Australian Government

NATIONAL HOUSING SUPPLY COUNCIL

HOUSING SUPPLY AND AFFORDABILITY – KEY INDICATORS, 2012

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Executive summary

This publication updates the National Housing Supply Council's analysis of underlying housing demand, supply, the balance between the two, and housing affordability using data not available for inclusion in the *2011 State of Supply Report* released in December 2011. Key findings are that:

- The Council estimates that the total dwelling stock in Australia increased by 142,000 (1.6 per cent) to almost 9.3 million dwellings over the year to end-June 2011.
- The housing shortfall (gap) increased by 28,000 dwellings over the year to end-June 2011, taking the cumulative shortage since 2001 to 228,000 dwellings.
- The shortfall of 200,000 at end-June 2010 has been revised from the 187,000 published in the *2011 State of Supply Report*. The revision is explained in Chapter 4.
- The most acute shortage remains in NSW, with an estimated gap of 89,000 dwellings, followed by 83,000 in Queensland. Relative to the number of households, the largest estimated shortfall is in the Northern Territory at almost 15 per cent.
- The housing shortfall in Victoria narrowed over the year to June 2011. New South Wales and Queensland experienced further widening of the gap over the same period.
- The Council projects that the national shortfall will increase to 370,000 dwellings by 2016, 492,000 by 2021 and 663,000 by 2031, assuming historic demographic and supply trends continue (the Council's "medium" growth scenarios for underlying demand and supply).

The impact of the continuing shortfall is evident in a range of affordability measures calculated by the Council from the *2009-10 Survey of Income and Housing*:

- In 2009-10, 316,000 (48 per cent) of lower income home owners (those in the bottom 40 per cent of the income distribution) faced direct (mortgage) housing costs of more than 30 per cent of their gross income. This proportion was unchanged from 2007-08.
- Lower income households with a mortgage in capital cities faced greater affordability pressures than those living elsewhere. Higher proportions of lower income households in New South Wales and Western Australia faced affordability pressures than in other states.

- In 2009-10, 60 per cent of lower income private renters faced direct housing costs of more than 30 per cent of their income, an increase from 57 per cent in 2007-08.
- A larger proportion of lower income renters in capital cities faced housing costs of more than 30 (and 50) per cent of income than did low income renters outside those cities.
- New South Wales, followed by Queensland, had the highest proportion of lower income renters paying more than 30 (and 50) per cent of income.
- There is a shortage of properties that are affordable and available for lower income renters. The Council estimates that there is a shortage of 539,000 rental properties that are both affordable and *available* for this group. Available rental properties include some which are affordable for less affluent households but are already occupied by higher income earners.

Chapter 1 Introduction

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The National Housing Supply Council published its most recent assessment of the balance between underlying housing demand and supply in December 2011 in the *2011 State of Supply Report*. This update provides a more timely assessment of the underlying trends in housing, using data that were not available in time for inclusion in the *2011 State of Supply Report*. It does not draw any policy conclusions beyond those presented in the 2011 Report.

In particular, this report:

- Updates the figures for housing supply, underlying demand, and the gap between the two through to June 2011.
- Extends the housing supply, underlying demand and shortfall (gap) projections through to 2031.
- Provides an update on affordability trends, drawing on the findings of the *2009-10 Survey of Income and Housing*.
- Provides a revised national estimate of the housing shortfall to June 2010.

Revisions to previous estimates of the housing shortfall

Historic estimates of net new housing supply from 2001 to 2010, and as a result the balance between supply and demand, have been revised from those published in the *2011 State of Supply Report*. These take account of an adjustment to the calculations for underlying net housing supply growth (see Chapter 4 for details). The revised national estimate of the housing shortfall at end-June 2010 is 200,000 dwellings, 13,000 greater than previously published.

This revision does not change any of the key conclusions of the Report, although the housing shortfall is larger than previously estimated. The Council's estimates of underlying demand growth since 2001, and the path of the supply and demand projections, are unaffected. In the Council's view, the key challenges facing the housing system have not changed since the 2011 Report was published.

Underlying demand growth continues despite soft housing market

The updated assessment of the balance between underlying supply and demand shows that the housing shortfall continued to increase over the year to June 2011, at a slightly slower pace than in the two preceding years. This further deterioration in Australia's undersupply occurred despite the weakness in the housing market over the period. As was explained in the 2011 Report, the Council do not believe this is inconsistent.

