants. The four scenario items focused on trade-offs and choices households make in their purchasing decisions, alternatives to home ownership and housing affordability. The items were aimed at eliciting more objective, distanced responses about home ownership generally, rather than focusing upon individual experiences. Basic demographic information was also collected.

While the material from these interviews is rich and provides insights into the relationships explored in this stage of the research, the small sample size limits the extent to which findings can be generalised. See Appendix 6 for further detail about the qualitative research.

4.3 Presentation of findings

In Chapters 5 to 8, we present the findings of the study. We report by research question drawing on the results of the analysis, using one or more research methods as indicated in Table 6.

5 PROFILE OF LOWER INCOME HOUSEHOLDS AND HOME OWNERSHIP, 1981–82 TO 2007–08

The aim of the project is to investigate whether low-moderate income households face additional risks associated with their income that prevent them from realising the projected financial and non-financial benefits of home ownership that we discussed in Chapter 3. This requires a more nuanced understanding of the role that household income plays in shaping experiences of home ownership over time and across different types of housing sub-markets. We start by identifying key trends around low-moderate income households and home ownership over time, based on detailed analysis of data from the ABS Survey of Income and Housing (SIH) 1981–82 and 2007–08.

The chapter proceeds as follows. First, we present broad changes in the profile of low-moderate income households by home ownership status over the study period. Second, we disaggregate changes in home ownership over this period by outright ownership and purchase. Our primary focus is on low-moderate income purchasers, who are likely to face greater financial and potentially non-financial risks, and in particular those who have bought in the last three years. Third, we present findings on the association between household income and housing affordability.

5.1 Broad trends in home ownership for low-moderate income households: Comparing 1981–82 and 2007–08

In this section we focus on households with incomes in the lowest 40 per cent of all Australian households. The position of low-moderate income households, defined in this way, in relation to home ownership over the period is shaped by the interaction of what has happened in the housing system and the wider economy and society, as discussed in Chapter 2. Political and public debate suggests that these have resulted in two problems. First, it is getting harder and harder to buy a home, particularly in state capitals, and many households are being squeezed out, which we refer to as ‘access affordability’. Second, and relatedly, low-moderate income households face ongoing problems in making regular repayments on their mortgages which exceed the established benchmark of 30 per cent of household income, which we refer to as ‘ongoing affordability’.

It is perhaps surprising, then, and somewhat counter institutive in view of these assumptions about the twin problems of access and ongoing affordability, that analysis of data on home ownership over the period 1981–82 to 2007–08 shows, at least at face value, a remarkable stability in regard to low-moderate income households. The percentage of all households who were either outright owners or purchasers on low-moderate incomes in 2007–08 was much the same as in 1981–82, as illustrated in Table 7. In both these periods, there are many more low-moderate income households who are outright owners than purchasers (a ratio of three low-moderate income owners for every one purchaser). Perhaps more surprising is that the percentage of all households who are low-moderate income home purchasers was almost identical in 2007–08 (6.0%) to what it was in 1981–82 (5.9%).

Table 7: Low-moderate income households by home ownership status as percentage of all Australian households, 1981–82 and 2007–08

Households	*1981–82*	*2007–08*
All households	(4 978 343)	(7 946 142)
Low-moderate income outright owners	20.0% (997 837)	18.8% (1 493 096)
Low-moderate income purchasers	5.9% (295 205)	6.0% (474 794)
Low-moderate income recent purchasers (last three years)	2.0% (97 084)	1.5% (119 724)
Low-moderate income first-time recent purchasers (last three years)	1.0% (48 990)	0.2% (16 185)

Source: CURF data, ABS SIH, 1881–82 and 2007–08.
Notes:
1. Low-moderate income refers to household income at and below the 40th percentile for all Australian households in 1981–82 and 2007–08 ($12,792 and $45,000 nominal respectively).
2. Household income is computed only from the household reference person and a spouse or partner if present.

Given that many home mortgages take 25 years to repay, the degree of stability reflected in Table 7 could be due to the ability of low-moderate income households to buy their own homes 15 to 20 years ago before the recent cycle of house prices increases began in 1997–98. However, underlying the aggregate data is a more complex story. The decline in affordability of the last decade or so can only be revealed through analysis of trends among more recent home purchasers. The percentage of low-moderate income purchasers who bought in the three years preceding the survey (low-moderate income recent purchasers) fell from 2 per cent of all households in 1981–82 to 1.5 per cent in 2007–08, as shown in Table 7. However, these figures may include many households who entered home ownership years ago and could use the accumulated equity in their home to enable a new purchase.

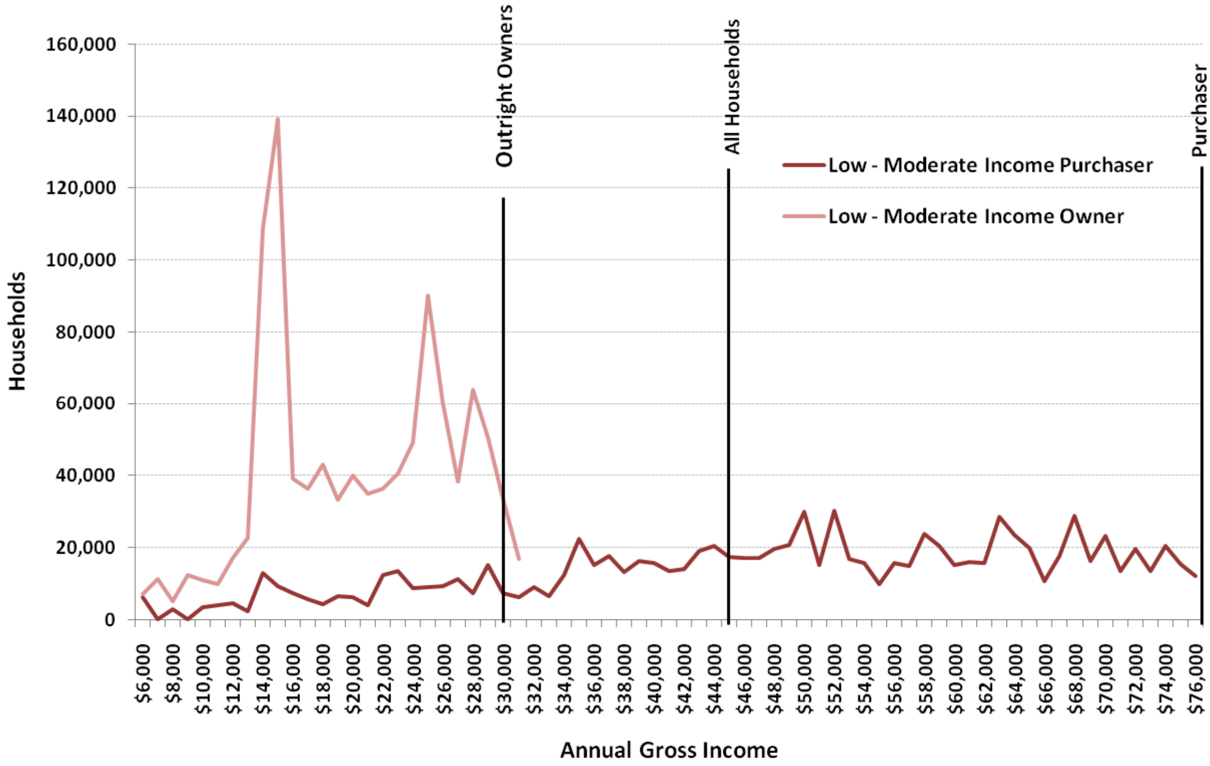
The sting in the tail in all this is the last row of Table 7 which looks at low-moderate income households who have bought for the first time in the three years prior to the survey (low-moderate income first-time recent purchasers). This group is a very small percentage of all households in both 1981–82 and 2007–08. However, the number of such purchasers has fallen markedly in both absolute and percentage terms. There were only 16 185 low-moderate income households purchasing their first home within the previous three years in 2007–08 compared to 48 990 in 1981–82, despite a 60 per cent increase in the number of households over that period. Thus, what appears to be a small change is likely to become a large trend over time as the lag effect plays out.

5.2 Disaggregating trends in home ownership by outright ownership and purchase: Comparing 1981–82 and 2007–08

As highlighted in Chapter 3 (Section 3.2.1), use of the lowest 40 per cent of all household income (households earning at or below $45 000 p.a. in 2007–08) disguises the quite different income profiles of outright owners and home purchasers and is likely to obscure trends over time, particularly in respect of home purchase.

Not only is the 40th percentile different, but the household income distribution of low-moderate income outright owners and purchasers is also very different, as highlighted in Figure 7. For the lowest two quintiles of household income of outright owners, two main ‘peaks’ of household income can be observed at the rate of the single age pension (the highest peak) and the couple age pension (second highest peak). For the lowest two quintiles of purchaser household income there is a flat distribution with no clear pattern except perhaps that below $36 000 the rate of ownership drops away, suggesting a minimum threshold income for purchase.

Figure 7: Distribution of household annual gross income for lower income owners and lower income purchasers showing 40th percentiles, Australia, 2007–08



Source: ABS SIH, 2007–08.
Note: The figure illustrates the two different 40th percentile cut-offs for outright owners ($31,000) and purchasers ($76,000). Also illustrated for comparison is the 40th household income percentile for all Australian households.

For this reason, and throughout the rest of this chapter, we use two different measures of low-moderate household income which differ for outright owners and purchasers. In 2007–08, the 40th percentile for purchasers ($76 000) was substantially higher than the 40th percentile for outright owners ($31 000). We use both these measures in Table 8 which shows differences in the socio-demographic characteristics of outright owners and purchasers in 2007–08 compared to 1981–82 and compares low-moderate income households (lowest two quintiles) on each measure with middle-higher income households (highest three quintiles) over the same time period.

Table 8: Socio-economic demographic characteristics of households in lowest two quintiles by home ownership status, Australia, 1981–82 and 2007–08

	Purchaser				*Owner*			
	Low-moderate income		*Middle-high income*		*Low-moderate income*		*Middle-high income*	
	1981–82	*2007–08*	*1981–82*	*2007–08*	*1981–82*	*2007–08*	*1981–82*	*2007–08*
All households	662 614	971 771	992 706	1 456 416	738 242	1 050 591	1 105 135	1 568 491
Income type								
Single	35.5%	52.1%	9.9%	13.3%	61.2%	61.6%	23.7%	23.3%
Dual	64.5%	47.9%	90.1%	86.7%	38.8%	38.4%	76.3%	76.7%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Household type								
Couple only	21.2%	13.4%	25.8%	27.2%	36.9%	31.6%	46.7%	46.0%
Couple with dependent children	49.1%	32.7%	59.9%	55.7%	4.0%	2.2%	29.3%	22.3%
Couple with non-dependent children	4.1%	8.7%	7.1%	7.0%	1.2%	6.4%	8.7%	12.8%
Single parent	7.3%	11.7%	1.0%	1.5%	3.3%	1.3%	2.2%	1.5%
Lone person	17.8%	26.0%	6.1%	5.4%	53.8%	47.8%	13.0%	14.3%
Other	0.5%	7.5%	0.1%	3.3%	0.7%	10.7%	0.1%	3.2%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Age group								
24 or less	3.2%	2.1%	4.1%	1.2%	0.1%	0.0%	0.4%	0.4%
25-44	57.1%	46.6%	69.7%	60.2%	4.7%	2.6%	25.9%	12.3%
45-64	32.8%	47.1%	25.8%	38.1%	31.2%	22.4%	54.3%	54.2%
65 and over	6.9%	4.2%	0.4%	0.6%	64.0%	75.0%	19.3%	33.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: CURF data, ABS SIH, 1981–82 and 2007–08.
Notes:
1. Low-moderate income is defined as household income at and below the 40th percentile and is computed separately for outright owners and purchasers. In the 2007–08 weighted data, the 40th percentile purchaser household income was $76 000 and $31 000 for outright owners. In the 1981–82 weighted data the 40th percentile for purchasers was $18 923 and for owners it was $8214.
2. Household income is computed only from the household reference person and a spouse or partner if present.

5.2.1 Low-moderate income outright owners

Turning first to low-moderate income outright owners (lowest two quintiles of outright owner household income), we note clear patterns across income groups and over time, indicated in Table 8 (Columns 6–9):

- Low-moderate income outright owners are predominantly single income households in contrast to middle-higher income outright owners who are predominantly dual income households (61.6% compared to 23.3% in 2007–08). There has been little change in this pattern over time.
- Very few low-moderate income outright owners have dependent children (3.3% in 2007–08 including both couple and single parent families). The percentage of middle-higher income outright owners with dependent children is higher but has declined (23.8% in 2007–08 down from 31.5% in 1981–82).
- The percentage of low-moderate income outright owners who are single person households remains high (47.8% in 2007–08 down slightly from 53.8% in 1982–82). The percentage of middle-higher income outright owners who are single persons is much lower (14.3% in 2007–08).
- The biggest group of low-moderate income outright owners are those aged 65 and over (75% in 2007–08 up from 64.0% in 1981–82). The percentage of middle-high income purchasers who are aged 65 years and over is lower but has also increased (33.0% in 2007–08 up from 19.3% in 1981–82).

The biggest change in the profile of outright owner households lies therefore in the age composition. It appears as though low-moderate income outright owners are mainly those who are likely to have retired from the workforce. This is in contrast to middle-high income outright owners, more than half of whom are in the 45–64 years age group. However, the age profile of middle-higher outright owners also appears to be ageing with the percentage aged 25–44 years declining markedly by 2007–08. This does not necessarily indicate that such households could not pay off their mortgage until later. They may have decided to take out another mortgage and 'trade up' and be counted as purchasers rather than outright owners. It may be that middle-higher income outright owners in 1981–82 were satisfied to remain in place once they paid off their mortgage. However, home ownership over the years is increasingly seen as an investment opportunity and hence means of building wealth which, as we shall see in Chapter 7, entails borrowing more and 'trading up' in the housing market rather than paying off a mortgage. This process has been facilitated by deregulation of the financial sector and the more ready availability of credit since the mid-1980s.

5.2.2 Low-moderate income purchasers

Turning next to low-moderate income purchasers (lowest two quintiles of purchaser household income), there are some important changes in composition of this group between the two time periods and in comparison with middle-higher income purchasers, shown in Table 8 (Columns 2–5). There are some significant changes in respect of single and dual income households:

- Low-moderate income purchasers comprise single income households in 2007–08 to a much greater extent than do middle-higher income households (52.1% compared to 13.3%).
- Low-moderate income purchasers comprise single income households to a much greater extent in 2007–08 than in 1981–02 (52.1% up from 35.5%).

The growing share of low-moderate income purchasers who are single income households has two potential explanations. First, it could be that dual income households are squeezing out single income households in higher income quintiles. Intuitively this sounds compelling but single income households also increased their share of middle-higher income purchaser households. In part this reflects demographic change: the growth of single person and sole parent households in Australia generally. Second, there is an alternative explanation that the deregulation of the financial sector, and housing finance in particular, created the opportunity for more singles, particularly female headed households, to access housing finance and for singles with their lower living expenses to be able to borrow more for a given income (to be discussed in Chapter 6, Section 6.1). Whatever the reason, the data suggest a polarising of the home purchase market, with low-moderate income purchasers increasingly characterised by single incomes and middle-higher income purchasers still comprising predominantly dual income households.

Perhaps the biggest change in the composition of low-moderate income purchasers from the early 1980s is in composition by household type, as illustrated in Table 8:

- The percentage of low-moderate income purchasers who are couples with dependent children has decreased markedly (32.7% in 2007–08 down from 49.1% in 1981–82).
- The percentage of middle-higher income households who are couples with dependent children, in contrast, has experienced only a slight decline in the same period (55.7% in 2007–08 down from 59.9% in 1981–02).
- There has been some increase in the percentage of low-moderate income purchasers who are single person households (26.0% in 2007–08 up from 17.8% in 1981–82).

This suggests that households on low-moderate purchaser incomes (up to $76 000) now have difficulty in both having children and buying a home. Part of the explanation might be a decrease in the percentage of all households who are couples with dependent children. However, if this was the case, we would expect the percentage of middle-higher income households with children to decline sharply as well which has not been the case. There has been an increase in the percentage of low-moderate income purchasers who are single parents, reflecting an increase in this household type over the period, but this does not offset the declining percentage of low-moderate income purchasers who are couples with dependent children.

There are further changes in the composition of low-moderate income purchasers when we look at the age profile:

- A lower proportion of low-moderate income purchasers are now in the key 25–44 year old age group (46.6% in 2007–08 down from 57.1% in 1981–82).
- Although there has been some decline over time, most middle-higher income purchasers were in the 25–44 years age cohort in 2007–08 (60.2% down from 69.7% in 1981–82).
- The percentages of low-moderate income purchasers in the 45–64 year old cohort have increased (47.1% up from 32.8% in 1981–82.

Low-moderate income purchaser households are older than 26 years earlier. Although this cannot be established from the data, there is an implied risk that some of these low-moderate income purchasers may be faced with mortgage repayments later in their working life when income may decline for health and other reasons, and even into retirement, with all the associated financial risks. This corresponds with the findings of a recent study by Yates and Bradbury (2010) which outlines the problems of a superannuation system premised on the assumption of outright ownership in older age.

5.2.3 Recent low-moderate income purchasers

As indicated previously, one of the main problems in considering trends in home purchase is the lag effect: small incremental changes which are barely observable in any one year can compound over the years to produce major changes in purchase and ownership patterns. In this section, we focus therefore on recent low-moderate income purchasers, defined as those who bought within the three years prior to the survey data being collected. Analysis of this group, as presented in Table 9, may well presage changes in future years.

Table 9: Households purchasing their current dwelling within the last three years by household income and first-time or change-over buyer, Australia, 1981–82

	Low-moderate income purchasers		*Middle-higher income purchasers*		*All purchasers*	
	1981–82	*2007–08*	*1981–82*	*2007–08*	*1981–82*	*2007–08*
First dwelling	56.0%	40.2%	55.2%	40.6%	55.5%	40.5%
Change-over buyer	44.0%	59.8%	44.8%	59.4%	44.5%	59.5%
Total	100%	100%	100%	100%	100%	100%
Households	244 921	237 132	403 909	432 778	648 830	669 910

Source: CURF data, ABS SIH, 1981–82 and 2007–08.
Notes:
1. Low-moderate income is defined as household income at and below the 40th percentile for all purchasers. In the 2007–08 weighted data, the 40th percentile purchaser household income was $76 000 and in 1981–82 was $18 923 (nominal).
2. Household income is computed only from the household reference person and a spouse or partner if present.

It appears from Table 9 that:

- The percentage of low-moderate income purchasers buying a first home within the previous three years compared to change-over buyers declined markedly (40.2% in 2007–08 down from 56.0% in 1981–82).
- The percentage of middle-higher income purchasers buying a first home within the previous three years showed a similar decline.

The increasing importance of change-over purchases for all home purchasers suggests that the reason behind the change is not only about level of household income but a more widespread issue of affordability. Change-over buyers are becoming a larger share of the recent purchase market, with their purchasing capacity and confidence no doubt fuelled by the substantial increase house prices (and for many households their equity) in recent years.

When we look at first-time recent low-moderate income purchasers (bought within last three years) in more detail comparing 1981–02 and 2007–08, in Table 10, a number of trends can be observed:

- Single income households are now almost two-thirds of first-time recent low-moderate income purchasers (64.2% up from 34.2% in 1981–02).
- The percentage of first-time recent low-moderate income purchasers who are couples with dependent children has plummeted (21.7% in 2007–08 down from 54.6% in 1981–02).
- The percentage of first-time recent low-moderate income purchasers who are lone persons has increased equally dramatically (40.1% in 2007–08 compared to 24.8% in 1981–82).

- The percentage of middle-higher income purchasers who are couples with dependent children has also declined but not to the same degree as for low-moderate income purchasers (36.8% in 2007–08 down from 44.4% in 1981–82).

Table 10: Households purchasing their first home within the last three years by household type and type and level of household income, Australia, 1981–82

`	*Low-moderate income purchaser*		*Middle-higher income purchaser*	
	1981–82	*2007–08*	*1981–82*	*2007–08*
Household type				
Couple only	14.7%	15.5%	43.0%	44.1%
Couple with dependent children	54.6%	21.7%	44.4%	36.8%
Couple with non-dependent children	1.5%	6.4%	2.2%	2.4%
Single parent with dependent children	4.4%	9.2%	0.1%	0.2%
Lone person	24.8%	40.1%	10.3%	12.5%
Other	0.0%	7.3%	0.0%	4.1%
Total	100%	100%	100%	100%
Household income				
Single	34.2%	64.2%	12.7%	20.0%
Dual	65.8%	35.8%	87.3%	80.0%
Total	100%	100%	100%	100%
Households	137 205	95 283	222 786	175 724

Source: CURF data, ABS SIH, 1981–82 and 2007–08 Notes: As for Table 9.

5.3 Low-moderate income purchasers and housing affordability

In Chapter 2, we saw that there has been a steady erosion of housing affordability since the early 1980s, as measured by the ratio of median house prices to annual household income, only interrupted by a short period of improvement in the early 1990s (Figure 4). This would suggest a hypothesis that declining affordability measured in this way has affected access to housing; in particular, one would expect a weakening of the ability of households on low-moderate incomes to purchase in the study period. However, as indicated earlier in this chapter, the position of low-moderate households has been remarkably stable over time, although there are clear signs of recent weakness. In the face of the rising dwelling prices and declining affordability over this long period, the relative stability seems a paradox. The answer to a large degree lies in the changed nature of the mortgage market post-financial deregulation and associated household willingness, or necessity, to take on a larger debt burden to afford house purchase.

Consider the position of a household where the male income earner in 1981–82 was earning \$38 000 (in 2008 prices) and his partner, perhaps in part-time employment, was earning \$22 000. In the more restrictive lending environment of that era (25% deposit and payments no more than 30% of income) they could typically have borrowed around \$144 500. In 2007–08 with a much more relaxed lending regime (10 per cent deposit and payments related to what finance institutions see as enough income left over after paying the mortgage to cover the basics), they could borrow $290 000 or more (also in 2008 prices).[8] One effect of this increased borrowing capacity is that low-moderate income households have been able to take out much larger mortgages relative to their household income than in the early 1980s, with higher repayments relative to household income as a consequence.

We test this out by examining the percentage of household income paid by low-moderate income purchasers in 2007–08 compared to 1981–82. Table 11 shows that many low-moderate income purchasers are paying higher percentages of household income now:

- In 2007–08, 44.8 per cent of low-moderate income purchasers had mortgage payments of 30 per cent of household income, up from 20.7 per cent in 1981–82.
- The proportion of low-moderate income purchasers paying over 40 per cent of household income on mortgages was 27.4 per cent in 2007–08, double the 13.0 per cent in this situation in 1981–82.

The changes for recent low-moderate income purchasers (who bought within the previous three years) are even more dramatic:

- In 2007–08, only 39.3 per cent of recent low-moderate income purchasers met the affordability benchmark of paying no more than 30 per cent of household income on mortgage repayments compared to 61.5 per cent in 1981–02.
- The proportion paying more than 40 per cent of income on mortgages was 38.4 per cent in 2007–08 compared to 21.4 per cent in 1981–82.

In contrast, the percentages of middle-higher income purchasers not meeting the affordability benchmark of 30 per cent of household income on mortgage payments is much lower, as illustrated in Table 12. In 2007–08, 12 per cent of these households paid more than 30 per cent of household income on mortgage, up from a very low 2.6 per cent in 1981–82.

However, whilst it appears that paying high percentages of household income on mortgage repayments is disproportionately a low-moderate income phenomenon, the benefits and risks for these households are less clear. If low-moderate income purchasers had not been able, and prepared, to take out large loans (and large repayments) in order to buy, they may have faced greater risks in the private rental sector. These include increased rent levels over which they have little control, except to move to a cheaper rental if available, and having to live with the increased instability and insecurity that is part and parcel of the sector. In Chapter 6, we take this point further by examining whether paying high percentages of household income on mortgage payment does constitute hardship for households using the alternative budget standard measure of housing affordability. It may well be that households are making trade-offs between buying a home and other aspects of living which they deem less important.

[8] The amounts they could borrow vary slightly according to the different mortgage calculators provided by major home lenders.

Table 11: Low-moderate income purchasers by affordability benchmark and length of purchase, Australia, 1981–82 and 2007–08

% of household income on mortgage costs	*Bought current home within last 3 years*		*Bought current home more than 3 years ago*		*All lower income home purchasers*	
	1981–82	*2007–08*	*1981–82*	*2007–08*	*1981–82*	*2007–08*
Less than 30%	61.5%	39.3%	86.6%	60.6%	77.3%	55.3%
30-39%	17.1%	22.3%	5.4%	15.7%	9.7%	17.4%
40% and above	21.4%	38.4%	8.0%	23.7%	13.0%	27.4%
Total	100%	100%	100%	100%	100%	100%
Households	244 921	242 347	417 693	729 424	662 614	971 771

Source: CURF data, ABS SIH, 1981–82 and 2007–08.
Notes:
1. Low-moderate income is defined as household income at and below the 40th percentile for all purchasers. In the 2007–08 weighted data, the 40th percentile purchaser household income was $76,000 and in 1981–82 was $18,923 (nominal).
2. Household income is computed only from the household reference person and a spouse or partner if present.

Table 12: Middle-higher income purchasers by affordability benchmark and length of purchase, Australia, 1981–82 and 2007–08

	Bought current home within last 3 years		*Bought current home more than 3 years ago*		*All middle-higher income purchasers*	
	1981–82	*2007–08*	*1981–82*	*2007–08*	*1981–82*	*2007–08*
Less than 30%	95.3%	80.4%	98.8%	91.3%	97.40%	88.0%
30-39%	2.8%	13.1%	0.8%	4.9%	1.60%	7.4%
40% and above	1.9%	6.5%	0.4%	3.7%	1.00%	4.6%
Total	100%	100%	100%	100%	100%	100%
Households	403 909	444 542	588 796	1 011 875	992 706	1 456 416

Source: CURF data, ABS SIH, 1981–82 and 2007–08.
Notes:
1. Middle-higher income is defined as household income above the 40th percentile for all purchasers. In the 2007–08 weighted data, this refers to the highest three income quintiles (highest 60 per cent) of households earning in excess of $76,000 in 2007–08 and $18,923 in 1981–82 (nominal).
2. Household income is computed only from the household reference person and a spouse or partner if present.

What is perhaps of most interest in Tables 5.5a and 5.5b is the different position of purchasers who bought within the last three years and those who have been purchasing for longer. Such data although rarely used are very important as the credit foncier mortgage, which is still the standard Australian mortgage instrument, is based on repayments relative to income decreasing over time. The results highlight significant problems associated with recent home purchase:

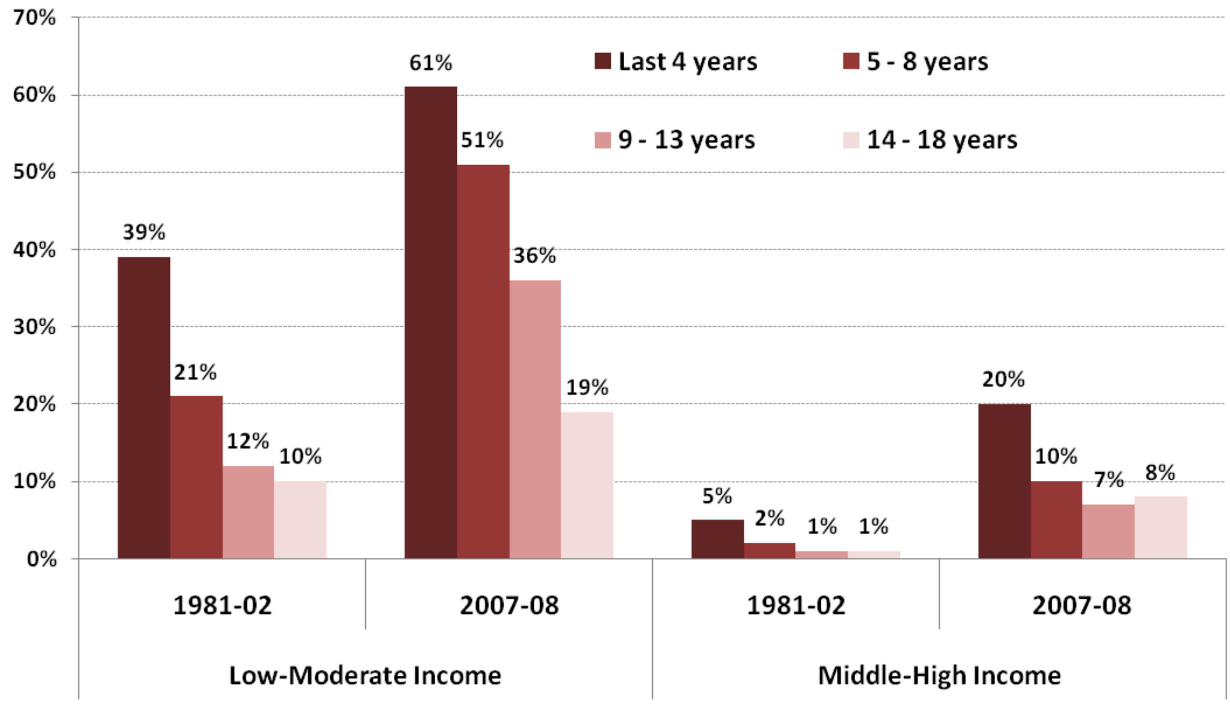
- Six in 10 recent low-moderate income purchasers had repayments in excess of 30 per cent of income (60.7% up from 38.5% in 1981–82).
- Almost four in 10 recent low-moderate income purchasers (38.4%) paid 40 per cent or more of household income on mortgage repayments (38.4% up from 21.4% in 1981–02).

- Amongst recent middle-higher income purchasers, almost one in five (19.6%) paid more than 30 per cent of income in mortgage payments, although the change-over time was less stark than for low-moderate income households.

The data presented in Tables 5.5a and 5.5b illustrate the importance of disaggregation. The ABS SIH does provide the data that enable this analysis. We can see that with the effects of time, even for low-moderate income purchasers, the percentage of households paying higher percentages of their income in mortgage repayments falls markedly. These are average figures, and it is not possible to tell from the data exactly when payments begin to constitute a lower percentage of household income, but it is after the three year mark.

Figure 8 illustrates this point more vividly. In the first four years of purchase, six in 10 low-moderate income purchasers pay mortgages in excess of 30 per cent of their household incomes. This declines to 51 per cent for five to eight years of ownership but is still 19 per cent after 14 plus years. By contrast in 2007–08 only 20 per cent of middle-higher income purchasers who had bought within the past four years paid more than 30 per cent of income and this rate declined thereafter. This suggests that middle-higher income households have the ability to pay down their mortgage much faster. Note for both groups the dramatically different patterns between the two time periods, indicating more severe problems in 2007–08, particularly for low-moderate income purchasers.

Figure 8: Percentage of low-moderate and middle-higher income households whose mortgages exceed 30 per cent by length of purchase, Australia, 1981–82 and 2007–08



Source: CURF data, ABS SIH, 1981–82 and 2007–08.

It appears that it is recent low-moderate income purchasers who face the greatest financial risks associated with home purchase. Since we know that rates of default remain low (Berry et al. 2009, 2010), it appears that the main risk is in reconciling mortgage payments with other expenses, which we investigate further in Chapter 6, analysing data from the ABS Household Expenditure Survey (HES).

5.4 Summary

Almost three decades of social and economic change have, on the surface, not brought about any remarkable change in home ownership when aggregate data are viewed. However, by examining changes within the population of low-moderate income house purchasers, comparing 1981–82 to 2007–08, we can identify some important and potentially worrying trends of social and policy significance. The lag effect associated with home ownership as households repay mortgages over 25 to 30 years means that small changes discernible in any one year may compound over time to produce significant changes in patterns of home ownership in Australia.

The number of low-moderate income purchased households (using the lowest 40% of household income of all Australian households) is getting fewer and fewer over time. This is likely to mean an increasingly inequitable housing market whereby only the relatively affluent will be able to buy a home and realise the clear financial and non-financial benefits that attach to home ownership, as seen in Chapters 7 and 8. It could also be expected to lead to a decline in overall rates of home purchase and, subsequently, ownership.

Low-moderate income home purchase (defined as the lowest 40% of all purchaser households) has been sustained through purchasers taking on large mortgages with repayments which exceed established affordability benchmarks based on a ratio of mortgage payments to household income, particularly in the case of more recent purchases. It has also been sustained more than might have been the case because many such purchasers face repaying loans at a later age in 2007–08 than in 1981–82. This may not be a problem for some households in view of policies to encourage people to work for longer, but others will face the problem of having a mortgage as their income earning potential declines, and even into retirement.

The composition of low-moderate income purchasers is changing. Once most were families with children, now they are singles couples without children. Some of this may be explained by demographic change but it also appears that families with children have borne the brunt of affordability problems. This may be compounded by the additional expenses associated with households including children, which we investigate further in the next chapter.

6 HOUSING COSTS, HOUSING AFFORDABILITY AND FINANCIAL RISK

This chapter examines the extent and degree of risk facing low-moderate income home purchasers in the context of other aspects of their financial situation. It examines the ongoing household expenditures associated with home ownership: mortgage repayments and additional housing expenditures incurred by owners such as property rates, in the context of households' non-housing living expenses and their overall debt and savings situation. Whilst the focus is on low-moderate income home purchasers, who face the greatest financial risks, the chapter also investigates the ongoing expenditures facing low-moderate income outright owners. The findings presented in this chapter are derived from application of the residual income approach to housing affordability using budget standards developed by the Social Policy Research Centre (SPRC) at the University of New South Wales and analysis of data from the ABS Household Expenditure Survey (HES) 2003–04 [9] as discussed in Chapter 4 (Section 4.2.3), with the more technical details provided in Appendices 3 and 4).

The chapter has four parts and it proceeds as follows:

- It identifies and applies measures of home purchase affordability, which go beyond the 30/40 affordability benchmark, to detail the extent and type of financial risk facing different types and sizes of households among low-moderate income purchasers.
- It identifies the additional housing expenditures that households face as a consequence of home purchase.
- It investigates the degree to which to the accumulation of mortgage and additional housing expenditures, along with other expenses of living and servicing other forms of debt, can explain the financial risks for low-moderate income home purchasers (and owners) or affect their capacity to manage such risk.
- It explores whether, and to what degree, low-moderate income purchasers (and owners) have the capacity through any savings to cope with financial risks associated with home ownership and other debt.

