

Reading 16

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Housing in Australia in the 2000s: On the Agenda Too Late?

Judith Yates*

1. Overview

This paper reviews Australia's housing market in the 2000s for the RBA's decadal review of the Australian economy. In considering the issues to cover, previous reviews seemed a sensible starting point, but proved otherwise.

The 1990 review of the 1980s scrutinised the role of discretionary policies, paid tribute to the virtues of the market and highlighted the importance of financial deregulation (Grenville 1990, p 2). It covered money and finance, saving, the labour market, unemployment and inflation, the balance of payments and the long-term decline in the terms of trade. Housing was not on the agenda.

The 2000 review of the 1990s highlighted Australia's economic 'miracle' and praised Australia for surviving the 1997 Asian financial crisis. This was attributed to 'a serendipitous mix of good luck, judicious macroeconomic management and effective structural reforms' (Bean 2000, p 110). Topics differed little from those covered a decade earlier. Again, housing was not on the agenda.

During the 2000s, however, housing put itself on the agenda. Increased interest in housing was reflected in academic literature, in media commentary and in government and industry concerns. At the macroeconomic level, the start of the decade brought the chicken and egg problem of rising house prices and increasing housing debt. This raised concerns about the impact of increasing housing debt on macroeconomic stability and generated considerable analysis of wealth effects. Debates over whether policy in general, and monetary policy in particular, should respond to significant changes in asset prices followed. By the middle of the decade, the key macroeconomic debate turned to the issue of whether the unprecedented worldwide increase in house prices constituted a housing bubble. By the end of the decade, for much of the developed world the 'bubble question' had been answered (although not necessarily for Australia). Debates over central bank intervention, however, remained and the focus shifted to the role of housing and

* School of Economics, University of Sydney. The author thanks Tony Richards for his generosity in reworking some of his data for use in this paper and RBA staff for their constructive comments on an earlier version.

housing finance institutions, both in precipitating a global financial crisis (GFC) and in preventing future crises.¹

Alongside the implications of rising house prices that put housing on the economic agenda were issues that also put it onto the political agenda. Political concerns arose from reduced access to housing for aspiring home owners and from significant housing affordability problems faced by lower-income households. These concerns have been reflected in a number of ways. In 2003, for example, the government of the day asked the Productivity Commission to undertake an inquiry into first home ownership and set it the task of: determining affordability for home-buyers in recent years; evaluating the major causes of changes in affordability; and identifying government policy initiatives to improve affordability and the efficiency of housing markets (Productivity Commission 2004, p xiii). At the same time, a Prime Ministerial Task Force on Home Ownership was established with a similar brief. A few years later, under a new government, a Senate Select Committee was established to inquire into housing affordability in Australia, with the task of reporting on the barriers to home ownership. The reports from each of these inquiries highlighted key demand drivers affecting affordability and raised issues about the supply side of the housing market. In 2008, the National Housing Supply Council was established to identify ways of ameliorating obstacles, and otherwise improve the supply response, with a focus particularly on the factors affecting the supply and affordability of housing for households in the lower half of the income distribution.

This paper suggests it was a mistake to leave it until the end of the 2000s to include housing on the decadal review agenda because the fundamental problems that made house price-watching a national pastime and put housing on the political agenda in the past decade began well before 1990. Leaving it until the 2000s has resulted in a focus on cyclical issues rather than on these fundamental, structural issues.

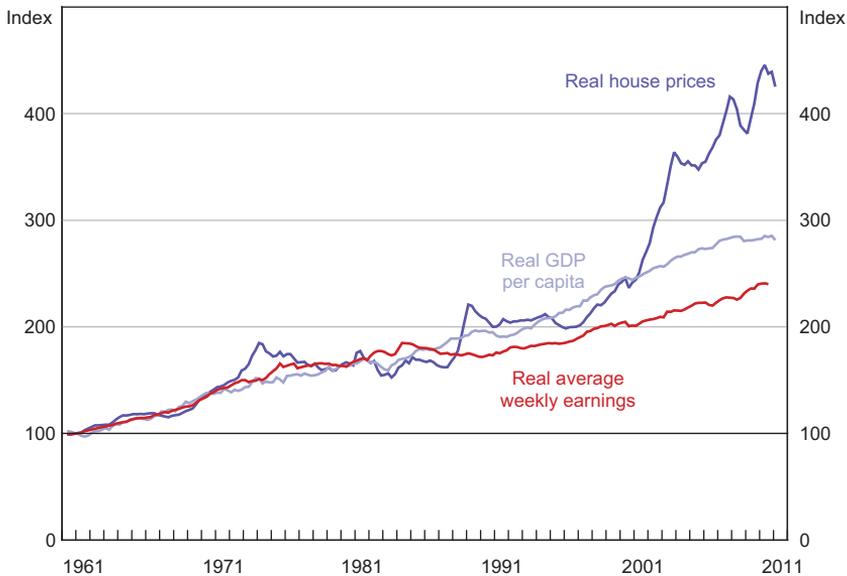
Section 2 provides a brief overview of the literature on the house price boom observed in Australia from the mid 1990s until the mid 2000s, focusing specifically on the demand-side factors that contributed to the boom. Section 3 examines questions of sustainability of the associated increase in household debt and considers the impact of the increase in net wealth on the economy. Section 4 considers the supply side of the housing market in terms of the factors affecting the cost of providing housing, and the sluggish response of supply to increases in demand that has contributed to real house price increases. Section 5 examines some of the outcomes of the changes in house prices and housing markets that put housing on the agenda in the 2000s. It develops the argument that the significant housing problems in Australia are structural rather than cyclical and suggests that Australia's housing system might be structurally unsustainable (as defined below).

1 Many of these issues were raised in the annual RBA conferences during the 2000s. In 2003, for example, considerable attention was paid to asset price bubbles and to their causes, as well as to the wealth effects associated with rising asset prices (and particularly with rising housing prices) (see, for example, Bean (2003), Case, Quigley and Shiller (2003) and Simon (2003)). Some of this discussion was developed further in the 2005 Conference on 'The Changing Nature of the Business Cycle' with the paper by Shin (2005) that countered the general tenor of the Conference by pointing to the potential for the financial system to amplify rather than dampen business cycles. The 2006 Conference on 'Demography and Financial Markets' highlighted the role of housing assets (and equity withdrawal) in meeting retirement needs. The 2007 and 2008 Conferences highlighted the role of housing and housing finance institutions in the GFC and its aftermath. The issue of central bank intervention was returned to in 2010 in the 'Reserve Bank of Australia 50th Anniversary Symposium' (see, for example, Cagliarini, Kent and Stevens (2010, p 23–24)). Most of these issues are covered below.

2. The Boom in House Prices

Between 1995 and 2005, real house prices in Australia increased by more than 6 per cent per year, with an average annual increase of almost 15 per cent from 2001 to 2003. This was well above the average annual increase in the 20 years to 1995 of just 1.1 per cent and the 50-year average (from 1960 to 2010) of 2.5 per cent per year.² These data are illustrated in Figure 1 and contrast with the significantly slower growth in GDP per capita and average earnings over much of the period.

Figure 1: Real House Prices, GDP per Capita and Earnings
1960/61 = 100



Sources: Abelson and Chung (2005); ABS; Australian Treasury; REIA

Compared with other advanced economies, Australia is often reported as having experienced relatively rapid growth in real house prices over the past 20 years or so (see, for example, Tumbarello and Wang (2010)). Between 2000 and 2004, Australia had the third highest rate of house price inflation among OECD countries, ranking behind only the Britain and Spain (The Economist 2011). During this long house price boom, much was written – both in Australia and elsewhere – about the factors that contributed to the rapid increase in real house prices from the mid 1990s. For Australia, this material is comprehensively covered by the Productivity Commission in their report on first home ownership (Productivity Commission 2004).³

² Abelson and Chung (2005) suggest that approximately two-thirds of this increase is a 'pure' price increase and one-third is presumed due to quality increases. For access and affordability issues covered later in this paper, it is the combined effect rather than the pure price effect that is relevant.

³ Much of this was based on the Reserve Bank submission to the inquiry (RBA 2003).

2.1 Underlying demand fundamentals

Globally there is widespread agreement that real house prices have been driven by demand fundamentals underpinned by supply constraints. Demand factors are considered here; supply factors are considered in Section 4. On the demand side there have been a number of contributing factors: real household incomes increased; disinflation meant that nominal interest rates have fallen and borrowing capacity increased; deregulation and financial innovation meant that finance is more readily available; taxation systems generally encouraged investment in housing; and increases in household wealth served to reinforce underlying demand pressures. In many countries these demand pressures have been affected by demographic factors (such as changes in the age structure of the population) and, particularly in Australia, added to by high population growth (primarily as a result of high migration).

Tsatsaronis and Zhu (2004), Girouard *et al* (2006) and André (2010) provide empirical analyses of a number of these fundamental demand factors as they relate to house price growth in OECD countries over a relatively long period of time.⁴ As Miles and Pillonca (2008) highlight, however, the relative importance of these factors varies between countries and most empirical studies leave a considerable amount to be explained. A number of studies have also assessed the relative magnitude of their effects for Australia. Earlier Australian studies of house price determinants highlight the role of income and demographic factors (see, for example, Bourassa and Hendershott (1995) and Abelson *et al* (2005)); later studies focus on interest rate and wealth effects (see, for example, Otto (2007) and Fry, Martin and Voukelatos (2010)). In broad terms, the same determinants have been shown to affect demand for owner-occupied housing and demand for investment housing (see, for example, Kohler and Rossiter (2005)).

Aggregate econometric analyses, however, can only give some insights into the factors that affect house prices. Problems arise for a number of reasons: the factors that affect house prices are complex and can vary over time; there are difficulties in measuring key variables (such as expectations); and there can be problems in capturing the impact of structural shifts in key fundamental determinants, particularly when there are lags before their impact is felt. It is also difficult to capture the impact of changes at a sub-aggregate level that might occur slowly over time, such as structural changes that affect the spatial distribution of the population, changes in the distribution of income or changes in housing preferences.