The Council's estimates are based on the concept of *underlying* demand, which is driven predominantly by demographic factors, including migration. By contrast, market weakness has come about through a slowing in *effective* demand (largely the level of purchaser activity in the market), which is driven by a range of factors including consumer and investor sentiment, interest rates, affordability constraints and job prospects. Put another way, *effective* demand is *underlying* demand moderated by market factors. The tight rental market offers supporting evidence that there is an underlying housing shortage.

In the short-term, it is possible for *underlying* demand and *effective* demand to diverge quite significantly. The structural shortfall (i.e. that housing supply fails to keep up with *underlying* demand), means that housing costs are higher than they would be in a less constrained market. However, it does not preclude periods of weakness. In the longer-term, there will inevitably be some connection between the two measures. Lower levels of *effective* demand could be influenced by the housing shortage and affordability constraints. This could lead to changes in household formation decisions and therefore reduce *underlying* demand.

The housing shortfall is likely to have the greatest impact at the lower end of the income distribution. These households have less choice than more affluent groups because they face binding affordability constraints, have less ability to absorb increased housing costs, and are often displaced from affordable existing housing by established households and those higher up the income spectrum.

Current estimates and projections of the housing shortfall

Net overseas migration has slowed from recent peaks and housing supply growth held up reasonably well in 2010-11. This limited the pace at which the housing gap widened. However, recent declines in building approvals suggest that the immediate outlook is for the situation to get worse on the supply side.

The public sector accounted for a larger than usual (8 per cent) share of housing completions in 2011-12, compared to a more typical 2-3 per cent over the last decade.

The high levels of public sector housing completions are attributable to the stimulus spending in response to the Global Financial Crisis (GFC) working through the system. Activity in the public sector is likely to decline sharply, with the majority of the homes built under the *Social Housing Initiative* scheduled to be completed by end-June 2012. With relative weakness in the leading indicators (specifically building approvals in the private sector), production of new homes is also likely to fall in the immediate future.

2011 census will provide an opportunity to reassess

Results from the *2011 Census of Population and Housing*, which are scheduled for release mid-year, will provide an opportunity to assess how households have adapted to the shortage. The data will show whether household size has increased since 2006 for comparable household types. The changing structure of the household population (for example due to ageing) affects household size in its own right, so it is important to consider changes in household characteristics relative to that population structure.

The Council will present analysis of 2011 census data in future publications, and will examine whether constraints in housing availability have impacted on household formation rates. For example, the analysis will examine whether supply and affordability pressures have contributed to delayed household formation, and what other factors are leading to different household formation patterns than in the past. Changes can also occur due to underlying social changes in preferences for different types of living arrangements. The results may lead to a change in the Council's underlying demand projections if they reveal a change in household formation patterns from the past.

However, while the census is critical to the Council's analysis of the housing system, it may not provide all the answers. Some of the more extreme coping mechanisms to the housing shortage, for example overcrowding amongst international students or illegal boarding houses, may not be reported and can fall outside private housing definitions. In essence, the more extreme responses to a housing shortage are the least likely to be picked-up in standard data gathering. The undercount has increased in recent times. Some of the groups most likely to be undercounted are those most likely to be in unconventional housing situations.

Housing affordability

This report also includes an update of key indicators of housing affordability from the *2010 State of Supply Report*, based on data in the *2009-10 Survey of Income and Housing* released in late 2011. Despite the softening in house prices over the last 18 months, housing affordability remains a key concern for home buyers. Meanwhile, private rental tenants have seen rents increase by more than earnings.

The situation faced by lower income renters deteriorated between 2007-08 and 2009-10, most notably in the capital cities. This highlights a key point of the Council's analysis of the housing gap. It is those at the lower end of the income distribution, many of who will be in the private rental market, who are likely to be most affected by constrained housing availability. Given that rents have continued to rise, and outstripped house price growth in 2011, rental affordability may have continued to deteriorate, at least in comparison to the situation faced by home owners.