6.1 Household financial risk and measuring housing affordability

There are two paradoxes about home purchase that lie at the heart of research into housing affordability in Australia in recent years.

- Paradox 1: How is that low-moderate income purchasers are still able to buy housing at prices that appear unaffordable using the 30 per cent of household income affordability benchmark, apparently putting themselves in a risky financial situation?
- Paradox 2: If mortgage stress for low-moderate income purchasers is as extensive as indicated in research using the 30 per cent of household income affordability benchmark, why are rates of mortgage arrears and defaults in Australia so low? In other words, why do apparently high levels of risk not translate into financial failure?

Central to consideration of both of these paradoxes is how we measure problems of housing affordability. Do existing affordability measures provide an adequate

[9] The HES is now to be conducted every six years. The most recent available is 2003-04.

understanding of the degree of risk associated with low-moderate income home purchase? The widely used 30/40 affordability benchmark enables measurement of broad changes over time and the potential for financial risk. Whether the potential translates into financial hardship, and even financial crisis, requires different measures and a more nuanced understanding of the affordability problem.

The limitations of the ratio or benchmark method have been well recognised (e.g. Stone 2009). First, there are problems in having one simple ratio for all households whatever their income. In practice some low-moderate income purchasers paying less than 30 per cent of their limited household incomes on mortgage repayments may not have enough money left over to meet their other non-housing expenditures. In contrast, some middle-high income purchasers may be comfortably able to afford to pay more than 30 per cent of household income on mortgage repayments and have more than enough money left for non-housing expenses. Second, the question of affordability of mortgages is inextricably linked with non-housing expenditures, which vary according to household size and type.[10]

In examining the financial risks associated with low-moderate income home purchase, a more nuanced analysis is required. In this section we use a 'residual income' approach, in which we estimate for different sizes and types of households expenditures required to meet their non-housing needs at a specified level of adequacy and then calculate how much this leaves for mortgage expenditures.[11]

6.1.1 Paradox 1

Why can low-moderate income households still afford to buy even though many would appear to be in mortgage stress using affordability benchmarks?

To create a residual income measure of affordability, the study used the 'Low Cost' and 'Modest but Adequate' indicative budgets standards developed by the SPRC to identify expenditures. The SPRC data derives a Low Cost budget standard for 20 different household types and the Modest but Adequate budgets for 26 household types, the greater number for the latter reflecting a greater array of owner-occupier household types (Saunders et al. 1998). These two budget standards provide the non-housing household expenditure data. In regard to household income, a sliding scale of incomes was created from $30 000 p.a. and up in $1000 increments adjusted for (a) the relevant taxation for each income level and (b) income support payments such as Family Tax Benefit A and B (see Appendix 3 for details).

Applying the relevant budget standard expenditure for the income of each household type, and deducting this from the disposable income for the same household type creates the residual income potentially available for a mortgage. This enables the generation of a model which shows the maximum weekly mortgage costs affordable for household incomes above $30 000 per annum. Here will illustrate the findings for a single income household (Figure 9) and a couple with two children (Figure 10). This method can replicated for other household types but only these two household are used here to illustrate the concept.

[10] Research using the 30/40 affordability benchmark recognises this in different ways. For example, Yates and Gabriel (2006) use the net equivalised household income distribution to establish the low two quintiles. This effectively reduces the household income of larger households to account for their greater non-housing expenditures. See Appendix 2 for further details.

[11] Work is proceeding on a parallel AHURI project (Stone, Burke and Ralston 2010) to test the validity of the residual income method for a range of research and policy purposes, building on earlier work by Burke and Ralston (2003), Waite and Henman (2006) and Yates (2007). Here we offer some preliminary observations on low-moderate income home purchase using this approach and modelling incomes rather than applying an existing data set.

Figure 9: Maximum affordable mortgage repayments using two types of budget standard and two measures of housing affordability, single person household

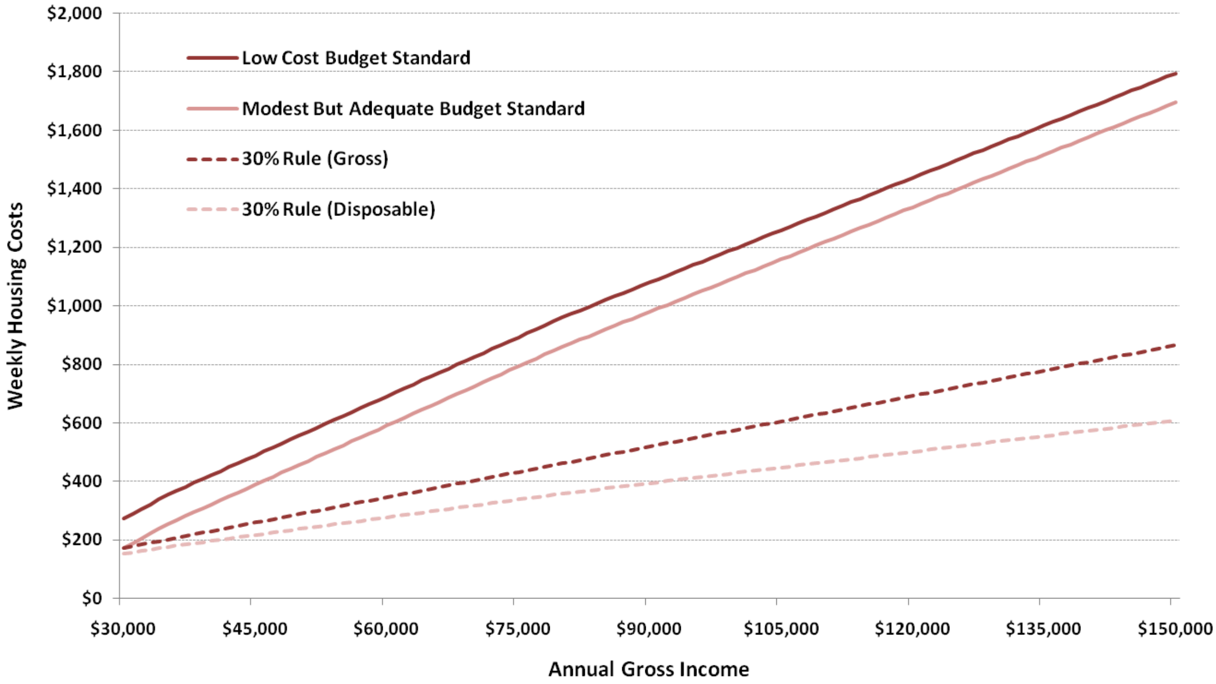
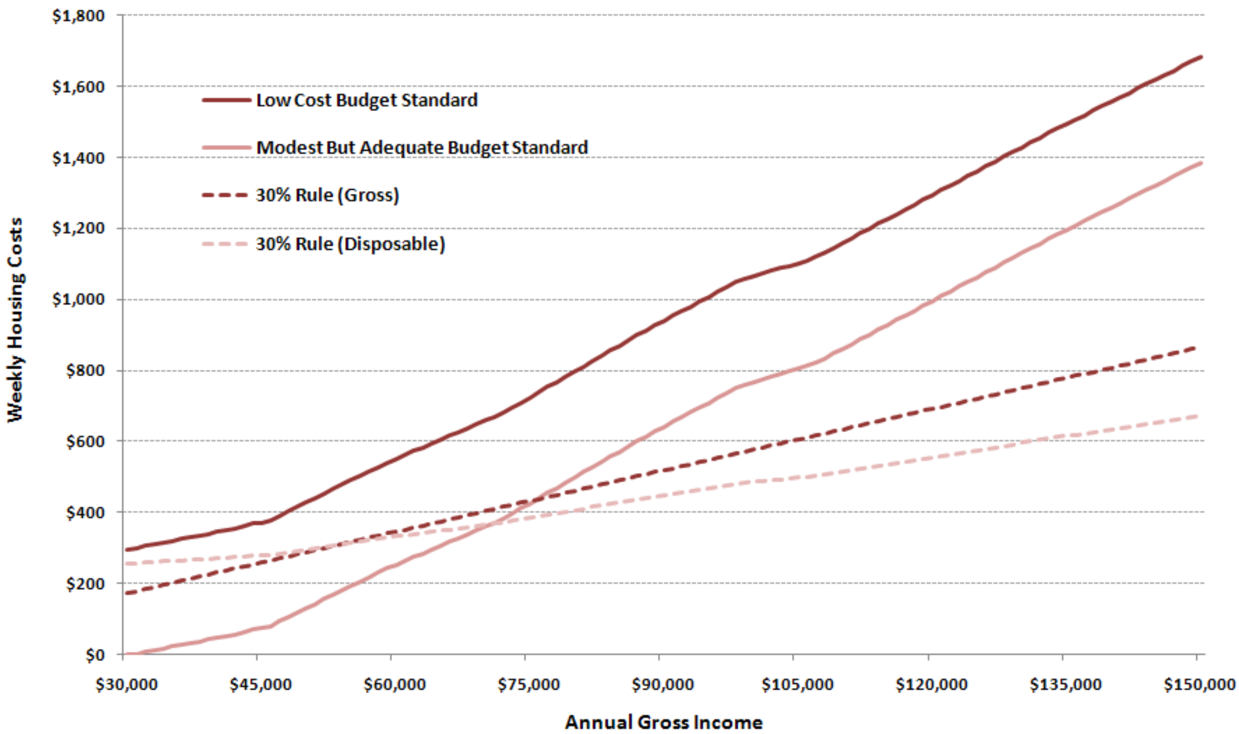


Figure 10: Maximum affordable mortgage repayments using two types of budget standard and two measures of housing affordability, couple with two children



Note: Details of the methodology employed in Figures 6.1a and 6.1b are set out in Appendix 3.

This analysis has three important implications. Firstly, there is a big difference in purchasing affordability for the two household types, as illustrated in Figures 6.1a and 6.1b. A single person willing to live on the Modest but Adequate budget standard can afford to pay much more per week on housing expenditures than using a maximum of 30 per cent of income benchmark, however measured. The situation is very different for the couple with two children, however, due to their higher non-housing expenditures. Up to the 40th percentile of household income for purchasers, using the Modest but Adequate Budget Standard illustrates that they can afford to pay less than if the 30 per cent of household income (however measured) was applied.

Secondly, many people have speculated on how some low-moderate income home buyers are able to afford the high prices of recent years, particularly if they are first time purchasers who do not have more than a minimum deposit. The residual income method, based on budget standards, offers an explanation.

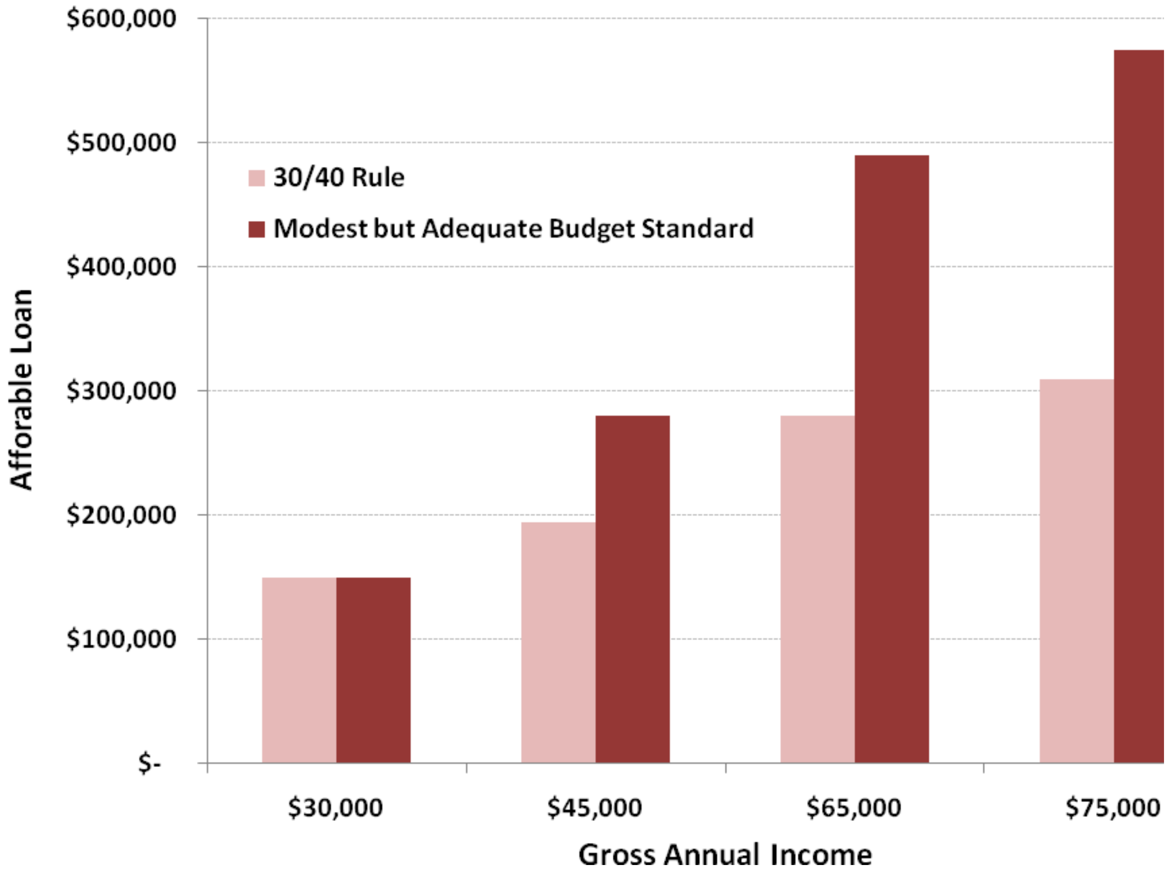
For a single person, single income household, there is little difference between the amount that they could borrow using the two measures. However, on an income of $65 000 p.a., a single person would only be able to borrow $255 000 if they are not to exceed 30 per cent of their income. Using the Modest but Adequate budget standard, they could afford to borrow up to $455 000,[12] as illustrated further in Figure 11. The household might be living modestly to achieve the latter loan size but, provided that there were no other issues which affected their expenditures (e.g. maintenance payments to children of a previous marriage), they could afford the repayments if this is how they set their priorities.

The situation is very different for the couple with two children (not illustrated). Up to the 40th percentile of household income for home purchasers ($76 000 p.a. as discussed in Chapters 3 and 5), they can borrow less using the Modest but Adequate budget standard than using a simple 30 per cent of household income approach. For the same household income of $65 000 per annum, the household with two children cannot afford to devote more than 17 per cent of their income to mortgage repayments and, using this measure, could only afford to borrow $151 000 compared to $277 000 using the 30 per cent of household income ratio.[13] The additional living expenses of households with children constrain their ability to borrow and therefore afford housing even in lower price areas. These findings may account for the declining number of low-moderate income purchasers who are households with children and the increasing proportion who are single person, single income households (as discussed in Chapter 5).

[12] Assumptions are: 10 per cent deposit, mortgage repayable over 25 years, average interest rate 6 per cent.

[13] Assumptions as per footnote 4 above.

Figure 11: Comparison of affordable loans for single person single income households on different levels of income, comparing two measures of housing affordability



Source: Amortisation data derived from MortgageX-mortgage information service, http://mortgage-x.com/calculators/amortization.htm
Note: The 30 per cent is calculated on gross household income.

Many low-moderate purchasers have been able to afford the higher house prices of recent years so long as they are willing to forego a few luxuries and live to a Modest but Adequate budget standard. If they are willing to forego a little more and live on the Low Cost budget standard they can borrow even more. The qualitative research presented in Chapter 8 indicates that some households are prepared to live modestly to afford buy a house which they hope will give them key non-financial benefits associated with home ownership: security, control and stability.

Thirdly, the analysis also suggests the notion of price points for affordable housing for low-moderate income purchasers. Using the example of the single person, single income households in Figure 9, at $30 000 annual income neither affordability measure indicates anything that would be affordable while at $45 000 income, particularly for singles, some apartments would be affordable. At $65 000 very little is affordable using the 30/40 benchmark but the market is opening quite widely using the Modest but Adequate budget standard, particularly if the person is happy with a unit/apartment. If we apply this analysis to the couple with two dependent children, the price points for affordability are pushed out considerably if using the Modest but Adequate budget standard. However, if the Low Cost budget standard is used, this household type could afford a weekly mortgage cost of $590 (as shown in Figure 10) and therefore have the borrowing ability to afford a dwelling up to around $450 000. As such a household, unlike that of a single person, would most likely be looking for a three bedroom dwelling, their actual choices would be much more limited, largely confined to the outer suburbs (which we discuss further in Chapters 7 and 8). They would also be living on a poverty line income.

Using the residual approach to housing affordability, through the application of budget standards, helps unpack the different situations facing different types of households on the same level of household income. Such an analysis has the potential to inform and assist households as well as giving guidance to public policy, and for the housing and development sectors, on what may be feasible affordable housing products for different types of households.

6.1.2 Paradox 2

Why is there such a discrepancy between apparently high rates of mortgage stress and low rates of mortgage arrears and defaults?

There has been a considerable amount of research showing that mortgage stress for low-moderate income purchasers has increased over the last decade and that both the absolute numbers and percentages involved are high. There are various estimates of the extent of this problem, using a variety of methodologies (reviewed in Yates and Gabriel 2006 and Nepal et al. 2010). For example, Yates and Gabriel (2006: Table 1.5) in work for AHURI's National Research Venture 3 on Housing Affordability for Lower Income Australians found that 49 per cent of purchasers in the lowest two income quintiles were in mortgage stress.[14]

Despite this evidence of potential financial risk, rates of mortgage arrears and default rates have remained very low during the 2000s, at a time of great public and political concern about housing affordability and mortgage stress. Even at the bottom of the GFC, rates of mortgage default in Australia were only marginally above long-term trends (Berry et al. 2009, 2010).

It appears that the 30 per cent of household income should be seen as a measure of financial strain, not of risk, and therefore the commonly used term 'mortgage stress' is appropriate. This suggests that households might be doing it hard and with a degree of financial strain which might affect personal and household wellbeing but does not necessarily imply financial hardship and risk of mortgage default. To investigate financial risk further, we again use the residual income approach to affordability. This time, we use the Low Cost budget standard as it suggests if a household's housing costs exceed the capacity to afford the basics of life then they are in financial trouble. We call this a measure of financial risk to distinguish it from the conventionally used mortgage stress.

Using data on household income and household type from the Survey of Income and Housing (2007–08) and the Low Cost budget for key household types (singles, single parents with 1 and 2 children, couples with 1, 2 and 3 children, and couples without children), we calculated the proportions of households at each income level that are at financial risk. This is then compared to the numbers and percentage in mortgage stress using the 30 per cent of household income benchmark, measured in two ways (equivalised and unequivalised income).

As shown in Table 13, for low-moderate income purchasers with incomes between \$30 000 and \$75 000 gross, there are substantially lower percentages of households

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[14] As noted previously, the lowest two income quintiles are derived from the equivalised net household income distribution of all Australian households and households are in mortgage stress if they are paying more than 30 per cent of their gross household income in mortgage repayments (see Yates and Gabriel 2006).

in financial hardship using the residual income approach and applying the Low Cost budget standard than when we apply the 30 per cent of household income method using either equivalised or unequivalised household income. Using the Low Cost budget standard indicates that the households facing the most severe problems are those with gross household incomes below $50 000 per annum. At a household income of $60 000 and above, the percentages in financial hardship are very low compared to using either of the ratio measures. Both the residual income approach using Low Cost budget standard and the 30 per cent of household income (equivalised) take into account in different ways the different non-housing expenditure requirements of households of different types/sizes and are thus more accurate than using 30 per cent of unequivalised household incomes (Table 13, columns 6 and 7).

Table 13: Number and percentage of households in financial hardship using three different measures of housing affordability, 2007–08

Annual gross household income	*Low cost budget standard*		*30 per cent of equivalised household income*		*30 per cent of unequivalised household income*	
	No. of households	*% of households*	*No. of households*	*% of households*	*No. of households*	*% of households*
$30 000	13 161	35.9%	36 426	39.5%	16 077	43.5%
$35 000	15 459	32.0%	36 692	37.6%	27 745	57.5%
$40 000	18 526	36.0%	12 789	24.2%	26 403	50.4%
$45 000	15 547	23.3%	20 920	38.4%	30 512	45.3%
$50 000	16 867	19.7%	14 431	37.3%	41 361	46.6%
$55 000	7 209	12.3%	9 379	40.9%	23 874	40.7%
$60 000	2 959	4.3%	5 913	24.7%	19 887	29.1%
$65 000	6 224	9.1%	4 646	19.3%	22 990	33.1%
$70 000	5 694	8.5%	4 265	28.9%	19 318	25.9%
$75 000	815	1.5%	4 400	24.3%	12 654	24.9%
All	175 082	25.4%	308 774	43.3%	308 773	43.3%

Source: CURF data, ABS SIH, 2007–08.

In short, mortgage stress defined as paying more than a percentage of household income on mortgage repayments is not the same as financial hardship. Many households may experience financial strain, particularly in the early years of a mortgage, but fewer are in financial hardship as indicated by the Low Cost budget standard measure.

Finally, we wanted to investigate circumstances where financial hardship was likely to become financial crisis, using data from the ABS HES. This asks six questions around personal wellbeing, such as whether the household could afford a holiday at least once a year, and seven questions around financial wellbeing, including ability to pay utility bills and to raise money in an emergency. These personal and financial wellbeing indicators have been used previously for housing affordability research, including Bray (2001), Burke and Ralston (2003) and Yates (2007).[15] In this study, the objective was to estimate what percentage of low-moderate purchaser households may be at risk of financial crisis. This would indicate risk of financial crisis leading to

[15] There is a good overview of the history of such research and methods used in Yates (2007: 5-14).

mortgage arrears and default rather than potential mortgage stress or financial hardship, as discussed earlier in this section.

We developed a measure of financial crisis based on seven HES financial variables:

- Spend more money than we get each week.
- Could not pay gas/electricity/telephone bills on time.
- Unable to heat home.
- Could not pay car registration on time.
- Sought assistance from welfare or community organisations.
- Sought financial help from friends/family.
- Pawned or sold something.

We then calculated the percentage of households who were in mortgage stress using the 30 per cent of gross household income benchmark and who reported at least three of these variables. The assumption here was that reporting at least three represented a chronic financial problem rather than one that related to a particular circumstance, such as one-off inability to pay car registration on time.

The results of this analysis are set out in Table 14. We can see that 8.1 per cent of low-moderate income purchasers had three or more financial stress indicators compared to only 2 per cent for those purchasers on middle-higher incomes. Low-moderate income purchasers are at much greater risk of financial crisis, which is not surprising. However, the percentage of such households in financial crisis is much less than the potential suggested by ratio affordability measures. It is also notable that that a small proportion (1%) of low-moderate income outright owners (i.e. those with household incomes below $31 000 p.a. as discussed in Chapters 3 and 5) are also in financial crisis. This, however, is largely an income or other debt problem rather than a housing problem as, by definition; outright owners do not have a mortgage to precipitate a financial crisis.

Table 14: Percentage of households with indicators of financial crisis by home ownership status and household income, 2003–04

Household type	*Nil*	*One*	*Two*	*Three*	*Four*	*Five*	*Six*	*Total*	*Count*
Purchasers									
Low-moderate income	71%	14%	8%	5%	2%	1%	0.1%	100%	987 028
Middle-higher income	86%	9%	3%	2%	0%	0%	0.0%	100%	1 472 168
Outright owners									
Low-moderate income owner	89%	6%	3%	1%	1%	0%	0.0%	100%	1 063 063
Middle-higher income owner	95%	3%	1%	0%	0%	0%	0.0%	100%	1 585 364

Source: Calculated from CURF data, ABS HES 2003–04.
Note: The household income cut-offs for low-moderate income purchasers and low-moderate income outright owners ($31 000) are calculated separately.

6.1.3 A continuum of financial risk associated with home purchase

So far in this section, we investigated two apparent paradoxes which have emerged from recent Australian research into housing affordability. Pulling these threads together, it is inadequate to see low-moderate income purchasers as either meeting a mortgage affordability benchmark or not (i.e. it is not a binary). It is preferable to think in terms of a continuum of risk in which the housing and non-housing expenditures of different types of households relative to their incomes are taken into account. There appear to be at least three complementary ways of measuring the financial risk associated with home purchase:

- Mortgage stress measured by an affordability benchmark based on a ratio of mortgage costs to household income (however measured). Households may be stretched financially in making mortgage repayments and have to make some compromises in their lifestyle that may affect their wellbeing, although these have to be offset against the long-term financial benefits of purchasing that we discuss in Chapter 7 and the perceived non-financial benefits which we discuss in Chapter 8.
- Financial hardship measured by non-housing expenditures that are at the level of the Low Cost budget standard. Households are living on very low incomes after paying for their housing such that they are at increased risk of potential financial failure and mortgage default.
- Financial crisis associated with experiencing at least three financial stressor measures (using the HES). These households have chronic financial problems and are living on the edge, financially speaking. They are at acute risk of financial failure and mortgage arrears and default.

6.2 Additional (non-mortgage) expenditures

Much of the debate about affordability problems associated with home purchase in this study, and more generally, centres on mortgage repayments. However, owning a home brings with it responsibility for additional costs compared to renting.[16] A purchaser's failure to take these into account in their purchase decision may create unexpected financial pressures. This was highlighted in qualitative research for AHURI National Research Venture 1, which found that 22 per cent of recent low-moderate income purchasers had not budgeted for non-mortgage expenditures associated with ownership and that these commitments were a major factor in ongoing affordability problems (Burke & Pinnegar 2007, p.114).

Despite some literature drawing attention to this problem (Productivity Commission 2004; Christie 2000; Gabriel et al. 2005), there is little research evidence on these additional expenditures associated with home ownership. The major Australian study is by Smith et al. (2009) which created a model to calculate the maximum affordable purchase price for a household on a given income once all these costs are taken into account. It used data from pre-sale property inspection reports to put values on maintenance and repairs, adding these to ongoing expenditures such as mortgage payments, rates and service charges.

We do not seek to replicate this work here but rather to provide a more detailed understanding of the additional costs of ownership (in that respect being a complement to Smith et al.) and, importantly, to make some assessment of the degree to which these additional expenditures increase financial risk, using data from

[16] These expenditures must be paid by owners of rental properties and are, of course, passed on through the rent. They are, however, not identifiable to the resident.

the ABS HES. As indicated in Chapter 3 (Section 3.2.2), such housing-related expenses can be:

- Compulsory: e.g. building insurance (for purchasers), municipal rates, water/sewerage rates and body corporate/owners' corporation fees (for those purchasing strata title units).
- Highly desirable: e.g. building insurance for outright owners, repairs and maintenance.
- Desirable: other expenditures such as contents insurance and fences and sheds.

Here we focus on expenditures which are compulsory or highly desirable as a consequence of purchasing a property. Other expenditures are desirable but may not be different from renting (e.g. contents insurance) or may relate to purchase of a house (e.g. fences, garden maintenance). Lack of payment of compulsory expenditures can have dire consequences, including as a last resort forced sale of the property. Choosing not to pay highly desirable expenditures may reduce expenditure and financial hardship in the short term but this has to be offset against increased financial and non-financial risks. For example, outright owners who do not have to take out building insurance risk losing both their home and a sizeable proportion of their wealth in the event of fire or flood damage. Households who fail to undertake necessary repairs or maintenance expenses might be risking the structural integrity of their dwelling, putting both their personal wellbeing and the value of their asset at risk. We have not included expenditure on major alterations and additions since these are a choice and could be regarded as further investment in the property. However, we note that the biggest risk is a financial one, over-capitalisation of the property, such that at resale the additional expenditure is not recovered.

Drawing on analysis of data from the HES 2003–04, we indicate the degree to which home owners pay the major compulsory or highly desirable housing expenditures outlined above, and the median weekly expenditure for each major expenditure category. Table 15 enables a comparison of purchasers and outright owners and, in each case, compares low-moderate income households with those on middle-higher incomes.

Table 15: Mortgage repayments and additional housing expenditures by home ownership status and household income, 2003–04

Household home ownership status and income	***Mortgage costs***	***Building insurance***		***Rates***		***Body corporate/ owners' corporation***		***Repairs and maintenance***	
	Weekly median expend.	***Weekly median expend.***	***% households who pay***	***Weekly median expend.***	***% households who pay***	***Weekly median expend.***	***% households who pay***	***Weekly median expend.***	***% households who pay***
Purchasers									
Low-moderate income	$175	$5	91.0%	$15	98.4%	$20	8.1%	$23	38.4%
Middle-higher income	$296	$6	92.1%	$17	99.6%	$25	8.6%	$29	40.7%
All purchasers	$242	$6	91.7%	$16	99.1%	$23	8.4%	$27	39.8%
Outright owners									
Low-moderate income	n.a.	$5	84.0%	$13	96.1%	$18	9.9%	$19	33.8%
Middle-higher income	n.a.	$5	91.5%	$17	96.7%	$22	5.9%	$24	37.7%
All owners	n.a.	$5	88.5%	$15	96.5%	$20	7.5%	$21	36.1%

Source: ABS HES 2003–04.
Notes:
1. The cut-off at the 40th percentile is calculated separately from the purchaser household income distribution and the owner household income distribution.
2. Dollar amounts are in 2003–04 prices.
3. Where households reported paying combined building and contents insurance in the HES, 50 per cent was assumed to be for building insurance.

We can see from Table 15 that, in addition to their mortgage repayments, almost all purchasers pay council and water rates but about 8 per cent do not pay building insurance, although this does not differ much according to household income. Amongst owners, who as we recall from Chapter 5 are mainly households aged 65 years and over, the key financial risk appears to be that 16 per cent of low-moderate income outright owners do not pay building insurance on their properties, thereby incurring risk if the property sustains serious damage. The percentage of households paying for repairs and maintenance is surprisingly low, although this may be to some extent a product of the data collection since such expenditures may be irregular and 'lumpy' rather than accounted for as regular expenditures. From the data available, it appears that purchasers are slightly more likely to report expenditure on repairs and maintenance than outright owners, perhaps reflecting the older age group of the latter and median expenditures are higher for middle-higher income purchasers and outright owners respectively.

The important point is that whilst median expenditure on compulsory expenditures (insurance, rates and body corporate/owners' corporation fees) do not vary much by household income since they are levied on properties, such expenditures are likely to pose more of a burden on low-moderate income purchasers and outright owners respectively due to their lower incomes. As indicated earlier in this chapter, these are the costs that some recent low-moderate income purchasers do not appear to budget for (e.g. Burke & Pinnegar 2007) and which carry the potential to move a household along the continuum from mortgage stress to financial hardship.

Using the data from Table 16, we estimate how much extra as a percentage of the mortgage should be factored in by low-moderate income purchaser households for compulsory and highly desirable expenditures as discussed above. It appears that such households taking out a loan would be paying the equivalent of 10 to 20 per cent of their mortgage repayments in additional housing expenditures. The range reflects the size of mortgage repayments which are generally larger the more recent the mortgage and the type of dwellings (house or unit/apartment). While units/apartments have additional costs associated with body corporate/owners' corporation, there is an offset in their outlays for repairs and maintenance, which are assumed to be only one-third of that which applies to houses. As a very rough guide for low-moderate income purchasers, an average of 15 per cent should be added to mortgage repayments to cover these expenditures, based on analysis of HES data. As the mortgage loan is progressively repaid, these additional housing expenditures will increase over time at least in line with inflation, but calculation of them as a percentage of mortgage repayments will become less meaningful.

Table 16: Estimated percentage addition to mortgage repayments for compulsory and highly desirable housing expenditures for purchaser households, 2010

Amount of mortgage	*Weekly mortgage repayment*	*House*		*Unit/apartment*	
		Additional housing costs	*% of mortgage*	*Additional housing costs*	*% of mortgage*
$150 000	$244	$51	21%	$48	20%
$200 000	$326	$52	16%	$49	15%
$250 000	$407	$53	13%	$50	12%
$275 000	$451.	$54	12%	$51	11%
$300 000	$489	$57	12%	$54	11%
$350 000	$570	$60	11%	$57	10%

Source: Additional non-mortgage expenditures (compulsory and highly desirable) calculated from the ABS HES data in Table 15.
Notes:
1. Dollar amounts from the 2003–04 HES have been indexed to 2010 prices.
2. Assumptions: deposit 10 per cent, loan 90 per cent, mortgage interest rate 7 per cent and loan period of 25 years.

Table 17 shows for those who paid these additional expenditures, the extent to which it increased their affordability problem using the 30/40 benchmark. The fact that many households are on modest incomes means the relatively low amounts in dollar terms for additional housing costs can push up the percentages with an affordability problem quite dramatically. Using the 30/40 benchmark for low-moderate income purchasers, these costs push those in mortgage stress to much higher levels. With all additional housing costs factored in, low-moderate income purchasers may face paying up to two-thirds of their incomes on mortgage and additional housing expenses. The increase in mortgage stress for higher income earners is not as great as they have greater income capacity to absorb such costs.

Table 17: Percentage of households paying more than 30 per cent of gross household income on mortgage and additional housing expenditures by home ownership status and income, 2003–04

Households by home ownership status and income	*Percentage of households exceeding 30% of household income—mortgage repayments only*	*Percentage of households exceeding 30% of household income—mortgage plus rates, body corporate fees and insurance*	*Percentage of households exceeding 30% of income—mortgage plus rates, body corporate fees, insurance and repairs/maintenance*
Purchasers			
Low-moderate income	46.1%	60.2%	65.7%
Middle-higher income	27.0%	35.3%	40.6%
All purchasers	34.7%	45.3%	50.7%
Outright owners			
Low-moderate income	0.0%	1.4%	9.0%
Middle-higher income	0.0%	0.0%	3.0%
All owners	0.0%	0.6%	5.4%

Source: Calculated from ABS HES 2003–04.
Note: 40th percentile calculated separately for purchaser household income and outright owner household income.

Whilst at one level, the additional expenditures associated with home ownership appear small, particularly when expressed as a weekly payment; they may constitute a tipping point into financial hardship for some households. This is not just a risk for low-moderate income purchasers. As we have seen in Chapter 5, many low-moderate income outright owners are on very low incomes (age pension) and their ability to cover the compulsory and highly desirable additional costs of home ownership may be limited. Some of these households will be asset rich and income poor, indicating that this problem may require a different policy response, such as schemes to release some equity for essential expenditures.