2.2 Structural changes in demand fundamentals

Despite these problems, there is agreement that a major source of stimulus to the dramatic increase in the rate of real house price inflation from the mid 1990s was the impact of financial deregulation (see, for example, Bean (2003, p 66) and Edey (2003, p 191)), which is generally seen as a structural change in an underlying factor that facilitates demand. The combined effect of an increase in the willingness of lenders to finance an increase in demand (associated with increased competition from new entrants into the housing loan market) and of a second structural change arising from the decline in nominal interest rates (associated with the decline in inflation to a

⁴ Girouard *et al* (2006, Table 3) also provide a comprehensive overview of studies of house price determination undertaken in the first half of the 2000s. Andrews (2010), Andrews, Caldera Sánchez and Johansson (2011) and Caldera Sánchez and Johansson (2011) add supply factors. This is covered further below.

generational low) was one of the few housing-related issues that was raised in either of the decadal reviews of 1990 or 2000. Of specific concern was the extent to which these changes increased borrowing capacity and contributed to a substantial lift in household debt in the 1990s (Stevens 1997; Gruen and Stevens 2000, p 51).

Ellis (2006) describes how financial deregulation promoted greater competition and product innovation and, through reduced interest margins and increased finance availability, increased borrowing capacity and boosted housing demand. Ellis (2005) provides more detail on how the deregulation-induced increase in availability of finance was enhanced by a disinflation-induced reduction in borrowing constraints for standard credit foncier mortgage instruments. The question of whether the increase in demand represented a once-off shift to a new and higher equilibrium level of effective demand for housing arising from structural change in the housing finance system, or whether it was the start of a house price bubble, received considerable attention.

An issue which received less attention is the question of whether the standard mortgage instrument remains the most appropriate under the conditions of increasing volatility and uncertainty that have characterised housing markets in the past decade. Miles and Pillonca (2008, p 171) returned to proposals that were first raised in the 1970s with the onset of high inflation and suggested that indexed instruments based on consumer or house price inflation would be seen by long-term investors as a useful addition to the existing pool of securities.⁵ Caplin *et al* (2003) proposed a form of equity finance to achieve a similar goal. If such instruments were to be developed in Australia, some of the debates over house price measurement during the decade would need to be resolved (see Hansen (2006) and Prasad and Richards (2006) for a discussion of some of the issues involved).

Many of the studies indicated above highlighted the effective (or user) cost of housing services and the effective returns available from investment in housing as key economic drivers affecting housing demand. User costs are affected by the way in which housing is treated by the tax system but also by house price inflation and, more specifically, by the way in which inflationary expectations are formed. In the past decade the tax-privileged status accorded to owner-occupied housing by its exemption from the capital gains tax in the mid 1980s has remained unchanged. However, changes to the treatment of capital gains in 1999 affected returns available from investment in rental property and particularly from highly geared investment, as highlighted in the Henry Report (Australia's Future Tax System Review Panel 2009, p 69). An increase in investor demand arising from the 1999 changes to the tax system was identified by the then Governor of the Reserve Bank of Australia as a key factor contributing to the boom at the start of this period (Macfarlane 2003, p 10).

Increases in both housing wealth and inflationary expectations arising from increases in housing prices also contributed to changes in demand during the period from the mid 1990s. These issues are covered below.

⁵ Coleman (2001) suggested there was no demand for such instruments because there was no demand for counter-cyclical asset price insurance.

2.3 House price bubbles and expectations

Whether or not the mid 1990s surge in real house price inflation represented a once-off shift to a new equilibrium house price trend (and, implicitly, to a permanent increase in housing wealth) underpinned much of the subsequent debate about house price bubbles.⁶

The question of whether housing prices in Australia have been above their fundamental value for much of the past decade (and if so, by how much) is one about which there is little agreement. Varying assessments have been made. There is some agreement that, at the peak of the 2003–2004 boom, the housing market was overvalued (Bodman and Crosby 2004, p 178; Fry *et al* 2010, p 476). Bloxham, Kent and Robson (2010, p 29) note that housing market developments were a contributing factor to the timing of the 2002–2003 increase in interest rates. As yet, however, there is less agreement on post-2008 house prices. An OECD report suggested that there was a certain degree of overvaluation in Australia in 2008 (André 2010, p 18). On the other hand, the International Monetary Fund (IMF) changed their assessment of a valuation gap in excess of 20 per cent in 2008 (IMF 2008, Box 3.1) to one of no evidence of a significant overvaluation in 2009 (IMF 2009, p 21), to an overvaluation of 5 to 10 per cent in 2010 (Tumbarello and Wang 2010, p 10). To a large extent, these changing estimates reflect changing econometric specifications regarding underlying fundamentals. They highlight the imprecision in estimating fundamental values and the difficulty of separating fundamental or structural determinants of real house prices from cyclical factors.

Bubble protagonists have tended to rely on two key arguments to support their claim: the first depends on the role of expectations (covered briefly here); the second on what was seen as an unsustainable increase in household debt (covered in Section 3).

Much of the seminal work on the potential reinforcing impact of inflationary expectations on the demand for housing was undertaken in the early years of the decade by Case and Shiller (see, for example, Shiller (2000) and Case and Shiller (2003)). Case and Shiller (2003) provided evidence to suggest expectations were affected by recent experience rather than being based on fundamentals. After the long house price boom from the mid 1990s, US home-buyers typically had expectations that, contrary to what might be expected on the basis of fundamentals, prices would continue to show double-digit annual price growth over the next 10 years, apparently with only a modest level of risk.

In their analysis of the relative roles of fundamentals and psychology in explaining US house price dynamics, Mayer and Sinai (2007) similarly found that behavioural conjectures (specifically, backwards-looking expectations) were the most important determinants of house price dynamics.⁷ However, they also suggested that one difficulty in decomposing house price variation into so-called rational and behavioural factors is the lack of a widely accepted model of house prices that combines local determinants, such as supply constraints, with aggregate demand fundamentals such as those discussed in this section (Mayer and Sinai 2007, p 3). In the same way that backward-looking expectations can reinforce demand fundamentals, so too can the increase

6 Case and Shiller (2003, p 299) defined a bubble as arising when excessive public expectations of future price increases cause prices to be temporarily elevated.

7 Their 'fundamental' or rational benchmark presumed forward-looking expectations and incorporated a user cost measure based on long-term mortgage interest rates and static long-run real appreciation rates (following Himmelberg, Mayer and Sinai (2005)).

in household wealth brought about by increases in real house prices. This arises because of the way this facilitates additional borrowing for both owner-occupied and investment housing by those who already own their own homes (see, for example, La Cava and Simon (2005)). The impact of this on the structural factors alluded to in the introduction are covered in the final sections of the paper.

3. Household Debt and Housing Wealth

As housing prices increased, so too did household debt, although there is an element of endogeneity in the relationship between these variables. The previous section highlighted the role of increased borrowing capacity in contributing to increasing housing prices. However, increasing dwelling prices also meant that households were required to take on increased debt to finance increasingly costly housing. Questions about the impact of this increase in debt and whether this should be a matter of concern are the focus of this section. Two sets of related issues arose during the decade. The first set, which tended to receive more attention at the start of the decade, relates to whether the increase in debt was sustainable. The second set, which arose later, relates to the impact of the increase in net worth associated with the increase in debt.

3.1 Sustainability of rising household debt

Concerns with rising household debt were driven in part by the disproportionate growth in loans to investors and in part by the growth in low deposit and low documentation loans from non-conforming lenders.⁸ Figure 2 illustrates the growth in lending over the period that contributed to a significant increase in the ratio of debt to household disposable income from the mid 1990s to the mid 2000s. The increase in the debt-to-income ratio is illustrated in Figure 3.

At the time, Macfarlane (2003) argued these trends were unlikely to represent an increase in risk because the lower inflation environment after the mid 1990s period meant that nominal interest rates were less likely to move as much as they did in the past. This response focused on the interest rate risk faced by households, where the dominant loan was a variable rate loan. However, he also recognised other countervailing risk factors including: the impact of lower inflation on the time taken to erode household debt; increased innovation that allowed mortgaged households to increase their debt more readily; and the increase in borrowing for investment rather than consumption purposes (Macfarlane 2003, pp 9–11). Of particular concern was the transfer of risk to investors associated with the increase in investment in multi-unit dwellings, and the use of ‘off-the-plan’ sales for these dwellings. The significant lags between approval and completion of such dwellings were seen as having the potential to contribute to the emergence of a ‘hog cycle’ and, therefore, to increased volatility in dwelling prices and in investment demand. The sharp rise in the gearing ratio of investors was seen as indicating an increase in the number of investors concerned with capital appreciation and tax minimisation. Aggregate gearing in the housing sector, however, remained low as can be seen by the debt-to-asset ratio in Figure 3.

8 Increased borrowing for investment in residential property at the start of the 2000s was generally seen as a result of increases in demand (triggered by the tax incentives to negatively gear when capital gains are high) and an increase in supply (triggered in part by increased financial innovation and in part by increased competition from outside of the banking sector). The extent of official interest in rising household debt can be gleaned from the number of papers and speeches emanating from the Reserve Bank during 2001 to 2003.