Chapter 2 Demand

Chapter 2 Demand

There have not been any changes to the demand-side data underlying the Council's calculations in the *2011 State of Supply Report*. The Council uses estimated growth in the number of households to measure *underlying* housing demand. As noted in Chapter 1, this differs considerably from the concept of *effective* demand – the latter is demand as it is expressed in the market and is driven by a range of cyclical, as well as structural economic and demographic factors. As explained in the 2011 Report, these two measures of demand are conceptually very different and will not necessarily move together, at least in the short-term.

However, over the longer-term, there are clearly linkages between the two measures. If *effective* demand is squeezed due to a housing shortage and affordability constraints, this may eventually influence household formation patterns and decisions leading to a lower level of *underlying* demand.

It is important to understand the concepts and data underlying the Council's estimates of the number of households. Definitive figures for the number of households are sourced from the *Census of Population and Housing*, with the most recent census data available being for 2006. Household estimates for years since 2006 are derived by applying household transition probabilities (the likelihood of a person moving from one type of household and/or location to another) to the most recent final estimate of the total Australian population (the Estimated Resident Population, ERP, the number of people in Australia) available at the time the modelling was undertaken. So the estimates for 2007 to 2011 apply the patterns of household transition observed between the 2001 and 2006 censuses to more recent population (number of people rather than households) estimates.[1]

This means the data may not necessarily reflect the most recent patterns of household transition (changes in living arrangements) and may overestimate the number of households. Deteriorating housing affordability is likely to have affected living arrangements and formation rates of new households in ways not captured in current projections. However, it is important to note that changes can also occur due to underlying social changes in preferences for different types of living arrangements. An updated count of the number of households for 2011 will only be available after census results are published this year.

1 See page 22 of NHSC *2011 State of Supply Report.*

In addition to the uncertainty around household transition patterns, the estimated household numbers for 2009-10 and 2010-11, published in the 2011 Report and this update, are based on the projected population in 2009-10 and 2010-11, rather than an updated ERP for those years. This includes population growth estimates for 2009-10 and 2010-11, based on two components. Firstly, natural population growth (births less deaths), which is unlikely to vary significantly from the projected levels. Secondly, an assumed net overseas migration (NOM) level of 180,000 people per annum, which is rather more volatile. The last ERP input into the model was for June 2009, meaning the higher levels of migration in 2007-08 and 2008-09, which contributed to a short-term increase in population growth at that time, are included, but actual NOM levels for 2009-10 and 2010-11 are not.

However, the net overseas migration assumption of 180,000 people per annum is, on average, close to the actual outcomes[2] of 196,000 in 2009-10 and 170,000 (preliminary estimate) in 2010-11. If migrants have the same characteristics as the existing population, as the Council's modelling assumes, the cumulative difference of 6,000 people over the two years would equate to a little under 3,000 additional households at end-June 2011. The figures in this update have not been adjusted to take account of this small discrepancy.

The underlying demand projections estimate that there were 8,909,000 households in Australia as at end-June 2011. This is 163,000 more than a year earlier. Under the medium migration growth scenario (with NOM remaining at 180,000 every year) the rate of growth in the number of households is projected to increase gradually to 165,000 per annum in 2018 before slowly declining thereafter as the population ages, to just under 160,000 at the end of the forecast horizon in 2031. The total number of households (the underlying demand for housing) is projected to increase to 10,553,000 in 2021 and 12,168,000 in 2031 (Table 2.1).

2 ABS 2011 - 3101.0 - *Australian Demographic Statistics*, September 2011.

Table 2.1 Underlying demand projections based on low, medium and high household growth: annual increase in underlying demand and total underlying demand projections (households), 2011—2031

	Average annual increase in underlying demand in intervening period			Total underlying demand		
Year	Low household growth	Medium household growth	High household growth	Low household growth	Medium household growth	High household growth
2011	139,000	163,000	190,000	8,862,000	8,909,000	8,964,000
2016	140,000	165,000	193,000	9,564,000	9,733,000	9,931,000
2021	138,000	164,000	194,000	10,255,000	10,553,000	10,902,000
2026	136,000	163,000	194,000	10,933,000	11,366,000	11,872,000
2031	132,000	160,000	193,000	11,593,000	12,168,000	12,838,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios. Figures are rounded to the nearest thousand.