6.3 Housing and other debt

The additional expenditures associated with home ownership are only one of the factors contributing to financial risk for low-moderate income home purchasers. Financial deregulation opened up a new financial world in which new players such as mortgage brokers entered the scene, there were more relaxed lending requirements, and new types of products became available, such as 'line of credit' mortgages. As consumers became more aware of the possibilities, they adapted their borrowing behaviour. The interaction between the possibilities opened by the finance industry and the opportunities taken by consumers saw a number of new patterns of financial behaviour. One of these was to borrow against the equity in a property to finance other products and services, such as buying a car, a renovation or addition, a second home or various investment products. Another was to expand greatly credit card usage. The combination of borrowing against home equity and credit card use has been a major reason for the explosion in household debt over the last 20 years as reviewed in Chapter 2:

- Total household debt as a proportion of disposable household income rose from around 40 per cent in 1981 before financial deregulation to just under 160 per cent in 2009 (Battellino 2010).
- 'Housing debt' borrowed against equity in the home, including for non-housing good and services, increased from 30 per cent of household income in 1981 to just under 140 per cent in 2009 (Battellino 2010).

Table 18 shows the additional debt taken on by purchasers and owners disaggregated by household income (using the separate income cut-offs for purchasers and owners). We have excluded debt for business or the purchase of a rental property as it is assumed these are capital investments with a revenue stream contributing to repayments. The focus here is on debts shown in Table 18 that must be repaid out of current household income. They include debt outstanding for personal expenditures (such as cars and holidays), debt outstanding for alterations and additions, and credit card debt.

It is clear from Table 18 that outright owners have a much lower rate of any form of additional borrowing and that, not unexpectedly, rates of borrowing amongst middle-higher income outright owners are somewhat higher than for low-moderate income outright owners who, as we have seen, comprise mainly households aged over 65 who are on low incomes.

Higher percentages of purchasers have debt in each of the categories, and debt levels are higher, although there is not much difference between low-moderate and middle-higher income purchasers in this regard, except in the case of alterations and additions. The higher level of borrowing for renovations and additions by middle-higher income purchasers may reflect their additional earning capacity or it could be that, because these households have more valuable homes, they can add more by way of renovations and alterations without substantial risk of over-capitalisation.

The most interesting finding is the prevalence of credit card debt for all household types and incomes but particularly amongst purchaser households. Almost three-quarters of middle-higher income purchasers have credit card debt, compared to two-thirds of low-moderate income purchasers. Low-moderate income outright owners have both a much lower rate of credit card debt and a lower amount of debt outstanding.

Table 18: Amount and percentage of additional debt taken on by households by home ownership status and household income, 2003–04

Household home ownership status and income	*Amount outstanding other loans*	*Weekly repayments for other loans*		*Amount outstanding on alterations and additions*	*Weekly repayments on alterations*		*Amount outstanding on credit card*	
	Amount	*Amount*	*% of households*	*Amount*	*Amount*	*% of households*	*Amount*	*% of households*
Purchasers								
Low-moderate income	$16 441	$95	23.5%	$31 808	$123	8.4%	$3 972	66.5%
Middle-higher income	$18 587	$115	26.7%	$60 677	$190	6.6%	$4 280	78.1%
All purchasers	$17 790	$108	25.4%	$47 414	$159	7.4%	$4 168	73.5%
Outright owners								
Low-moderate income	$7 225	$84	4.3%	$1 714	$51	0.3%	$1 796	34.5%
Middle-higher income	$13 749	$113	11.3%	$10 368	$119	1.3%	$2 833	59.6%
All outright owners	$12 430	$107	8.4%	$9 171	$109	0.9%	$2 543	49.5%

Source: ABS HES 2003–04.

Notes:

1. Income distribution for purchaser and owners is calculated separately.
2. Other loans includes loans taken out for holidays, purchase of a car and other non-housing purposes.
3. Dollars refer to 2003–04 prices.
4. Data are not available on weekly repayments on credit cards (the HES does not treat credit card debt as a loan as it includes purchases and cash advances).

The fact that households have such levels of debt may not be problematic if they have budgeted for the additional debt in a way which is consistent with their household income after paying the mortgage (if applicable) and additional housing expenditures. To examine the extent of risk, we investigated the incidence of multiple forms of debt by home ownership status and household income, again using data from the HES 2003–04. The results as set out in Table 19 suggest a good deal of financial responsibility, with only a very small percentage of households having taken on all three types of debt. To illustrate the point, 25.4 per cent of low-moderate income purchasers have no debt in addition to their mortgage and 52.5 per cent have only one type of debt, while 20.2 per cent have two forms of debt and just under 2 per cent all three forms. Those with three types of debt equates to 18,754 households of the 987 028 low-moderate income home purchasers.

Table 19: Incidence of purchaser and owner households experiencing different forms of debt as related to tenure and household income, 2003–04

Household by home ownership status and income	***No debt***	***1 form of debt***	***2 forms of debt***	***3 forms of debt***	***Total***
Purchasers					
Low-moderate income	25.4%	52.5%	20.2%	1.9%	100%
Middle-higher income	16.2%	57.0%	25.9%	0.9%	100%
All purchasers	19.9%	55.2%	23.6%	1.3%	100%
Outright owners					
Low-moderate income	63.5%	33.9%	2.6%	0.0%	100%
Middle-higher income	37.3%	53.7%	8.5%	0.5%	100%
All owners	47.8%	45.8%	6.1%	0.3%	100%

Source: Calculated from ABS HES 2003–04.
Notes:
1. Separate income cut-offs for purchase and owner household incomes.
2. Three possible debt types: non-housing purpose secured against owner occupied property, alterations and additions on owner occupied property and credit card debt (unsecured).

For a small minority of households, therefore, taking on additional debt appears to be a contributing factor to financial crisis. We investigate this further by exploring the relationship between additional loan debt and financial crisis as measured by the HES financial stress indicators, which we outlined above (Section 6.1.2). The results as set out in Table 20 indicate that the percentage of low-moderate income purchasers who were in financial stress and had all three forms of additional debt were greater than for those experiencing financial stress but who had no additional debt. However, this was also the case for middle-higher income purchasers. For whatever reason, there are a small minority of purchasers who have overlaid their mortgage with a set of other debts, the combined effect of which is to push them to the margins of financial viability and potential default.

Table 20: Relationship between financial crisis and additional forms debt for purchaser households by level of household income, 2003–04

Purchaser households	*High level of financial crisis but no additional debt*	*High level of financial crisis and three types of additional debt*
Low-moderate income purchaser	4.8%	13.8%
Middle-higher income purchaser	1.6%	10.1%
All purchasers	3.2%	12.3%

Source: Calculated from ABS HES 2003–04.
Notes: Low-moderate and middle higher income calculated as below and above the 40th percentile of purchaser household income distribution.

6.4 Financial resilience through savings

So far in this chapter, we have examined ongoing affordability of mortgage payments using the residual income approach, examined additional expenditures associated with home ownership and overlaid these with the risks associated with taking on additional debt. We now complete the picture by examining household financial resilience.

There are a number of ways in which households can cope, at least in the short term, with financial pressure and mitigate financial risk:

- Paying off more than the contracted monthly mortgage for some period of time so that a mortgage credit is built up (prevention).
- Increasing household income, e.g. additional employment in the form of overtime or another income earner getting employment.
- Decreasing household expenses.
- Negotiating a new mortgage arrangement with their financial institution.
- Drawing on household savings.

In this section, we examine household financial resilience in the form of savings. The degree to which households have reserves to draw down on requires bringing together both the savings and debt situation from HES data which we synthesise into a new variable called ‘fluid cash’. This is the difference between credit card debt and savings in a readily accessible form, notably, financial institutions deposits. It is therefore the net amount that households have easy access to in order to assist in a period of financial hardship. The results are illustrated in Table 21.

Table 21: Households with and without $1,000 in net savings (fluid cash) by home ownership status and income, 2003–04

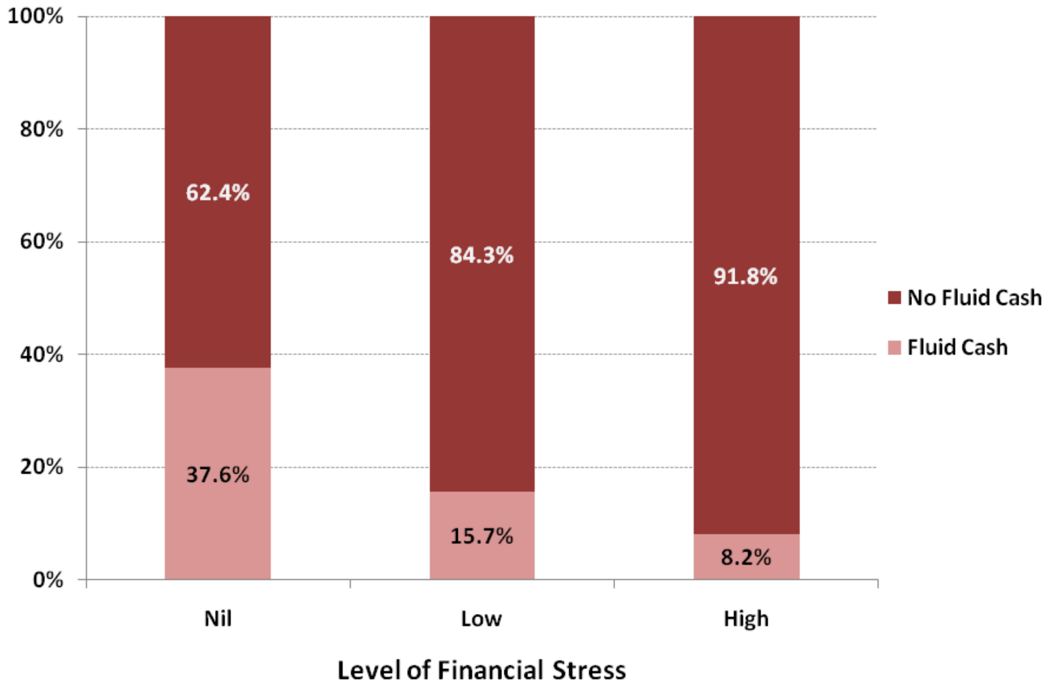
Household by home ownership status and income		*Under $1000 in 'fluid cash' (net savings)*	*Above $1000 in 'fluid cash' (net savings)*	*Total*
Purchasers				
Low-moderate income	%	69.3%	30.7%	100%
	Households	683 649	303 379	987 028
Middle-higher income	%	64.2%	35.8%	100%
	Households	944 681	527 486	1 472 168
All purchasers	%	66.2%	33.8%	100%
	Households	1 628 330	830 865	2 459 195
Outright owners				
Low-moderate income	%	32.6%	67.4%	100%
	Households	346 810	716 252	1 063 063
Middle-higher income	%	27.9%	72.1%	100%
	Households	442 170	1 143 193	1 585 364
All owners	%	29.8%	70.2%	100%
	Households	788 980	1 859 446	2 648 426

Source: Calculated from ABS HES 2003–04.
Note: Separate cut-offs for purchaser and outright owner household incomes.

Consistent with a society where there are high levels of debt, we see that a substantial proportion of all purchaser households have no, or minimal, fluid cash to draw on. The situation is worse for purchasers compared to owners. Perhaps surprisingly, a remarkably high percentage of home purchasers (about two-thirds) have less than $1000 in fluid cash, irrespective of their household incomes. This is in contrast with outright owners, with less than a third of these having less than $1000 in fluid cash, with only a small difference associated with owner household income. This suggests that many purchasers have little capacity for drawing down on savings if they strike financial problems. Among low-moderate income purchasers 69.3 per cent have less than $1000 in fluid cash to draw on in a financial crisis. For many households this is not even the equivalent of one month's mortgage.

Perhaps not surprisingly, most of the households with the greatest financial stress as measured by the HES financial stress indicators have minimal net savings of fluid cash, as illustrated in Figure 12. This group of lower income households (around 8% or 78 000 households) are right on the margins of dropping out of ownership.

Figure 12: Households in financial crisis as measured by financial stress indicators and level of 'fluid cash', 2003–04



Source: Calculated from ABS HES 2003–04.
Note: Under $1000 includes those households that have no savings or negative savings in the sense that credit card debt exceeds any savings.

Finally, the findings in relation to fluid cash, along with the financial stress data, should be seen in the context of the growing percentage of low-moderate income purchasers who are single income households. A small minority of low-moderate income purchasers (less than 10%) would at any one time appear to be close to the margins of falling out of ownership. A larger percentage would be in this situation if there was any risk to the employment of the only income earner or a reduction in income, e.g. loss of overtime, as many have few reserves to draw on in time of financial hardship.

6.5 Conclusion

This chapter has reviewed the degree and extent of financial risk facing low-moderate home purchasers, and to a lesser extent low-moderate income outright owners, in a way which adds to, rather than duplicates, the large body of research into housing affordability and mortgage stress in Australia.

We suggest that using the residual income approach to housing affordability, in particular, applying two types of budget standard for non-housing expenditures calibrated by household type and size, offers new insight into the dynamics of low-moderate income home purchase in Australia. Using this approach enables us to understand two paradoxes:

- Low-moderate income home purchasers are still able to buy housing that looks increasingly unaffordable if they are single people or couples without dependents to support. Households with children are being squeezed out of the market because of their greater non-housing expenditures. A single person or couple with no children who are willing to live on the Modest but Adequate budget standard can afford to borrow much more than a household whose non-housing expenditures reduce their ability to take on a larger mortgage.

- Mortgage stress measured by failure to meet the 30/40 affordability benchmark does not equate, in and of itself, into risk of financial hardship and financial crisis which might lead to mortgage arrears and default. We estimate that about 8 per cent of low-moderate income purchasers are in financial crisis and at risk of mortgage arrears and default.

The application of the residual income approach (applying the SPRC budget standards) illustrates the need to have different affordability measures attuned to the needs of different household types and income ranges to provide policy makers and others with a more nuanced understanding of housing affordability problems, with a continuum of financial risk for low-moderate income purchasers:

- Mortgage stress, as measured by 30/40 or other ratio measures.
- Financial hardship as measured by living at or below the Low Cost budget standard.
- Financial crisis as measured by the HES financial stressors.

In considering the ongoing costs of home purchase, it is important to note the additional (compulsory and highly desirable) expenditures associated with home ownership. These are not always anticipated fully by new low-moderate income purchasers and accentuate financial risk if households are already stretched financially in repaying the mortgage.

Financial risk for low-moderate income purchasers can also be exacerbated by other types of debt. Whilst most households appear not to overlay too many other sorts of debt onto their mortgage commitments, for a small percentage of low-moderate income purchasers, having three additional forms of debt appears likely to precipitate financial crisis. It also appears that low-moderate income purchasers have little fluid cash, taking into account credit card debt and savings, to deal with financial problems if they occur.

Finally, although mortgage stress does not necessarily translate into financial hardship and financial crisis, this may be a product of a strong economy in which there has been a continuing real increase in household incomes, even at the lower levels, since the mid-1990s. If the economic boom were to end, those households in mortgage stress and financial hardship could well slip into financial crisis as low-moderate income purchasers, in particular, have very little savings to fall back on if household incomes decline. Low-moderate income purchasers, in particular those on only one income, would seem exposed to major risk if there is any sustained economic slowdown.

7 BUILDING WEALTH THROUGH HOME PURCHASE

This chapter investigates to what extent, and how, low-moderate income purchasers build wealth through home purchase compared to households on middle-higher incomes, taking into account the affordability of housing in particular locations and changes in housing markets over time (research question 3). We examine this in the context of very substantial restructuring of housing sub-markets in Melbourne, our case study, since the early 1980s, which in part derive from the deregulation of housing finance discussed in Chapter 2. As elsewhere in this report, the chapter investigates the risks of home purchase in terms of housing wealth as well as the benefits. In particular, we examine the financial risks associated with buying in particular locations and/or as a consequence of buying and selling residential property over varying time periods.

The chapter draws on a detailed case study of the Melbourne metropolitan area, using a variety of research methods, which we outlined in Chapter 4 (Section 4.2.4). The chapter is in six parts:

- An overview of the housing market context in metropolitan Melbourne over the period 1981–2008, in particular, illustration of spatial restructuring of housing sub-markets through calculation of house price curves for five different corridors of Melbourne.
- Estimated changes in net housing wealth (home equity) for low-moderate income purchasers in locations along the five corridors of metropolitan Melbourne who sell after different periods of ownership 1981–2006.
- Estimated changes in net housing wealth (home equity) for low-moderate income purchasers who move between locations, based on modelling of different scenarios of moving between selected suburbs in the five house price corridors in metropolitan Melbourne 1981–2006.
- Analysis of capital gain or loss on repeat property sales by residential location, with a focus on areas affordable to low-moderate income purchasers (1999–2009).
- Comparison of wealth building through home ownership with alternative investment, testing the ‘saver model of accumulation’ potentially available to renter households, as outlined by Stone (2009), and covering the period 1999–2008.
- Analysis of the areas in which low-moderate income purchasers were able to buy residential property (1981–2006).

7.1 Housing market context

The three major Australian empirical studies discussed in Chapter 3 (King 1989, 1990; Badcock 1992, 1994; Burbidge & Winter 1996; Burbidge 2000) all found that households purchasing in a small number of selected suburbs in Australian cities, including those on low-moderate incomes, did build wealth through the accumulation of equity in their homes, with only one exception found in Badcock’s 1994 study of Adelaide.[17] However, these and other studies discussed in Chapter 3 indicate that the degree to which households build wealth through home purchase depends on where a household purchases, when and how often (trading up and down). Understanding whether, and to what degree, low-moderate income households are able to build wealth through accumulation of equity in their home is a function not only of

[17] In one area of Adelaide, Elizabeth Downs, 20 per cent of households experienced deterioration in their real housing equity such that they may have been better off renting (Badcock 1994: 621).

household decision making but also how the housing market performs, both generally and for specific housing sub-markets. Thus it is important to understand the housing market context for the case study (metropolitan Melbourne) between 1981 and 2008 (the study period).

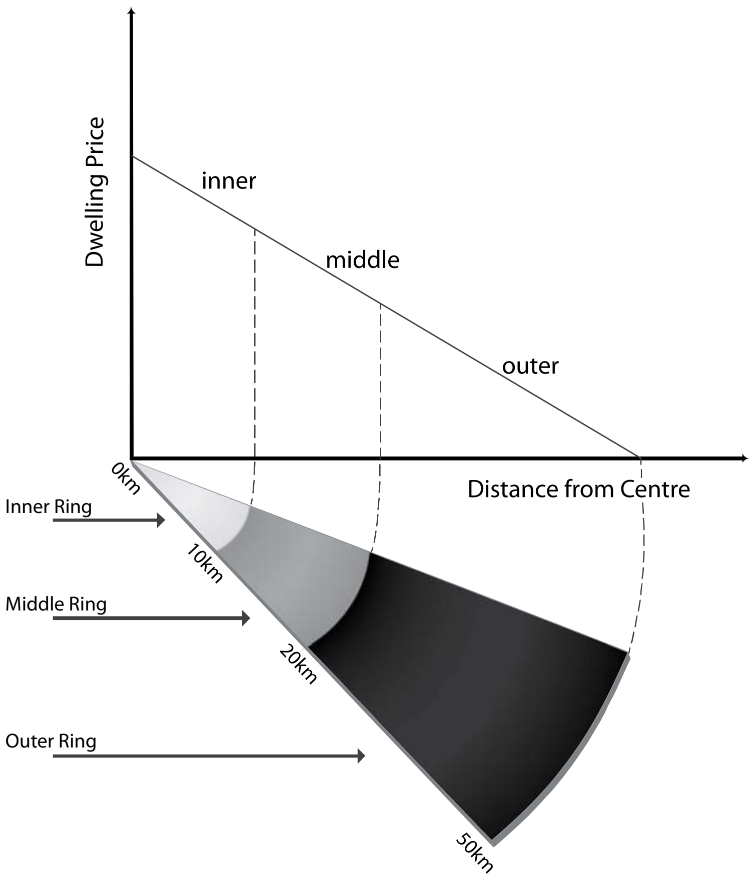
The key features of the Melbourne metropolitan housing market over the study period are:

- The rate of growth in house prices has varied but generally there has been a sustained pattern of growth; nominal dwelling prices fell in only five years in the early to mid-1990s.
- An average annual real rate of house price increase of 4.4 per cent between 1981 and 2008.
- A marked restructuring of the housing market so that inner and middle ring suburbs were seen to be more attractive and therefore generated a greater intensity of demand and higher prices.

The latter point is an important one for our study and refers to the importance of housing sub-markets. Cities are always going through a process of restructuring, which means that trends in median metropolitan house prices may not capture the major differences in price movements occurring within a metropolitan area. Over the years covered by this study, the inner and middle ring suburbs of Melbourne became much more valued as places of residence than they were almost three decades earlier. Households changed their perceptions of the more and less desirable places to live, while developers and builders to a degree responded with shifts in where new property is built and in what form. This process is not unique to Melbourne but, with variations largely explained by geography, can be observed across all Australian capital cities. Why the inner urban areas, in particular, have become much more attractive to both households and developers is explained by a number of interrelated demographic, social, economic and policy changes which have been identified elsewhere (e.g. Flood & Baker 2009; Baum et al. 2006).

There has been a fundamental restructuring of dwelling prices in Melbourne by housing sub-markets since the early 1980s. One way of understanding the dynamics of housing sub-markets is through a bid rent curve. This is a graph of the variations in land or property prices or rents payable by different users, e.g. households and firms, as distance increases from some point in a property market, usually the Central Business District (CBD). The points at which rents or prices are most intense reflect the most desirable locations (Alonso 1964). In this simplified model for residential markets, prices in principle will be highest closest to the CBD and will in theory decline the further the distance from the CBD, as illustrated in Figure 13. The model assumes that because of access to the amenity and employment opportunities of the CBD and lower transport costs, demand will be greater the closer in and hence house prices will be higher. The extent to which this is the case in practice will also be affected by factors such as topography, relative attractiveness of local environments, and patterns of public transport and roads.

Figure 13: Bid rent curve for residential property



For the purpose of this research we have calculated the price or bid rent curves for five locational corridors in the Melbourne metropolitan area: western, northern, eastern, south-eastern and southern, as illustrated in Map 1. The curves have been calculated based on house prices derived from CURF data from the Victorian Valuer-General's Property Sales Statistics, which record virtually every residential sale in the locations along the curve.[18] This has been done for the period 1981–2008, and all prices are in 2008 prices. The five house price curves are shown in Figures 14 to 18.

[18] The bid rent curve in this case refers to house prices only. In Australia, owner occupation is very much associated with buying a house rather than another dwelling type, although this is slowly changing.

Map 1: House price curve corridors for the Melbourne metropolitan area

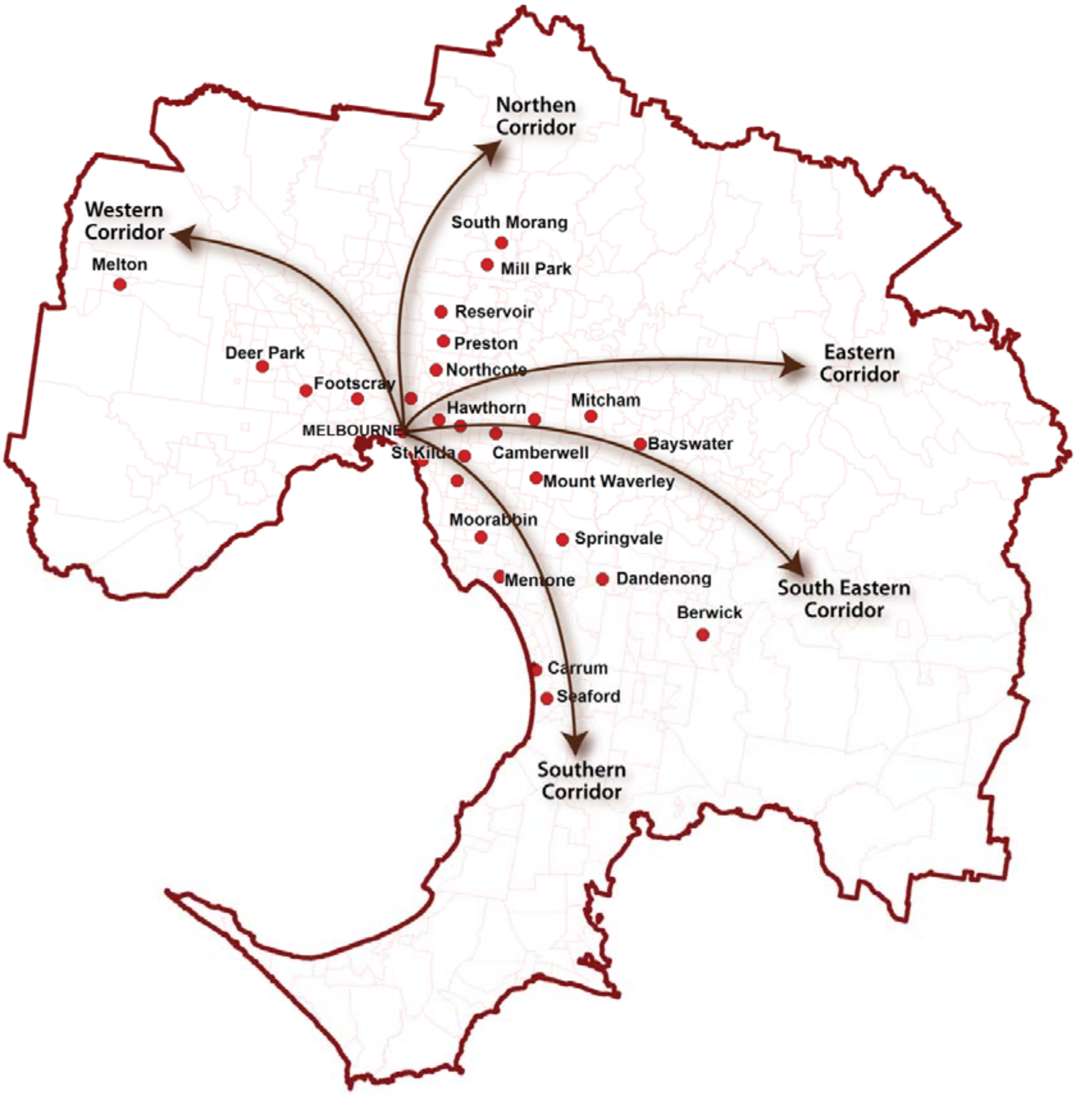


Figure 14: Melbourne western corridor house price curve, 1981 and 2008 (2008 constant prices)

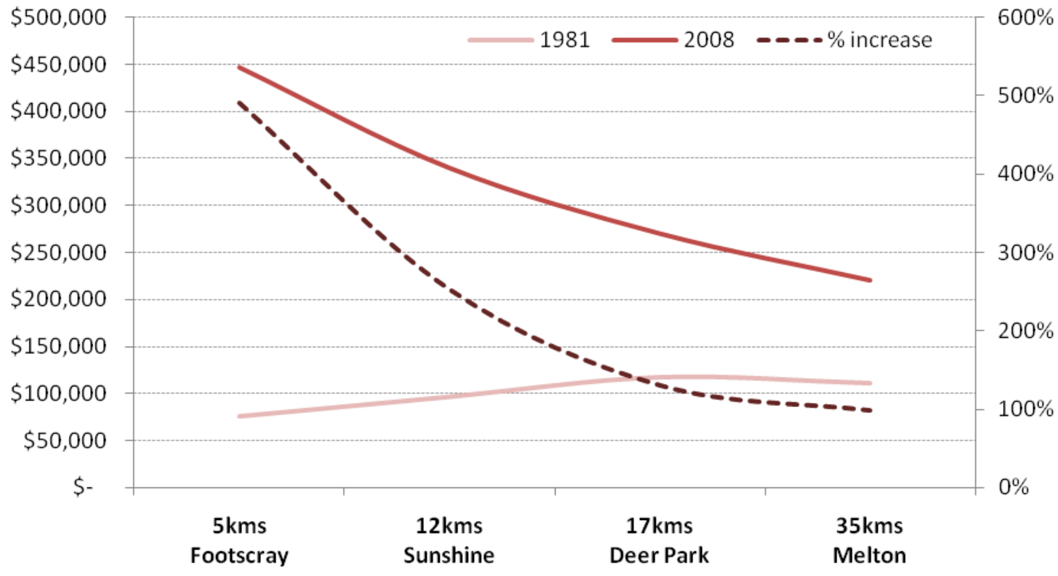


Figure 15: Melbourne northern corridor house price curve, 1981 and 2008 (2008 constant prices)

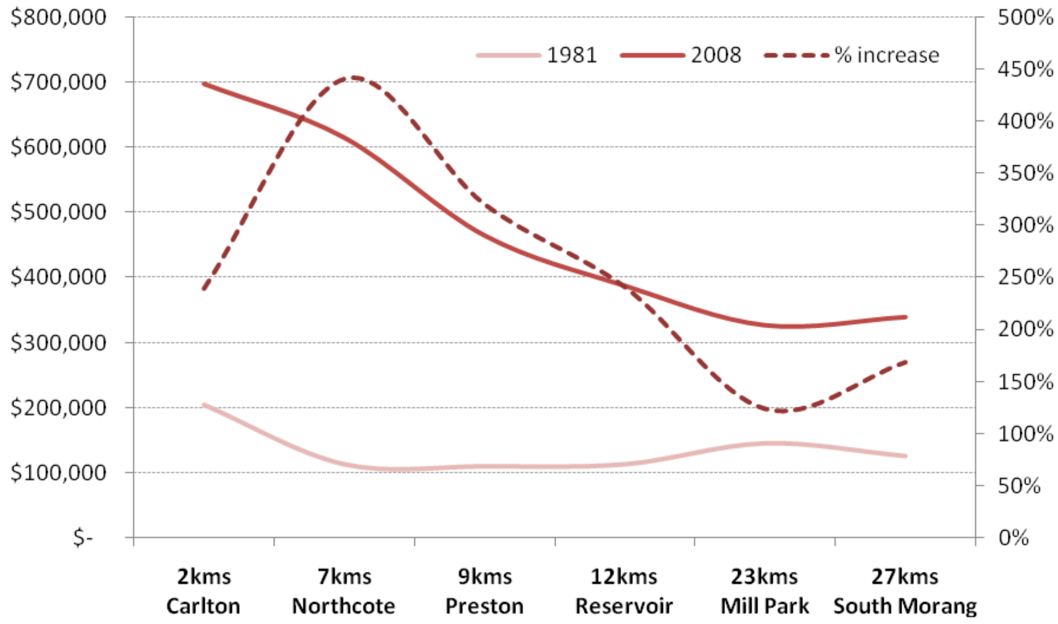


Figure 16: Melbourne eastern corridor house price curve, 1981 and 2008 (2008 constant prices)

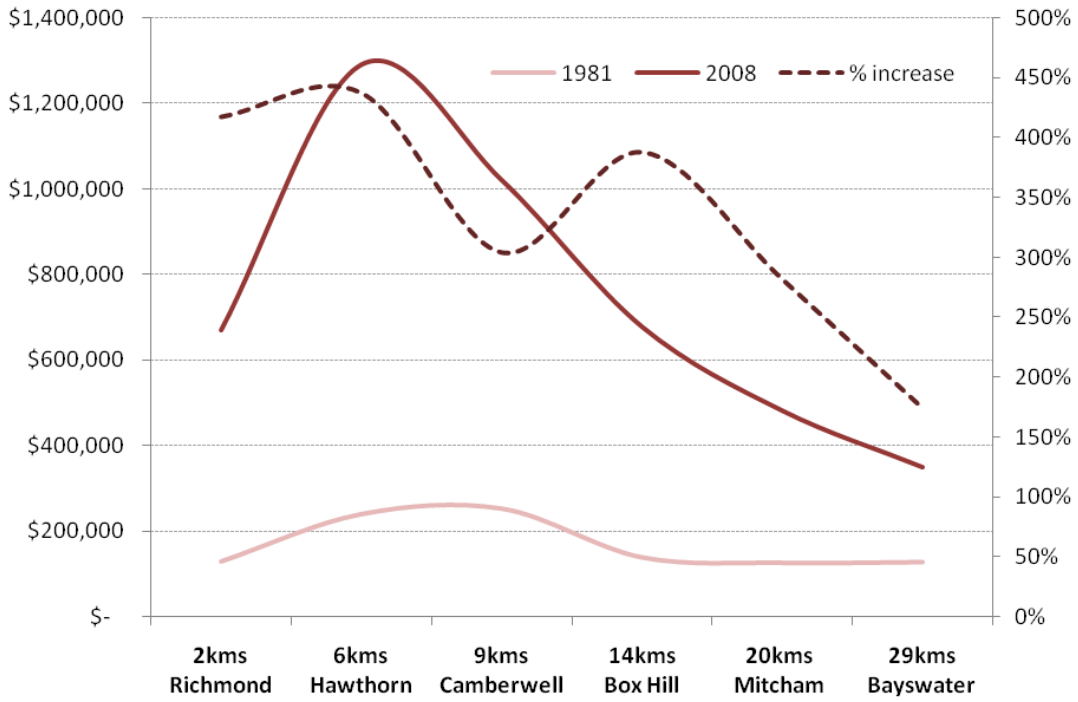


Figure 17: Melbourne south-eastern corridor house price curve, 1981 and 2008 (2008 constant prices)

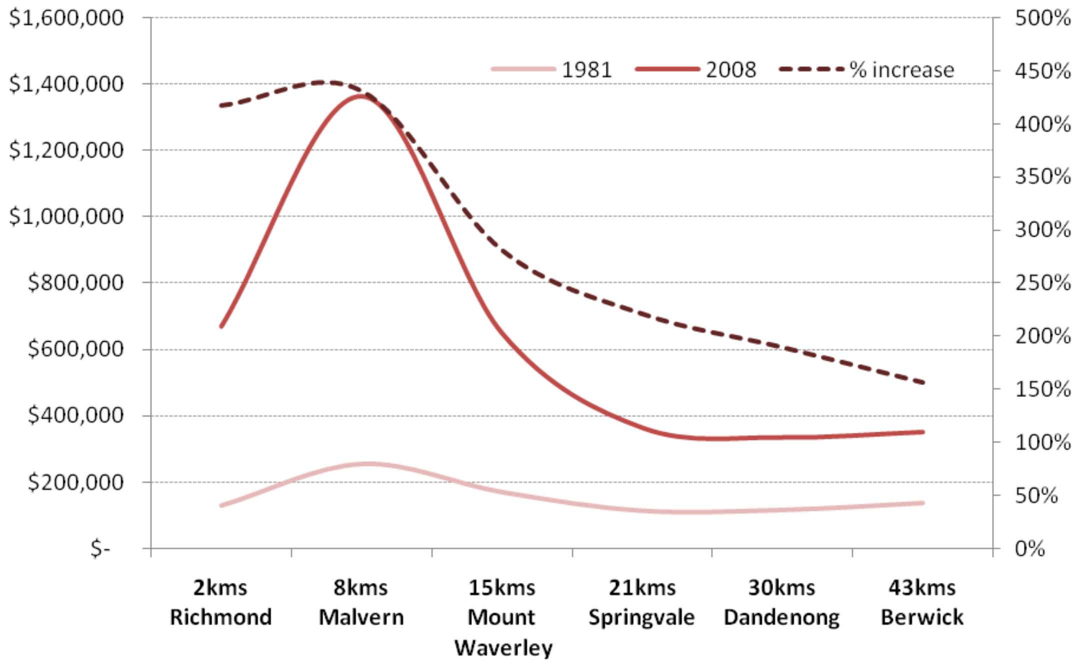
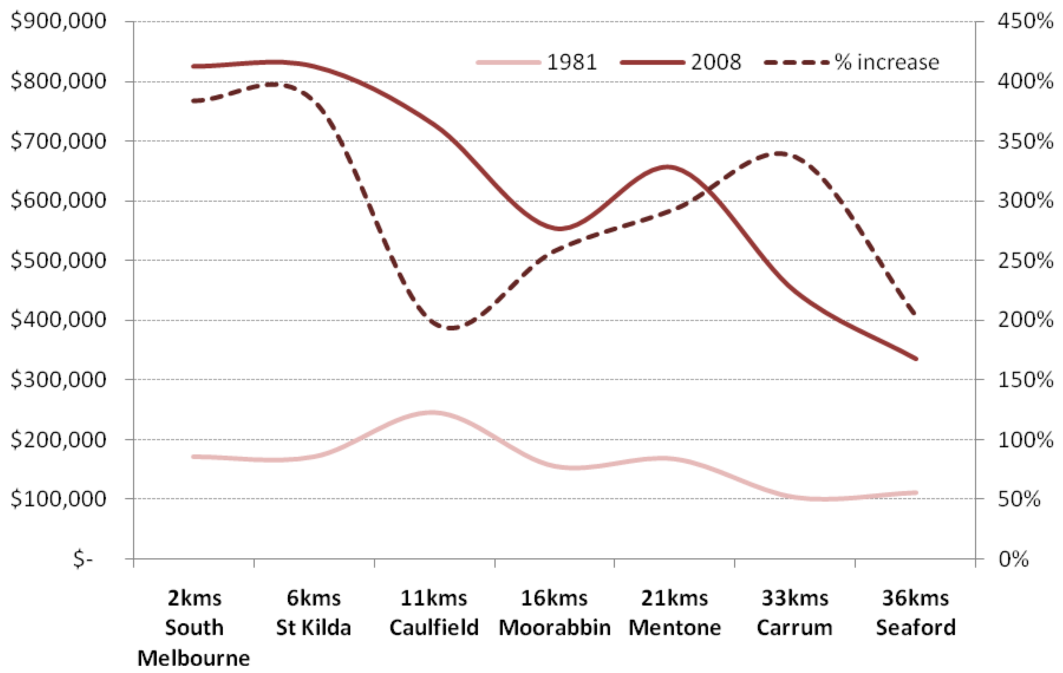


Figure 18: Melbourne southern corridor house price curve, 1981 and 2008 (2008 constant prices)



In 1981 the house price curves bear little relationship to the theoretical bid rent curve which has prices highest at the CBD and adjacent areas and then trails away thereafter. In all five corridors in 1981, the house price curve is remarkably flat, illustrating little difference in price as distance from the CBD increases. In the western corridor, prices actually rise slightly the further the distance from the CBD. In four cases (the northern corridor being the exception), prices closest to the CBD were actually lower than further out.