Figure 2: Housing Loan Approvals
2010 dollars, seasonally adjusted

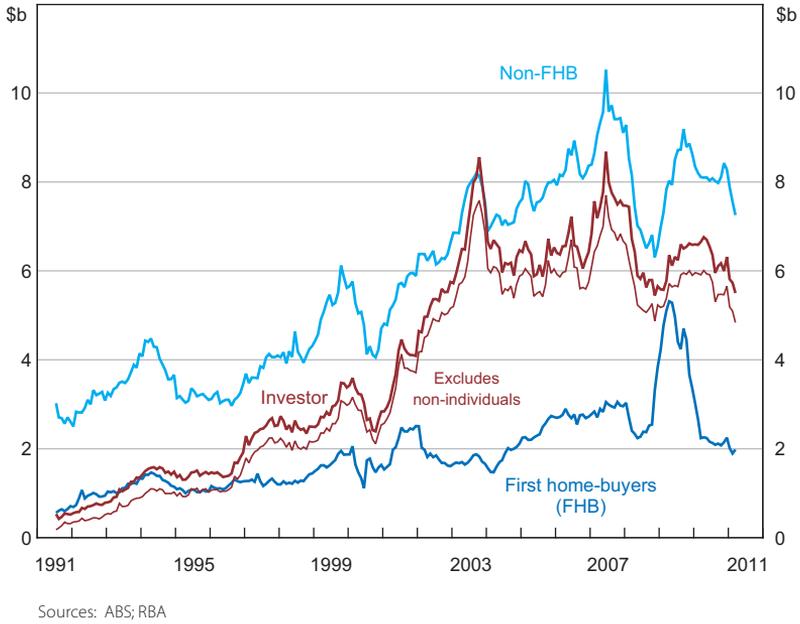
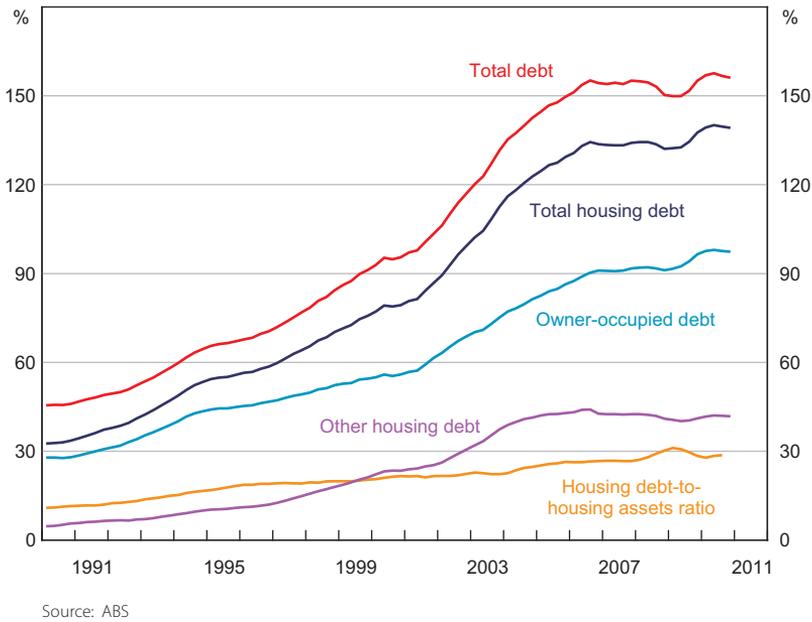


Figure 3: Household Liabilities
Per cent of household disposable income



Despite this, concerns continue to be expressed (see, for example, Keen (2009)). At the time, Debelle (2004) highlighted the possibility that the rise in debt would make the household sector more sensitive to negative shocks to the economy and that household incomes and consumption spending would be more sensitive to changes in expectations of future income. Debelle also recognised that this sensitivity was likely to depend on the distribution of debt.

Subsequent disaggregate analyses reinforced Macfarlane's sanguine assessment of concerns about debt by showing that the vast majority of investors were high-income and high net worth households that had considerable capacity to manage these risks (see, for example, Kohler and Rossiter (2005) and Wilkins and Wooden (2009)).

Potential problems did (and do) arise, however, for a relatively small number of vulnerable households that hold excessive debt. A study of mortgage defaults in Australia undertaken by Berry, Dalton and Nelson (2010) highlights the fact that, even if the economy at large is protected from negative impacts associated with an increase in household debt, not all individual households are so protected. The study identifies vulnerable debt holders as having neither high income nor high wealth. They are disproportionately younger, low to moderate income couple households that borrowed in order to gain access to owner-occupied housing, not for investment purposes. They borrowed (disproportionately from non-bank lenders) with high loan-to-valuation ratios and high repayment-to-income ratios and often at a time when interest rates were increasing. For many, the initial contributory causes for default were a 'loss of income', 'too much debt' and 'interest rates too high' but 'illness or accident in the household' and 'relationship breakdown' were also important (Berry *et al* 2010, p 23).⁹

This raises an issue that has received remarkably little attention in the literature on housing in Australia in the 2000s: that of the role of mortgage insurance for borrowers – although Gans and King (2003) made an early, useful contribution.

3.2 Impact of increased net worth

One of the reasons why increasing household debt was treated with some equanimity was that it was associated with even greater increases in household wealth. This raised different questions: this time about the impact of rising net wealth on the macroeconomy. Much of this focused on the relation between rising net wealth and the decline in the savings ratio that occurred from the mid 1990s to the mid 2000s, although Gizycki and Lowe (2000, p 187) did suggest the increased exposure of the household balance sheet to market-linked investments made a larger share of household wealth subject to the risk of price bubbles. However, they downplayed the potential sensitivity of consumption to changes in asset prices because of a perception that new sources of debt finance created opportunities for consumption smoothing (pp 206–208).

The coincidence of rising net wealth and rising household consumption stimulated a number of empirical studies that provide broad support for the basic theoretical claim that an increase in both housing and financial wealth leads to an increase in consumption. However, there is less agreement about the relative importance of these effects and disagreement over the channels

⁹ Although these results were based on a relatively small survey, they are supported by international evidence (see, for example, Ford (2006)). The Berry *et al* study followed a House of Representatives (2007) report that found little evidence of widespread poor lending practices but expressed concern about predatory practices of some non-conforming lenders.

through which wealth effects operate. Yates and Whelan (2009) review this literature.¹⁰ Their study showed the greatest response to increased wealth in Australia came from the baby boomer cohort of home owners, who are not income constrained (unlike the young) and who are still actively adding to their wealth (unlike the old). This finding has potentially important macroeconomic implications, particularly in light of the subsequent slowdown of the economy. It shows that the impact of an unanticipated increase in housing wealth on household consumption is not insignificant, particularly for the cohort that is now middle-aged. It raises concerns that any subsequent slowdown in house price growth may reduce both the capacity and the willingness of the baby boomer generation to maintain their current levels of consumption. If housing wealth effects are symmetric, so that the size of the impact of a decrease in wealth is the same as that for an increase in wealth,¹¹ then the finding reinforces concerns that a financial accelerator will exacerbate any economic downturn. It also highlights the potential that wealth effects have to add to the increase in volatility already introduced by the shift towards debt financed investment in housing.

This work suggests that the debate over whether the rise in house prices during the mid 1990s to mid 2000s can be attributed to a structural shift in fundamentals or whether it has a strong transitory component (a speculative bubble) is critical. If it proves to be dominated by a structural shift in fundamentals, an equally important question is whether the underlying trend in real house prices that was in place before the mid 1990s will be maintained. The Government's third Intergenerational Report (IGR) suggests that population growth and real income per capita (two of the key demographic and economic fundamentals that underpin housing demand) are projected to increase over the next 40 years at only a marginally slower rate than in the past (Australian Government 2010, p 5). Whether this continued pressure on housing demand will result in a sustained increase in real house prices will depend critically on supply-side issues.

4. Supply-side Issues

Supply-side issues relate both to the factors affecting the cost of providing housing and to the responsiveness of supply to demand shocks in both the short and the long run. While house price dynamics and the broad underlying and cyclical demand-side factors that contributed to rising house prices in the 2000s were very much on the agenda during the decade, only some aspects of the supply side of the market received the same attention.

Both the Productivity Commission (2004) and the National Housing Supply Council (NHSC 2009, 2010) have provided comprehensive overviews of factors affecting the cost of supplying housing and of the barriers that limit supply responses in the short run. Less attention, however, has been paid to supply responses in the longer run.

¹⁰ They also outline three key transmission mechanisms identified in the literature and summarise the rationales given for them. Both Richards (2008, p 28) and Yates and Whelan (2009, pp 6–7) raise the question of whether increases in housing wealth do make the nation as a whole better off. This argument is based on the claim that any increase in housing wealth will increase the opportunity cost of the services provided by housing. Higher house prices are thus offset by an increase in the (actual or imputed) cost of housing consumption. However, this holds only if home owners live in their dwellings indefinitely. Because households do not live indefinitely and because not all households are home owners or are consuming their desired level of housing services, there are strong distributional effects of increases (or decreases) in house prices. For every current home owner made better (worse) off, a future home owner or a renter is made worse (better) off.

¹¹ Recent work by Case, Quigley and Shiller (2011) suggests this is so.

4.1 Cost factors

Only a few of the key contributors to the cost of producing new dwellings (broadly, construction, finance and land costs) have been given much attention in the past decade. There has been general agreement that cyclical issues can arise with shortages of skilled labour, particularly for multi-unit construction where there is competition for the higher skill levels required from other sectors (such as the mining sector). Availability of finance also has been a concern for the development industry post GFC (NHSC 2010, p 114).

There is less agreement over longer-term concerns with the impact of taxes, infrastructure charges and regulations. Developers and the housing industry generally have argued that taxes and charges add to the cost of supply to new home buyers. Others have suggested they are passed back to the owners of raw land. The central point of difference between these two extremes is the question of the elasticity of land supply.¹² One point of agreement, however, is the need for certainty regarding these charges. Gurran, Ruming and Randolph (2009, p 94) suggest that, in response to variable and uncertain planning costs, 'developers choose to avoid certain local government areas, reduce development activity, postpone land acquisition, or target higher market segments to overcome issues associated with uncertain and lengthy assessment and approval processes'.¹³ They also suggest that uncertainty contributes to a reduction in the ability of smaller operators to remain competitive, with a resultant increase in concentration and reduction in competition in the development industry.