Notes: The shaded area depicts the main projection series used in this report. These figures are projected from estimated resident population as at 30 June 2009. The increase for 2011 is solely for that year. Subsequent increases are averages for five-year periods (2012–2016, 2017–2021, 2022–2026, 2027–2031).

There is a projected increase of a little over 1.6 million additional households over the decade to June 2021 and just under 3.3 million for the 20 years to June 2031 (Table 2.2). The low growth scenario (which is based on NOM of 120,000 per year through to 2031) projects there will be just less than 1.4 million additional households over the next decade and just over 2.7 million over the next two decades. The high growth scenario (NOM at 250,000 per year) projects there will be just over 1.9 million additional households by 2021 and almost 3.9 million by 2031.

Table 2.2 Cumulative additional households projected under low, medium and high household growth scenarios, from June 2011

To end June	Scenario		
	Low growth	Medium growth	High growth
2016	701,000	824,000	967,000
2021	1,392,000	1,644,000	1,938,000
2026	2,070,000	2,457,000	2,908,000
2031	2,731,000	3,259,000	3,874,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios from June 2009. Figures are rounded to the nearest thousand.

The projected increase in underlying demand is not equally distributed among the states and territories. As Table 2.3 shows, Queensland and Western Australia are projected to experience the fastest rates of growth in the number of households over the next 20 years under the medium migration scenario. These projections are based on the period when Queensland had been the fastest growing state for several decades (up to the 2006 census). Since 2006, Western Australia's growth has comfortably overtaken Queensland's, so projections based on updated information once the 2011 census data is available will likely point to this continuing.

The country's most populous state, New South Wales, is projected to experience significantly slower growth than the national average. Table 2.3 also shows that the capital cities will experience larger increases than the rest of state areas. Adelaide and Brisbane are the only exceptions to this. However, when South-East Queensland is considered as a whole, growth in the number of households there is also projected to outstrip the growth in households in the rest of the state. In Adelaide's case, much of the recent growth has been in the Outer Adelaide Statistical Division area, outside the Adelaide Statistical Division. This is due more to overflow than a separate housing market.

The distribution of projected housing growth is based on past interstate migration patterns. These may not fully reflect more recent developments, particularly the impact of the mining boom, where fly-in, fly-out workers could increase demand in their place of work in addition to their "home".

A full explanation of the calculations underlying the demand projections is provided in the 2011 Report[3]. Updates to a range of tables relating to demand are available on the Council's website[4].

The impending census results will provide an opportunity for the Council to analyse how household formation rates have changed in response to the constraints in housing availability, and will also provide an opportunity to reassess household projections. The Council will update its projection assumptions after analysis of the 2011 census data.

3 See pages 18-36, 152-159 of *2011 State of Supply Report*.

4 www.nhsc.org.au.

Table 2.3 Proportional projected additional households by region for low, medium and high household growth scenarios, (per cent increase 2011–2031)

Region	Low-growth scenario	Medium-growth scenario	High-growth scenario
Sydney	21%	30%	40%
Rest of NSW	27%	28%	29%
Total NSW	**23%**	**29%**	**36%**
Melbourne	30%	38%	48%
Rest of Vic	25%	26%	28%
Total Vic	**29%**	**35%**	**42%**
Brisbane	40%	48%	57%
Rest of Qld	50%	54%	60%
South-East Qld (a)	*49%*	*56%*	*64%*
Total Qld	**46%**	**52%**	**58%**
Adelaide	15%	20%	27%
Rest of SA	23%	25%	26%
Total SA	**17%**	**22%**	**26%**
Perth	41%	52%	64%
Rest of WA	41%	45%	49%
Total WA	**41%**	**50%**	**60%**
Hobart	22%	24%	27%
Rest of Tas	16%	17%	18%
Total Tas	**18%**	**20%**	**22%**
Total NT	**36%**	**40%**	**43%**
Total ACT	**28%**	**30%**	**33%**
Australia	**31%**	**37%**	**43%**

(a) South-East Queensland includes the statistical divisions of Brisbane, the Gold Coast, the Sunshine Coast and West Moreton and Toowoomba Regional Council (Cambooya Shire Pt A, Crows Nest Pt A, Joondaryan Shire Pt A, Rosalie Shire Pt A and Toowoomba City).