By 2008 all curves were much closer to the traditional bid rent model and some fitted it almost perfectly. Prices were much higher in inner and middle ring suburbs and much lower out towards the fringe. Without exception each house price curve was at a much higher level for any distance than in 1981, in most cases sharply so. This is very important context for any measurement of wealth accumulation as it indicates that:

→ Building wealth through accumulation of home equity appears likely in any of the suburbs along the price rent curves.

→ The extent of increase in wealth through accumulation of home equity is likely to be very much affected by area of purchase over this time period.

7.2 Estimating changes in net housing wealth at different periods by Melbourne house price corridors, 1981–2006

Within the context of the restructuring of housing sub-markets in metropolitan Melbourne 1981–2008, discussed in the previous section, we now look at changes in net housing wealth in the five corridors for household who bought in 1981 with a 25 year loan and for whom in 2006 the loan had been repaid. Wealth refers to the value of net assets, i.e. the market value of the gross asset minus any liabilities (e.g. repayment of outstanding mortgage and deduction of transaction costs). In the case of home ownership, this is often referred to as home equity. In effect, it is the housing component of the household balance sheet and is affected by the decisions that households make about purchase and sale as well as broader housing market changes.

The conceptual issues around measuring wealth were discussed in Chapter 3 (Section 3.2.3) and the research methods outlined in Chapter 4 (Section 4.2.4 and Table 6). Further technical detail is given in Appendix 5. In brief, to calculate changes in net housing wealth, we used:

- House sales data, in particular, the median price for an area at the time of purchase and then again at the time of sale.
- Mortgage repayments based on initial deposit (i.e. net wealth or home equity at time of purchase), amount borrowed, period of the mortgage, and interest rates during this period.
- Major transaction costs in buying or selling the asset (stamp duty payable on purchase and real estate agents' fees payable on sale).

For the calculation of increase in net wealth through home equity for house purchasers in 1981, the main assumptions were:

- A deposit of 25 per cent of purchase price, as was common practice at the time.
- A mortgage loan of 75 per cent of purchase price.
- A loan period of 25 years.
- Annual interest rates derived by averaging data on monthly interest rates from the Reserve Bank of Australia.
- Stamp duty factored in at the rate applicable in 1981 along with estate agents' fees of 2 per cent of the sale price in 2006.[19]

Amortisation tables were used to calculate the outlays based on the above mortgage terms and conditions.

We reiterate that we are concerned with changes in net housing wealth over different time periods as households buy and sell property within the Melbourne metropolitan area. This differs from approaches which estimate gross or net yield on investment through home purchase, as used in some of the US literature (e.g. Belsky & Duda 2002b, Table 26).

We first calculated changes in net housing wealth for households who bought their property in 1981 and resold at five yearly intervals up to and including 2006 when any remaining 'non-movers' would have discharged their mortgages. At this stage, the increment in net housing wealth (home equity) is measured by the difference between the deposit at initial purchase and the market value of the dwelling at the end of the period, minus the deposit and transaction costs as there are no longer any other liabilities against the property.

We note that the period of ownership (up to 25 years) is much longer than in other studies (e.g. Babcock 1992; Burbidge 2000). Our purpose is to test the degree to which holding a property for different periods of time affects the accumulation of net housing wealth disaggregated by area of purchase. The method enables increase in wealth to be calculated for locations along the Melbourne house price corridors for which CURF data on property prices are available at five yearly intervals between 1981 and 2006.

[19] For those who did not sell at the end of 25 years and who became outright owners, there were no estate agents' fees, so the data slightly understate the wealth built up for such households.

We present the findings in Table 22 by the five house price corridors. An important finding is that, unlike in some of the US literature, it is not possible to present the results aggregated into low, medium and high price areas due to fundamental restructuring of the Melbourne housing market over the period. Areas that had lower house prices in 1981 and which would have been affordable to low-moderate income purchasers, such as many inner areas, became middle or high price markets by 2006, whilst some outer urban high price areas in 1981 became medium price areas. Many suburban or outer urban areas which had medium prices in the 1981 housing market have become lower in price over time. As guidance we have shaded those areas with lower house prices in 1981 (10% or more below the Melbourne median) since these are areas that low-moderate income purchasers may have selected at the time. A number of these areas are far from lower price by the end of the period, which explains something of the findings.

Table 22 shows all purchaser households buying in 1981 and remaining in place for the selected corridor suburbs would have built net housing wealth through their purchase if they had stayed in their home for 25 years and then sold when they had discharged their mortgage. There is no evidence that low-moderate income purchasers buying in lower price areas (median house prices 10% or more below the Melbourne median in 1981) had lower percentage increases in wealth than middle-higher income households who bought in more expensive areas in 1981. In fact, of the six areas with the largest increments in wealth 1981–2006, four were lower price areas in 1981 (Footscray, Richmond, Northcote and Reservoir).

The differences in net wealth increase within house price corridors are more marked than between them. A household buying and staying in the inner western suburb of Footscray, the most affordable suburb in Melbourne in 1981, had the biggest net wealth gain (72.5 times their deposit) whilst the outer western suburb of Melton had the lowest (23.6 times the original deposit). The difference between these two traditionally lower price suburbs is explained by the restructuring of Melbourne housing sub-markets, outlined in Section 7.1. Footscray is a former industrial suburb that has been swept up in the revitalisation of the inner city and the decline of manufacturing, enabling more attractive economic use. Melton on the other hand is weak in local employment and amenity, and remains a lower house price area.

In contrast, the outer areas of Melbourne (such as Bayswater, Dandenong, Deer Park, Mill Park, Seaford and South Morang) experienced lower rate of capital gain and therefore the increase in wealth was less than elsewhere. All the areas in which the non-mover households experienced high increases in net housing wealth were inner and middle ring suburbs, irrespective of level of household income.

Table 22: Changes in net housing wealth over different time periods by locations along house price curve corridors, Melbourne, 1981–2006

	Deposit ***(net wealth at purchase)***	***Median house price (1981)***	***Wealth to deposit ratio 1986 (at 5 years)***	***Wealth to deposit ratio 1991 (at 10 years)***	***Wealth to deposit ratio 1996 (at 15 years)***	***Wealth to deposit ratio 2001 (at 20 years)***	***Wealth to deposit ratio 2006 (at 25 years)***	***Net house wealth gain***
				WESTERN CORRIDOR				
Footscray, West 5 km	$6 000	$24 000	6.4	12.1	13.0	35.2	72.5	$435 000
Sunshine, West 12 km	$7 625	$30 500	4.7	7.8	7.3	20.0	42.7	$325 575
Deer Park, West 17 km	$9 250	$37 000	4.1	7.5	6.1	13.3	27.4	$253 390
Melton, West 35 km	$8 750	$35 000	4.1	7.1	5.8	11.4	23.6	$206 360
				NORTHERN CORRIDOR				
Carlton, North 2 km	$16 250	$65 000	3.5	7.3	9.6	22.6	41.1	$667 300
Northcote, North 7 km	$9 000	$36 000	5.4	10.1	12.5	33.3	66.0	$593 700
Preston, North 9 km	$8 750	$35 000	4.7	8.4	9.2	26.2	51.1	$446 950
Reservoir, North 12 km	$9 000	$36 000	4.7	8.1	15.3	30.4	63.6	$572 140
Mill Park, North 23 km	$11 550	$46 200	3.7	7.1	7.6	14.8	26.8	$309 400
				EASTERN CORRIDOR				
Richmond, East 2 km	$10 250	$41 000	5.1	10.2	12.0	33.8	63.1	$646 350
Hawthorn, East 6 km	$19 000	$76 000	5.8	8.9	10.6	26.6	65.7	$1 247 650
Camberwell, East 9 km	$20 000	$80 000	5.1	10.2	11.0	24.9	49.0	$980 580
Box Hill, East 14 km	$11 000	$44 000	5.0	9.4	9.9	25.9	59.4	$653 440
Mitcham, East 20 km	$10 000	$40 000	4.9	8.6	9.1	22.9	46.2	$462 360
Bayswater, East 29 km	$10 125	$40 500	4.0	7.1	7.0	14.5	32.7	$331 405
				SOUTH-EASTERN CORRIDOR				
Richmond, East 2 km	$10 250	$41 000	5.1	10.2	12.0	33.8	63.1	$646 350
Malvern, South-east 8 km	$20 313	$81 250	5.0	9.1	13.1	28.2	63.2	$1 283 088
Mt Waverley, South-east 15	$13 500	$54 000	3.9	7.1	7.5	20.1	46.2	$623 500

	Deposit (net wealth at purchase)	Median house price (1981)	Wealth to deposit ratio 1986 (at 5 years)	Wealth to deposit ratio 1991 (at 10 years)	Wealth to deposit ratio 1996 (at 15 years)	Wealth to deposit ratio 2001 (at 20 years)	Wealth to deposit ratio 2006 (at 25 years)	Net house wealth gain
km								
Springvale, South-east 21 km	$9 000	$36 000	4.1	7.2	6.9	14.3	38.7	$348 700
Dandenong, South-east 30 km	$9 188	$36 750	4.2	7.8	6.4	13.2	34.8	$320 093
Berwick, South-east 43 km	$10 875	$43 500	4.3	8.2	9.1	15.5	46.9	$509 505
SOUTHERN CORRIDOR								
South Melbourne, South 2 km	$13 500	$54 000	5.0	9.2	13.7	30.5	58.7	$792 550
St Kilda, South 6 km	$13 500	$54 000	7.1	10.5	11.5	32.8	59.3	$799 900
Caulfield East, South 11 km	$19 375	$77 500	5.5	9.2	8.8	26.6	44.5	$862 625
Moorabbin, South-east 16 km	$12 250	$49 000	3.7	7.1	7.5	20.1	43.3	$530 425
Mentone, South-east 21 km	$13 194	$52 775	5.2	8.7	8.8	21.9	47.7	$628 706
Carrum, South 33 km	$8 113	$32 450	5.0	8.4	8.3	22.9	52.8	$427 988
Seaford, South 36 km	$8 750	$35 000	4.4	7.0	6.3	16.3	36.5	$319 550

Source: Median house prices from Victorian Valuer-General's Property Sales Statistics CURFs, all years 1981, 1986, 1991, 1996, 2001 and 2006.

Note: Suburbs shaded in grey had lower house prices in 1981 (median house price 10 per cent or more below metropolitan Melbourne median house price in that year).

There were few risks in building wealth for low-moderate income households buying in 1981 and holding their property for the full 25 years of the mortgage due to increases in house prices during almost all of the period. Any risks were associated with the size of mortgage repayments and other housing-related expenses relative to household incomes in the initial years of purchase, discussed in Chapter 6. However, as many households do not retain their property for such a long period, they may incur additional risks if they sell at the 'wrong' time in a housing price cycle, as we examine next. For those selling prior to 2006, the principal/interest outstanding has to be deducted from the sale price along with the transaction costs related to sale.

Table 22 illustrates the changes in net housing wealth for households purchasing in the selected Melbourne house price corridor suburbs (noting that those which had lower prices in 1981 are highlighted). Our analysis of the consequences of selling after 5, 10, 15 and 20 years indicates a more complex story in which some households do face risks depending on when they sell.

A close reading of Table 22 shows that households selling after 5 and 10 years (1986 and 1991) in all areas experience gains in net wealth relative to 1981 and, in the case of 1991 sales, relative to 1986. However, in 1996 we see a different picture after several years of price falls in Melbourne (the only period of price decreases in the study period). Household selling in six areas in 1996 would have had a decrease in net wealth relative to 1991 (the outer suburbs of Bayswater, Dandenong, Deer Park, Melton, Seaford and Springvale). The table also shows that any household selling in the selected suburbs in 1996 would have only experienced marginal gains in net wealth relative to 1991.

Thus a crucial issue in the measurement of changes in housing wealth is timing. As indicated in Table 22, the period 1991–96 was a period of economic recession and flatness in the overall housing market. The strongest growth in accumulation of housing wealth was between 1996 and 2006, particularly in the inner and middle suburbs within each house price corridor. This is due to sustained high inflation in housing prices from 1997 associated with high rates of economic growth and related factors. Unlike other countries, there was no significant house price correction in Melbourne (or any other major Australian city) as a result of the GFC. Prices appear to have stabilised at the time of writing (mid-2010) after 12 months of very rapid increase from mid-2009.

The main findings from this section are:

- Overall any household, whatever their household income on purchase, would have built up their net housing wealth over the period 1981–2006 if they had remained in the property for 25 years until the mortgage was discharged.
- The differences in increases in net housing wealth were primarily a function of area of original purchase, not household income.
- Households who bought into inner and some middle suburbs in 1981, which included low-moderate households purchasing in what were then amongst Melbourne's most affordable suburbs, had very substantial increments in wealth over the next 25 years due to the gentrification of what became high price inner and middle suburbs.
- Households who bought in outer suburbs in 1981 experienced lower rates of net housing wealth than those buying in inner and middle areas in all time periods but the relative difference was greatest after 1996. This stems not so much from household income at purchase, or subsequently, but lower capital gain relative to those experienced in inner and some middle suburbs due to fundamental housing and labour market restructuring which accelerated after the mid-1990s.

- Increase in net housing wealth is not guaranteed in some shorter periods; decline in net wealth does occur in some suburbs and at some times.
- Households purchasing in some areas face greater risks; by 1996, the risk of decline in net wealth was greatest in the lower price outer suburbs in which low-moderate income purchasers were increasingly constrained to buy, as we shall see later in the chapter.

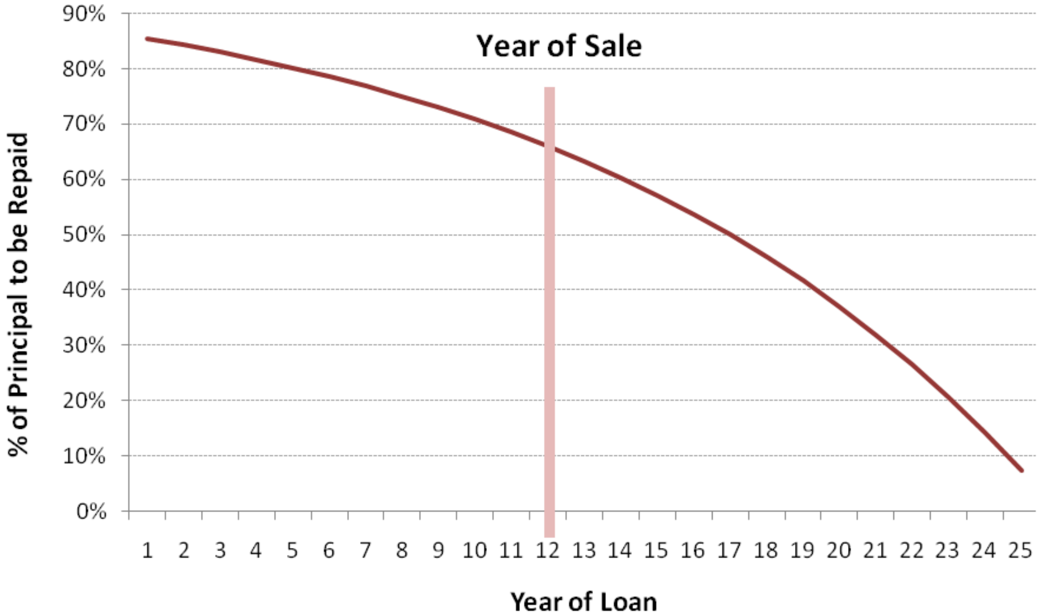
7.3 Estimating changes in net housing wealth under scenarios of trading up and trading down by Melbourne house price corridors, 1981–2006

The literature on home purchase by low-moderate income households, particularly from the US, indicates that the extent to which they accumulate wealth through home purchase depends on decisions to move within the housing market, in particular, 'trading up' to more expensive property (Hulse & Burke 2009). In this section we extend the analysis by exploring the dynamics of household decisions to buy and sell in different areas and at different times. Calculation of the effect of trading up and down requires time series data, ideally of panel format, which enables households to be tracked as they buy and sell dwellings over time. However, as with previous Australian wealth accumulation studies, data are not available over a sufficiently long period to enable analysis of multiple transactions at a spatially disaggregated level (as discussed in Appendix A5.4).

We did some simple scenario modelling of multiple transactions to test the implications for wealth accumulation or loss. The scenarios include movement from inner to outer suburbs, and from outer to inner suburbs. It is assumed that households (depending on scenario) move three times over a 25 year period (1981–2006). The initial purchase conditions were assumed to be the same as those outlined in Section 7.2, but for subsequent purchases the equity accumulated (if any) from the previous property become the deposit on the next dwelling. The equity accumulated is the difference between the median value of the property at assumed point of sale and the amount to be repaid to discharge the original mortgage. Again, relevant stamp duty and estate agents' fees apply, and the new mortgage for each transaction is assumed to be for 25 years and at the variable interest rate applying at the time.

As illustrated in Figure 19, where the household sells the property after 12 years of the 25 year mortgage, little of the principal has been repaid, such that a good deal of the capital gain over the period may well go into paying the remaining principal. After year 12, the amount of principal to be repaid declines quite quickly.

Figure 19: Amortisation of mortgage: Percentage of principal to be repaid after 12 years of 25 year mortgage



We illustrate this approach with scenarios in which 10 households move within Melbourne's house price corridors. In each corridor, we model a move inwards towards the CBD and outwards away from the CBD. For example, in one scenario, two households move within the eastern house price corridor between 1981 and 2006. One buys in 1981 in inner city Richmond but sells up and moves to Box Hill, a middle ring suburb, in 1993, before selling the Box Hill house in 2006. We compare this with a household which made the opposite moves (buying in Box Hill in 1981, selling in 1993 and buying in inner city Richmond, before selling the Richmond house in 2006).

The analysis presented in Table 23 reveals that where one moves to, and when, has important implications for accumulation of net housing wealth. This is illustrated in the southern house price corridor by the differences in net housing wealth accruing to the two households in our modelling. The household moving inwards along the southern corridor from outer suburban Carrum to inner suburban St Kilda accumulated a gain in net wealth almost three times that of the household who moved from St Kilda away from the CBD to Carrum. It is important to note that moving from away from the inner suburbs was not unusual in 1993 when some such areas were still seen as rundown and lacking in amenity. Households often chose to relocate to outer suburban areas which were seen as a much more attractive environment, particularly for bringing up children.

Table 23: Net wealth gain and ratio of net wealth to initial deposit, for selected scenarios of moving within Melbourne house price corridors, 1981–2006

Started in (1981)	*Moved to (1993)*	*Initial deposit*	*Net housing wealth gain*	*Ratio of net wealth to initial deposit*
Berwick South-eastern corridor 43 km	Malvern South-eastern corridor 8 km	$10 875	$1 143 302	105
Carrum Southern corridor 33 km	St Kilda Southern corridor 6 km	$8 113	$720 942	89
Richmond Eastern corridor 2 km	Box Hill Eastern corridor 14 km	$10 250	$636 216	62
Box Hill Eastern corridor 14 km	Richmond Eastern corridor 2 km	$11 000	$624 821	57
Mill Park Northern corridor 23 km	Carlton Northern corridor 2 km	$11 550	$604 739	52
Melton Western corridor 35 km	Footscray Western corridor 5 km	$8 750	$405 944	46
Footscray Western corridor 5 km	Melton Western corridor 35 km	$6 000	$206 143	34
St Kilda Southern corridor 6 km	Carrum Southern corridor 33 km	$13 500	$422 600	31
Malvern South-eastern corridor 8 km	Berwick South-eastern corridor 43 km	$20 313	$500 068	25
Carlton Northern corridor 2 km	Mill Park Northern corridor 23 km	$16 250	$304 700	19

Source: Median house prices from CURF data, Victorian Valuer-General’s Property Sales Statistics: 1981, 1993, 2006.

Notes: Calculated on original purchase 1981, change-over (sale and purchase) in 1993, and sale in 2006.

The main findings of the analysis are:

- All the ‘mover’ households experienced a gain in net housing wealth irrespective of where they moved to and from, notwithstanding that the change-over year of 1993 was in the middle of the only period of house price decreases during 1981–2006;
- The greatest gains were made by the five households who in their change-over sale/purchase in 1993 moved towards the CBD. Conversely, lesser gains were made by the five households who moved to areas further from the CBD within the house price corridor in 1993.

In this study we are particularly interested in exploring any risks that low-moderate income households face in building their net housing wealth. In the next section, we examine the risk of decrease in net housing wealth as a result of selling their property within different time periods.

7.4 Analysis of capital gain or loss on repeat property sales, 1999–2008

We wanted to test whether there was likely to be heightened risk of a decrease in net housing wealth for low-moderate income households who had to sell after only a short period of purchase through examination of residential property sales which incurred a loss, categorised by dwelling price range and type of location in Melbourne (inner, middle and outer suburb).

We could find no previous use of repeat sales data at different points in time and for different housing markets in Australia, and only a small number of studies in the US (Pollakowski, Stegman & Rohe 1992; Li & Rosenblatt 1997; Smith & Ho 1996; Belsky & Duda 2002a). There is a broad consensus of findings from these studies that losses in the US are common (often in excess of a quarter of repeat sales), that the existence and extent of loss varies greatly across housing markets and that, in relationship to lower price housing, there is no consistent evidence that it performs worse and in some cases performs better than higher price housing. Whether this is still the case after the US sub-prime crisis remains to be seen.

Analysis of repeat sales of residential properties is now possible in some Australian jurisdictions for which data are available, including Melbourne. We use Victorian Valuer-General's Property Sales Data 1999–2009, geo-coded for specific addresses, to enable identification of properties where repeat sales have taken place. The analysis calculated gains and losses for repeat property sales for all houses and, for parts of the analysis, flats/units in the Melbourne metropolitan area over the 10 years to 2009. We use 1999 as the start year as this is the earliest year that geo-coded data are available. The detailed methodology is outlined in Appendix 5.5 but essentially calculates the price at purchase plus stamp duty and price at sale indexed to 2008 dollars.

There are a number of caveats to this approach which we discuss in Chapter 4 and Appendix 5.5. The most important is that these are raw repeat sales data and not hedonic, that is, they do not enable the component of price increase resulting from investment in capital upgrades (quality improvements) to be identified. For the purposes of this section, this is perhaps not such an important constraint as we are exploring potential risks to net housing wealth from resale of properties at a loss. However, if households have invested in quality improvements and still make a loss on resale, the reduction in net housing wealth would be greater than measured here.

Table 24: Percentage of residential dwellings sold at a loss, Melbourne metropolitan area, 1999–2008

Time between purchase and sale (years)	*House*		*Flat/Unit*		*Dwelling*	
	% Loss	*All properties resold*	*% Loss*	*Total resold*	*% Loss*	*All properties resold*
1	29.0%	13 026	29.0%	5 360	29.0%	18 386
2	24.7%	17 413	29.2%	6 933	25.9%	24 346
3	19.7%	16 728	28.7%	7 222	22.4%	23 950
4	14.6%	15 655	27.3%	7 104	18.6%	22 759
5	9.1%	13 825	24.5%	6 637	14.1%	20 462
6	5.6%	11 713	22.4%	5 898	11.2%	17 611
7	3.1%	9 047	18.3%	4 768	8.3%	13 815
8	2.0%	6 279	14.0%	3 222	6.1%	9 501
9	1.8%	3 124	9.2%	1 578	4.3%	4 702
10	1.9%	1 147	11.6%	632	5.3%	1 779
All years	14.9%	107 957	24.5%	49 354	17.9%	157 311

Source: Calculated from CURF data on repeat sales from Victorian Valuer-General's Property Sales Statistics 1999–2008.
Note: Loss refers to negative result when purchase price plus stamp duty are indexed to 2008 dollars and compared to sale price indexed to 2008 dollars.

An analysis of repeat sales of houses and flats/units in Melbourne is presented in Table 24. There are a number of important findings from this analysis:

- Contrary to popular belief that you cannot lose on residential property, and consistent with the US findings, one in eight sellers appears to have lost money on sale of their houses (14.9%). This is despite the high rates of inflation in house prices, and dwelling prices more generally, in this period.
- Rates of loss on units and flats are generally greater than for houses, irrespective of how long the dwelling has been owned. However, a substantial proportion of these would have been owned by rental investors rather than home purchasers, so the results should be treated with some caution.
- The longer a household holds on to a property before selling, the less likely they are to make a loss. This is particularly the case with houses where only 1.9 per cent of those holding the property for 10 years made a loss on sale.
- Those households who sell after holding the property for four years or less are most likely to make a loss. This is particularly the case for units and flats. As indicated above, this may well be a problems for rental investors as much as home purchasers.
- Three in 10 households who sell within one year make a loss on their property.
- The data cannot tell us about gains or losses for the longer periods of time for which households may own houses, but the findings are such that they would suggest any losses after a 10-year period are minimal.

Why households sell after only a short time period is not clear, but home purchasers who have to sell within a year or two do risk making a loss on their property and seeing a diminution in their net housing wealth. Thus low-moderate home purchasers risk making a loss if they have to sell for reasons not entirely of their choosing, e.g.

loss of job, loss of second income, need to relocate for employment, or change in family circumstances such as separation/divorce. As indicated, these figures also include investors who could experience similar problems and have to sell at a loss. Making a loss in a rising housing market is in part a function of transaction costs (such as stamp duty and real estate agents' fees) as it takes a few years of house price growth faster than the rate of inflation to cover these.

We wanted to understand the effects of housing market factors on the rate of capital gain or loss in more detail. Table 25 shows (this time for houses only) the percentage of repeat sales that were made at a loss for each year of sale and purchase. It highlights how those who sell in the short term have a much greater risk of capital loss, but the extent of risk varies from year to year according to housing market conditions. For example, almost half of those who bought houses in 2005 (the crest of the current boom) and sold a year later in 2006 made a loss. In contrast, of those who bought in 2001 and sold in 2002, only 13.5 per cent made a loss. This indicates the importance of timing in determining the risks of loss of wealth through home purchase. In the case of low-moderate income purchasers whose incomes or other circumstances change, it may well be that they do not have the financial resources to maintain regular mortgage repayments until house prices are more favourable and are at greater risk of incurring a loss if they have to sell in the first few years of purchase.

Table 25: Percentage of houses sold at a loss, by year of purchase and resale, Melbourne metropolitan area, 2000–09

LOSS		***Year resold***									
		2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***
Year purchased	1999	31.8%	16.4%	4.8%	3.1%	2.8%	2.7%	2.2%	1.2%	1.6%	1.9%
	2000		20.7%	6.3%	4.4%	3.4%	3.1%	2.5%	1.9%	2.1%	1.9%
	2001			13.5%	9.3%	8.1%	8.3%	5.9%	4.0%	3.2%	3.5%
	2002				17.2%	18.5%	19.9%	17.6%	10.4%	8.0%	6.7%
	2003					34.5%	44.0%	43.1%	26.8%	19.0%	16.1%
	2004						47.7%	50.0%	33.0%	22.2%	20.0%
	2005							48.0%	31.2%	21.7%	19.9%
	2006								23.5%	22.2%	21.8%
	2007									36.9%	36.7%
	2008										44.3%

Source: unpublished CURF data on repeat sales from Victorian Valuer-General's Property Sales Statistics 1999–2008.
Notes:
1. Loss refers to negative result when purchase price plus stamp duty are indexed to 2008 dollars and compared to sale price indexed to 2008 dollars.
2. Table refers to houses only and excludes other types of residential property such as flats/units.

The data do not enable a direct analysis of the income level of households who sell at a loss. However, we can estimate this in two ways:

- Through analysis of the residential location of low-moderate income purchasers, as indicated by ABS Census of Population and Housing data.
- By disaggregation of house price data spatially into price ranges, identifying areas where lower price properties are affordable to low-moderate income purchasers.

We classified all suburbs in the Melbourne metropolitan area as one of four house price zones: inner, middle, outer and growth zones, using the standard classification of the Victorian Department of Planning and Community Development.[20] Analysis of the spatial location of low-moderate purchasers, using data from the 2006 Census of Population and Housing, indicated a particular concentration of such households in the growth zone beyond the more established outer suburbs.

With this in mind, we analysed the repeat sales data by the four zones. The data cover houses sold in all the years between 1999 and 2008 indexed to 2009 prices. The three price categories are: below $300 000, $300 000 to $500 000, and $500 000 and above. The results of the analysis are presented in Table 26.

Table 26: Percentage of houses sold at a loss by price zone and time between purchase and resale, Melbourne metropolitan area, 2008

Sold in 2008	*Resold after 2-3 years (i.e. bought in 2005–06)*	*Resold after 4-5 years (i.e. bought in 2003–04)*	*Resold after 6-7 years (i.e. bought in 2001–02)*
Inner	13.6%	9.4%	6.4%
Middle	12.4%	13.3%	6.1%
Outer	18.0%	16.4%	3.1%
Growth	41.0%	35.7%	7.8%
All zones	21.9%	20.5%	5.6%
Total houses resold at a loss	3 237	3 743	4 817

Source: Calculated from Victoria Valuer-General's Property Sales Statistics unit record files, all years 1999–2008.

Remembering that the overall percentage of all residential dwellings sold at a loss over a 10 year period was 14.9 per cent (Table 24), there are some interesting observations. The analysis in Table 26 confirms that the longer the period between purchase and sales, the lower the risk of loss. However, the risk of loss on resale also differs by price zone. The rate of loss in the outer and growth zones, notably the growth zones, is much greater than in other areas, particularly if the house is resold within a few years of purchase. Four in 10 houses sold in 2008 which had been purchased in 2005–06 in the growth zone made a loss. There is a similar pattern for houses in the growth zones sold in 2008 after four to five years. For properties sold six or more years after purchase, the rate of loss of housing wealth on resale declines rapidly. As there is a concentration of low-moderate income purchasers in the growth zones, such households are more likely to be at risk of making a loss if they have to sell in the first five years. The problem is that in the early years, for households who want, or have, to sell in these locations, the rate of house price inflation is insufficient to compensate for the transaction costs (stamp duty). However, to the extent that

[20] This section focuses on more recent data than previous sections, hence the addition of another 'zone' of residential development in Melbourne, the outer growth zone, to encompass new development over the last decade.

some of these are first home buyers with concessions on stamp duty, this risk would be mitigated.

In summary, analysis of data on repeat sales indicates that:

- Contrary to popular perception, home purchasers reselling a property can experience a financial loss on resale even in a period of sustained increase in housing prices.
- Those who sell within a short time period (less than two years) face much higher risk of loss than those who sell after longer periods.
- The longer the period of ownership, the less the risk of loss, and as ownership nears 10 years or more the risk is minimal.
- In the lower price sub-markets, particularly the outer suburban and growth zones, where there is a concentration of low-moderate income purchasers, the risk of loss over the first five years of purchase is much greater than for higher price areas.