The most significant driver of increasing costs, however – and one over which there is no debate – has been land costs and, particularly, urban land costs. This is reflected in increases in the level of land prices in a specific location and in land price gradients in the major capitals (see, for example, Productivity Commission (2004); Wood *et al* (2007); Richards (2008) and NHSC (2009)). The increasing contribution made by land prices to the overall price of housing is illustrated in Figure 4. This shows the increasing divergence between the price of established houses (which includes land) and the construction cost of new dwellings (which excludes land). Some of the increase in both dwelling prices and construction costs reflects increased costs associated with larger dwellings and higher quality construction (resulting from higher demand for housing services from a more affluent population), but the increasing differential is driven by increasing land costs.

12 The Henry Review (Australia's Future Tax System Review Panel 2009, Chapter E4) provides a stylistic comparison of these two extremes but does not provide any supporting evidence about supply elasticities. Differences of opinion also arise as to how different types of infrastructure should be paid for and who benefits from its provision. Gurran (2007) provides an excellent overview of the issues involved.

13 An example of the issues that Gurran (2007) highlights is given in NHSC (2010, p 56).

Figure 4: Real House Prices and Construction Costs
1960/61 = 100



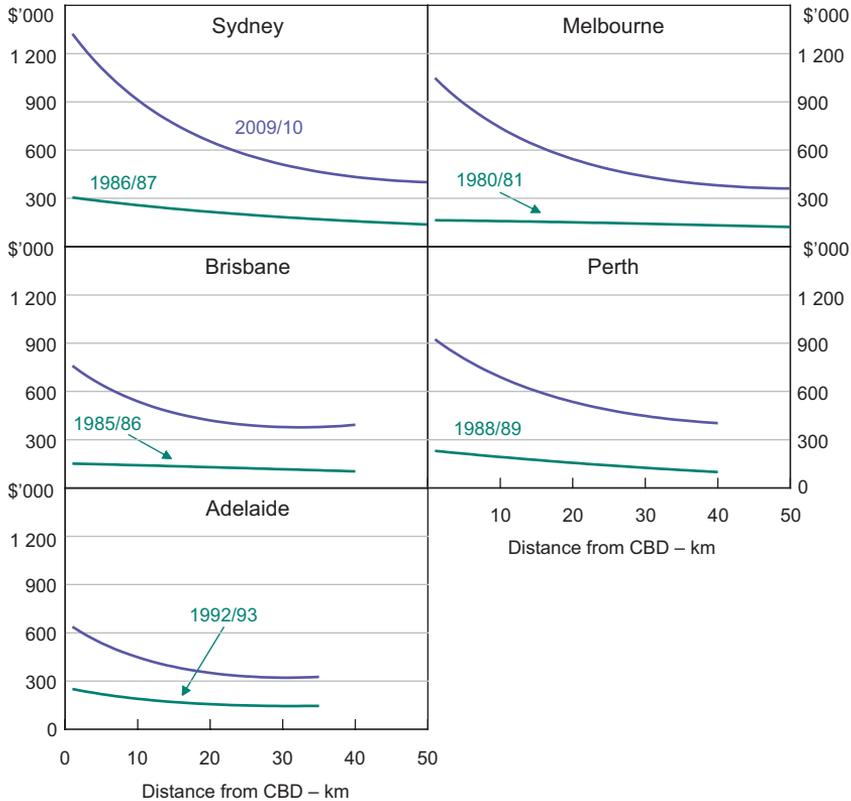
Sources: Abelson and Chung (2005); ABS; Australian Treasury; REIA

Figure 5 shows that the changing pattern of dwelling price gradients within major urban areas over time is consistent with the greatest pressure being felt where land is most scarce. This outcome is consistent with urban economic theory which suggests that higher residential land values in central locations arise from increasing access costs as distance from the centre increases.

In theory, the value of land at the urban fringe should reflect its opportunity costs in agricultural use and remain relatively constant. However, as the data in Figure 5 suggest, this has not been the case. One explanation is that the data reflect dwelling rather than land prices and higher prices reflect the higher cost of increases in dwelling size over time. A second is that the house price data embody infrastructure charges that have been passed on to consumers. A third explanation is that developers have artificially constrained supply by hoarding land. This is consistent with Gurrans’s (2007) suggestion that uncertainty regarding planning charges and regimes has reduced competition in the development industry.¹⁴ Richards (2008, p 34) points to the creation of economic rents as a result of problems with the complexity of the development process.

¹⁴ Long lead times in the land supply pipeline and resultant high holding costs (NHSC 2009, pp 41–54) could add to pressures that force smaller developers out of the industry.

Figure 5: Real House Prices by Distance from the CBD
2009/10 dollars



Source: Anthony Richards, reworking data from Kulish, Richards and Gillitzer (2011)

In urban areas, the changing relation between the cost of land closer to the CBD and land at the fringe has been a key factor in many of the long-standing debates over the relative desirability of fringe development compared with urban consolidation. These are manifested in debates over whether urban growth boundaries unduly constrain the supply of land and whether infill development can offset the cost of rising land prices (see, for example, Productivity Commission (2004, pp 130–137)). Goodman *et al* (2010) provide a recent overview of some of these debates. The Senate Select Committee on Housing Affordability (2008, Chapter 5) provides a range of views. Buxton and Taylor (2011, p 6) suggest the influence of regulatory planning measures on land prices is variable and inconclusive.¹⁵

Recent reports have highlighted a gradual transition in Australian attitudes towards housing, with an increasing proportion of households stating they would be prepared to give up the traditional house and land package for a higher-density dwelling if they could live in an area that provided better access to transport and amenities (Kelly, Weidmann and Walsh 2011), or if they could own

¹⁵ Since this paper was written, Kulish *et al* (2011) have released their study of the determinants of some aspects of the structure of cities, including the price of land and housing. Of particular interest are zoning policies that limit housing density. Their model suggests that zoning limits on the amount of housing built close to the CBD increases the overall footprint of the city and results in higher housing prices.

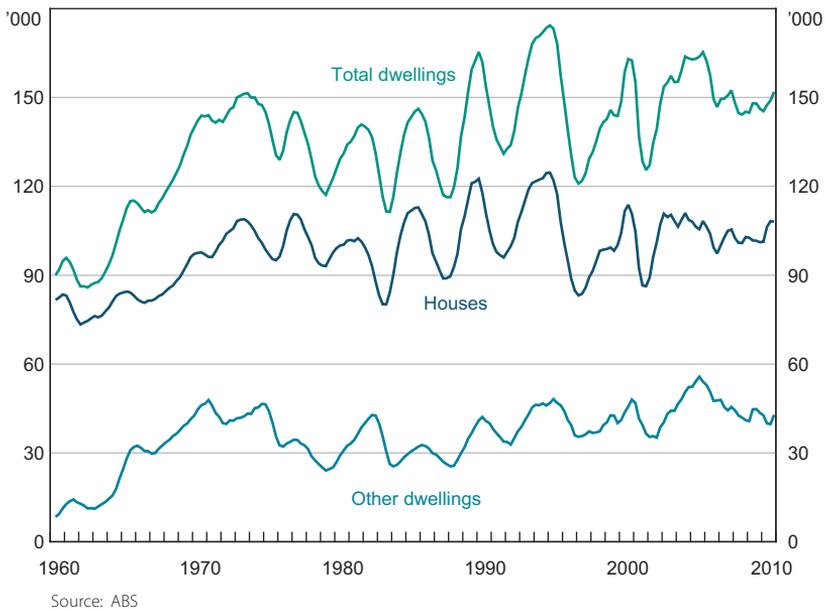
rather than rent (Ipsos Mackay, cited in West (2011)). These changes imply a greater need for infill development. One issue with infill compared with greenfield development, however, is that the short-run supply response can be slower for many of the reasons that make it more costly to build multi-unit dwellings than separate houses (NHSC 2010, Chapter 6). There also have been considerable debates over the extent to which increased dwelling density can improve housing affordability (see Goodman *et al* (2010, pp 18–22) for an overview of the Australian literature).

4.2 Supply responses

The greenfield versus infill debate tends to focus on where to build additional dwellings to meet demand from an increasing population, but an increasing population is not the only source of increased demand (as highlighted in Section 2). New construction supplies the additional dwellings needed for a growing population; investment in the existing stock contributes to meeting increased demand from current households.¹⁶

Over the decades prior to the 2000s, the rate of new construction in Australia showed strong cyclical tendencies with a general upward trend in production at least until the mid 1990s. Since then, cycles have dampened and production has slowed, as can be seen in Figure 6.

Figure 6: Annual Dwelling Completions



¹⁶ New entrants need not occupy new dwellings. Filtering processes often mean that established households move into new, higher-quality dwellings while new entrants move into the newly vacated existing stock.

Traditionally cyclicity in dwelling construction has been attributed to a stock adjustment cycle where there are significant lags in supply responses to fluctuations in demand. Early studies supported this stock adjustment view (see, for example, Downes, Louis and Lay (1994, p 26)). More recently, however, Berger-Thomson and Ellis (2004) suggested that, in general, extrinsic cyclicity (attributable to demand responses to the cyclicity of Australian interest rates in the 1980s) was dominant. By implication, the reduced volatility in construction in the 2000s could be attributed to the reduced volatility in interest rates.

This still leaves unanswered the question of why dwelling commencements have failed to keep pace with increases in underlying demand despite rising house prices. This lack of responsiveness of supply to demand pressures increasingly has been seen as an issue in official circles (see, for example, Richards (2009) for a Reserve Bank of Australia perspective and Kennedy (2010) for a Treasury perspective). Sluggish supply responses are generally attributed to planning or regulatory constraints (see, for example, Glaeser, Gyourko and Saks (2005) and Barker (2008)) but there is little systematic evidence on whether these increased in the 2000s in Australia.¹⁷ Improvements to planning processes may speed up short-run responses to increasing demand but the question still remains about the ability of such changes to increase long-run supply elasticities in light of the pressures that increasing urbanisation imposes on urban land prices.