7.5 Purchasing versus renting

Up to this point, we have found that low-moderate income purchasers have had opportunities to build wealth through home ownership since 1981 but with a higher degree of risk of financial strain in sustaining ongoing payments in the early years of their mortgage (Chapter 6). We have seen in the previous section that this can snowball into risk of a net decrease in housing wealth if they buy in cheaper outer suburban and growth zones and have to sell within the first five years. In view of these findings, we now investigate whether low-moderate income purchasers would be better off financially if they stayed in rental rather than attempting to buy, particularly in Melbourne's outer and growth zone areas, with the consequent risks for housing wealth.

To answer this question we look at the financial position of renters who may have been able to purchase but who choose to remain in rental. To do this, we do not just compare rent payments to mortgage repayments over time but assume any differential between rents and mortgages is saved. We appreciate that many low-moderate income renters face difficulty in paying the rent without significant financial stress (Yates & Milligan 2007). However, some low-moderate income households may have funds available after paying the rent which can be put to savings. Here we assume that the amount of saving is the amount they would have paid out on a mortgage for an equivalent property minus their rent payment. Typically in most housing sub-markets, the rent is less than a new mortgage for an equivalent dwelling, so a renter on the margins of ownership has to weigh up the cheaper cost of renting versus the higher initial cost of a mortgage

The method thus adapts the work of Stone (2009) and looks at the putting the rent/mortgage differential towards a long-term investment or savings plan. This assumes that there is a differential between mortgage repayments and rent levels (which is often the case in Australia in the early years of ownership), and that the differential is committed to investment, in our case, we assume in fixed bank deposits.

In his keynote address to the Australasian Housing Researchers Conference (2009), Stone asked whether there might be alternative forms of housing provision to ownership that could preserve and extend what are regarded as the positive benefits of home ownership while avoiding or overcoming the negative ones. He outlined a resident saver model whereby the additional savings a household would make compared to ownership would be put into a compulsory savings plan of their choice.[21] In this study we test whether a household would be better off financially if they had invested any savings from the mortgage-rent differential into fixed term deposits.

Tables 7.6a and 7.6b show how this works, comparing a household requiring a three bedroom house in Dandenong, an outer suburb in the south-eastern house price corridor (30 km from the CBD), and Coburg, a middle suburb in the northern corridor (8 km from the CBD), which has not previously featured in our analysis, by way of comparison. The annual median rent for a three bedroom house in each area as obtained from the Victorian Office of Housing Rental Report is shown for 1999 onward in column two of Tables 7.6a and 7.6b (see Appendix A5.6 for more detail of the method). The mortgage required to purchase a median priced three bedroom dwelling in each area in 1999 is shown in column three with the mortgage based on the same assumptions as outlined in section 7.2. Column 4 is the rent/mortgage differential for 1999 and subsequent years. This is the amount that we assume can be put towards savings. Column 5 shows the accumulation of these savings if invested in three year fixed deposits at the interest rate applicable for the relevant year. Column 6 shows how much extra would have accumulated if the amount payable as a deposit on a house for purchase is also saved.

Table 27: Case study of resident saver model, Dandenong (south-eastern corridor)

	Monthly			*Savings*	
Year	*Rent*	*Repayment*	*Resident saver deposits*	*No initial deposit*	*Initial deposit*
1999	$620	($673)	($53)	$645	$14 721
2000	$640	($746)	($106)	$1 986	$16 921
2001	$660	($690)	($30)	$2 443	$18 070
2002	$700	($660)	-$40	$2 064	$18 405
2003	$720	($675)	-$45	$1 607	$18 651
2004	$740	($703)	-$37	$1 227	$19 062
2005	$760	($716)	-$44	$745	$19 384
2006	$800	($739)	-$61	$31	$19 554
2007	$920	($777)	-$143	-($1 723)	$18 777
2008	$1 040	($825)	-$215	-($4 454)	$17 080

Note: Appendix 5.6 outlines details of the method and data sources.

[21] The resident saver model was only one option canvassed. Another was a modified mutual housing association form of ownership, something akin in the Australian context to a rental cooperative, which would offer much lower housing costs than conventional purchase (Stone 2009).

Table 28: Case study of resident saver model, Coburg (northern corridor)

	Monthly			Savings	
Year	*Rent*	*Repayment*	*Resident saver deposits*	*No initial*	*Initial*
1999	$760	($1 229)	($469)	$5 749	$34 887
2000	$800	($1 362)	($562)	$13 035	$43 950
2001	$840	($1 260)	($420)	$18 790	$51 137
2002	$880	($1 206)	($326)	$23 641	$57 465
2003	$920	($1 234)	($314)	$28 501	$63 780
2004	$960	($1 284)	($324)	$33 798	$70 715
2005	$980	($1 309)	($329)	$39 346	$77 928
2006	$1 000	($1 350)	($350)	$45 504	$85 915
2007	$1 160	($1 420)	($260)	$50 968	$93 401
2008	$1 400	($1 507)	($107)	$54 851	$99 425

Note: Appendix 5.6 outlines details of the method and data sources.

The analysis presented in Tables 7.6a and 7.6b shows quite different results for the two areas. In Dandenong such is the increase in rents, and the low level of initial mortgage, that after only four years there is no rent mortgage differential to put towards savings and after that there is negative savings. However, in Coburg, it is still cheaper to rent than purchase, even after 10 years.

What is most interesting about such analysis is the sub-market variations. Applying this method to some of our Melbourne corridor suburbs, we found that for the outer suburbs of Dandenong, Melton West and Springvale it was only four years before home purchase makes more financial sense than renting; for outer suburban Frankston it was nine years, and with middle ring Coburg and inner city Footscray it was in excess of 10 years. At face value, there is no clear pattern that would explain the difference as while the first four areas are all outer urban, so too is Frankston for which we get a much different result. This is an issue for further research.

Table 29: Application of resident saver model to selected Melbourne corridor suburbs, 1999–2008

	Purchase price 1999	***Initial outlay 1999***	***Property worth 2008***	***Remaining principal***	***Net yield from purchase***	***Saved***	***Saved with stamp duty***
Dandenong South-eastern corridor 30 km	$110 000	$13 440	$336 000	$78 397	$244 163	($4 454)	$17 080
Footscray Western corridor 5 km	$180 000	$24 460	$450 000	$128 286	$297 254	$46 615	$85 805
Melton West Western corridor 35 km	$108 000	$13 192	$240 000	$76 971	$149 837	$1 027	$22 164
Frankston Southern corridor 39 km	$125 375	$15 720	$306 000	$89 355	$200 926	$6 534	$31 720
Coburg Northern corridor 8 km	$201 000	$27 820	$501 000	$143 252	$329 928	$54 851	$99 425
Springvale South-eastern corridor 21 km	$116 000	$14 220	$365 000	$82 673	$268 107	($777)	$22 007

Note: Appendix 5.6 outlines details of the method and data sources.

Our detailed analysis confirms what many people intuitively believe: that a household is generally better off buying than renting, even if any initial savings from renting rather than purchasing are invested. Renting is only better than purchasing in the very short term. Importantly, where there is a factoring of yields (net capital gain) into this analysis, as in Table 29, the case weighs in favour of purchase. Column 6 shows the net yield from purchase in these more affordable suburbs, compared to columns 7 and 8 which show the net saver outcomes from remaining as a renter and saving the rent/mortgage differential. For this particular period 1999–2008, the purchaser was much better off in wealth terms even compared to the best saver scenario, that is, investment of the amount that otherwise would have gone into a deposit (Column 8).

The tentative implication of this analysis is that:

→ Many low-moderate income households would be better off after three to four years of financial austerity if they purchased rather than rented.

→ The extent to which this is the case depends on the area in which they live/purchase.

These findings are, of course, affected by a number of variables including rent levels in specific sub-markets and interest rates available for term deposits which in recent years have been low in historical terms.

7.6 Low-moderate income purchasers in the current housing market: trapped in space?

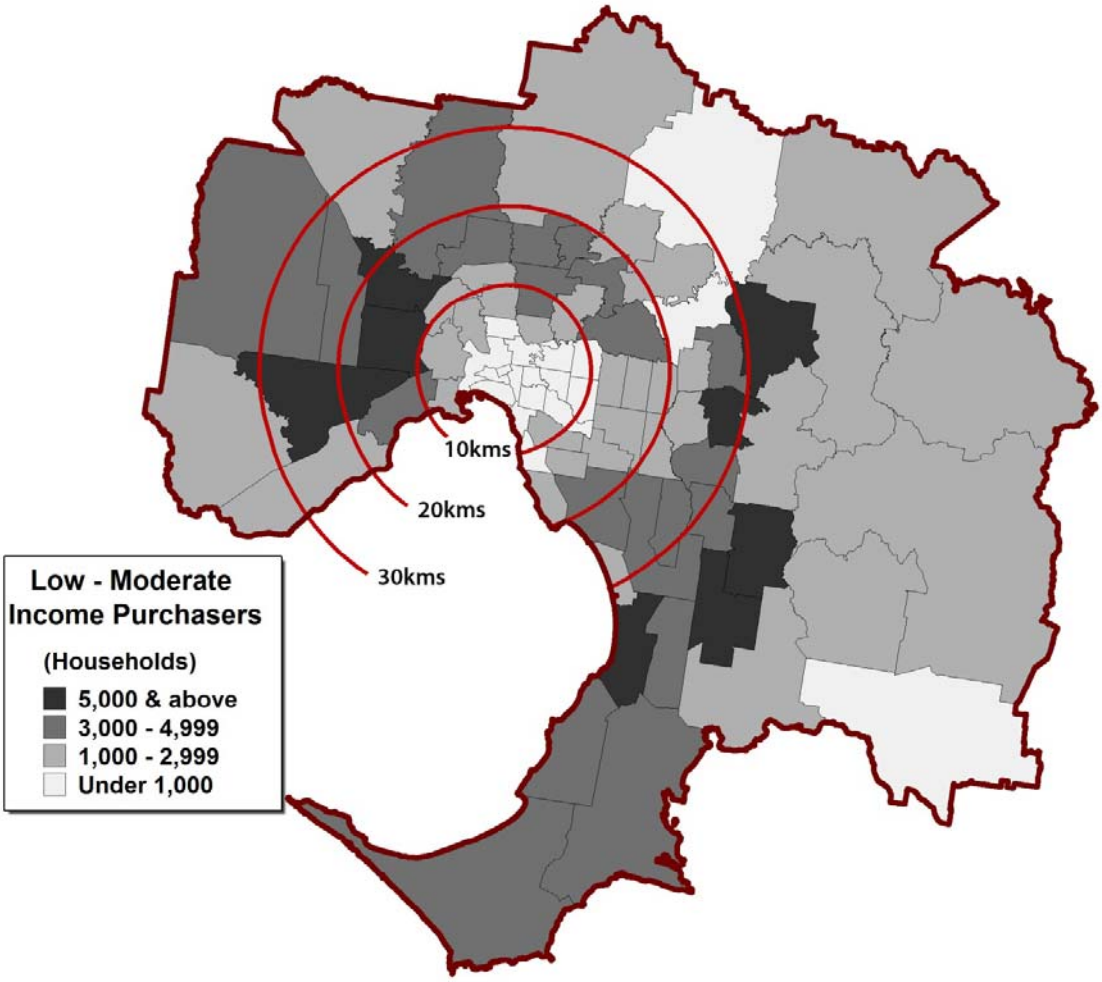
The findings to date illustrate a complex pattern of wealth accumulation through change in residential property prices, particularly houses, from 1981 to 2008. It does appear that home purchase is generally an effective means of building wealth for households whatever their income level, if they do not have to sell after a short period. However, what is also clear is that the increases in net housing wealth particularly after 1996 were greatest in the inner and middle suburbs of Melbourne.

These conclusions are based on analysis of historical data which will not necessarily be the case in future years. For example, house prices may not increase as in 1981–2008 or even decrease, which would affect all home purchasers. There are, however, likely to be greater risks for low-moderate income purchasers than in the past due to the restructuring of Melbourne housing sub-markets discussed in Section 7.1.

Over the study period, there has been substantial spatial polarisation in terms of where households on different levels of household income live in Melbourne. Map 2 shows the 20 suburbs with the highest count of low-moderate income home purchasers in 2006 and refers to those living in houses only. It shows a considerable concentration in outer urban or growth zone areas, although this is somewhat disguised by the very broad boundary of the Melbourne metropolitan area. The map includes all purchasers who were on low-moderate household incomes in 2006, not just recent purchasers.

Many of these areas are ones in which there are new estates intensively marketing affordable house/land packages. In Craigieburn in the growth zone in Melbourne's outer north, one of the half dozen areas most popular for new home purchasers, such a package can be bought for around $400 000 for a new dwelling of three or four bedrooms, two bathrooms, family room and living room and a 650 sq metre allotment. In middle and inner ring suburbs, this amount would scarcely buy an unrenovated 40 year old, two bedroom apartment. For low-moderate income purchasers with a family who want to buy a house, the outer urban growth areas are the only choice. A number of other areas are even more affordable, i.e. around $350 000 for a house. These tend to be suburbs immediately adjacent to the newer ones but which may have been built 20 years ago. They are only marginally closer to the CBD but are less well designed estates with houses smaller and less equipped than in the new estates, hence the lower price.

Map 2: Low-moderate income purchasers (houses only) by Melbourne statistical local area, 2006



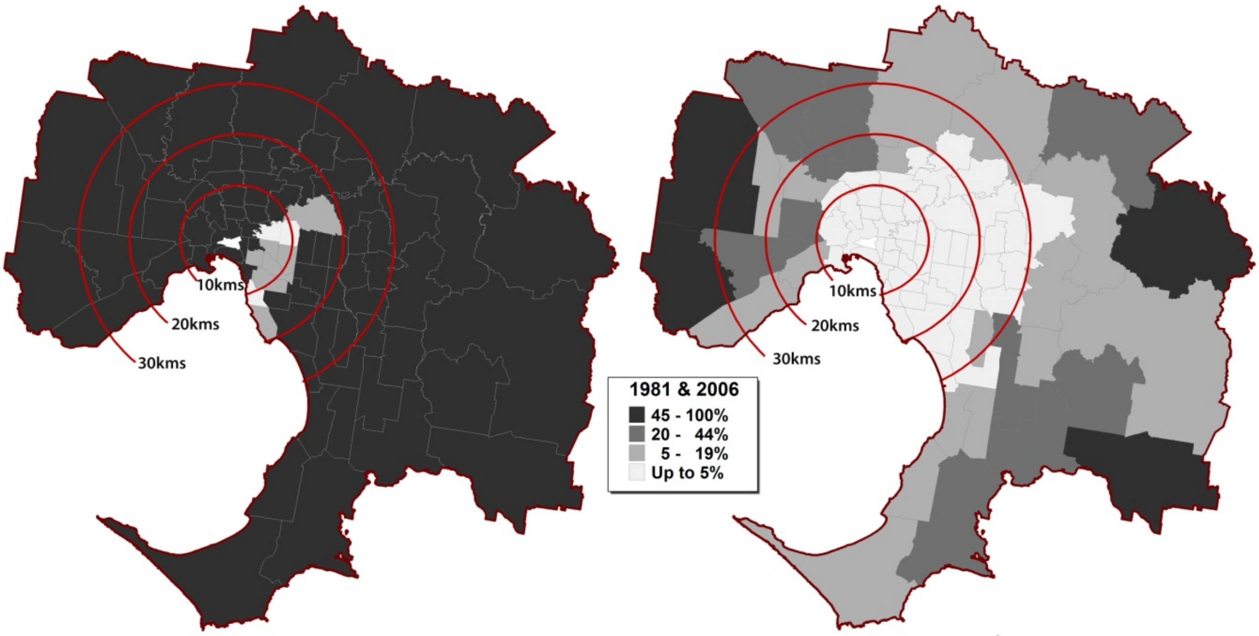
Source: ABS Census of Population and Housing 2006.
Note: Calculated for households below the 40th percentile for home purchasers.

The spatial manifestation of this problem of affordability for low-moderate income purchasers. In Map 3, we compared the percentage of houses available (i.e. sold in any one year) which are available to low-moderate income purchasers in 1981–82 and 2007–8, using the lending conditions applicable at the time, which we have detailed elsewhere (Appendix 5.3).

In 1981–82, low-moderate income purchasers could afford to buy houses in 69 of the 78 statistical local areas in Melbourne, with a choice of between 20 and 100 per cent of properties sold. In other words, they had the choice of 88 per cent of Melbourne's areas which offered reasonable choice. There were only two areas where less than 5 per cent of properties were affordable. Low-moderate income purchasers of the period could buy in most areas of Melbourne (referring to areas where more than 45 per cent of properties were affordable).

There were dramatically reduced opportunities for low-moderate income purchasers in 2007–08. The 88 per cent of the market available in 1981 to such purchasers has been reduced to only 8 per cent of Melbourne's areas and all of these are outer urban or growth zones. For 62 per cent of Melbourne there is effectively no choice, i.e. less than 2 per cent of the local market or a handful of properties per year would be available to them. Only three areas remain in which houses are affordable: the Yarra Valley (eastern corridor growth zone), Casey (south-eastern corridor growth zone) and Melton (western corridor growth zone). Until these households build very substantial equity, perhaps a 20-year process, and/or have very large increases in household income to sustain a much larger mortgage, they are trapped in space. They can effectively only move around the outer suburbs or growth zones.

Map 3: Percentage of houses sold which were affordable by low-moderate income purchasers, Melbourne, 1981–2006



Source: Caclulated from CURF data, Victorian Valuer-General's Property Sales Statistics.

Thus while the evidence suggests that low-moderate households do accumulate wealth through their housing over time, for those living in lower price areas the amount is not enough to provide locational choice. For some this may not matter, but for those who need to move for reasons of employment, health care, marriage (family connections) or educational opportunity, the fact that they can only move around the fringes of Melbourne and to regional areas may constrain their life chances. They may be better off than renters, as discussed in Section 7.5, but they are certainly worse off in terms of locational choice compared to low-moderate income purchasers of the past.

The real story about housing wealth thus appears to be a locational one. Low-moderate income households can only buy houses in outer suburban areas and in the growth zone. These are not currently areas of socio-economic disadvantage and are different to the spatial areas of high deprivation in Melbourne identified by Baum and Gleeson (2010, p.145). We reiterate that in 2007–08, low-moderate income purchasers earned up to $76 000 household income. However, their restricted choices in terms of location may create different life opportunities compared to middle-higher income households who have the option of buying in inner and middle suburbs. This may affect some of the social benefits traditionally associated with home ownership, such as flexibility in access to employment, educational opportunity or ability to respond to changes in personal circumstances.

7.7 Summary

In this chapter we looked at the issue of wealth accumulation through housing in a number of different ways, for different time periods and comparing different areas. Our analysis focused on understanding the operation of the housing market over time and space as it affects low-moderate income purchasers, rather than the individual histories of such households for which no data area available on the scale that would be required. Nevertheless the findings are still compelling.

Overall, home purchase appears to have been a good strategy for household wealth accumulation over the period 1981–2008. Due to a sustained increase in residential property prices in Melbourne, households on different income levels, including low-moderate income purchasers, have been able to build wealth through their housing. We have no way of knowing, however, whether price increases at these levels will continue.

The extent of housing wealth increase depends in large part on where and when low-moderate income purchasers bought their housing. There was fundamental restructuring of housing sub-markets in Melbourne in 1981–2008, as illustrated by the house price rent curves. So, although low-moderate income purchasers who bought in inner suburbs in 1981 experienced some of the greatest increases in housing wealth, the extent of choice of location has narrowed for later cohorts of low-moderate income purchasers. From the mid-1990s, in particular, such purchasers have been increasingly restricted to buying in the outer suburbs and outer growth zone, particularly if they want to buy houses. Whilst it has been possible to accumulate wealth in these areas, the extent of wealth increase has been much less than for those buying in inner and middle suburbs.

There are risks to housing wealth associated with home purchase. Whilst most of the period 1981–2008 saw sustained house price rises in Melbourne, prices did decline in the early 1990s, and this is always a possibility depending on economic conditions. Households may not gain, and may even see reduced wealth levels during such periods. The important point in determining risk is about timing. Households who sell within three years have a higher probability of loss of wealth. Evidence from repeat sales data show that this risk is greatest in lower price markets, in particular, outer suburban and growth zones and, increasingly, therefore, it is the low-moderate income purchasers in these areas who bear this risk. Why so many households sell so soon after purchase, and for a loss, cannot be addressed by the embryonic repeat sales analysis of this study and further work is necessary. It may be that low-moderate income households sell up voluntarily in the face of the type of financial stress experienced in the first few years of purchase that we discussed in Chapter 6, rather than go into mortgage arrears. They may lose all or part of their housing wealth in a bid to deal with financial stress, or even owe money as a result of such sales. Current data on mortgage arrears and defaults do not pick up households in such circumstances.

Increases in housing wealth are greatest where households are able to trade up and improve their equity. Prior to the early 1990s, it was possible for low-moderate purchasers to purchase in a range of suburb types which enabled them to increase their wealth in this way, using their accumulated equity as the deposit for another dwelling. It is increasingly difficult for such purchasers to trade up to middle and higher price areas as they are unable to afford to purchase even when they have accumulated substantial equity in their homes, particularly if they live in a lower price outer suburban or growth zone area. However, analysis of the residential saver model showed that low-moderate income households in some, although not all, outer suburban areas were still better off buying rather than renting and saving in the period 1999–2008.

The major finding from this research is about increasing spatial segregation as a result of housing market restructuring in Melbourne 2001–08. While low-moderate income purchasers may still accumulate wealth in the outer urban and growth zone areas, where they increasingly have to buy, the rate of accumulation means that they will have few options to trade up to other areas. Many will be trapped in these areas and unable to enjoy the opportunities to move that were once taken for granted. This suggests that we will see increasing disparities in the wealth of home purchasers, and subsequently owners, in the future. There is the additional prospect that wealth disparities will increase over time as residential property is passed to other family members tax-free through inheritance.

In the next chapter, we explore how low-moderate income purchasers buying in lower price areas in the outer suburbs and growth zones experience some of these changes. What sort of trade-offs do they make due to financial constraints and, in consequence, are they able to realise the projected psycho-social and social benefits of home ownership?

8 EXPLORING THE PERCEPTIONS OF THE BENEFITS AND RISKS OF RECENT LOW-MODERATE INCOME HOME PURCHASERS

This chapter focuses on the perceptions and views of low-moderate income home purchasers about the benefits and risks of buying a home. It is based on in-depth interviews conducted with a small sample (12) of low-moderate income households living in three sites of outer metropolitan Melbourne who had purchased their home within the last five years. The primary focus of the qualitative research is to explore to what extent the potential non-financial benefits of home purchase are realised by recent low-moderate income households living in areas of lower price housing (research question 4).

In this chapter, we examine projected ‘psycho-social benefits’ and ‘social benefits’ of home ownership. The psycho-social benefits include improved sense of security, increased autonomy, and heightened levels of perceived control due to the capacity of households to control their living arrangements. The social benefits include projected improvements in health, children’s education, employment participation and social connectedness, as well as perceptions of, and involvement in, the local neighbourhood. The literature reviewed for this project suggests that it is the psycho-social aspects of home ownership that deliver the social benefits. However, as discussed in Chapter 3, many of the associations reported in the literature between home ownership and psycho-social and social benefits are based on experience of home ownership generally, and reflect the large number of home owners who either have low or no mortgage repayments and/or who have lived in their home for a long time. There is little evidence on whether more recent home purchasers, particularly those on low-moderate incomes, experience these benefits.

The chapter presents findings on the following issues:

- The trade-offs and compromises made by the households interviewed and the extent to which they experience financial strain (Section 8.1).
- The expectations and experiences of the psycho-social aspects of home purchase (Section 8.2).
- The extent to which those interviewed experience social benefits thought to be associated with home ownership (Section 8.3).
- The ways in which lower income households assess the overall benefits and risks associated with home purchase (Section 8.4).

8.1 Trade-offs and financial strain

The households interviewed were asked about their experiences and expectations of home purchase, including trade-offs, compromises made and financial strain as a result of paying for their housing when on low-moderate incomes. Trade-offs were discussed in terms of compromises made to current housing needs and realistic expectations, rather than to ideal house type or ‘dream home’. They were explored in relation to dwellings (house size, quality, age and so on) and location (distance, travel times, desirability of location, safety and so on). As well, a detailed account of the financial implications of house purchase, from planning and saving, described above, to the experience of meeting mortgage and other costs, was also explored.

8.1.1 Housing and locational trade-offs

While the sample of purchasers is small, it is nonetheless striking how few perceived that they had made housing (dwelling) specific compromises to the homes they purchased, as illustrated in Table 30. Eight households appeared to have made no real trade-offs to their dwellings, while four had made moderate trade-offs only. These results are perhaps surprising in view of the well-publicised 'housing affordability' problems in Melbourne.

Table 30: Summary of extent to which housing specific trade-offs are made among young, recent migrant and disrupted households

Trade-offs in terms of housing size/type	*Young households (n = 4)*	*Recent migrant households (n = 2)*	*Disrupted households (n = 6)*
No trade-offs	1 *(Case 4)*	2 *(Cases 3, 9)*	5 *(Cases 2, 6, 8, 11, 12)*
Moderate trade-offs	3 *(Cases 1, 7, 10)*	0	1 *(Case 8)*
Extensive trade-offs	0	0	0

Source: Interviews with low-moderate income home purchasers in Melbourne metropolitan area (n = 12).

Where any trade-offs or compromises are indicated at all in the interviews, these tend to be relatively minor and aesthetic and are in many cases aspects of housing that can be modified in time. Examples include renovating outdated kitchens and making other modifications to homes to make them 'their own', being able to slowly add the 'extras' not affordable at the time new homes are built (e.g. better quality lighting), improving garden landscaping, and making improvements to their homes sometimes very slowly over substantial periods of time as and when they are able. A number of households had bought land and built new dwellings via registered builders. In other cases, households had purchased very recently built housing. In these cases, there appears to be a relatively high level of satisfaction, and hence lack of a sense that trade-offs have been made.

In contrast, all but two households made trade-offs in the location where they bought in order to afford their homes. In some cases, these trade-offs are substantial, as shown in Table 31. The classification of trade-offs takes account of the distances household members travel to employment and networks, their own assessment of compromises made during the purchase process, and their apparent overall desire to live in the locations they purchased in (relating this primarily to time of purchase).

Table 31: Summary of extent to which location specific trade-offs are made among young, recent migrant and disrupted households

	Young households (n = 4)	*Recent migrant households (n = 2)*	*Disrupted households (n = 6)*
No trade-offs	1 *(Case 1)*	1 *(Case 3)*	0
Moderate trade-offs	2 *(Cases 7, 10)*	0	3 *(Cases 5, 6, 12)*
Extensive trade-offs	1 *(Case 4)*	1 *(Case 9)*	3 *(Cases 2, 8, 11)*

Source: Interviews with low-moderate income home purchasers in Melbourne metropolitan area (n = 12).

Where no or only moderate trade-offs are made, this is typically because the locations in which the households were able to purchase are close to employment and/or networks, often in reasonable proximity to where they had been living previously and/or with a high degree of perceived amenity:

> I didn't want to be in the city, I always wanted a quiet place. When you come home with all the hustle and bustle, you have to really feel it's home sweet home, it should be welcoming. So that's the way that even the location that I bought land back home as well to build a beautiful place away from the city, like 20 minutes drive, you can do everything and come back home and you are peaceful. (Case 3: Pratima, single, adult children, recent migrant household, new housing in Area 1).

In most cases in this sample, however, trade-offs are made in order to enter the housing market. Housing which is affordable is purchased, typically in areas as close as possible to those in which households actually prefer to live. Sometimes, however, it is purchased in any location where it is perceived to be affordable:

> Basically I was just looking for something I could afford. I just decided at one point I was never going to be able to buy in Melbourne again, looking at the prices, and so when I saw a couple of units around here that were actually in my budget, it was like, oh my God, and I sort of figured, well, if the neighbourhood was extremely bad, I could always rent it out … Price was a huge factor. I wasn't in a position to just pick a neighbourhood. (Case 11: Christine, single, school-aged child, disrupted household, established housing, Area 3).

As well, in what appears to be a relatively common experience, households adjust their expectations or see positive aspects about their choices, regardless of constraints. In the following case, for example, a young home purchaser 'just loved' the location of a new estate she chose to purchase within, despite it being a considerable distance from employment (over an hour each way commuting by car) as well as further away from family and friendship networks than she would like:

> There's another estate that's across the road, I looked at it and I hated it. So then I drove across to this side of the road and just fell in love with the place. Like the trees and lakes and everything like that. And then I just forgot all about the other side, which is on our ridge, it was about $30 000 a block cheaper on that side of the road. But then I liked this side. (Case 4: Tracey, single, no children, young household, new housing, Area 1).

In some ways it is not surprising that we find extensive locational trade-offs are made among those interviewed, given the sampling strategy: households in outer metropolitan areas in and around Melbourne were targeted in the qualitative component of this study. It is nonetheless striking that, among this group, the trade-offs made to locations in which purchasers buy appear to strongly offset the need to make substantial trade-offs in terms of dwelling type (a house) and housing quality.

8.1.2 Financial strain

Despite making sometimes substantial trade-offs in the locations in which they bought their homes, most households interviewed experienced at least some degree of financial difficulty during the purchase process, as well as ongoing financial strain associated with meeting housing costs, as indicated in Table 32. The extent ranged from 'no strain', to 'moderate/high strain' (finances are manageable but 'tight') to 'extensive strain' (meeting housing and basic living costs is difficult and stressful).

Table 32: Summary of extent to which financial strain related to house purchase is experienced by young, recent migrant and disrupted households

	Young households (n = 4)	*Recent migrant households (n = 2)*	*Disrupted households (n = 6)*
No strain	0	0	1 *(Case 5)*
Moderate to high strain	1 *(Case 1)*	1 *(Case 9)*	5 *(Cases 2, 6, 8, 11, 12)*
Extensive strain	3 *(Cases 4, 7, 10)*	1 *(Case 3)*	0

Source: Interviews with low-moderate income home purchasers in Melbourne metropolitan area (n = 12).

As Table 32 shows, most of those interviewed live with either moderate/high or extensive financial strain in order to meet their housing and other living costs.[22] Many expect to do so for the foreseeable future. Even where financial strain is moderate, needing to live frugally as a result of housing costs is experienced as limiting and is a source of frustration for some families:

> My husband is frustrated that despite earning decent money we still can't have the kind of home he expects to be able to have, like his friends have. (Case 1: Jody, partnered, young children, young household, established housing, Area 3).

Four households are classified as living with extensive financial strain, with some experiencing unforeseen events which contributed to their difficulties. Events include those within the household, such as the birth of children and associated foregone earnings of at least one household member, as well as those beyond the immediate control of household members, such as unemployment and interest rate rises:

> So I thought 'How am I going to pay the mortgage?' before my commitment and I felt if I have work continuously I will not have much problem, because I know that I don't have other extra extravagances in our lives, we are really economical … So I thought 'I can manage'. Honestly, if I continue to have work, it wouldn't be a problem for me. (Case 3: Pratima, single, adult children, recent migrant household, new housing in Area 1).

As well as events such as employment difficulties and the birth of children, financial inexperience among some households appears to contribute to financial strain. Many young households, for example, some of whom had not experienced domestic budgeting and management prior to purchasing, and many of whom were living on low wages, experienced moderate to extensive financial strain:

> When we bought, interest rates hadn't gone up at all and just after we bought it they went up and up and up again. I thought, oh my God, when is this ever going to end. So yeah, it's a bit, I mean, obviously I knew that it wasn't going to be easy. We weren't going to be able to have all this money … but the prices, grocery shopping just keeps going up and up and up, and I was like, 'Where is my money going? We don't even have any food.' It just keeps going up, the prices of everything. (Case 10: Brianna, partnered, no children, young household, established housing, Area 3).

[22] One household is classified as having no financial strain. In this unusual case a couple lived at their rented business premises for several years, while saving a substantial amount of money to put towards their home purchase, enabling relatively comfortable home purchase.

For some young households, purchasing was associated with getting a full-time job and hence little change to disposable income after housing costs. However, it can also impact upon their lifestyles and expenditure:

> Before, we didn't really try that hard to save, so before we moved in, saving wasn't really a big issue. But after we moved in, we can't have takeaway any more, we can't go out, can't buy alcohol, can't do this, and it's just buying things and you can't have the food that you want all the time. Yeah, nothing major. I mean, we haven't got great cars but they work, so who cares? (Case 10: Shane, partnered, no children, young household, established housing, Area 3).

Financial strain appears most acute among households with one income earner. Such households appear not only to experience financial strain but also have a sense of burden which they must bear by themselves:

> Being on one income, I don't have a partner, it is harder. You probably want to go out on a Saturday night, you can't. That's something that hit me once I had the house, though the funny thing is I factored everything else, but when it came to having a bit of entertainment, that had to go. So it's not as though if you had a partner you could say 'Oh stuff it, we'll just take it out of your wage and let's have some fun'. It's not easy. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

Finally, many households expected that the financial strain would ease up during the terms of their mortgages, but that they nonetheless would experience some degree of financial strain for at least some time to come:

> The only disadvantage is again, it comes down to the mortgage and sometimes you want to do something to the house and you've got to still think twice in regards to doing it … Is always going to be there. Unless I win Lotto … I know it sounds awful but I wish Mum and Dad cark it earlier, that's the only way I can pay it off. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

In summary, the households interviewed in this study, all of whom live many kilometres from the metropolitan centre, have tended to make trade-offs to the areas in which they live. This has meant that, for most of the households, no to modest trade-offs to housing quality have also been required. However, despite the sometimes substantial locational trade-offs, almost all live with moderate/high to extensive degrees of financial strain to meet housing and general living costs and most expect to do so for a considerable period of time, providing some insight into the statistical analysis presents in Chapter 6. The impacts of the trade-offs made by households and their experiences of financial strain on the realisation of the potential psycho-social and social benefits of home ownership, respectively, are explored below.

8.2 Psycho-social benefits and risks of home ownership

The main psycho-social benefits explored in the qualitative component of this research are the sense of control and security home purchase provides as identified in the literature (e.g. Saunders 1990; Dupuis and Thorns 1998). We explored perceptions of security, control (over housing and life generally) and stability of housing.

8.2.1 Security and control

Alongside financial and other non-financial benefits, having a secure, stable home is one of the major motivations among those interviewed. When asked about the biggest benefit of home purchase, 'security' for the long term was a common response:

> I wanted the security of having my own place. My mum's a pensioner, she's got her unit paid off, so I sort of think in 20 years' time, I'd like to have something that I actually own … I can't imagine, I would hate to have to pay rent and try and live on the pension … The security. Things can always change, you have no idea, but hopefully in the long term you have a place that's your own and the stability … Yeah, so it's nice to have that hopefully more long-term feeling. (Case 11: Christine, single, school-aged child, disrupted household, established housing, Area 3).

The capacity of households to control housing and other aspects of their lives is a key motivator for home buying behaviour. Many interviewed spoke of their capacity to directly control the material aspects of their homes as purchasers, in comparison with the lack of control they experienced either in rental properties or in family homes where they had grown up:

> At the end of the day, that's what it is, it's control over your – we don't – I mean we had to ask the landlord if we could have dogs. We wanted an extra light over the kitchen bench, we had to ask the landlord, and the landlord actually came and said 'Why do you want a light?' He turned the light on and said 'Look, it's not bright enough.' So we got the light, but we still had to ask. If I want a light over the kitchen bench, I ring my dad, 'Come down and put a light up for me.' (Case 7: Jessica, partnered, baby, young household, new housing, Area 2).

The sense of control achieved through home purchase appears most pronounced in cases where households have purchased land and built their homes through a builder. In these cases, even in the several cases where aspects of the process 'went wrong', households describe the sense that they have designed something, watched it grow, 'made it their own':

> You get the house you wanted. (Case 7: Paul, partnered, baby, 'young household, new housing, Area 2).

Many also described the broader sense of control they perceived, due to their status as home purchasers:

> The money wasn't the number one factor. Like, it was a good thing, but it wasn't the main one, to make money or not. It's good to have the freedom. (Case 10: Shane, partnered, no children, young household, established housing, Area 3).

Home ownership is also strongly associated with being independent, 'making it', being of a high social standing, and of having made a sometimes very difficult achievement among all households interviewed:

> Like someone will say to me, like at our school reunion, 'What have you done in the last five years?' 'I've built a house. I've got my own house.' (Case 7: Jessica, partnered, baby, young household, new housing, Area 2).

Feelings of independence from parents and family are, not surprisingly, strong among young home purchasers, with need for more space, greater control and more independence from parents being key motivators:

> It was my parents, well, my dad, just being in my space, because I had this tiny little room and my step-mum is the most invasive person ever. She'd just walk in without knocking or anything. I couldn't even go in the lounge room and watch TV because I just didn't feel like I should be there. I just felt like I should be in my room all the time, and Dad made me pay rent and buy food and do cooking and cleaning and I was like, well, I may as well be living on my own because I have to do all this stuff anyway, so I may as well be spending my money on something better. (Case 10: Brianna, partnered, no children, young household, established housing, Area 3).

As well, several households in the study were headed by single women. All felt that being able to purchase and maintain a home on their own was a significant achievement. Here, a woman who had re-entered home ownership having purchased with a former husband many years earlier describes her solo purchase:

> Men in my life have never been very financially independent and I find I'm baling them out. When this last relationship broke up I thought no, I'll just do it on my own. I can't disappoint myself, can I? (Case 12: Sandra, single, adult child, 'disrupted household, established housing, Area 3).

Home ownership among families of origin and among significant others is clearly influential, in addition to the strong influence of the 'great Australian dream'. For many, coming from a background in which home ownership is the norm appears highly significant in the decision to purchase and sense of satisfaction achieved as a result:

> My family owned a house, and my husband also had a house, their family has a house. We never rented in my family, we never rented a house. That's how it happened. When you spend something, if you don't own it, sometimes you feel why, what is the purpose? (Case 9: Padma, partnered, school-aged children, recent migrant household, new housing, Area 3).

8.2.2 Stability

The security and control associated with home purchase can lead to housing stability, a further perceived benefit for many of those interviewed. This also relates to the overall development of a sense of home and connectedness, enhancing the perceived security of home ownership (Dupuis and Thorns 1998). One recent purchaser re-entering the market describes her desire to 'settle' and establish her home:

> I just wanted somewhere to settle. The first time around we bought so that we could try and make some money, which we did, but this time around I sort of think, well, I could possibly live here until I'm 90. It doesn't really – hopefully this is just – I can finally settle and not have to think about moving again. (Case 11: Christine, single, school-aged child, disrupted household, established housing, Area 3).

Where families had children, stability related to security of tenure appears highly important to parents, for the sake of their children's wellbeing. Having dependent children shifts the focus from what parents would 'like' to what, at least in this case, they perceive their children 'need':

> But see now, at least, having a house now we've got something that is stable for him. It stops being more about 'we wanted the house' because we wanted the house, it's now somewhere, it's home for him … He's not going to know anything else. I mean, your parents rented for a while so you know every 12 months, you don't want to be every 12 months, 18 months going, 'Sorry son, take your posters down because we've got to move.' You don't want to do that,

> so at least from his point of view it's better for him. (Case 7: Jessica, partnered, baby, young household, new housing, Area 2).

Housing stability associated with home ownership also appears to enable many interviewed to feel they can make long-term rather than short-term life plans and establish goals for their futures:

> When you're renting, you don't really know how long you're going to be there so you can't make really long-term decisions. (Case 11: Christine, single, school-aged child, disrupted household, established housing, Area 3).

8.2.3 Realisation of the psycho-social benefits of home ownership among lower income households

As seen above, the households interviewed readily describe many of the psycho-social benefits of home ownership as forming part of their experience. Given the very few housing-specific trade-offs identified, no identified negative impact of housing trade-offs on the realisation of the potential psycho-social benefits were found. While most households made moderate to extensive locational trade-offs to afford their homes, it also appears that trade-offs made to the locations where they reside have relatively little negative impact on their capacity to realise the psycho-social benefits of owning their own homes.

Only in a small number of cases where aspects of the local area are perceived negatively are any impacts found at all. Negative features include unexpectedly finding problems associated with land fill and former rubbish tips in their area. It is striking, however, that even where extensive locational trade-offs are made, the actual distances from the metropolitan centres – the distance households have had to travel to afford their homes – do not appear, in and of themselves, to undermine the sense of achievement, security, control or stability that ownership can provide.

However, there is some indication that, not surprisingly, financial insecurity and strain have the capacity to undermine the security typically associated with 'home':

> Right now I don't feel secure because I don't have my backing of the mortgage payments … It would break my heart if I have to sell here. Being the first home, and you did everything your way, that scares me. That will always scare me until I know that damn mortgage is paid off. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

In some cases families had to make modifications to the way they were living other than 'tightening the belt' to meet the financial costs of their mortgage. This includes taking in home-stay students and other types of boarders/house sharers. Such adjustments may undermine the sense of independence gained through home purchase, although it is definitely preferred to giving up their homes.

Related to financial strain, work insecurity and uncertainty is also found to affect the realisation of psycho-social benefits of home ownership for some of the households. One single woman purchasing on her own makes sure she always has multiple sources of income, including a cash-in-hand job, so that if (and when) one of her jobs ends, she still has sufficient income from others:

> I've always had that extra money to fall back on if something went wrong, and because of the industry I'm in I've actually been made redundant quite a few times from working in hostels and things like that. It was when I used to have a lot of sleepovers and they just kicked everyone out two weeks before Christmas. But I've always had two or three jobs to make sure that sort of thing doesn't affect me too much … So the cash work, that's my peace of mind.

> (Case 12: Sandra, single, adult child, ‘disrupted household, established housing, Area 3).

The precarious, casual and sometimes seasonal nature of work can also make dealing with financial institutions and other agencies difficult. Interviews with households with experience of precarious employment suggest this, too, can act to undermine the sense of security associated with home. For example, a failed partnership resulted in the need to refinance an existing home loan in one name. Due to the nature of this purchaser’s work, this was an extremely stressful experience:

> It was pretty difficult yes, the bank we were with, I still had to pay the loan after he left, and I still had to pay the same amount, everything, but it was still in both our names, and when I asked them about putting it just in my name they said ‘Well, you’ll have to refinance, that’s the only way we can do it’ … and of course they wouldn’t do it because my income was pretty low … So I approached another, I think I went to three more banks before I finally got approved, and on the last one I think it was my employer who actually convinced the girl that I wasn’t going to be a bad debt, so I finally got it. (Case 12: Sandra, single, adult child, ‘disrupted household, established housing, Area 3).

In summary, there is much evidence from the interviews that the psycho-social factors associated with home ownership in the existing literature are as important to low-moderate income purchasers in the sample as they are to home owners in general. Households identified the psycho-social benefits of home purchase which were important to them, and which in most cases form a major part of the motivation to purchase their homes. Consistent with the literature, these are security, control and, related to these two factors, housing stability. Despite the sometimes extensive compromises made on area of purchase, these appeared to have no impact on the psycho-social aspects of home purchase in and of themselves (apart from highly localised neighbourhood issues). Finally, there is some evidence in this study to suggest that the sense of control, security and stability associated with home purchase can be threatened where households live with extensive financial strain and/or income precarity.

8.3 Social benefits and risks of home ownership

The interviews also explored whether low-moderate income purchasers who have moved into their home within the last five years experienced the social benefits of home ownership suggested in the literature. These include improved health and wellbeing and better employment outcomes as well as increased neighbourhood connectedness and social capital (Bridge et al. 2003).

8.3.1 Health and wellbeing

In all interviews, households were asked about their perceptions of their housing circumstances on the general health and wellbeing of themselves and any other household/family members. Very few identified specific health or wellbeing impacts associated with their experiences of home purchase. This may be because of the youthfulness of part of the sample, and because of the very recent experience of home purchase among a number of households interviewed.

Where household members did identify health and wellbeing effects they associated with home ownership, these tended to be positive, and form part of a range of changes or factors experienced by them. As well, while extensive locational trade-offs are made by a majority of low-moderate income households in this analysis, purchasing a home can lead to better neighbourhood quality which can affect health, as in the following case. Here, home purchase enabled a single parent mother and her daughter to move away from a flat they had been living in, to a small, detached house which provided 'quiet' and increased safety. When asked whether this was better for her physical health or mental health, she replied 'probably both':

> We were living next to someone in the flats that was just really difficult to live next door to and it's much quieter around here and it's better … It's quite nerve-wracking living next door to people who think a knife fight's okay and yelling. I just want a quiet life. (Case 11: Christine, single, school-aged child, disrupted household, established housing, Area 3).

In general, there is little evidence to indicate strong links between home purchase and health, most likely due to the recentness of home buying among the small sample interviewed. Certainly, there is no evidence in to suggest that health and general wellbeing are undermined by housing or locational trade-offs associated with low-moderate income home purchase. Where relationships are identified, these tend to be positive rather than negative.

8.3.2 Employment

Distance to work is clearly one of the major implications for low-moderate income households who purchase in outer metropolitan locations to be able to afford home ownership. Many travel substantial distances to their jobs, spending considerable time and expense to do so. In several cases, distance to work contributed to less time with family. As the following purchaser who commutes for three hours per day, five days per week describes, she is working for the family house:

> I work at the city and it takes 1.5 hours to reach the city. So not so convenient for me. But I couldn't afford a house near the city. With the amount of $400,000 you can't buy a house near the city, or even within 20 kilometre of the area, you have to buy your house in the outer suburbs. Therefore I had to. I am in a new house though, [laughs] I invest my time to go to work. (Case 9: Padma, partnered, school-aged children, recent migrant household, new housing, Area 3).

In addition to the financial and time costs of commuting, there are implications for where household members are able to seek work. One young purchaser who is frustrated with her employment describes feeling locked in to particular areas to look for work, not being able to access employment in other locations due to her housing:

> Say if I get offered a job in the south-eastern suburbs, for example, I can't just go and rent in the south-eastern suburbs. I've got this house, this is where I'm sort of tied to. (Case 4: Tracey, single, no children, young household, new housing, Area 1).

Having high, ongoing financial commitments to meet a mortgage affects the capacity of households to change jobs. The sense of restriction associated with ongoing housing costs is felt acutely among younger households in particular. Here, one young purchaser describes not being able to leave work she finds 'unbearable':

> Looking at changing jobs when you've got a house is very different to looking at changing jobs when you don't have that responsibility … I really wanted to get out. And it came to even one point where I got really upset one day and I just remember I went home to my parents' house and I was like I want to quit. My dad said, well, you can't, you've got a mortgage, sorry. (Case 4: Tracey, single, no children, young household, new housing, Area 1)

Many households who needed to travel lengthy distances to their employment wondered about how long they would remain in their current homes, and would perhaps move closer to their employment if and when they could afford to do so, and particularly if they were unable to find quality employment closer to home. Some also suggested that possible closer options are not as well paid as jobs in the city.

Additionally, there is clearly a relationship between location, employment and financial strain. In some cases, despite the distances involved or relatively low pay associated with more local work, household members needed to take on more work in order to meet housing costs, in some cases compounding the time and expense associated with long commutes. Taking on more hours of work, however, while travelling long distances also has implications for family life. Notably, this affected some young families where mothers needed to return to work earlier than they were comfortable with, sometimes travelling extensive distances, in order to meet housing costs:

> Jessica: Yes, so I'm a bit nervous, but the money side of things, I have to go back to work, there's no question. Just part-time, casual, up to 20 hours a week maximum.
>
> Paul: You can't afford to do full-time anyway … She's technically on maternity leave, so she could go back to the other job, that's not going to happen, but she could, back to a full-time salaried position, but then we've got to stick him in child care. So even if in the best possible situation for only three days a week, that's still three or four hundred dollars a week and then it's 'Why bother working then?' (Case 7: Jessica and Paul, partnered, baby, young household, new housing, Area 2).

In summary, in this qualitative component of the study we find little evidence to suggest that employment outcomes among lower income home purchasers are enhanced by home ownership in ways the literature would predict. If anything, we find that both the locational trade-offs and associated distances to work, coupled with ongoing financial strain, make employment among this group difficult.

8.3.3 Neighbourhood involvement

Improved social relationships and neighbourhood engagement are among the social benefits of home ownership identified in the literature. The interviews suggest that, as was the case for employment, these can be significantly affected by various aspects of home purchase, although not necessarily in the way the literature would suggest.

A number of those interviewed described disruptions to support networks of family and friends because they bought homes far away from their main support network, sometimes resulting in extensive social isolation:

> The fact that a lot of my friends live inner city, so I'm always having to drive on nights out because nobody is going to drive me home here. (Case 4: Tracey, single, no children, young household, new housing, Area 1).

Friendship networks can be weakened and family networks less available when households move away, even where this is 'only' half an hour by car, as demonstrated by one young purchaser who moved half an hour away from where she had grown up:

> I've lost all my friends … When we moved to [Area 2] I lost everybody and I mean I've lost them. Like they're just 'You're too far away' … It's been very hard for me to adapt and my mum is in [outer suburb] as well, whereas she was around the corner from us when we were there. So the first couple of years it was quite hard for me. (Case 7: Jessica, partnered, baby, young household, new housing, Area 2).

Neighbourhood involvement and the general level of neighbourliness is another aspect of social life typically thought to be enhanced by home purchase, but the interviewees held mixed views on this. While some describe their new neighbours in terms such as ‘they seem quite nice’, there appears to be a general sense in newer housing areas that ‘neighbourliness’ is missing:

> But we moved in here and I said to Paul one day, ‘Maybe we should go and introduce ourselves to our neighbours.’ Well, they’re not interested. Do you know, it’s just not the way it used to be. Everyone looks after themselves. (Case 7: Jessica, partnered, baby, young household, new housing, Area 2).

It is possible that increased neighbourhood interactions in these areas may occur over time. However, the interviews also suggest that neighbourhood involvement for many may be compromised by the requirements of work, in order to meet housing costs. For some, large amounts of time spent away at paid work detract from the capacity to engage locally:

> I don’t see as much of the neighbourhood as I would like to. I would like to work closer and see more of the neighbourhood, but you don’t really sort of have that option … Like especially because I work a lot it’s really hard. (Case 4: Tracey, single, no children, young household, new housing, Area 1).

In more established areas in which low-moderate income purchasers interviewed live, a somewhat different pattern emerges, with home purchasers enjoy a stronger sense of neighbourliness than described by households in new housing estate areas:

> Yes, I do get along with my neighbours. Me with the two across the road, we tend to look out for each other’s houses … So they take out my bins and bring my bins in. I return whenever I’m up here, I do it, I look after their house. So it’s pretty good here … So neighbouring to me is important. I grew up with that and I like my neighbours here. I try to keep it up. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

A further part of community life is more formal involvement in groups and organisations. Once again, there is limited evidence among those interviewed that they have the opportunity to engage in more formal community activities in ways found to be associated with home ownership in other studies. Time is often squeezed out by the more immediate need to spend many hours in paid work, often (although not always) associated with lengthy commuting times:

> When I had work close to here, it was easier coming home, going to 8 o’clock meetings, or 7 o’clock meetings … But these days, work is not always close to home so you have to travel, as everyone keeps on saying. I had to drop the committee meetings. I was just too tired at the end of the day. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

8.3.4 Lifestyle

One further social benefit of home purchase identified in the interviews relates to lifestyle. In most cases, purchasers were able to buy the types of houses they prefer (even if these were not ‘dream homes’) because of compromises they had made in location. Typically, households opted to move further out to afford larger houses and/or block sizes, rather than opting for smaller or older dwellings in closer proximity to the city. This seems to confirm what we have previously called the ‘wrap around’ house (Burke & Hulse 2010, forthcoming) with its importance for lifestyle. Most households interviewed conflated home ownership with a detached house and saw the space and the sense of freedom associated with it as clearly important:

> Here I've got my own little patch and I can do whatever I want. I can run round the backyard buck naked if I want, I can't do that in the city. I've got a big house, not a big backyard, but it's enough where I can go outside and I can stay out, while in the city, if you're lucky you get a balcony. Fine, you can go out, but it's not the same feeling. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

In summary, the findings are mixed in relation to the potential social benefits of home purchase for lower income households. There is little evidence that it affects health adversely. Indeed, if anything, the impact appears to be positive. However, poor health outcomes may relate to ongoing financial strain (a question for future research). In contrast with positive employment outcomes typically associated with home purchase, we find that for low-moderate income purchasers who have made extensive locational trade-offs, sustaining employment is difficult and can affect family and other relationships and neighbourhood involvement in negative ways. On a positive note, buying in outer metropolitan areas typically results in a high degree of utility of space in and around the home. This lifestyle benefit appears to be a highly significant and positive outcome.

8.4 Overall assessment of benefits and risks of home purchase

While experiences vary, overall, the low-moderate income home purchasers interviewed appear to benefit from home purchase in non-financial ways, as well as the financial ways explored in the statistical analyses in Chapters 6 and 7. For those interviewed, the benefits are perceived to outweigh the trade-offs made to afford home ownership.

8.4.1 Benefits

The primary non-financial benefits that these households associate with home purchase include increased sense of security, heightened levels of control over their housing and lives in general, and increased housing stability – the psycho-social benefits of home ownership. While not affected by the housing and locational trade-offs that low-moderate income purchasers make to afford home ownership, these benefits do appear to be threatened in cases where financial strain is severe, and in particular where households experience precarious employment.

With regard to the social benefits of home purchase, evidence is mixed. While this group of home purchasers benefit from the housing stability necessary for ongoing employment, the commuting times and costs associated with getting to work, as well as limited scope for finding quality local work, can be highly taxing. One of the effects is 'squeezing out' time for local neighbourhood and community involvement. Where households have moved away from former locations, their family and friendship support networks can also affected in a negative way. Moving to locations further away from the metropolitan centre does, however, mean that in general households can achieve the detached homes on a single block, enabling the inside and outside lifestyle, that they want.

8.4.2 Risks

Households interviewed tended to be strongly in favour of home purchase. Near the end of their interviews, however, they were asked about the greatest risks they perceived. Overwhelmingly, responses to these questions indicate that the main risks are financial. This is consistent with recent literature indicating the importance of financial wellbeing for the realisation of non-financial benefits of home purchase (e.g.

Burke & Pinnegar 2007; Hulse & Burke 2009) (see also Chapter 6). Many households cautioned about purchase with limited financial buffers, lack of information, lack of financial experience, and risks associated with over-borrowing which they saw as encouraged by some banks. All indicated that managing the financial risks required careful planning and expenditure. Some distanced themselves, and their own careful planning, from many other lower income households for whom they considered home purchase too risky:

> It's not good to buy when you don't even have a deposit … It shows that people don't save money and it's a facade that it looks easy. You still have to be careful with what you spend on the home … That all has to be considered when you purchase a home. How much is it really going to cost us? You have to do your homework. (Case 5: Jennifer, partnered, no children, disrupted household, established housing, Area 2).

In a small number of cases, households built strategies for managing financial risks into their purchase decisions. One single woman built a larger than required home, anticipating that should she need to sell it quickly, this type of 'product' would be most popular in the market:

> I remember first year I was ready to sell. It was just too much. I just couldn't take it … There were things that had to be done and for the life of me I couldn't find the money. My sister helped me out a bit, and eventually I paid her back, but back then, the first year I was offered $250,000 for the house. Two years later I was offered $400,000. And I've just had it valued and I'm up to $500,000. That's not even finishing the gardens or anything. But apparently what's getting me is this big 'wow' area … The big space and the fact that I've got four bedrooms, which I planned from initially that if things go wrong, I had to have at least what families look for and that is a large family area, four bedrooms minimum, two bathrooms. So I made sure I had all those items so that if things went bad, it was more easy to offload. (Case 8: Tina, single, no children, disrupted household, new housing, Area 3).

In summary, when asked if there were situations in which people should not buy, it was only in cases where extreme financial hardship would be felt that those interviewed thought it better for other households not to purchase. Otherwise the benefits were unquestioned.

8.5 Summary

The low-moderate income purchasers interviewed in this study consistently support home ownership as the best vehicle for achieving its associated financial and non-financial benefits. They were reluctant to even consider that there might be risks, notwithstanding that some were experiencing considerable financial strain as a result of purchasing a home and their choice of location was sometimes distant from work and family and friends. By and large, they considered that they were buying a home to live in, to give them the psycho-social benefits they associate with ownership—security, control, stability—and there was little evidence that buying in a lower price area undermined the achievement of these benefits. It is difficult to conclude on the basis of the interviews whether these psycho-social benefits led (as yet) to wider social benefits. In this way, the low-moderate income purchasers interviewed very much reflected the importance of home ownership as a mainstream Australian aspiration, to give them the lifestyle they desired based around a detached house on its own block. This also reflected their negative views about other housing options. As one said, 'Well, what are the alternatives?'

9 CONCLUSIONS AND IMPLICATIONS FOR POLICY

The aim of this study was to investigate whether low-moderate income households gain the same financial and non-financial benefits from home ownership as middle-higher income households and whether they face greater risks. The primary focus was on low-moderate income home purchasers who potentially face the greatest financial risks, having regard to ongoing expenditures in the early years of purchase and the locations in which they are able to buy. Investigating these issues raises many complex conceptual and technical issues. We used a variety of research methods, the results of which were reported in Chapters 5 to 8. Our overall conclusions are based on the cumulative findings of the different methods, each of which contributes a part of what is at times a complex account about home ownership in Australia over the period 1981–2008. It encompasses households' income, their ongoing expenditures on housing, household debt and savings, housing wealth, and their own perspectives. The context for all of this is the effects of financial deregulation, socio-demographic change and substantial restructuring of metropolitan housing markets.

9.1 Conclusions

On the surface it appears that there has been remarkable stability in home ownership patterns since the early 1980s, despite almost three decades of economic and social change. A quarter of all Australian households are low-moderate income home owners. There are approximately three times the number of low-moderate income households who own their homes outright, most aged 65 years and over, to each household purchasing with a mortgage. However, when we look more deeply, the number of low-moderate income recent home purchasers is decreasing, and this is particularly the case for those who are buying their first home. This is of concern in view of the lag effect associated with home ownership. Households repay mortgages over 25 to 30 years, thus small changes discernible in any one year may compound over time to produce significant changes in patterns of home ownership in Australia. There is little doubt that continued contraction on rates of low-moderate income home purchase will translate into a fall in home ownership rates in coming decades.

The household income distribution of outright owners and purchasers is quite different and we use different measures of low-moderate income (lowest two quintiles) in our analysis to reflect this. The difference between these measures has increased over the years, reflecting increased household income required to purchase. Low-moderate income outright owners (at or below $31 000 p.a. in 2007–08) are predominantly, and increasingly, households who are aged 65 years and over, reflecting the conditions for home purchase which applied years and even decades ago. Low-moderate income purchasers (at or below $76 000 p.a. in 2007–08) are also older than in the early 1980s and there are changes in household type. Once more than half were families with dependent children, now the majority are households without dependent children. This applies even more strongly when we look at low-moderate recent first-time purchasers. Some of this may be explained by socio-demographic change but it also appears that families with children have borne the brunt of housing affordability problems.

Low-moderate income home purchase has been sustained through purchasers taking on large mortgages in a deregulated financial environment, with repayments often exceeding established affordability benchmarks based on a ratio of mortgage payments to household income. This is particularly the case for recent purchasers. Rates of low-moderate income purchase have also been sustained more than might have been the case because many such purchasers face repaying loans at a later age in 2007–08 than in 1981–82. This may not be a problem for some households in view of policies to encourage people to work for longer, but others will confront the problem of having a mortgage as their income earning potential declines, and even into retirement.

The risks faced by households in making ongoing expenditures as a consequence of home purchase need to be investigated more carefully to take into account differences in household type and income levels. Our analysis of household income, housing and non-housing expenditures and debt suggests it is important to distinguish between housing stress, financial hardship and financial crisis, all different concepts of affordability of increasing severity. We estimate that of low-moderate income purchasers:

- Using the 30/40 benchmark, 43 per cent are in housing stress.
- Using the low cost budget standard method, 25 per cent experience financial hardship.
- Eight per cent are in financial crisis when ongoing housing repayments are seen in the wider context of net debt.

Of most concern are those households in financial crisis who are on the brink of falling out of home purchase because of systemic financial problems. Households who experience housing stress and financial hardship appear to be coping despite pressures and compromises. It is important to distinguish between these three concepts for potential policy and industry guidance.

Notwithstanding the evident financial hardship which some low-moderate income households face in the early years of repaying a mortgage, it appears that home purchase has been a good strategy for household wealth accumulation over the period 1981-2008 due to a sustained increase in residential property prices in our case study (Melbourne). Even in this context, however, there are risks associated with timing and place.

Despite long-term and sustained price increases, house prices can decline and did so in the early 1990s in Melbourne, which affects wealth if a household has to sell. Those who sell within three years have a higher probability of loss of wealth, and evidence from repeat sales data show that this risk is greatest in lower price markets, Increasingly, therefore, it is recent low-moderate income purchasers in outer suburban and growth zone areas who bear this risk. It is impossible to predict what will happen to Melbourne housing prices in the future, but any decline would clearly affect capacity to generate housing wealth.

There was fundamental restructuring of housing sub-markets in 1981–2008 as demonstrated by the house price curves for Melbourne residential corridors. Low-moderate income purchasers have been increasingly restricted, especially since the mid-1990s, to buying in the outer suburbs and outer growth zone, particularly if they want to buy houses. The extent of wealth increase in these areas is less than for those buying in inner and middle suburbs. In consequence, it is increasingly difficult for low-moderate income purchasers to trade up to middle and higher priced areas to improve their housing wealth, even if have accumulated substantial equity in their homes. Many will be restricted in their residential mobility unless they have very large increases in household income to sustain much greater mortgages. However, the caveat is that analysis of the residential saver model indicated that low-moderate income purchasers in selected outer suburban areas were still largely better off financially in buying rather than renting and saving in the same areas 1999–2008. The study suggests that we will see increasing disparities in the wealth of home purchasers, and subsequently owners, in the future. There is the additional prospect that wealth disparities will increase over time as residential property is passed to other family members tax-free through inheritance.

The qualitative component of the study focused on low-moderate income recent purchasers in the growth zones of outer Melbourne. Those interviewed see many benefits in purchasing a home. Although all reported financial strain and some were experiencing considerable financial hardship as a result of their purchase, they were reluctant even to consider that there might be risks. These households had often compromised on location because of their income, but they wanted above all to own a house. This meant living in places that were sometimes distant from work and family and friends. Those interviewed saw buying a home to live in as their priority, rather than thinking of purchase in terms of an investment. They were driven by the psycho-social benefits they associate with owning a house: security, control and stability. They did not consider that buying in a lower price area compromised these benefits, but it is not possible to see a direct connection between these psycho-social benefits and wider social benefits.

9.2 Implications for policy

Projected decline in rate of home ownership

The evidence overall would suggest that there will be a decline in the rate of home ownership (owner occupation) in Australia if the changes identified in this study continue. This indicates that the policy levers that underpin the Australian housing system are failing to sustain levels of home ownership, particularly for low-moderate income households, including but not only younger households. It implies a need for a fundamental review of the housing and non-housing policy context and the market factors which shape the future of home ownership in Australia.

These changes will have broad implications for public policy, including breaking the traditional nexus between high rates of home ownership amongst older households and a relatively low rate of age pension by the standards of developed countries. As seen in this report, older Australians are able to live on low incomes because they are outright owners with low and relatively predicable ongoing housing expenditures. This implies some combination of the following:

- Rethinking of policies on retirement incomes to enable low-moderate income Australians who are unable to buy to have sufficient income to rent their housing, in particular when they are unable to work or as they start to retire from the labour force, reinforcing other research on this topic (e.g. Yates and Bradbury 2010).
- A different set of policies to enable households on low-moderate income households to enter and remain in home ownership, for example, through shared equity arrangements as discussed in another recent AHURI project (70394) (Pinnegar et al. 2009).
- Reconsideration of the main alternative to home ownership, the rental sector (private and social renting), to ensure that there is a sufficient supply of rental housing which is affordable to Australians who cannot afford to buy their own home, including older Australians. This is being considered in an AHURI project (50565) (Hulse et al. forthcoming).

Low-moderate income purchasers with children

One of the worrying aspects of the research is the decline in low-moderate income purchasers who have children. Whilst this to some degree reflects demographic change, the decline is strongly related to household income. It is increasingly difficult for low-moderate income purchasers to afford to both buy a home and have children. The qualitative research confirmed that families with children feel very strongly on this point: they want to own a house to provide the security, control and stability that they feel is essential to create a home for children, and will take on high levels of debt and compromise on location in order to achieve this. There are two implications for policy:

- Development of different types of home ownership products that will enable families with children with their higher household expenditures to buy. A number of ideas have been floated over time including shared equity arrangements, community land trusts, and a HECS type system whereby mortgage repayments are rescheduled to lower costs in the initial years and recouped later when children are older and household expenditures decrease.
- Reform of the rental sector to enable families with children and who will be unable to access purchase to have better security, control and stability of their living arrangements. The purpose would be to provide a realistic alternative for such families so that they do not feel that they have to buy, even if they cannot really afford it, without undue financial hardship and risk of precipitating financial crisis.

Older low-moderate income purchasers

Low-moderate income purchasers are getting older compared to the early 1980s. The traditional model of home purchase in Australia involved paying off a house before retirement to ensure very low housing costs in older age. Increasingly, it appears, some low-moderate income purchasers will reach retirement age with debt still outstanding against the property they live in. This may have positive effects in view of an economic imperative to retain people in the labour force for longer, and some will want to work for longer, but not all will retain good health or have life circumstances which enable this choice. The implication is that there may need to be schemes for those who face difficulties due to poor health, disability, role as a carer or other factor which makes it difficult to remain in work. These would involve paying off the remaining mortgage in return for an agreed return on subsequent sale; in effect, a government managed or guaranteed reverse annuity scheme but specifically targeted to older low-moderate income purchasers at risk of being unable to complete repayment of their mortgage.

Older low-moderate income outright owners

Despite having no mortgage repayments, some older outright owners do not have sufficient funds to pay for housing-related expenses and also face financial hardship. This is essentially a problem of low levels of income. There are a number of ways of addressing this. The age pension should be sufficient to enable older home owners to pay ongoing costs associated with their housing, such as rates, insurances and repairs. Local government does offer rate discounts but these may need to be supplemented by additional targeted schemes. There are already a number of reverse mortgage products sold by private financial institutions to enable older home owners to access equity in their homes for current expenses, although the take up is relatively low (Bridge et al. 2010). In addition, Centrelink offers a Pensions Loans Scheme which is more limited than a reverse mortgage and offers an income stream without a lump sum option, equivalent to the level of the age pension and supplements such as Rent Assistance. The Home and Community Care Program—a joint Australian, State and Territory Government initiative—provides some funding for home modification and maintenance. However, consideration may need to be given to additional means of enabling older home owners to effect repairs essential for their health and safety or to retrofit their homes to make them more energy efficient, thus reducing some of their ongoing expenditures.

Housing and financial stress

It is more useful to think in terms of a continuum of mortgage and financial stress rather than a binary of households who do, and do not, meet an arbitrary ratio of mortgage expenditure to household income. The research distinguished between mortgage stress, financial hardship and financial crisis. Only the latter group is at risk of falling out of home ownership. The implications for policy are that:

- → Using a ratio of housing costs to household income to measure mortgage stress remains useful for some purposes, such as for presenting a broadbrush picture of changes in affordability over time and for understanding the number of households who have had to make major compromises in wellbeing or living standards to achieve ownership.
- → The residual income (budget standards) approach used in this study is more accurate for certain purposes, e.g. establishing affordable housing price points, distinguishing between types of households with different expenditures, and as the basis for developing mortgage calculators.

It is important to understand the extent of financial hardship, and in particular financial crisis, being experienced by low-moderate income purchasers. This requires considering mortgage repayments along with other household debt. This raises a whole range of policy issues around lender practices and informed consumer behaviour which are well canvassed in Berry, Dalton and Nelson's (2010) report on mortgage default. Over and above these recommendations we would add:

- → Inclusion in any mortgage calculators of some measure of the additional ongoing costs of ownership, which for low-moderate income purchasers would be an additional 15 per cent over and above mortgage repayments.
- → Consideration in any mortgage calculator of an income related sliding scale of capacity to pay, using the budget standard (or variation thereof) as a base.

Addressing disparities in housing wealth

There are increasing disparities in opportunities to generate housing wealth due to the restructuring of Melbourne housing markets from the mid-1990s as house prices in inner and middle suburbs have increased to a far larger extent than in outer suburbs and the growth zones. Differential house prices reflect differences in valued amenities including house types, transport, access to employment, schools and many other factors. Related to this point we found that low-moderate income purchasers living in outer suburbs and growth zones may not be able to move to other areas because they have insufficient equity, even after many years of purchase. Given the same broad policy contexts and similar urban forms, we have little doubt that other capital cities confront the same issues.

Addressing these problems requires more than housing policies. In larger part, this is an issue for urban policy: greater equity in amenity throughout an urban area rather than focusing public investment in inner city areas. The amenity of outer suburbs and growth zones can be increased through better urban planning and design, strategic investment in child care and education, as well as physical infrastructure, particularly public transport.