In their pioneering study of supply elasticity in the Sydney housing market from 1991 to 2006, Gitelman and Otto (2010) estimate that the aggregate (long-run) housing supply curve for Sydney is relatively inelastic (with an elasticity of 0.36) and that supply elasticities vary within the city, increasing with distance from the centre (with elasticities that range from 0.26 to 0.43). They also find strong evidence that the long-run aggregate elasticity of supply declined from 1991–1996 to 2001–2006. Estimates of changes in land supply gradients for both Sydney and Melbourne suggest that similar results would apply for Melbourne. Gitelman and Otto compare their results with those reported for the United States which indicate only 6 of 45 cities studied have supply elasticities less than unity (Green, Malpezzi and Mayo 2005, p 336; Gitelman and Otto 2010, p 10).

Their supply elasticity results for Sydney are broadly consistent with a long-run price elasticity for new housing supply in Australia of 0.5 given in a number of recent OECD reports (Andrews *et al* 2011, p 26; Caldera Sánchez and Johannsson 2011, p 14).¹⁸ Ball, Meen and Nygaard (2010) show that elasticity estimates are sensitive to the degree of spatial disaggregation employed and are lower at a sub-national rather than a national level.¹⁹ They point specifically to the difficulty of incorporating the local characteristics that dominate the supply side into national models.

17 A recent Productivity Commission research report on planning, zoning and development assessments (Productivity Commission 2011) suggests some relaxation of constraints at the end of the decade but does not provide systematic information about whether constraints have been more or less restrictive in the 2000s compared with the 1990s. Gitelman and Otto (2010) provide an example of a considerable reduction in constraints over the decade in relation to local government constraints. The NHSC (2009, p 125) shows government charges on broadhectare developments increased in the three largest capital cities from the mid 1990s to mid 2000s but they also increased from the mid 1980s to mid 1990s.

18 Gitelman and Otto (2010) analyse the (net) increase in the number of dwellings over time. The OECD studies analyse total new dwelling investment and so include both expenditure on new housing and on alterations and additions. A contrary view can be found in Berger-Thomson and Ellis (2004), who suggest that supply in Australia appears to be quite elastic but their estimates cover data from the 1960s rather than being constrained to the past two decades.

19 They also give a number of reasons as to why there is little agreement in the international literature about supply elasticities. In part, this arises because of different methodological approaches that have been undertaken and modelling pitfalls that arise, particularly in relation to the inclusion of land costs since these are likely to be endogenous. It also arises because of variations in the availability and quality of data.

Illustrative of these are 'the physical suitability of the land for development; the extent and nature of existing development; and planning controls' (Ball *et al* 2010, p 263).

These difficulties notwithstanding, if the long-run supply of housing is inelastic because of the inherent scarcity of urban land, then any increase in demand will add to dwelling prices.

4.3 Supply shortages

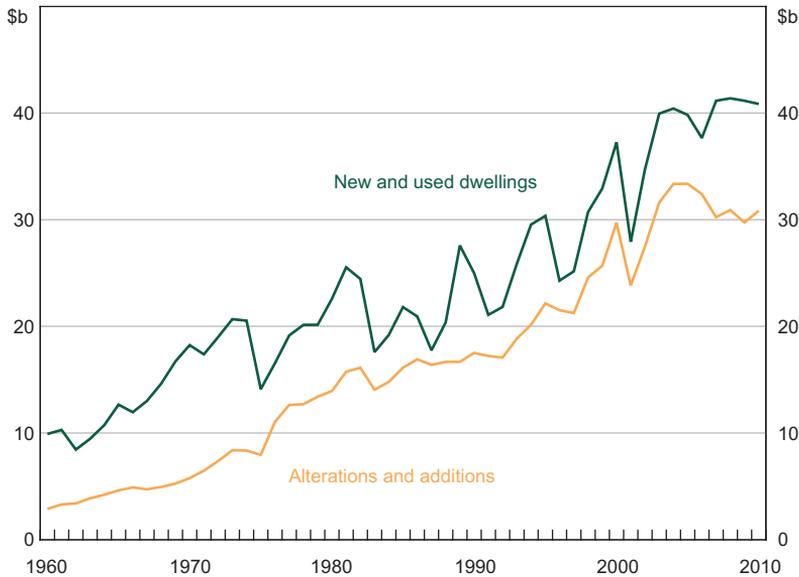
Sluggish supply responses to demand shocks are seen to have contributed to an overall housing shortage in Australia in the past decade, estimated by the National Housing Supply Council to be around 180 000 dwellings at the end of the decade (NHSC 2010, p 71). Such claims are based on comparing estimates of increases in underlying demand (driven by demographic change) with estimates of net additions to supply. There is, however, some disagreement over the existence or size of a supply shortage. Some of this arises from an unwillingness to accept that effective demand differs from underlying demand and that some households are willing and able to own a second home.²⁰ Some, however, recognise that a housing shortage is likely to generate a market response (such as increased prices or a reduced rate of household formation) which will reduce effective demand (see, for example, Ellis (2010, p 2)). Lack of effective demand by new entrants into the housing market because of affordability constraints associated with rising house prices can provide a further explanation of why there might be a sluggish supply response in relation to commencements in Australia (see, for example, Richards (2009, p 25)).

On the other hand, by increasing the size and quality of the existing housing stock, increases in effective demand by established owners who are willing and able to pay for more housing add to affordability pressures. This increased demand is reflected in increases in investment in existing dwellings (through alterations and additions). Demand from financially unconstrained households also contributes to increases in the size and quality of newly constructed dwellings since the repeat buyer market is larger than the first-home buyer market. Figure 7 shows that, during the 2000s, gross investment in dwellings has been maintained (in real terms) at the peak levels reached at the start of the decade (although the upward trajectory has slowed since the mid 2000s). The upgrading of existing dwellings through alterations and additions, at least until the mid 2000s, also increased more rapidly than investment in new dwellings.

Battelino (2009, p 38) notes improvements in quality and increases in dwelling size, as well as an increase in the ratio of the number of dwellings to the number of households (through holiday homes or second homes), which is a further manifestation of an increase in effective demand from established owners. He points to these factors as explanations of why there can be an apparent shortfall in the number of dwellings required at a time when investment in housing is at an all-time high.

20 Most of this source of disagreement is expressed in the blogosphere, but see also Wilkinson (2011). These concerns also ignore the fact that some unoccupied dwellings are for sale and make an essential contribution to the efficient operation of the house trading market. In the private rental market, vacancy rates of less than 3 per cent are regarded as being indicative of a 'tight' market. Throughout much of the 2000s, rental vacancy rates in most capital cities have been well below this. A similar rate is likely to be relevant for the sales market.

Figure 7: Dwelling Investment
Chain volume measures, as at June



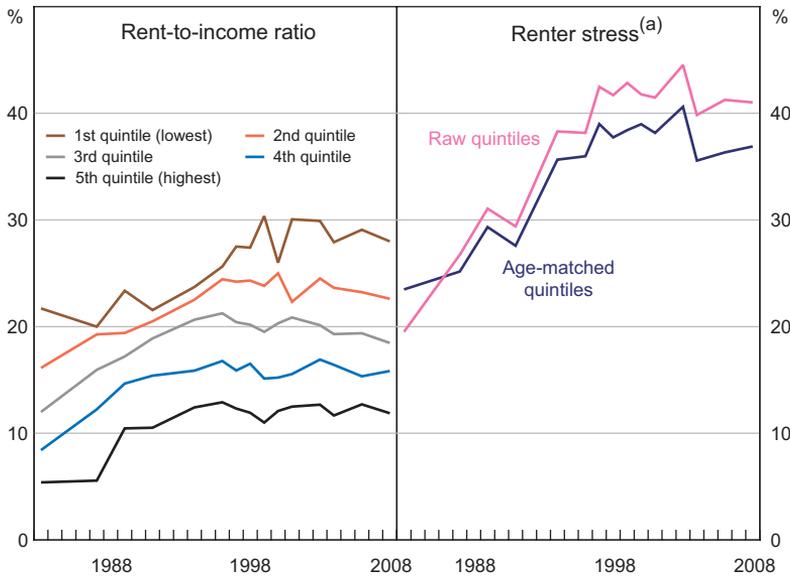
Source: ABS

4.4 Rental supply and affordability

Although there might be some debate over the size and impact of housing shortages at an economy-wide level, there has been little debate over one impact of such shortages. There has been a significant shortfall of rental housing available for lower-income households that have been unable to gain access to home ownership. This has contributed to increasing housing affordability problems for lower-income private renters. Richards (2008, p 28) has shown that, from the early 1980s, rent-to-income ratios have risen across the income distribution with the greatest increases occurring for those in the lowest two quintiles. This has resulted in a considerable increase in the proportion of lower-income renter households in rental stress (paying more than 30 per cent of their income in meeting their housing costs).²¹ These results are reproduced in Figure 8. These data also show that affordability issues rose most dramatically from the mid 1980s to the mid 1990s. They have remained at these higher levels throughout the 2000s. Rental stress has increased and remains high for renters in the lowest income quintile for whom rental housing is the only housing option available.

²¹ Gabriel *et al* (2005) provide an overview of the literature on the various affordability measures in common use and highlight many of the issues that arise. Limiting stress measures to households in the bottom two quintiles avoids some of the problems that arise in determining whether high housing costs in relation to income arise from choice or necessity. Higher-income renters (or purchasers) can afford to pay more than 30 per cent of their income in meeting their housing costs and still have sufficient income available to meet their non-housing needs. A shortage of rental housing affordable to lower-income renters suggests that, for many in this group, high housing costs reflect no choice.

Figure 8: Rental Affordability
By income quintile



Note: (a) Proportion of households in the bottom two income quintiles, whose rental costs are more than 30 per cent of gross income

Source: Richards (2009)

Considerable work has been done on estimating the shortage of low-rent supply over the past decade (see, for example, (NHSC 2009, 2010)). In its latest report, the National Housing Supply Council estimated a shortage of almost 500 000 private rental dwellings that are both affordable and available for households in the bottom two quintiles of the income distribution (NHSC 2010, p 105). This shortfall for low-income households has been exacerbated by increasing real rents in what had been affordable dwellings and by their loss to the owner-occupied market (Yates and Wood 2005). It has also been worsened by the failure of the supply of social rental housing to keep pace with the growth in the number of low-income households (NHSC 2010, p 89). Additional pressures have arisen from the displacement of lower-income households from inexpensive rental dwellings by moderate- or higher-income households that traditionally met their needs in the owner-occupied market but now no longer can access home ownership or prefer not to (Yates and Wulff 2005).