Lack of housing diversity

Low-moderate income purchasers are increasingly singles and couples, but the supply of housing which is affordable to them is predominantly in the outer urban and growth zone where much of the stock is designed to cater to demand from families with children. Builders and developers appear locked into the assumption that new housing demand is largely only from families, where the evidence suggests otherwise. Again this takes us into the housing and planning domain and the vexed issue of the degree to which government can use the planning system to enable more appropriate and diverse housing outcomes.

REFERENCES

ABS (2006) *Information Paper: Household Expenditure Survey and Survey of Income and Housing, User Guide, 2003–04*, Cat. no. 6503.0, Australian Bureau of Statistics, Canberra.

ABS (2009) *Information Paper: Survey of Income and Housing, User Guide, Australia, 2007–08*, Cat. no. 6553.0, Australian Bureau of Statistics, Canberra.

ABS (2010) *Housing Finance, Australia, June*, Cat. no. 5609.0, Australian Bureau of Statistics, Canberra.

Badcock, B. (1990) 'Homeownership and the accumulation of real wealth', *Environment and Planning D*, 7(1), pp. 69-91.

Badcock, B. (1992) 'Adelaide's heart transplant, 1970–88: 1. Creation, transfer, and capture of "value" within the built environment', *Environment and Planning A*, 24(2), pp. 215-41.

Badcock, B. (1994) 'Snakes or ladders? The housing market and wealth distribution in Australia', *International Journal of Urban and Regional Research*, 18(4), pp. 609-27.

Battellino, R. (2010) *Aspects of Australia's Finances*, address to Financial Executives International of Australia, Sydney, 15 June.

Baum, S. and Gleeson, B. (2010) 'Space and place: Social exclusion in Australia's suburban heartlands', *Urban Policy and Research*, 28(2), pp. 135-59.

Baum, S., Haynes, M., van Gellecum, Y. and Han, J. H. (2006) 'Advantage and disadvantage across Australia's extended metropolitan regions: A typology of socioeconomic outcomes', *Urban Studies*, 43(9), pp. 1549-79.

Beer, A. (1993) 'A dream won, a crisis born' in Paris, C. (ed.) *Housing Australia*, Macmillan, Melbourne.

Belsky, E. and Duda, M. (2002a) 'Anatomy of the low-income homeownership boom in the 1990s' in Retsinas, N. and Belsky, E. (eds) *Low-Income Homeownership: Examining the Unexamined Goal*, Brookings Institution Press, Washington, DC.

Belsky, E. and Duda, M. (2002b) 'Asset appreciation, time of purchase and sale, and the return to low-income homeowners' in Retsinas, N. and Belsky, E. (eds) *Low-Income Homeownership: Examining the Unexamined Goal*, Brookings Institution Press, Washington, DC.

Berry, M. (1999) 'Unravelling the "Australian housing solution": The post-war years', *Housing, Theory and Society*, 16(3), pp. 106-23.

Berry, M. (2000) 'Investment in rental housing in Australia: Small landlords and institutional investors', *Housing Studies*, 15(5), pp. 661-81.

Berry, M., Dalton, T. and Nelson, A. (2009) *Mortgage Default in Australia: Nature, Causes and Social and Economic Impacts*, Positioning Paper no. 114, Australian Housing and Urban Research Institute, Melbourne.

Berry, M., Dalton, T. and Nelson, A. (2010) *Mortgage Default in Australia: Nature, Causes and Social and Economic Impacts*, Final Report no. 145, Australian Housing and Urban Research Institute, Melbourne.

Boehm, T. and Schlottmann, A. (2004) *Wealth Accumulation and Homeownership: Evidence for Low-Income Households*, Office of Policy Development and Research, Department of Housing and Urban Development, Washington, DC.

Bray, J. R. (2001) *Hardship in Australia: An Analysis of Financial Stress Indicators in the 1998–99 Australian Bureau of Statistics Household Expenditure Survey*, Occasional Paper no. 4, Department of Family and Community Services, Canberra.

Brennan, M. and Lipman, B. (2008) *Stretched Thin: The Impact of Rising Housing Expenses on America's Owners and Renters*, Center for Housing Policy, Washington, DC.

Bridge, C., Adams, T., Phibbs, P., Mathews, M. and Kendig, H. (2010) Reverse mortgages and older people: growth factors and implications for retirement decisions, Final Report No 146, Australian Housing and Urban Research Institute, Melbourne

Bridge, C., Flatau, P., Whelan, S., Wood, G. and Yates, J. (2003) *Housing Assistance and Non-Shelter Outcomes*, Final Report no. 40, Australian Housing and Urban Research Institute, Melbourne.

Burbidge, A. (2000) 'Capital gains, homeownership and economic inequality', *Housing Studies*, 15(2), pp. 259-80.

Burbidge, A. and Winter, I. (1996) 'As safe as houses – or a house of cards? The real costs and benefits of home ownership', *Family Matters*, 43, pp. 31-3.

Burke, T. and Hulse, K. (2010 forthcoming) 'The institutional structure of housing and the sub-prime crisis: An Australian case study', *Housing Studies*, 25(6).

Burke, T. and Pinnegar, S. (2007) *Experiencing the Housing Affordability Problem: Blocked Aspirations, Trade-Offs and Financial Hardships*, National Research Venture 3: Housing Affordability for Lower Income Australians, Research Paper no. 9, Australian Housing and Urban Research Institute, Melbourne.

Burke, T. and Ralston, L. (2003) *Analysis of Expenditure Patterns and Levels of Household Indebtedness of Public and Private Rental Households, 1975 to 1999*, Final Report no. 34, Australian Housing and Urban Research Institute, Melbourne.

Cairney, J. and Boyle, M. (2004) 'Home ownership, mortgages and psychological stress', *Housing Studies*, 19(2), pp. 161-74.

Christie, H. (2000) 'Mortgage arrears and gender inequalities', *Housing Studies*, 15(6), pp. 877-905.

Demographia (2010) *5th Annual Demographia International Housing Affordability Survey: 2010: Ratings for Metropolitan Markets*, Belleville, Ill., http://www.demographia.com/dhi.pdf.

Department of Families, Housing, Community Services and Indigenous Affairs (2008) *Housing Affordability Fund: The Guidelines*, Canberra, http://www.fahcsia.gov.au/internet/facsinternet.nsf/vIA/housing/$file/haf_guidelines.pdf.

Dupuis, A. and Thorns, D. (1998) 'Home, home ownership and the search for ontological security', *Sociological Review*, 46(1), pp. 24-47.

Ferris, S. (2008) 'The other subprime debt crisis: Australia's HomeFund scheme', *Actuary Australia*, 132, pp. 10-12.

Flood, J. and Baker, E. (2009) *Housing Implications of Economic, Social and Spatial Change: Key Issues*, Positioning Paper no. 116, Australian Housing and Urban Research Institute, Melbourne.

Ford, J. and Burrows, R. (1999) ‘The costs of unsustainable home ownership in Britain’, *Journal of Social Policy*, 28(2), pp. 305-30.

Ford, J., Burrows, R. and Nettleton, S. (2001) *Home-Ownership in a Risk Society: A Social Analysis of Mortgage Arrears and Possessions*, Policy Press, Bristol.

Ford, J. and Wilcox, S. (2005) *Managing Risk and Sustainable Home-Ownership in the Medium Term: Re-Assessing the Options*, Joseph Rowntree Foundation, York.

Forrest, R. and Murie, A. (1989) ‘Differential accumulation: Wealth, inheritance and housing policy reconsidered’, *Policy and Politics*, 17(1), pp. 25-39.

Forrest, R. and Murie, A. (1991) ‘Housing markets, labour markets and housing histories’ in Allen, J. and Hamnett, C. (eds) *Housing and Labour Markets: Building the Connections*, Unwin Hyman, London.

Forster, C. A. (2004) *Australian Cities: Continuity and Change*, Oxford University Press, Melbourne.

Gabriel, M., Jacobs, K., Arthurson, K. and Burke, T. (2005) *Conceptualising and Measuring the Housing Affordability Problem*, National Research Venture 3: Housing Affordability for Lower Income Australians, Research Paper no. 1, Australian Housing and Urban Research Institute, Melbourne.

Gans, J. and King, S. (2003) *Volume 2: Policy Options for Housing for Low Income Households*, Menzies Research Centre, Canberra.

Garreau, J. (1991) *Edge City: Life on the New Frontier*, Doubleday, New York.

Glick, J. (2008) ‘Gentrification and the racialized geography of home equity’, *Urban Affairs Review*, 44(2), pp. 280-95.

Goetzmann, W. N. and Spiegel, M. (2002) ‘The policy implications of portfolio choice in underserved housing markets’ in Retsinas, N. and Belsky, E. (eds) *Low-Income Homeownership: Examining the Unexamined Goal*, Brookings Institution Press, Washington, DC.

Goodman, A. (1981) ‘Housing submarkets within urban areas: Definitions and evidence’, *Journal of Regional Science*, 21(2), pp. 175-85.

Grigsby, W. G. (1963) *Housing Markets and Public Policy*, University of Pennsylvania Press, Philadelphia.

Hamilton, C. and Mail, E. (2003) *Downshifting in Australia: A Sea-Change in the Pursuit of Happiness*, Discussion Paper no. 50, Australia Institute, Canberra.

Harkness, J. and Newman, S. (2002) ‘Homeownership for the poor in distressed neighborhoods: Does this make sense?’, *Housing Policy Debate*, 13(3), pp. 597-630.

Haurin, D. and Rosenthal, S. (2005a) *The Growth of Earnings of Low-Income Households and the Sensitivity of Their Homeownership Choices to Economic and Socio-Demographic Shocks*, Office of Policy Development and Research, Department of Housing and Urban Development, Washington, DC.

Haurin, D. and Rosenthal, S. (2005b) *The Sustainability of Homeownership: Factors Affecting the Duration of Homeownership and Rental Spells*, Office of Policy

Development and Research, Department of Housing and Urban Development, Washington, DC.

Herbert, C. and Belsky, E. (2006) *The Homeownership Experience of Low-Income and Minority Families: A Review and Synthesis of the Literature*, Office of Policy Development and Research, Department of Housing and Urban Development, Washington, DC.

Hiscock, R., Kearns, A., Macintyre, S. and Ellaway, A. (2001) 'Ontological security and psycho-social benefits from the home: Qualitative evidence on issues of tenure', *Housing, Theory and Society*, 18(10), pp. 50-66.

Hulse, K. Et al. Forthcoming. Secure occupancy in rental housing: a comparative analysis (AHURI project 50565).

Hulse, K. and Burke, T. (2009) *The Benefits and Risks of Home Ownership: Disaggregating the Effects of Household Income*, Positioning Paper no. 120, Australian Housing and Urban Research Institute, Melbourne.

Hulse, K. and Saugeres, L. (2008) *Housing Insecurity and Precarious Living: An Australian Exploration*, Final Report no. 124, Australian Housing and Urban Research Institute, Melbourne.

Jones, A., Elsinga, M., Quilgars, D. and Toussaint, J. (2007) 'Home owners' perceptions of and responses to risk', *European Journal of Housing Policy*, 7(2), pp. 129-50.

Joye, C., Caplin, A., Butt, P., Glaeser, E., Kuczynski, M., Gans, J., King, S., Moloney, D. and Bor, A. (2003) *Summary of Findings for the Prime Ministerial Task Force on Home Ownership*, 3 vols, Menzies Research Centre, Canberra.

Kearns, A., Hiscock, R., Ellaway, A. and Macintyre, S. (2000) '"Beyond four walls": The psychosocial benefits of home: Evidence from west central Scotland', *Housing Studies*, 15(3), pp. 387-410.

Khoo, S. (1993) 'Housing after marriage breakdown: A longer-term perspective' in Funder, K., Harrison, M. and Weston, R., *Settling Down: Pathways of Parents After Divorce*, Monograph no. 13, Australian Institute of Family Studies, Melbourne.

King, R. (1987) 'Monopoly rent, residential differentiation and the second global crisis of capitalism: The case of Melbourne', *Progress in Planning*, 28(3), pp. 201-98.

King, R. (1989) 'Capital switching and the role of ground rent: 2 Switching between circuits and switching between submarkets', *Environment and Planning A*, 21(6), pp. 711-38.

King, R. (1990) 'Homeownership, accumulation, and restructuring: A comment on Badcock', *Environment and Planning D*, 8(3), pp. 357-62.

Krivo, L. and Kaufman, R. (2004) 'Housing and wealth inequality: Racial-ethnic differences in home equity in the United States', *Demography*, 41(3), pp. 585-605.

Li, Y. and Rosenblatt, E. (1997) 'Can urban indicators predict home price appreciation? Implications for redlining research', *Real Estate Economics*, 25(1), pp. 81-104.

Livette, M. (2006) 'The importance of tenure to retirement housing purchasers and the impact of culture upon their attitudes to tenure', *Property Management*, 24(5), pp. 464-78.

Maclennan, D. (1982) *Housing Economics: An Applied Approach*, Longman, London.

McDonald, P. and Baxter, J. (2005) 'Home ownership among young people in Australia: In decline of just delayed?', *Australian Journal of Social Issues*, 40(4), pp. 471-87.

Nepal B., Tanton, R. and Harding A. (2010), 'Measuring housing stress: How much do policy definitions matter?', *Urban Research and Policy*, 28(2), pp. 211-23.

National Housing Supply Council (2010) *State of Supply Report, 2009*, Department of Families, Housing, Community Services and Indigenous Affairs, Canberra.

Nettleton, S. and Burrows, R. (1998) 'Mortgage debt, insecure ownership and health: An exploratory analysis', *Sociology of Health & Illness*, 20(5), pp. 731-53.

Nettleton, S. and Burrows, R. (2000) 'When a capital investment becomes an emotional loss: The health consequences of the experience of mortgage possession in England', *Housing Studies*, 15(3), pp. 463-79.

Newman, P. and Kenworthy, J. (1999) *Sustainability and Cities: Overcoming Automobile Dependence*, Island Press, Washington, DC.

Pinnegar, S., Easthope, H., Randolph, B., Williams, P. and Yates, J. (2009) *Innovative Financing for Homeownership: The Potential for Shared Equity Initiatives in Australia*, Final Report no. 137, Australian Housing and Urban Research Institute, Melbourne.

Pollakowski, H., Stegman, M. and Rohe, W. (1992) *Rates of Return on Housing of Low- and Moderate-Income Home Owners*, Working Paper no. 92, Joint Center for Housing Studies, Harvard University, Cambridge, Mass.

Productivity Commission (2004) *First Home Ownership*, Report no. 28, Commonwealth of Australia, Canberra.

Reserve Bank of Australia (2010) *Statistical Tables: Money and Credit Statistics*, Sydney.

Rohe, W. and Watson, H. (eds) (2007) *Chasing the American Dream: New Perspectives on Affordable Homeownership*, Cornell University Press, Ithaca, NY.

Saunders, P. (1990) *A Nation of Home Owners*, Unwin Hyman, London.

Saunders, P. et al. (1998) *Development of Indicative Budget Standards for Australia*, Department of Social Security, Canberra.

Schwartz, C., Hampton, T., Lewis, C. and Norman, D. (2006) *A Survey of Housing Equity Withdrawal and Injection in Australia*, Research Discussion Paper 2006–08, Reserve Bank of Australia, Sydney.

Seelig, T., Thompson, A., Burke, T., Pinnegar, S., McNelis, S. and Morris, A. (2009) *Understanding What Motivates Households to Become and Remain Investors in the Private Rental Market*, Final Report no. 130, Australian Housing and Urban Research Institute, Melbourne.

Smith, L. and Ho, M. (1996) 'The relative price differential between higher and lower priced homes', *Journal of Housing Economics*, 5(1), pp. 1-17.

Smith, S. and Searle, B. (eds) (2010) *The Blackwell Companion to the Economics of Housing: The Housing Wealth of Nations*, Wiley-Blackwell, Chichester.

Smith, S., Searle, B. and Cook, N. (2009) 'Rethinking the risks of home ownership', *Journal of Social Policy*, 38(1), pp. 83-102.

Stone, M. (2009) 'Housing affordability: One-third of a nation shelter-poor' in Bratt, R. G., Stone, M. E. and Hartman, C. (eds) *A Right to Housing: Foundation for a New Social Agenda*, Temple University Press, Philadelphia.

Sykes, L. (2008) 'Cashing in on the American dream: Racial differences in housing values 1970–2000', *Housing, Theory and Society*, 25(4), pp. 254-74.

Thorns, D. (1981) 'Owner-occupation, its significance for wealth transfer and class formation', *Sociological Review*, 29(4), pp. 705-28.

Thorns, D. (1989) 'The impact of homeownership and capital gains upon class and consumption factors', *Environment and Planning D*, 7(3), pp. 293-312.

Treasury (2009) *Australia's Future Tax System: Report to the Treasurer*, Treasury, Canberra.

Waite, G. and Henman, P. (2006) 'Applying budget standards to assess housing affordability' in Darby, S., Flatau, P. and Hafekost, I. (eds) *Building for Diversity*, Department of Housing and Works, Perth.

Wang, H., Wilson, D. and Yates, J. (2004) *Measuring the Distributional Impact of Direct and Indirect Housing Assistance*, Cat. no. HOU 108, Australian Institute of Health and Welfare, Canberra.

Winter, I. (1994) *The Radical Home Owner*, Gordon and Breach, Basel.

Wood, G. and Ong, R. (2009) *The Dynamics of Housing Affordability: Movements in and out of Housing Affordability Stress 2001–2006*, Final Report no. 133, Australian Housing and Urban Research Institute, Melbourne.

Wulff, M. (1990) 'Low income home ownership: The privatisation of squalor or the great Australian dream?', *Housing Studies*, 5(4), pp. 229-40.

Wulff, M. (1992) 'Home ownership for low income families: Key findings from the five year Victorian Capital Indexed Loan evaluation study', *Urban Policy and Research*, 10(2), pp. 6-16.

Wulff, M., Dharmalingam, A., Reynolds, M. and Yates, J. (2009) *Australia's Private Rental Market: Changes (2001–2006) in the Supply of, and Demand for, Low Rent Dwellings*, Positioning Paper no.. 122, Australian Housing and Urban Research Institute, Melbourne.

Yates, J. (2000) 'Is Australia's home-ownership rate really stable? An examination of change between 1975 and 1994', *Urban Studies*, 37(2), pp. 319-42.

Yates, J. (2007) *Housing Affordability and Financial Stress*, National Research Venture 3: Housing Affordability for Lower Income Australians, Research Paper no. 6, Australian Housing and Urban Research Institute, Melbourne.

Yates, J. and Bradbury, B. (2010) 'Home ownership as a (crumbling) fourth pillar of social insurance in Australia', *Journal of Housing and the Built Environment*, vol.25(2), pp. 193-211.

Yates, J. and Gabriel, M. (2006) *Housing Affordability in Australia*, National Research Venture 3: Housing Affordability for Lower Income Australians, Research Paper no. 3, Australian Housing and Urban Research Institute, Melbourne.

Yates, J. and Milligan, V. (2007) *Housing Affordability: A 21st Century Problem*, National Research Venture 3: Housing Affordability for Lower Income Australians, Final Report no. 105, Australian Housing and Urban Research Institute, Melbourne.

APPENDIX 1: SECONDARY DATA SETS USED IN THE STUDY

A1.1 Survey of Income and Housing (SIH)

The Survey of Income and Housing (SIH) is a national sample survey conducted by the Australian Bureau of Statistics at varying intervals from 1981–82 to the most recent survey in 2007–08.[23] The sample is drawn from residents of private dwellings in both urban and rural areas of Australia.[24] The SIH collects detailed information about the level and sources of income, and personal and household characteristics of people aged 15 years and above. In some cycles, information on other topics such as assets and liabilities, or household net worth, is also collected, as in 2007–08.[25] The final sample size in 2007-08 was 9,345 households and the 18,326 people living in these households. Data are collected during face to face interviews by trained ABS interviewers using computer assisted questionnaires at both household and individual levels (ABS 2009).

The SIH series provides good historical data on household incomes and housing costs and is a useful source of national data on home ownership over time. As with any sample survey, there are limitations. The sample size limits the potential for analysis on a spatial basis except for a capital city and 'rest of state' comparison although in this study, because of the need to keep the sample size large enough for meaningful analysis of other variables, no analysis below the national level was undertaken.

SIH data on housing costs refer to mortgage repayments and property rates only; the SIH does not include data on other ongoing costs of home ownership, for which we have to use the HES. Mortgage repayments are included in housing costs for owner occupied dwellings if 'the purpose of the loan when it was originally taken out was primary to build, buy add to or alter the occupied dwelling' (ABS 2006: 27). As with other ABS sample surveys, data items and data definitions are subject to change over time.

SIH data are available in Confidentialised Unit Record Files (CURFs) consisting of unidentified individual statistical records containing data on persons belonging to income units in private dwellings, including state and capital city/rest of state identifiers. Data as they relate to this study include household, family and income unit types; age, details of mortgages and loans, housing costs, type of tenure and landlord, type of dwelling structure, and details of weekly and annual income by source of income for persons and income units.

Data in the SIH like other ABS sample surveys are weighted to enable inference to the general population from which the sample is drawn. To do this, 'a "weight" is allocated to each sample unit e.g. a person or a household. The weight is a value which indicates how many population units are represented by the sample unit' (ABS 2009: 34). Weights for the 2007–08 SIH were based on the ABS Census of Population and Housing 2006. The combination of the sampling method and

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[23] The SIH was previously the Survey of Income and Housing Costs (from 1994-95) and prior to that was the Survey of Income and Housing Costs and Amenities (from 1981-82). The survey was conducted at varying intervals until 2003-04 since when it has been conducted biennially.

[24] The sample covers 97 per cent of the Australian population; it excludes very remote areas (ABS 2009: 26).

[25] Details about the SIH 2007-08 (Information Paper, Questionnaire and Prompts) can be found at http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6553.02007-08?OpenDocument.

weighting process means that we can generalise from the SIH sample to the general population with some confidence.

A1.2 Household Expenditure Survey (HES)

The Household Expenditure Survey (HES) is a national sample survey conducted by the Australian Bureau of Statistics at intervals from 1975–76.[26] The HES collects information by interviewing usual residents of selected private dwellings in urban and rural areas of Australia, excluding very remote areas, and those selected also fill out a personal expenditure diary over a two week period. A different group of households is selected for each survey; in other words the HES is not a household panel survey. The 2003–04 HES was conducted jointly with the SIH, with the HES sample being a sub-sample.[27] It contains very detailed information about household expenditure across many items and is used for various purposes, including weighting of types of expenditures for calculation of the Consumer Price Index (CPI) as expenditure patterns change over time. The HES collects information with respect to households and all the people comprising those households. It is therefore possible to produce aggregate data from the surveys to an individual person, income unit or household level (ABS 2006: 24).

Sample numbers vary somewhat over successive HES, with the 2003–04 final sample comprising 6,957 households. It is not possible to do spatial analysis (other than metropolitan/non-metropolitan) using the HES due to the sample size. Because of the need to keep the sample size large enough for meaningful analysis of other variables no analysis below the national level was undertaken in this study.

As with other sample surveys, data items and definitions are subject to change as expenditure patterns change.

HES data are available in CURFs consisting of unidentified individual statistical records containing data on persons belonging to income units in households occupying private dwellings, including state and capital city/rest of state identifiers.

A1.3 Victorian Valuer-General's Property Sales Statistics

The Victorian Valuer-General's Guide to Property Values is published annually. It provides sales data for houses, flats and units, vacant residential land, and commercial, industrial and rural properties. The guide provides property sales statistics for Victoria's 79 municipalities and lists yearly medians by suburb covering houses, units and vacant blocks. It provides statistics on municipality trends as well as state-wide totals. The Guide is derived from detailed data that provide prices for all land/property transactions recorded for stamp duty purposes in the state in any one year, categorised into detached dwellings and units/apartments and blocks of land.

The data are obtained from Notices of Acquisition which are required to be completed by each purchaser of a property within one month of the acquisition of any real estate in Victoria and on which stamp duty is payable. The information is collated and loaded to a master property file. The data are available in hard copy format providing details of property values for local government areas and suburbs. They are also available in CURF electronic format which provide more detailed data but from which the names of purchasers are stripped from the data file. Individual addresses are retained. Almost all the analysis in this study involved analysis of the CURF property sales data rather than the hardcopy Guide to Property Values.

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[26] The HES was conduced in 1975-76, 1984-85, 1988-89, 1993-94, 1998-99 and 2003-04.

[27] This arrangement will continue and the HES will be conducted every six years in the future. Fieldwork for the 2009-2010 SIH and HES was scheduled for completion in mid-2010.

Despite the requirement for notification within one month of acquisition, there are often delays in recording data, and the most recent data can be amended some months later. For that reason we have not used any 2009–10 data. Some data are also subject to a time lag due to the operation of the stamp duty system, for example, an apartment sold in 2006 off the plan may not be recorded until stamp duty is paid in 2008. This means that the data are constantly being adjusted. Despite this difficulty which mainly occurs in respect of larger blocks of units/apartments, Valuer-General's data are the most accurate source of housing prices as they are based on a 'population' rather than a sample survey which is subject to sampling error.

Residential sales since the 1990s have been allocated to one of 13 categories embracing houses, a range of multi-unit forms (flats/units, block flats, town house, retirement dual occupancy) and other property types including vacant land. In earlier years, such as 1981 the year used in this study for comparative purpose, there were only two dwelling categories: houses and 'own your own' flats. For this reason, unless specified, we use data for houses as this has been a consistent series. However, over time, the percentage of sales of dwellings other than houses has increased as the dwelling stock has been diversified. In 2008 there were 77,987 dwelling sales recorded in Victoria of which 66 per cent were houses.

A1.4 Census of Population and Housing

The census is the largest statistical collection undertaken by the Australian Bureau of Statistics. The first was held in 1911 and since 1961 a census has been taken every five years, with 2006 being the latest. The scope of the census is all people in Australia on census night, excluding foreign diplomats and their families. The smallest spatial unit for collection and analysis is the census collectors' district of which there were more than 38,000 in 2006. These can be regrouped into different types of geographical area for research purposes. In this study 2006 census data were used mainly for mapping purposes as it is the only data source on household income that enables metropolitan wide spatial analysis.

APPENDIX 2: INVESTIGATING LOW-MODERATE INCOME HOME PURCHASERS AND HOME OWNERS: TECHNICAL ISSUES (CHAPTER 5)

Research question 1 asks: ‘Who are low-moderate income home purchasers and what changes can be observed over time?’ Answering this question involved detailed analysis of the SIH 1981–82 and 2007–08 (see Appendix 1). In analysing these data, we had to address a number of conceptual issues discussed in Section 3.2.1. In this appendix, we outline our treatment some more technical issues.

Households (exclusions)

Some households were excluded from the analysis of SIH data in 1981–82 and 2007–08. These were households who reported receiving rental income from the dwelling they occupy, suggesting this is an investment property rather than solely owner occupied.

For the 2007–08 SIH, we excluded households who had a mortgage but reported that they were not making any repayments. This is likely to reflect new policies and practices offered by banks, including the ability to use a paid-off mortgage as a line of credit. The household has a zero balance but does not discharge the mortgage, opting to keep it open for potential future borrowing against the equity in their home. Including these households would understate purchasers’ affordability problems.

A problem often faced by researchers is that reported household income is very low, much lower than Centrelink payments. Sometimes these households can report quite high levels of expenditure. For this reason, some research into housing affordability excludes households with income in the bottom 10 per cent. In this study, we excluded households receiving less than $100 in income in 2003, indexed back and forward to the appropriate study years; 2003 was used as the base because this was the collection year for the HES.

We also excluded the small number of group households buying or owning their homes for which it is not clear which member(s) of the household owns the home, has their name on the mortgage and is responsible for making repayments.

Household income (composition)

Most research into housing affordability in Australia follows the ABS definition of household as ‘one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling’ (ABS 2009: 19). Thus, the definition of household income refers to all income earners in a household aged 15 and over. However, it is doubtful whether many households ask teenage or young adult children to contribute to mortgage payments or council rates out of their wages. Indeed, financial institutions calculate loan eligibility on the basis of the income of adults who will be the mortgagor(s), thus excluding the incomes of adult children and any other family members sharing a dwelling. In this study we have recalculated household income to include only the household reference person and spouse/partner, if present. This presents a different and, we believe, more accurate measure of household income for a study of home ownership.

Household income (equivalised or non-equivalised)

A further issue is the treatment of single and multiple income households. Is the same 40th percentile income cut-off to be applied or are these households treated differently in recognition of different housing needs and costs? Equivalising of household incomes is the statistical method for addressing such differences, as used in much research into housing affordability in Australia.[28]

We note that the equivalisation is a vexed issue in Australian housing research and there is no standard treatment. Work for National Research Venture 3 on Housing Affordability for Lower Income Australians on the 30/40 affordability benchmark (Yates and Gabriel 2006) is based on the lowest two quintiles of equivalised disposable (net) income from all household income earners to establish the group of lower income households. This contrasts with work for AHURI undertaken on the supply and demand for rental housing which also uses household income quintiles and is based on non-equivalised (gross) income from all household income earners (Wulff et al. 2009).

For our purposes, equivalising income would result in a higher percentage of dual income households below the 40th percentile cut-off. In terms of purchase, however, single and dual income households are competing in the same housing market, and the required entry income will be the same. Using equivalised income blunts this point. We use unequivalised household incomes in assessing changes in the profile of lower income home purchasers over time (1981–82 to 2007–08). However, in investigating the ongoing costs of home ownership in Chapter 6, household type, income source and patterns of expenditure are cental to the analysis. Our preferred approach is not to equivalise household income but to use the budget standard approach to measuring the effects of housing and non-housing expenditures for different types of households. In effect, use of budget standards has the same effect as equivalising household income, i.e. it takes into account the different non-housing expenditures of different household types and sizes, however, the former enables a more nuanced and detailed analysis The technical aspects of the budget standards approach are discussed further in Appendix 3.

Household income (gross or net)

Finally, we use gross household income in the analysis, not income net of taxation and the Medicare levy. The main reason for this is that taxation data for households were not collected in the 1981–82 SIH and we would not be able to undertake comparison over time. We note that previous research has indicated that it appears to make little difference whether gross or net household income is used when applying affordability benchmarks based on a ratio of mortgage costs to household incomes.[29]

[28] 'Equivalised household income is total household income adjusted by the application of an equivalence scale to facilitate comparison of income levels between households of differing size and composition, reflecting the requirement of a larger household to have a higher level of income to achieve the same standard of living as a smaller household' (ABS 2006: 193).

[29] Yates and Milligan (2007: 55, footnote 1) note that, while estimates of the numbers and composition of those in housing stress will differ depending on the precise measure employed, it makes little difference whether housing costs are defined in relation to gross or disposable income and whether the lowest two quintiles are based on gross or disposable income adjusted or unadjusted for household composition (that is, equivalised) when this indicator is used to indicate the broad scale of the housing affordability problem and trends in this over time (RP3).

APPENDIX 3: USING THE BUDGET STANDARDS APPROACH TO HOUSING AFFORDABILITY: METHODOLOGY AND ASSUMPTIONS (CHAPTER 6)

Research question 2 asks: 'What differences are there in the financial benefits and risks of owner occupation in terms of ongoing expenditures for households on low-moderate incomes compared to middle-higher income households?'

In addition to analysis using the HES, we examined the ongoing affordability of housing for low-moderate income purchasers, using the budget standards approach. A budget standard represents what is needed, in terms of goods, services and activities, to achieve a particular standard of living and what that standard costs different household types. Budget standards were developed in Australia by the Social Policy Research Centre (SPRC) at the University of New South Wales (Saunders et al. 1998). Their Indicative Budget Standards include a Low Cost and a Modest but Adequate Budget to reflect minimally adequate and modest living standards respectively.

This appendix details the steps involved in applying budget standards to investigate affordability of home purchase for a) different types of households, b) households on different levels of income and c) when two different budget standards are applied (the Low Cost and Modest but Adequate Non-Housing Budgets).

Step 1: Choice of non-housing consumption budget standards

We used the SPRC Low Cost and Modest but Adequate budget standards for each household type and removed the housing expenditure. The reason for this is that the budget standards are national and housing is the expenditure that varies most by location, unlike the aggregate of other expenditures. Thus the budget standard minus housing expenditure is a reasonable approximation for Victoria or any other jurisdiction.

Step 2: Indexing using appropriate consumer price indices

The budget standard was set around expenditures relevant in 1998 and therefore has to be indexed to be made relevant to later years. The SPRC budget standards have separate components for Housing and Energy, but using CPI to index Housing raises problems since, in the CPI, 'Housing' includes utilities. In consequence, we had to:

→ Use the CPI 'All Items minus Housing and Financial Services' to index the budget standards minus the Housing and Energy components.

→ Use the CPI 'Utilities' to index the Energy component of the budget standards.

→ Because CPI 'All Items minus Housing and Financial Services' is available only for Australia as a whole, not for individual states and territories, it is necessary to use the national CPI elements.

→ As with the SPRC budgets, since housing is the expenditure that varies most by location, while the aggregate of other expenditures varies little by location, use of the national CPI 'All Items minus Housing and Financial Services' is reasonable.

→ Add results of 'b' and 'c' to produce indexed Normative Budget Standard (minimum adequate residual income) for Non-Housing Consumption including Utilities (home energy).

Step 3: Assumptions about income

- → $30,000 is the minimum income for computations as it is assumed home ownership is not possible on a lower income unless subsidised. This differs from calculations for renters where there would be lower income cut-off.
- → Because of the $30,000 income cut-off, household income is predominantly from employment, although at lower income levels households are eligible for certain income benefits and allowances.
- → For two-adult households, 60 per cent of total income is assumed to be from adult male employment and 40 per cent from adult female employment. It is assumed no other family members' income is relevant for loan eligibility.

Step 4: Income tax computations

- → Income tax rates are based on personal tax rates for the 2009–10 financial year.
- → Tax rates are based on withholding rates for 'pay as you go' tax and do not include amounts credited or debited for taxation financial reconciliation such as the Medicare levy or low income tax offset. The computations also exclude tax deductions which are household specific, such as those for length of tax year, higher education payments and the private health insurance offset. However, there are a number of income-based tax credits and benefits that are not household specific and can be included in the computations (see Step 5).

Step 5: Income-based tax benefits and credits

The value of the following benefits has been computed, with the specifics differing by household type as Table A1 shows and accompanying text explains further. Consistent with Australian government policy, Newstart is based on disposable income while Family Tax Benefits are based on annual gross income.

Table A1: Relevant tax benefits and credits for sample household types

Household type	***Newstart***	***Family Tax Benefit Part A***	***Family Tax Benefit Part B***
Single person	√	X	X
Sole parent, 1 child	√	√	√
Couple, no children	√	X	X
Couple, 2 children	√	√	√

a) *Sole person household*

Not eligible for Family Tax Benefits, and the $30 000 income cut-off means no single persons are eligible for Newstart as it ceases at a disposable income of $853.34 per fortnight for singles. Lowering the cut-off to, say, $20 000 would require computation of Newstart for this household group.

b) *Couple household*

Newstart allowance is paid up to an individual disposable income of $779.17 per fortnight and reduces at a greater rate once one of the partners exceeds this amount. Once the combined incomes exceed $45 000 the couple is no longer eligible.

c) *Sole parent household with child*

Minimum income level is too high to consider Newstart allowance, but Family Tax Benefit of $156.94 per fortnight is paid in full until income reaches

$44 165, thereafter decreasing on a sliding scale until the upper limit of $99 000 is reached.

Family Tax Benefit Part B of $93.10 per fortnight is paid up to primary earner's maximum annual income of $150,000. Many sole parents will receive child support, but because this relates to individual circumstances it cannot be taken into account.

d) *Couple household with two children*

This household type is eligible for Newstart up to $45 000, above which the couple is no longer eligible for any Newstart allowance. Family Tax Benefit Part A of $313.88 per fortnight is paid in full until combined income reaches $44 165 and then decreases on a sliding scale until the upper limit of $107 000.

The maximum payment of Family Tax Benefit Part B is $93.10 per fortnight, and is based on the 'non-primary earner' if the primary earner's annual income is below $150 000. As it is based on the income of the non-primary earner, it is no longer paid once the couple's combined income reaches $42 000.

Step 6: Computation of maximum affordable housing cost

Disposable Income equals gross household adult income from employment minus taxes plus tax benefits and credits.

Maximum Affordable Housing Cost equals Disposable Income minus indexed Normative Budget Standard (minimum adequate residual income) for Non-Housing Consumption including Utilities (home energy).

Step 7: Computation of maximum affordable mortgage payment

Subtract assumed non-mortgage housing costs excluding utilities from Maximum Affordable Housing Cost.

Step 8: Computation of maximum affordable mortgage

Compute present value of stream of Maximum Affordable Mortgage Payments at assumed annual average interest rate over assumed term.

Step 9: Computation of maximum affordable purchase price

Divide Maximum Affordable Purchase Price by assumed loan-to-value ratio (one minus deposit ratio).

Step 10: Computation of minimum necessary savings to purchase

- Necessary deposit equals assumed deposit ratio times Maximum Affordable Purchase Price.
- Compute stamp duty based on Maximum Affordable Purchase Price.
- Add non-variable fees (legal etc.) to results of 'a' plus 'b' to produce Minimum Necessary Savings.

Step 11: Computation of number and percentage of sold homes actually affordable

- Utilise Valuer-General's sales price data for the most recent year, supplied by Department of Planning and Community Development.
- Compute the number and percentage of homes sold for an amount less than or equal to the Maximum Affordable Purchase Price.

Step 12: Produce graphs

- For each household type.
- For full range of incomes.
- Based on Low Cost and Modest but Adequate Non-Housing Standards.
- Of results of computations in Steps 6-11 above.

APPENDIX 4: ADDITIONAL HOUSING COSTS (CHAPTER 6)

The section on additional housing costs was constructed from ABS Household Expenditure Survey 2003–04 (see Appendix A1.2). This contains thousand of expenditure variables such that the category ‘Repairs and Maintenance’ is an aggregation of six separate expenditure variables. Table A2 shows the expenditure categories that made up the additional housing costs used in this section and how they were aggregated. Each of these variables had different collection periods, i.e. the period to which the data relates. Thus a lumpy or ‘capital cost’ expenditure such as home insulation is spread over 12 months while others are spread over three months and others over weeks. All these are reduced to an amount per week. Similar aggregations were made for the loans and savings section of the study.

Table A2: Household Expenditure Categories, ABS HES survey, 2003–04

Housing cost	*Household Expenditure Category*
Rates	101030001 Rate payments (selected dwelling)
	101030201 Local government rates (selected dwelling)
Body corporate	101070201 Body corporate payments (selected dwelling)
Insurance	101040101 House insurance: separable (selected dwelling)
	101040103 House and contents insurance: inseparable (selected dwelling)
Repairs and maintenance	101050101 Repairs and maintenance (contractors): repainting
	101050201 Repairs and maintenance (contractors): electrical work
	101050301 Repairs and maintenance (contractors): plumbing
	101059901 Repairs and maintenance (contractors): re-roofing
	101059999 Repairs and maintenance (contractors): NEC
	101060101 Repairs and maintenance: paint
	101060199 Repairs and maintenance (materials only)

Data are presented for both purchasers and outright owners with the 40th percentile again being used to distinguish between low-moderate and middle-higher income groups in each category. The cut-offs were specific to each tenure group so that the 40th percentile for purchasers is much higher than for outright owners.

APPENDIX 5: MEASURING CHANGES TO WEALTH AS A RESULT OF HOME OWNERSHIP: TECHNICAL ISSUES (CHAPTER 7)

Appreciation of housing prices (the major form of asset wealth of households) is critical to whether low-moderate income purchases receive financial benefits from ownership. The literature on wealth accumulation through home ownership is substantial, but empirical testing is complicated by the conceptual issues discussed in Chapter 3, the methodological issues outlined in Chapter 4, and to a large extent by the absence of relevant data. There is no one definitive method for measuring changes to household wealth as a result of home ownership.

A5.1 Melbourne as a case study

The choice of this Australian city as case study does not mean the findings are not transferable to other Australian capital cities. Despite the size of Australia and the substantial geographical variations, there is much more uniformity of the major cities and their housing markets than in the US, Europe or Asia:

- They all have similar historical trajectories of being recently settled, with mineral and agricultural activity driving their growth as financial and service cities, and manufacturing only emerging in the twentieth century as a factor shaping growth and form (Forster 2004).
- They are all coastal and port cities and are dominated, with slight variations, by the detached house and associated car dependence, meaning they are geographically sprawling (Newman and Kenworthy 1999).
- They are all experiencing high levels of house prices and low levels of affordability to the degree that they all appear in Demographia's (2010) 20 least affordable cities in English-speaking countries.

While there are differences, they are not so significant that they would render the findings of the detailed analysis in the Melbourne case study as not having more general applicability. One of the other distinctive and shared attributes of Australian cities (Sydney may be an exception) is their single nuclei status, i.e. dominance of the CBD and surrounding area with no alternative nuclei providing major commercial, retail, financial and recreational activities and with public transport and roads radiating out from the CBD core. By contrast most US cities, which on the surface are the most similar to Australia, have weak central cores and very active 'edge cities' on the fringe or in outer areas (Garreau 1991).

A5.2 Bid rent curves

Changes in wealth as a consequence of home ownership are crucially affected by change in housing sub-markets. We chose to investigate this through five rent curves or sales curves, selecting suburbs along significant corridors of residential development in Melbourne during 1981–2008. The bid rent curve goes out to some 50 km as Melbourne is a very low density city covering a large geographic area. Particularly to the south and south-east of the city, this distance does include sizeable residential areas.

The data used are from the Victorian Valuer-General's Property Sales Statistics and median prices for houses. The data do not include townhouses, apartments and other dwelling types which have become more popular for purchase only in recent years, and do not distinguish between houses bought for owner occupation and rental investment as this distinction does not matter in calculating a bid rent curve.

A5.3 Changes to gross and net wealth (staying in the same property)

In calculating net home equity or housing wealth we used CURF data from the Valuer-General's Property Sales Statistics 1981–2008 to calculate median house price values for suburbs along the corridors discussed in Section 7.1. The data are for houses not apartments, town houses or flats as (a) the vast majority of residential sales over the period were for houses and (b) apartments, townhouses and flats appear to cater to a specific sub-market during the period such that it is inappropriate to conflate houses with other property types. For example, the latter are as much purchased by investors (not the subject of this study) as households.

This method has the limitation that the sales price includes increases in value due to improvements and additions as well as demolitions and new construction and therefore may overstate the degree of wealth accumulation for some areas. Economists have devoted considerable attention to this issue and there are two possible solutions:

- Burbidge (2000) used the unimproved rateable value of the land on which a dwelling sits, thus controlling for improvements and demolition/construction. However, such data are not readily accessible for large-scale analysis, for example, across entire metropolitan areas.
- The other is the hedonic price method (Grigsby 1963; Maclennan 1982: 52; Goodman 1981: 176). This requires gathering data on the property characteristics that affect selling prices, such as lot size, number and size of rooms (which are affected by renovations and additions), and readjusting the price.

Such data at the household level are not usually available and require surveys of individual households as in Badcock's (1994) survey of 600 recent home purchasers and Burbidge's (2000) work based on a survey of 1,349 purchasers. This type of study is usually small-scale, limited in the area covered, and expensive. There are also issues of validity, for example, how accurately do people recall the amount of expenditure on improvements over time? To minimise the improvement and additions problem nested in the Valuer-General's data, we chose suburbs where there has not been a lot of new construction or renovation relative to the number of overall sales.

Net housing wealth changes are measured by the difference between the initial housing wealth, the deposit and the value of the property at the end of any study period, less any transaction costs if sold including the outstanding principal on any mortgage. In this study we used five year accumulating time periods, i.e. 5,10, 15, 20 and 25 years from time of assumed first purchase. Only in the latter is the outstanding principal not relevant as the time period of 1981–2008 is at the end of the typical 25 year Australian mortgage and the loan would be paid off. This is thus a net wealth measure rather than gross wealth measure which would simply be the difference between end sale value and the deposit. The data used to calculate change in net wealth are as follows:

- We used Valuer-General's data on median house prices 1981–2008 in the selected corridor locations of the Melbourne metropolitan area.
- The deposit is the relevant percentage (see below) for the time period of the median priced house.

- Real estate agents' fees are assumed to be 2 per cent of sale price and stamp duty. Prior to 1995 fees were regulated and set at 2.5 per cent, but since deregulation they have been at the discretion of individual estate agents. Australian Real Estate Consulting (http://www.realestatefees.com.au/) shows that fees in Victoria generally range from 1.6 per cent to 2.5 per cent in the city and metropolitan areas. We have therefore chosen 2 per cent for all years including early years.
- Stamp duty is payable on the purchase of Victorian land, including land with buildings on it (improvements) which constitutes most urban land in metropolitan Melbourne. Duty is payable based on the market value of the property or the purchase price, whichever is greater. The rate factored in was that relevant at each of the assumed sale periods. Exemptions, such as those for first home buyers, and changes in rates and dollar cut-offs over time have not been taken into account as we wanted consistency of method throughout this section and parts of it are about change-over buyers as much as first-time buyers.
- The deregulation of the financial system meant different assumptions for lending conditions over time. Thus some of the changes in observed ability to borrow and affordability derive not from any changes in incomes, house prices or interest rates but the different lending conditions. Prior to 1985 a deposit of 25 per cent was assumed while post-1990 a 10 per cent deposit is assumed with the balance having to be borrowed. Despite some loan periods creeping out to 30 years subsequent to deregulation, a 25 year borrowing period is assumed for all measures.
- Interest rates have changed greatly over the near three decades of this study and thus the interest rates at the time have to be factored in. As they can change at irregular intervals, the interest rate for any one year was the average of the rates prevailing for each month of the year.

The wealth chapter also looked at the issue of timing. When a period of capital gains is measured is crucial to whether there has been a wealth gain or loss. The base year could be at the bottom of a housing trough (e.g. 1994), the end year at the peak of a bubble (e.g. 2007) or any other combination, and conclusions are thus dependent on the time period for analysis. It is clear that much of the pre-2007 literature from the US on the benefits is now invalid as there have been substantial decreases in house prices since 2007.

As previously mentioned we used five year accumulating time periods, i.e. 5, 10, 15, 20, and 25 years from time of assumed first purchase, to measure this effect.

Table A3 shows the methodology for the 25 year time period using selected suburbs from Melbourne's western house price corridor as an example.

Table A3: Estimated change in net housing wealth (net equity) for household staying in place, for selected locations in Melbourne's western price corridor, 1981–2006

	Amount of deposit in 1981 (nominal)	***Median house price at purchase in 1981 (nominal)***	***Stamp duty at purchase in 1981 (nominal)***	***Median house price at sale in 2006 (nominal)***	***Real estate agents' fees on resale in 2006 (nominal)***	***Net gain in housing equity 1981–2006 (nominal)***	***% Increase in housing equity (nominal)***
				WESTERN CORRIDOR			
Footscray West 5km	$6 000	$24 000	$425	$450 000	$9 000	$435 000	72.5
Sunshine West 12km	$7 625	$30 500	$555	$340 000	$6 800	$325 575	42.7
Deer Park West 17km	$9 250	$37 000	$685	$268 000	$5 360	$253 390	27.4
Melton West 35 km	$8 750	$35 000	$645	$219 500	$4 390	$206 360	23.6

Source: Data on median house prices from Victorian Valuer-General's Property Sales Statistics, CURF data, 1981 and 2006.

A5.4 Dynamics of home purchase (trading up and down)

The degree to which a household (low-moderate income or otherwise) builds wealth through home ownership depends in large part on the extent of capital gain which in turn is affected by decisions about whether to remain in the original dwelling, to trade up in quality and/or area, or to trade down, including moving out of ownership back to rental. Trading up is generally seen as the way wealth is accumulated through housing, as indicated in the US research into lower income home ownership discussed in the Positioning Paper (Hulse and Burke 2009), but the effect depends on location. Trading-up data are rare as this requires time series data, typically of panel format, which enables households to be tracked as they buy and sell dwellings. There are few data sources in Australia that offer the potential for such analysis. The Household, Income and Labour Dynamics in Australia (HILDA) survey is a household panel data set but would need to be conducted over a longer period to enable assessment of changes to wealth through trading up and down over different economic cycles.

The method here was essentially the same as in Section 7.2 except that the equity from the first sale became the deposit for the next purchase. The equity in the first sale is the difference between the value of the house at point of sale and the outstanding balance. In some cases the acquired equity was so large that no further borrowing was required. The stamp duty on purchase is also deducted from the equity before becoming the next deposit. The method is illustrated in Table A4.

Table A4: Net wealth accumulation 1981–2006: Example of method

	Started in	***Richmond***	***Malvern***
	Moved to	***Box Hill***	***Berwick***
1981	Purchase price	$41 000	$81 000
	Stamp duty	$768	$1 673
	Deposit	$10 250	$20 313
	Loan	$30 750	$60 938
1993	Sale price	$154 000	$301 000
	Real estate agents' fees	-$3 080	$6 020
	Principal outstanding	$25 626	$50 783
	Equity accumulated	$125 294	$244 197
1993	Purchase price	$153 150	$130 000
	Equity accumulated (deposit)	-$125 294	-$244 197
	Stamp duty	-$5 389	-$4 000
	Loan	$22 467	$0
	Principal outstanding	$17 974	$0
2006	Property value	$678 000	$531 000
	Real estate agents' fees	-$13 560	-$10 620
	Equity (property value – principal outstanding and real estate agents' fees)	$646 466	$520 380
	Net house wealth gain	$636 216	$500 068
	Net wealth to initial deposit ratio	62	25

A5.5 Analysis of repeat sales data: What is the risk of making a loss on resale of property?

The measure which probably most accurately calculates changes in housing wealth is to calculate capital gains/losses based on repeat sales for a single property, as used in well-known housing price indexes, such as the Case-Shiller Home Price Index in the US and the Residex Index in Australia. This approach controls for differences of location and changes in quality and third party effects, which is the problem of using aggregated data from recorded sales for a whole area or municipality. In this study we were able to geo-code data on repeat sales of individual properties since 1999 using CURF data from the Victorian Valuer-General's Property Sales Statistics.

Whilst this is a robust method, there are three caveats on use of this data on repeat sales:

- There is no information on renovations and additions so the resale value may be higher at the point of sale than at point of purchase because of the increment in value associated with renovations and additions. However, our focus in this part of the research was on the risks of home ownership and we wanted to assess loss (sale of property for less than the purchase price), so this is not such a problem.
- The data are collected for administrative purposes (calculation of stamp duty payable by purchasers) and some purchasers may understate the acquisition price to try to reduce the stamp duty payable. However, as the Valuer-General's applies a test as to whether the sale price is below the market value for the area and will set stamp duty not on the actual nominated sale price but on equivalent market value, one can anticipate that this effect will be limited.
- The data on property sales do not distinguish between purchase for owner occupation and rental investment, although for the most of the analysis we have used only the house sales data to minimise this effect as rental investors typically buy more apartment and town houses.

Relevant transaction costs (i.e. real estate agents' fees at sale and stamp duty at purchase) are deducted from the sale price.

A5.6 Resident saver model: calculations

The assumptions and conditions for the resident saver analysis were as follows.

1. The analysis period is 1999–2008. This was a period of escalating prices and thus a different time period may produce a different result.
2. The renter has the capacity and ability to save each month the difference between what they are paying by way of rent and a mortgage for an equivalent dwelling.
3. We have assumed a household is renting a three bedroom house. The rent for this property if obtained from the Office of Housing Rental Report whose major source is the Residential Tenancies Bond Authority which collects data on all rental bonds lodged under the Residential Tenancies Act. At the time of lodging of bonds, the attributes of the rental property, e.g. type, bedroom size, rent and postcode, are provided and thus median rents can be collated for most areas of Melbourne and for given property types. Rents are calculated annually for the ten years on this basis.
4. The mortgage the household would be paying for the equivalent property is calculated on the same assumptions as all post-financial deregulation analysis in this report: 10 per cent deposit, 25 year loan period, mortgage not to exceed 30 per cent of income, and the interest rate for the relevant years calculated by taking

an average of the interest rate for the 12 months of that year. The mortgage in this case is the difference between the median house price for each area in 1999 and the 10 per cent deposit. The mortgage is provided for the ten years and matched against the rent.

5. The difference between the rent and the mortgage is ‘saved’ or rather invested in fixed deposits for one year and calculated as 1.5 per cent higher than the government bond rate for the relevant year. However, in some suburbs the rate of growth of rents has been such that relative to mortgage outlays (in areas that were relatively cheap to buy into) there is no differential after a few years. There is no capacity to put the differential to savings.
6. The build-up of savings over time is shown in two ways: when the rent/mortgage differential is saved, and when this is saved on top of the deposit. The latter assumes a potential buyer would have accumulated the deposit to purchase and if they did not go ahead with it they would have that deposit to invest.
7. It is assumed the purchaser pays the mortgage over the designated time period and at the end of ten years sells the property. The median value of the property at year of assumed sale minus the repayment of the principal outstanding and the original deposit is the net worth of the purchase to be compared to the compounded savings of the renter.
8. This probably exaggerates the degree of savings of the renter household as there would be some loss of interest in the form of tax payments but as these are subject to the tax status of individual households this was excluded. On the other hand, there is no capital gain tax for the purchaser.

A5.7 Spatial constraints

Map 2 in Chapter 7 showed the spatial distribution of low-moderate income recent purchasers and was also used for the choice of the three sites for the qualitative research (Chapter 8). Using census data, the production of the map required:

→ Amalgamating collectors’ districts into suburbs of Melbourne.

→ Selecting all purchaser households who moved in the five years prior to the August 2006 census period. Recent movement is here used as a de facto measure of a purchaser who has bought in the last five years.

→ From all purchaser households who moved, eliminating those who had incomes in excess of the $76,000 40th income quintile. As census data are ordinal, the $76,000 point was halfway between the weekly income range $1,300 and $1,699 ($1,499) and this was chosen as the cut-off with numbers in the range proportioned.

→ Counting all households with the highest number of low-moderate income purchasers who moved, by suburb. The suburbs were ranked by count and the top 25 as per Table A5 were mapped.

Table A5: Suburbs with highest count of low-moderate income purchaser households, 2006

Suburb	*Households*
Berwick	1 865
Narre Warren South	1 776
Werribee	1 511
Pakenham	1 472
Sunbury	1 434
Craigieburn	1 427
Hoppers Crossing	1 318
Frankston	1 273
Hampton Park	1 191
Narre Warren	1 125
Rowville	1 119
Roxburgh Park	1 110
Point Cook	1 084
Langwarrin	1 033
Reservoir	1 021
Carrum Downs	1 018
South Morang	994
Caroline Springs	972
Ferntree Gully	932
Boronia	896
Noble Park	890
Mill Park	885
Mornington	843
Hillside (Melton)	827
St Albans	807

Map 3 compares the percentage of dwellings available, i.e. sold in a given year, for low-moderate income purchasers ($76 000 cut-off), given the same borrowing assumptions used elsewhere in this study. In this case, it is for first-time borrowers, and again highlights the degree to which purchase opportunities have become spatially concentrated.

The measure of concentration is the proportion of households in the following local government areas:

- *Inner*: Boroondara, Melbourne, Port Phillip, Stonnington, Yarra.
- *Middle*: Banyule, Bayside, Brimbank, Darebin, Frankston, Glen Eira, Greater Dandenong, Hobsons Bay, Kingston, Knox, Manningham, Maribyrnong, Maroondah, Monash, Moonee Valley, Moreland, Whitehorse.
- *Outer*: Cardinia, Casey, Hume, Melton, Mornington Peninsula, Nillumbik, Whittlesea, Wyndham, Yarra Ranges.

APPENDIX 6: QUALITATIVE RESEARCH METHODS

The qualitative research component of the study involved a purposive non-random sample of households living in lower price areas of metropolitan Melbourne who had bought their home within the last five years.

A6.1 Ethics approval

Swinburne University Human Research Ethics Committee gave approval for the project on 23 December 2009 (SUHREC Project 2009/283). This included approval for recruitment strategies, the interview schedule, procedures around informed consent and data analysis and storage.

A6.2 The sample

Location

Three types of location were chosen on the basis of their specific characteristics although all have a relatively high proportion of recent home purchasers with household incomes in the lowest two quintiles:

- Area 1 NEW is a newly emerging residential area on the outskirts of metropolitan Melbourne, with a majority of housing recently built or under construction.
- Area 2 STATIC is an area of outer metropolitan Melbourne in which house price growth over time has been relatively static.
- Area 3 ESTABLISHED is an outer suburban area, with a majority of housing having been built some years earlier.

The original target was interviews with ten households in each of these areas, a total of 30 interviews. As the areas were quite specific, the original recruitment method was by targeted letterbox drop in the three areas inviting potential participants to contact a researcher. This method had been used quite successfully in a number of previous research projects.

In this case, and as discussed in Chapter 4 (Section 4.2.5) this approach was not successful and was supplemented by a variety of other recruitment strategies, including advertisements in local newspapers, flyers posted in public places and attempts at snowballing. These strategies generated a total of 12 completed interviews, with six being completed in Area 3, as shown in Table A6.

Table A6: Sample for qualitative research by residential location and household

	Young households (n = 4)	*Recent migrant households (n = 2)*	*Disrupted households (n = 6)*
Area 1: New	1 *(Case 4)*	1 *(Case 3)*	0
Area 2: Static	1 *(Case 7)*	0	3 *(Cases 2, 5, 6)*
Area 3: Established	2 *(Cases 1, 10)*	1 *(Case 9)*	3 *(Cases 8, 11, 12)*

The small number of cases included in the sample living in each type of location makes drawing firm comparisons between location types difficult. However, the sample does include households living in new estates, ‘static’ priced areas as well as older, more established outer metropolitan areas, and hence a 'spread' of cases and housing experiences.

Housing type

As a result of the housing boom, each of the area types selected for this study includes some degree of new building, primarily in new housing estates. A number of the households interviewed had bought land and built a new home using a registered builder, others had purchased recently built housing (within three years old), while some had purchased more established dwellings, as shown in Table A7.

Table A7: Residential location and age of dwelling among qualitative sample

	New build (n = 4)	***Recent build (n = 2)***	***Established dwelling (n = 6)***
Area 1: New	1 *(Case 4)*	1 *(Case 3)*	0
Area 2: Static	0	1 *(Case 6)*	2 *(Cases 2, 5)*
Area 3: Established	3 *(Cases 7, 8, 9)*	0	4 *(Case 1, 10, 11, 12)*

There is an interaction between the types of areas the low-moderate home purchasers interviewed for this study live in and the types of dwellings they occupy. Although it might be expected that unit or apartment dwellings are typically more affordable than detached houses, most live in free-standing homes. This is the predominant housing type in the areas sampled. There are two exceptions: Case # 10 and 11 each live in 'units'. These are smaller dwellings within clusters, each with a small yard area. Overall, having a 'house' rather than a flat or apartment was found to be important for the nature of housing experiences among the low-moderate income households interviewed, as discussed in Chapter 8.

Household type

While the sample for the qualitative component of the study is small, it does include a number of key 'types' of households who can also be found in the broader lower income recent home purchaser population:

→ Young households (4).

→ Recent migrants (2).

→ Disrupted households (6).

Young households include single and couple headed households up to around 30 years of age; recent migrant households refers to households who moved to Australia within the previous five years and disrupted is a term used to describe events in the life course, or non-events, which have interrupted the capacity of households to purchase homes earlier or in locations they would prefer. This group includes household members who have experienced divorce or separation, those who have had financial troubles (e.g. victims of fraud, financial collapse), as well as singles for whom non-partnership can be a financial obstacle to home purchase. Some of this group have previously 'fallen out' of home ownership and have worked for periods of years to regain entry to home ownership via purchase of their current homes.

A6.3 Interviews

Interviews were semi-structured and followed the interview schedule at the end of this appendix. They were electronically recorded with the consent of the participants and subsequently transcribed verbatim. Interviews were conducted at the participants' homes or at a place nominated by them.

A6.4 Analysis and presentation of findings

Analysis of transcribed interviews was undertaken manually, given the small sample size. Transcribed interview material was coded according to key case characteristics (e.g. area type, household type, age of dwelling, degree of financial stress) and expectations and experiences of various financial and non-financial aspects of home ownership compared and contrasted across case types. Select verbatim quotations are used throughout the text, primarily in Chapter 8, to illustrate key points and highlight exceptions.

The interview schedule included a short section including four scenarios aimed at eliciting more objective and distanced reflections of the benefits and risks of home ownership. Prior qualitative research in eight European countries found that home owners in many cases have not thought about the risks associated with home ownership and that a significant minority said that they chose not to do so (Jones et al. 2007). There may well be a halo effect around home ownership such that people want to feel that they have made the right decision for themselves and their families, notwithstanding some of the financial pressures (Smith et al. 2009). There are various ways to get around this including vignettes which seek interviewees' views on a number of hypothetical situations, as used in the European study (Jones et al. 2007), and more simple scenarios as attempted here. The scenarios were not very successful in eliciting further information about benefits and risks (perhaps indicating the strength of the halo effect) and little use has been made of them in the presentation of findings.

In the discussion of the findings in Chapter 8, all interviewees are given pseudonyms and the areas in which they lived are referred to as 'Area 1', 'Area 2' or 'Area 3' to preserve anonymity.

A6.5 Interview schedule

Introduction

Thank you for agreeing to take part in this important study. As you know, this research is about the experiences recent home buyers have. In this interview I'm going to ask you about your expectations and experiences of buying your home, about living here, and about what home purchase has meant for you and your family.

If there are any questions you do not wish to answer, please let me know and we will move on. If you wish to stop the interview at any time, please also let me know.

Prior housing circumstances

To start, can you briefly tell me about where you lived before you bought this home?

Prompts:

- → Was it rented?
- → What sort of house/apartment was it?
- → What area did you live in? Had you always lived in that area?

Buying this house

Can you tell me about buying this home?

Prompts:

- → What were the main reasons you decided to buy rather than rent?
- → When did you buy this home?
- → When you were growing up, did your parent(s) own their own home?
- → Were your friends or brothers and sisters also buying their homes?
- → Was it difficult to put a deposit together and to get finance for the loan?
- → What was the purchase price at the time of purchase?
- → Why did you decide to buy in this area?
- → What made you decide to buy this particular house?
- → When you bought your home here, what kinds of trade-offs were involved, if any?

Financial expectations

What were your expectations about the financial implications of buying this house; the costs and the benefits?

Prompts:

- → Did you expect that buying a house would be a financial stretch? For how long?
- → Apart from mortgage costs, did you factor in any other types of housing costs when you bought your home, e.g. council rates, building insurance, running costs, repairs, travel costs?
- → Did you expect that mortgage rates would go up or down, and did you factor this in to your budget when you bought?
- → Did you receive any assistance from family to buy your home? Will you have to pay this back at some stage?

Financial experiences

How have your experiences of the financial implications of buying a home matched up with your expectations?

Prompts:

- → What do you think the value of your home is now? Has it gone up or down, why do you think this is so?
- → How much equity do you think you have in your home at the moment, i.e. the market value minus the mortgage?
- → Have there been any unexpected housing costs, e.g. rate increases, repairs or maintenance?
- → How has buying your home affected your household finances generally?

Do you find paying the mortgage a stretch?

Prompts:

- → If so, how do you manage this, e.g. working longer, doing overtime, going back from maternity leave early?
- → Do you think it will improve soon or in the future? Why?

- How do you think any interest rate rises would affect you?
- Have you had to cut back on other spending to keep paying off the mortgage?
- Do you know of other people in the area having trouble with buying their home?

Personal and family expectations

Apart from the financial side, what else did you hope for or expect when you bought this home?

Prompts:

- What are the main benefits you expected – for you, your partner, your children?
- Did you think that buying your home would change the way you spend your non-work time, for example, the way your family spends time together?
- Did you think you would feel differently about yourself once you bought your own home?
- Did you think you would feel differently about the dwelling you are living in, compared with before?

Personal and family experiences

Do you think buying this home has affected the quality of your life and your family life, if at all?

Prompts:

- Are you able to say what effects buying your home has had on your children or partner, if any?
- Do you feel that the wellbeing or health of your family has changed as a result of buying your home? Has it changed their routine or made them feel differently?
- Do you feel that the need to work to pay your mortgage has taken time away from being with your family compared with before?
- Do you think that buying this home has changed the way you feel about yourself, or improved your self-confidence, compared with before?
- Do you think that buying your home has changed the way other people think about you, or the way they treat you (neighbours, friends, family, etc)?

If you made any trade-offs or compromises when you bought this particular home, do you think these have affected you or your family in any way, e.g. house size, style etc.?

Neighbourhood expectations

And what did you expect this area to be like to live in, before you bought your home here?

Prompts:

- Did you know much about this area before you moved here?
- What sort of neighbourhood did you think this was before you moved here (positive, negative)?
- Did you expect that buying here would mean changes of schools, or work or transport use?
- Did you expect buying a house here would affect your children in any way (schools, facilities etc.)?

Neighbourhood experiences

And can you say how you think living here has affected the quality of your life and your family life, if at all?

Prompts:

- → How close is this to your/your partner’s work?
- → Does living here affect the amount of work you or your partner do?
- → Do you feel that the wellbeing or health of your family has changed as a result of buying a home here?
- → Are you able to say what effects you think buying here has had on your children, e.g. friendships, schooling, activities, safety etc.?
- → And what is your neighbourhood like, near where you live, e.g. friendly, know neighbours etc.?
- → [If this is a new area] What have the advantages or disadvantages been of living in a new area?

If you made any trade-offs or compromises when you bought in this area, do you think these have affected you or your family in any way, e.g. location, distance, facilities in the area, the feeling in the neighbourhood?

Assessing home ownership

Overall, what are the main differences buying this home have made to you and your family’s life?

Prompts:

- → What do you see as the biggest advantages of buying a home?
- → And what do you see as the biggest risks, if any, associated with home ownership generally?

Knowing what you do now, would you make the same or a different decision about buying rather than renting, or about buying this home, or a home in this area?

[If partnered] Do you think your views about your experiences of buying your home are similar or different to your partner’s?

Housing pathways

In terms of housing, what are your plans for the future, if you have any at this stage?

Prompts:

- → Do you expect to stay in this area for the long term? Why is that/Why not?
- → Do you think you will stay in this same home? Why is that/Why not?
- → Do you think you will continue purchasing your home?
- → Do you expect that you will build wealth/equity through buying your home?
- → Do you imagine that one day you will own your home outright (without a mortgage), or do you imagine renting or something else?

Housing scenarios

We are interested in your views about some hypothetical situations.

Scenario 1: Over recent years there has been a lot of capital gain for people who have purchased their homes (the value of their homes has increased). If there was no capital gain or the capital gain was taxed, do you think that purchase would be so attractive?

Scenario 2: If you had to choose between an apartment or unit in the inner city close to public transport with a balcony or small garden, or a detached house in outer Melbourne with a large garden but less close to public transport, which one would you choose and why?

Scenario 3: Some people feel that they really have to buy a home and will really stretch themselves to do this. Do you think that this is a good idea or are there situations in which it is really better not to buy?

Scenario 4: In terms of renting, many European countries have laws which offer life-time security of tenure to residents. If they had this in Australia, do you think home ownership would be so attractive? Why is this?

Finally, if we could just get some basic information about you, this will help when we analyse the information in the interviews. *Can I ask*:

Age Years: _____	**Children living at the home** Number of children (permanently): _____ Number of children (sometimes): _____ Are they pre-schoolers, school age or a mix _______________
Sex Male...................................... 1 Female................................. 2 **Place of birth** Australia................................. 1 Born overseas......................... 2 What country? ______________________ **Marital status** Never married......................... 1 Separated or divorced............. 2 Widowed.............................. 3 Married or de facto................ 4	**Employment situation (respondent/partner)** R P Permanent full-time.................................. 1 1 Permanent part-time................................ 2 2 Casual full-time.. 3 3 Casual part-time...................................... 4 4 Unemployed looking for work................... 5 5 Unemployed not looking for work............. 6 6 Retired... 7 7 Disabled and unable to work.................... 8 8 Full-time parenting................................... 9 9 Full-time carer.. 10 10 Student... 11 11 Self-employed.. 12 12
Household type Single or sole person.............. 1 Couple without children........... 2 Couple with children............... 3 Single parent with children living with you permanently..... 4 Single parent with children living with you sometimes....... 5 Other (please specify)............. 6	**Type of dwelling** Detached house....................................... 1 1 Semi-detached house, terrace house or townhouse..................... 2 2 Flat, unit or apartment............................... 3 3 Other (please specify)............................. 4 4

To end, are there any issues that you feel have been important to your decisions about buying a home here, or your experience of being a home buyer, that we haven't spoken about?

Thank you once again for your time and interest in this study.

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