Wood, Ong and Stewart (2010, p 230) analyse some of the tax factors that may have contributed to the loss of low-rent dwellings in the private rental market. They show that, while the returns from investment in rental property are high, they are biased in such a way that 'low tax bracket investors will only invest in relatively low value rental housing that attracts rents that are high relative to property values'. The asymmetric treatment of rents and capital gains results in tax clientele effects that push up rents relative to property values at the low end of the rental market. Their analysis suggests that, if the rate of real house price growth slows, then higher returns will be sought through (more heavily taxed) rental yields. In other words, if the factors that have kept real rent inflation relatively low over the past few decades are no longer present, then rents will

rise relative to dwelling values (as was observed in the period following the 2004 slowdown in dwelling prices).

5. Too Late on the Agenda?

In the introduction to this paper, it was suggested that the 2000s were too late to put housing on to the agenda. It has been too late if housing affordability is to be returned to the levels enjoyed when home ownership grew to its current level of around 70 per cent; too late if home ownership is to be retained at that level; and too late if housing costs for lower-income households are to return to past affordability levels.

This assertion is based on the argument that the housing trends observed in the 2000s were underpinned by structural drivers that began to have their impact two decades earlier and that the effects of the cyclical shocks experienced in the 2000s may exacerbate the impact of these trends.²² One reason for making this assertion is that the GFC-induced focus on cyclical concerns about sustainability, and particularly those related to mortgage foreclosures, may have detracted attention from what might be regarded as a more substantive question about the longer-term or structural sustainability of Australia's housing system.²³ Based on the Brundtland report definition of a sustainable economic system of some 25 years ago, a sustainable housing system can be defined as one in which future generations have access to housing on the same cost conditions in relation to income as past generations. This applies both at the point of entry into the housing market for first-home buyers and to ongoing costs for both owners and renters. One of the requirements of such a system is that there is no increase in housing stress (that is, in the proportion of lower-income households paying more than 30 per cent of income to meet housing costs). As above, the focus remains on lower-income households (in the bottom two quintiles of the income distribution) because their housing outcomes are more likely to reflect constraint rather than choice, and because high housing costs often leave them with inadequate resources to meet their non-housing needs, resulting in financial stress.²⁴ This section examines some of the implications of the structural and cyclical changes in housing markets that have taken place over the past few decades.

5.1 Declining access to home ownership

In the post-war period, when economic and demographic factors combined to generate a period of unprecedented economic growth, home ownership grew rapidly to its current level of around 70 per cent by about 1960. Prior to the 1970s, a household on average weekly earnings had a borrowing capacity that was more than adequate to fund the purchase of a median price dwelling. The foundations of this high and stable home ownership rate began to be challenged

22 Montalti (2011) presents a similar view.

23 Background material to this section is developed more fully in Yates *et al* (2008). Structural sustainability is defined as that which ensures 'the housing needs of the present generation can be met without compromising the ability of future generations to meet their own needs'.

24 This simplification ignores the possibility that many households who pay less than 30 per cent of their income in meeting their housing costs face additional pressures (such as high transport costs) because of their attempts to keep housing costs 'affordable' or because they have significant non-housing costs (as can be the case with families with children). Affordability is not a clear-cut concept. Dodson and Sipe (2008) provide an affordability measure that takes energy as well as housing costs into account. This highlights the pressures faced by households who move to the fringes of the major capital cities in search of affordable housing.

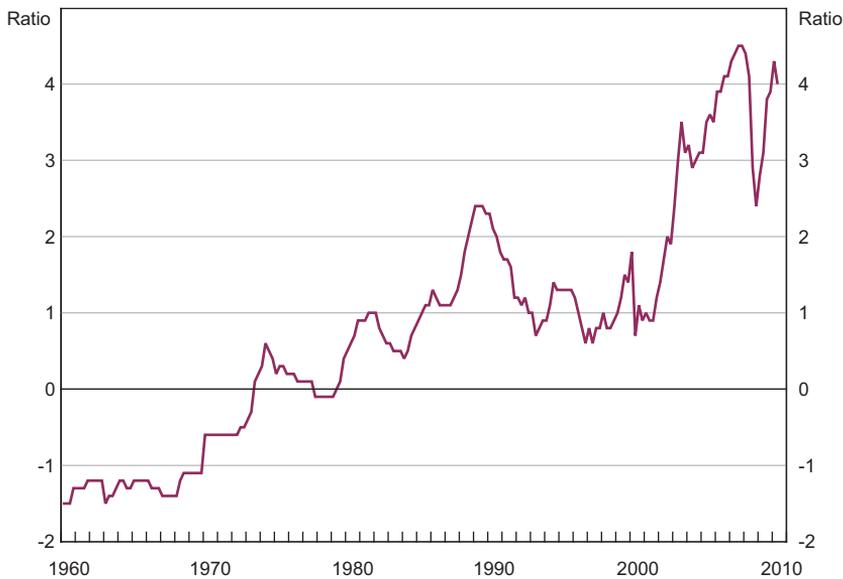
from about the mid 1980s with an emerging divergence of house prices in relation to income and, specifically, with the emergence of a deposit gap between what a household on average weekly earnings could afford to borrow (based on a 30 per cent repayment-to-income ratio) and median house prices.

This growing gap for a household on average earnings can be attributed to a number of factors. Pressures on demand (and housing prices) arose from social change in the 1970s, which resulted in an increase in female workforce participation, an increase in the number of two-income households and an increase in borrowing capacity for many households.²⁵ During the 1980s, economic incentives to invest in owner-occupied housing were increased by its exemption from the capital gains tax introduced in 1986. Borrowing capacity in the mid 1980s, however, was constrained by the front loading problem created by the interaction of high nominal interest rates and high inflation with credit foncier mortgages. Figure 9 suggests a switch from a negative to positive deposit gap during the 1970s and shows a clear upward trend since then after a decade-long improvement during the 1990s.²⁶

25 Social change also resulted in an increase in the number of single-parent households with incomes considerably below average weekly earnings.

26 Some caution is needed in interpreting the data presented in Figure 9 because of difficulties in obtaining reliable data for the period covered. Median house prices for first-home buyers are based on Housing Industry Association data from the mid 1980s and have been supplemented with data from various sources prior to this. Average weekly earnings are used as a proxy for median household income. The deposit gap illustrated does not take into account the possibility that, prior to deregulation in the 1980s, borrowers may not have been able to obtain all of their loan at the advertised rate and would have had to supplement this with a second mortgage at a higher interest rate. Thus, the deposit gap may be understated prior to the mid 1980s. It also does not take into account transaction costs, which add to the measured gap and are likely to have increased over time. The general point made by Figure 9, however, remains.

Figure 9: Deposit Gap
As a multiple of average annual income



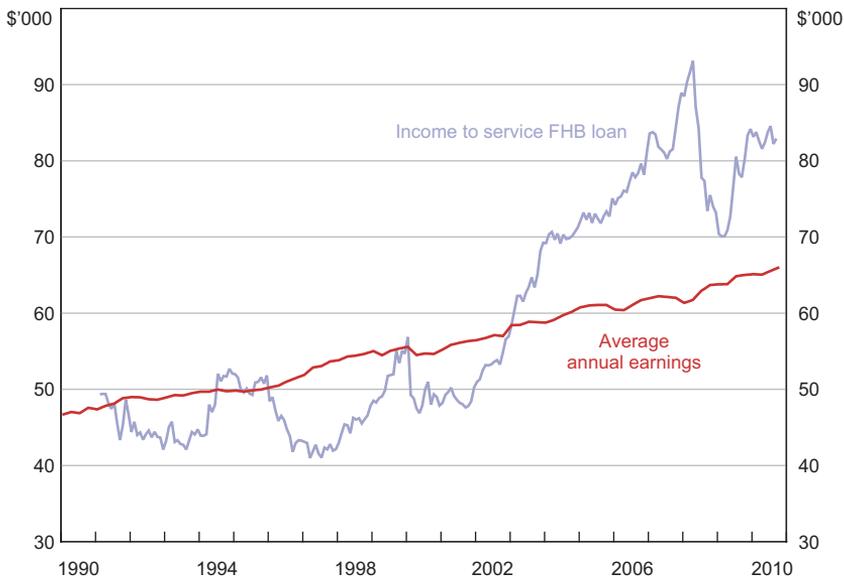
Notes: Borrowing capacity based on the standard bank variable rate for housing loans, a 25-year loan and repayments set at 30 per cent of (full-time adult) average weekly earnings; see also footnote 26

Sources: ABS; Housing Industry Association; RBA; author's calculations

Even during the 1990s, the size of the deposit gap meant that a household needed to have access to at least the equivalent of its annual income (in addition to the amount needed to pay for transaction costs) in order to purchase a median priced dwelling. By the 2000s, this had risen to four times annual income. Over time, the average income entry point for access to home ownership has increased. Figure 10 highlights this by showing how the income needed to service the average first-home buyer loan has increased more rapidly than average annual earnings since the mid 1990s.

This increasing constraint on access to housing finance for modest income households has had a number of effects. In the first place, it has encouraged marginal first-home buyers to borrow the maximum permitted by their lender. This exposes them to an increased risk of being pushed into housing stress if either interest rates increase or their household income falls (either through unemployment or through taking time out for child-bearing and rearing). In the second place, it has meant that low- to moderate-income households have been squeezed out from the housing finance market.

Figure 10: Income Required to Service an Average FHB Loan
2010 dollars



Note: Based on same borrowing capacity assumptions as in Figure 9

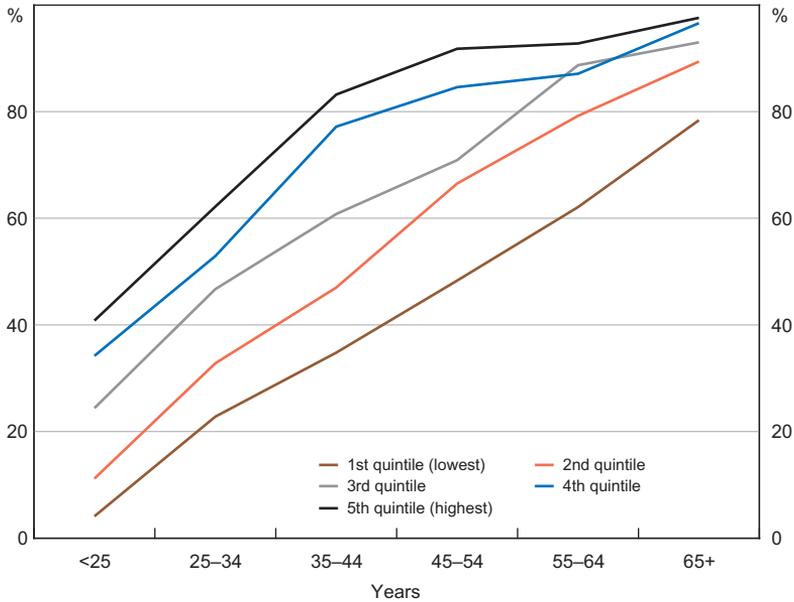
Sources: ABS; RBA; author's calculations

Access to home ownership has been possible for lower-income households only if they have access to some form of wealth (for example, through assistance provided by parents or from the government) or if they are prepared to purchase dwellings well below median price. In this circumstance there can be a trade-off between purchasing a lower-cost home and accessibility to work, services and social relationships (see, for example, Burnley, Murphy and Jenner (1997, p 1125)). Wood *et al* (2007) show the retreat of affordable housing to the metropolitan periphery where employment opportunities are relatively weak, and access to public transport and other key urban services is relatively poor. In their performance report for 2010, the Council of Australian Governments (COAG) reported that only 27.5 per cent of dwellings were affordable for households at the 60 percentile of the income distribution (which puts them above the average income benchmark used in Figure 10) (COAG Reform Council 2010, p 59).²⁷ These constraints are often used to explain why many younger households are ‘choosing’ to rent in more desirable locations.

²⁷ They also suggest that less than 5 per cent were accessible for households at the 30th percentile of the income distribution in 2007/08. Richards (2008) quotes a slightly greater figure of 30–35 per cent of transacted dwellings being affordable for the median household in the 25–39 year age group in four of the major capital cities. All of these estimates are likely to overestimate the size of the stock affordable to lower-income households as they ignore the possibility that the limited stock of low-cost dwellings could be purchased by households with greater repayment capacities (such as higher-income owners or investors).

Home ownership rates for young households have declined steadily from the mid 1980s.²⁸ While there are undoubtedly lifestyle reasons that contribute to this outcome, the constraints on access that limit the home ownership choices open to younger households is an obvious factor that has played a part. For each age group, the incidence of home ownership increases significantly with household income (and, conversely, for each age group, the household income of owners is considerably higher than that of renters). Figures 11 and 12 illustrate these differences.²⁹

Figure 11: Home Ownership Rates by Age and Income Quintile
2007/08

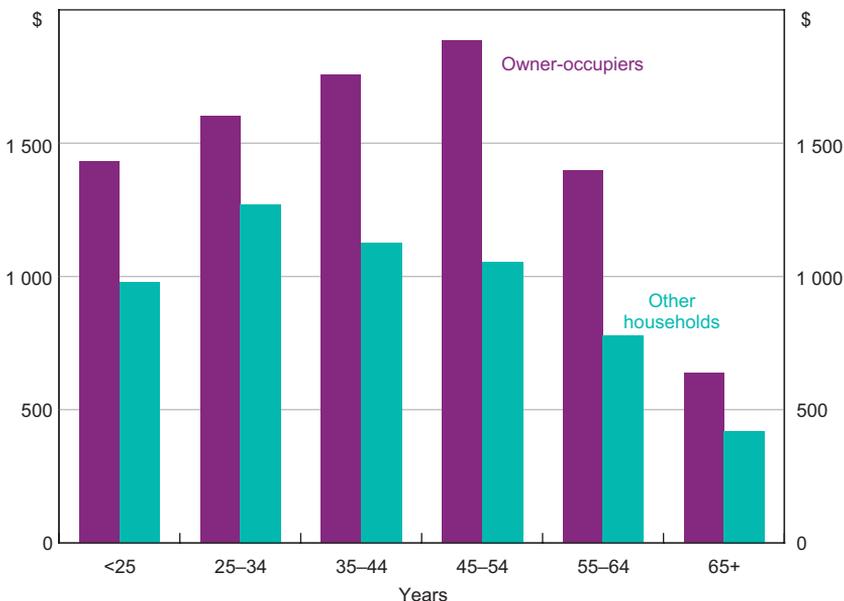


Source: ABS, Survey of Income and Housing 2007-08

28 For households in the prime household formation of 25–34 years old, home ownership rates declined from 61 to 51 per cent in the 25 years from 1981 to 2006 (for more details and data for other age groups, see Yates *et al* 2008, p 18).

29 Some of this difference can be attributed to differences in household structure and (often) number of earners in the households. However, comparisons of equivalised incomes which allow for household structure give similar results. Gross income is reported here as the most common base used in most affordability or stress measures.

Figure 12: Household Income by Age and Tenure
2007/08, 2010 dollars per week



Source: ABS, Survey of Income and Housing 2007-08

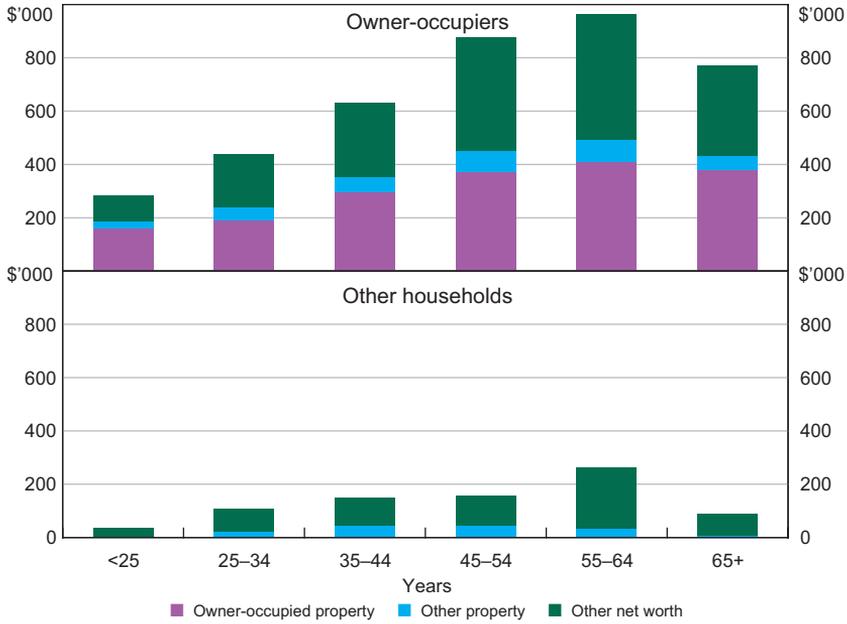
5.2 Implications of declining access for first-home buyers

One of the implications of the reduction in home-ownership rates among younger households in the two decades before the house price increases from the mid 1990s is that those who remained renters missed out on the increase in housing wealth that resulted from that boom. Figure 13 highlights the extent to which owner-occupation is a major component of household wealth for all ages.

Although based on cross-section rather than cohort data, Figure 13 reflects the conventional life-cycle pattern of household net worth. Net worth increases and then declines with age. It also shows that renters excluded from increases in housing wealth do not have other forms of wealth to compensate. Owner-occupiers not only own all of the owner-occupied housing wealth, they also own most of the wealth in investment housing and most non-housing wealth. Figure 13 highlights the extent to which those baby boomer households (born from 1945 to 1960 and in middle age in 2005/06) who were able to become home owners (most likely in the 1970s or 1980s and no later than the 1990s) have the greatest holdings of all forms of wealth. Households who have not been able to gain access to home ownership have relatively little wealth of any sort.

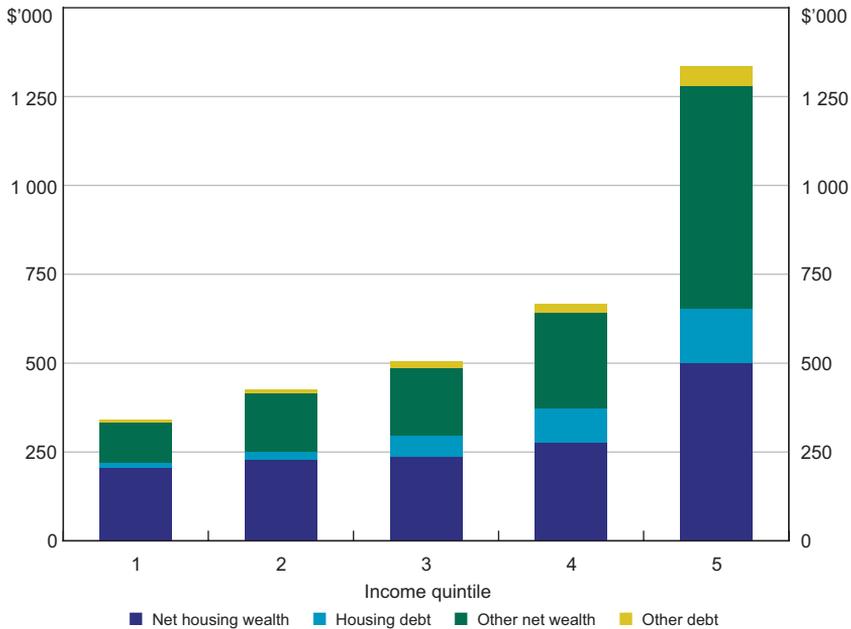
Figure 14 shows the extent to which household wealth is held by households in the top income quintile (with a gross household annual income of over \$100 000 at the time of the survey in 2005/06 and equivalent to over \$115 000 in June 2010 dollars). Figure 14 also reinforces a point made in Section 2: namely, that high-income and high-wealth households hold most of the household debt, including housing debt on owner-occupied and investment housing.

Figure 13: Net Household Worth by Age and Tenure
2005/06



Source: ABS, Survey of Income and Housing 2005-06

Figure 14: Household Wealth by Income Quintile
2005/06, 2010 dollars



Source: ABS, Survey of Income and Housing 2007-08

This inequitable distribution is made worse by generous tax concessions to owner-occupied housing. These concessions are also reinforced by the exemption of owner-occupied housing from the asset tests in retirement. Table 1 shows total tax expenditures to owner-occupiers amounted to around \$45 billion in 2005/06. It also shows that assistance is perversely provided, with the greatest assistance going to high-income and high-wealth households. The distribution of assistance provided by tax concessions to owner-occupiers is reinforced by those to rental investors.

Yates (2010) shows that the assistance provided to owners is equally perversely distributed by age, with older, high-income households – with significant equity in owner-occupied property – receiving far greater benefits than younger households with low housing equity. While imputed rent is less than interest costs (which can occur until housing equity reaches a critical point), younger households are disadvantaged when purchasing a dwelling compared with investors with the same income and housing wealth characteristics because of their inability to deduct mortgage interest costs. In the short run, it is cheaper for low-income, low-wealth households to rent as investors can keep rents below financing costs because of the returns available from geared rental investment (Wood, Stewart and Ong 2009, p 61).

The combined impact of increases in income (due to rising living standards), increases in wealth and generous tax concessions to higher-income households provides one explanation of why established households have increased their demand for housing. This is manifest both in the form of consumption demand for increased services from owner-occupied housing (met by relocating to a more expensive dwelling or by upgrading their existing dwelling through expenditure on alterations and additions) and in the form of investment demand for housing assets (met through increased investment in owner-occupied housing and/or rental housing). In both cases, mortgage finance helps render this demand effective.

As highlighted by Table 1, established households have distinct advantages over current renters or marginal first-home buyers. They have significant net wealth holdings and, in the main, higher incomes. As such, they have a considerably greater capacity to pay than do new or would be entrants in the housing market. Connolly and McGregor (2011) show an increasing share of owner-occupied loans were taken out by high-income households between 2001 and 2009.

Table 1: Tax Expenditure by Tax Base and Household Income Quintile
2005/06

	Gross household income quintile \$ per week						Aggregate tax expenditure \$ billion
	1	2	3	4	5	All	
Gross household income	285	623	1 048	1 595	2 967	1 304	
Income tax base							
<i>Owner-occupied housing</i>							
CGT exemption	23	41	57	79	161	72	29.8
NIR exemption	21	29	23	16	31	24	6.9
<i>Rental housing</i>							
CGT discount	1	4	6	11	30	10	4.2
Tax benefit of negative gearing ^(a)	7	38	39	47	73	54	1.2
NIR exemption	10	8	7	8	17	9	1.2
Consumption tax base							
<i>Owner-occupied housing</i>							
GST exemption of imputed rents ^(b)	15	15	16	17	20	17	4.8
<i>Rental housing</i>							
GST exemption of actual rents ^(b)	8	11	14	16	21	13	1.6
Wealth tax base							
<i>Owner-occupied housing</i>							
Land tax exemption	3	4	4	6	28	9	3.5
Total tax expenditures							
Owner-occupied housing	62	89	100	118	240	122	45.0
Rental housing ^(a)	26	61	66	82	141	86	8.2

Notes: Capital gains tax (CGT); net imputed rent (NIR); goods and services tax (GST)

(a) Weekly benefit from negative gearing is averaged over only those investor households with negative rental income

(b) GST exemption of imputed rents and rent averaged, respectively, only over owner-occupied and rented households; all other benefits are averaged over all households

Sources: ABS; Yates (2010, pp 87 and 93)

One of the financial innovations that contributed to increased availability of finance for some households was the shift away from a simple ‘rule of thumb’ 30 per cent ratio to the use of a measure based on a residual or net income surplus (House of Representatives 2007, pp 6–7). In 2007, just prior to the GFC, higher-income earners (on double average weekly earnings) and modest-income households with no children were permitted repayment ratios of up to 40 or 50 per cent of gross household income. The 30 per cent ratio, however, remains for a single-earner household with two children on the equivalent of average weekly earnings (see RBA (2005, pp 43–44) and also Yates (2007, p 6)).³⁰ Use of a higher repayment-to-income ratio for higher-income households creates an institutional bias towards disproportionately greater loans for higher-income households who wish to increase their expenditure on housing (and therefore adds to effective demand pressures on housing). Such capacity is enhanced by the ability of those borrowing for investment purposes to write off their interest costs against taxable income from any source (as occurs when investors negatively gear). It is further enhanced by lending practices that give discounts to those who borrow large amounts.³¹ If lending institutions respond to the GFC by increasing the security required for a housing loan (or if they are required to do so to meet Basel III requirements) this bias in favour of existing owners of housing will be reinforced.

5.3 Implications for housing costs for non-home owners

One of the concerning issues associated with the decline in home ownership among younger households, the sustained demand for housing from established households, and the displacement of marginal first-home buyers from the housing market by rental investors, is the impact that these trends may have on the future housing costs of those remaining in the private rental sector. The data presented in the previous section highlighted the decline in the supply of affordable rental housing over the past few decades, the increase in housing costs for lower-income renters and the increasing levels of rental stress in the private rental market. Modelling work undertaken in Yates *et al* (2008) suggests that, even if rents remained at the levels they were in relation to income in 2001, as the population ages a higher proportion of households will be in rental stress because of the past decline in home ownership rates among the young. Traditionally, the reduction in housing outlays as mortgages are paid off has meant that home ownership has provided a hedge against rising living costs for households in retirement. Households who have been unable (or even unwilling) to gain access to home ownership are denied this protection.

From the mid 1990s, rents have not risen in line with house prices because investors have been able to generate adequate returns by a combination of tax incentives and high capital gains during the long housing price boom. As argued above, it is likely that much of this growth reflects a once-off response to a structural shift in fundamentals (and, in particular, to the impact of financial deregulation and to the decline in interest rates associated with a decline in inflation). Any return of dwelling price inflation to the past long-term rate consistent with underlying fundamentals will reduce the tax benefits investors obtain from negative gearing and reduce the returns available from capital gains. Returns on residential investment, instead, will be sought from the rental yields

30 Bank websites provide estimates of maximum allowable loans only. There is no guarantee that such loans will be provided. The calculations in Yates (2007) are for a 25-year standard variable rate mortgage with monthly repayments and apply to first-home buyers with no outstanding household debt and with a single earner contributing to household income.

31 John (2011) in the *Sydney Morning Herald* on 30 May suggested that borrowers taking out a loan of more than \$250 000 can obtain a discount of around 70–75 basis points, with even greater discounts available for still larger loans.

on property. If renters are unable to afford higher rents, investors will leave the market and the supply of affordable rental dwellings will decline further.

6. Conclusions

The broad outcomes outlined above raise a number of concerns about the sustainability of Australia's housing system into the future. Higher house prices have favoured older generations at the expense of younger. The increasing wealth in the hands of home owners will add to the factors that exclude non-home owners from home ownership. These factors are reinforced by lending criteria biased towards high-income and high-wealth older households, as well as by the current structure of tax concessions that are biased significantly in favour of those who have significant equity in their own home and who borrow in order to finance investment in rental property. Increasing demand pressures will result in structural increases in dwelling prices as supply costs increase because of an innate scarcity of land. Attempts to ameliorate the impact of rising urban land costs by greater use of multi-unit construction in infill sites are moderated by the higher costs of such construction (and by higher land assembly costs).

Housing affordability is an issue that goes well beyond the problems of access to home ownership for a number of reasons. It can have an impact at the macroeconomic level. The potential that fluctuations in dwelling prices have to add to economic instability through wealth effects and through volatile investment behaviour has been touched on above. A lack of affordable housing also has the potential to affect the productive efficiency of the economy if employers are unable to obtain labour because of a spatial mismatch between housing and labour markets or because of increased congestion costs when workers are forced to travel long distances to their places of employment. Berry (2006) covers some of the literature on these issues. In addition to its impacts on the economy, housing affordability is an issue because of the impact it has on individuals (see, for example, Burke and Pinnegar (2007) for evidence of the hardships experienced and compromises and trade-offs made to cope with them) or through the externalities associated with these impacts (see, for example, Bridge *et al* (2003) for a systematic review of non-shelter outcomes).³²

Housing affordability problems have been an emerging issue for a number of decades but resulted in housing being put on the agenda in the 2000s. These affordability problems have the potential for adding to the disparities of income and wealth that have contributed to their emergence. Increasing disparities between home owners and non-home owners contribute to the lack of intergenerational equity defined above as a hallmark of a sustainable housing system.

Bean's observations in 2000 that Australia's survival of the 1997 Asian financial crisis in part could be attributed to effective structural reforms cited in the introduction to this paper concluded with the assertion that 'economic miracles have a tendency to turn sour just when everyone is celebrating them'. There is a danger that, by not having placed housing on the agenda at the time when structural problems in Australia's housing system were beginning to emerge, Australia has lost the opportunity to undertake the structural reforms needed to provide affordable housing for all and that its current economic miracle will turn sour when viewed through a housing lens.

³² Both direct and indirect impacts of housing affordability problems are outside the scope of this paper. Burke and Pinnegar (2007) provide detailed evidence of the impact of affordability problems on both renters and marginal home purchasers. Bridge *et al* (2003) provide evidence of the impact on non-shelter outcomes related to effects in or on labour markets, education, health, community viability and social cohesion.

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