Source: National Housing Supply Council projections based on McDonald-Temple low, medium and high household growth scenarios.

Note: Percentages are based on increase from medium projected household population at June 2011.

If the 2011 census results indicate slower rates of new household formation than projected by the Council's methodology in the light of, among other things, an ageing demographic structure, they are likely to point to slower rates of household growth in the future than the current figures suggest. This may indicate that housing supply and affordability constraints are feeding through into a lower level of underlying demand. However, other factors may also be at work, such as delayed household formation resulting from young adults' longer periods of study, higher levels of student debt, smaller families with later first births, and so on.

The Council will attempt to assess the reasons for differences between the 2011 census results and the Council's projections of household formation based on past trends and migration scenarios. This analysis will aim to distinguish sources of difference arising from underlying demographic and distributional trends from those apparently caused by constrained housing supply and affordability. For example, has there been any change in living arrangements such as an increase in multi-generational households concentrated among lower income people, and has this occurred because of reduced access to housing or for other reasons?

However, census data are unlikely to identify fully the extent of responses to the housing shortage, particularly the more extreme reactions. For instance, it is unlikely that accommodation arrangements like over-crowding amongst students, people living in cars or illegal boarding houses would be reported correctly and fully. It is not possible to assess the magnitude of such arrangements or the extent of change. The Council believes that there is a strong case for an assessment of census coverage to identify which housing groups are most likely to be overrepresented in an undercount.

Chapter 3 Supply

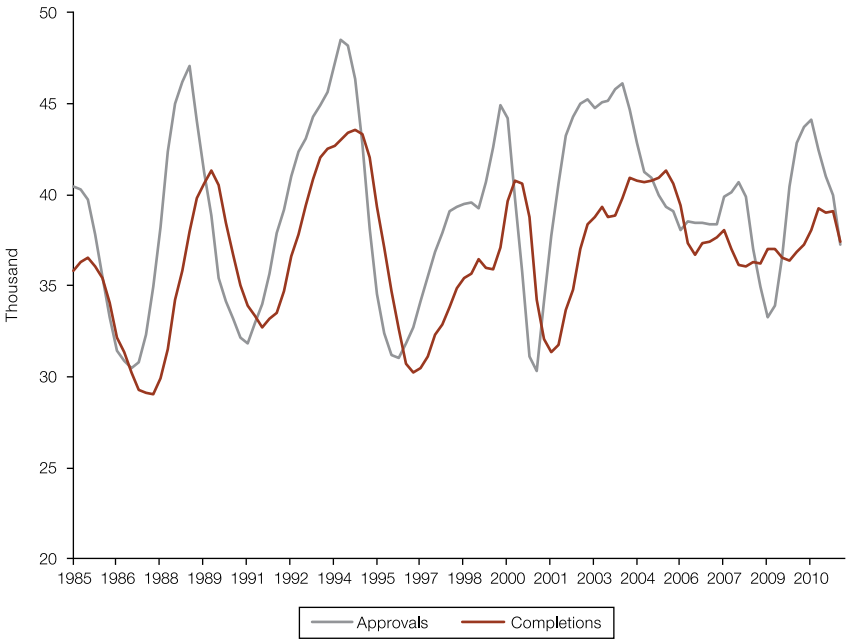
Chapter 3 Supply

Recent trends in housing supply

Housing supply growth held up fairly well in 2010-11, partly due to the relatively high level of building in the public sector. There were 156,300 new dwellings completed in the period (both private and public sector), plus around 700 conversions from non-residential buildings to residential dwellings. This was slightly higher than the Council's medium projection (based on long-term trends) presented in the 2011 Report.

However, leading indicators point to supply growth declining sharply in the current financial year and the immediate future. Approvals for building new dwellings, which lead the construction process, have declined significantly since early 2010 (Figure 3.1). The 33,500 approvals (seasonally adjusted) in the last quarter of 2011 was down 13% on the previous three months, and 24% on the same period in 2010. Overall, there were 149,800 approvals in 2011, a little higher than the GFC-induced lows of 148,300 and 146,200 in 2008 and 2009 respectively, but lower than the average of 161,000 over the last decade.

Figure 3.1 Dwelling approvals and completions, four quarter moving average



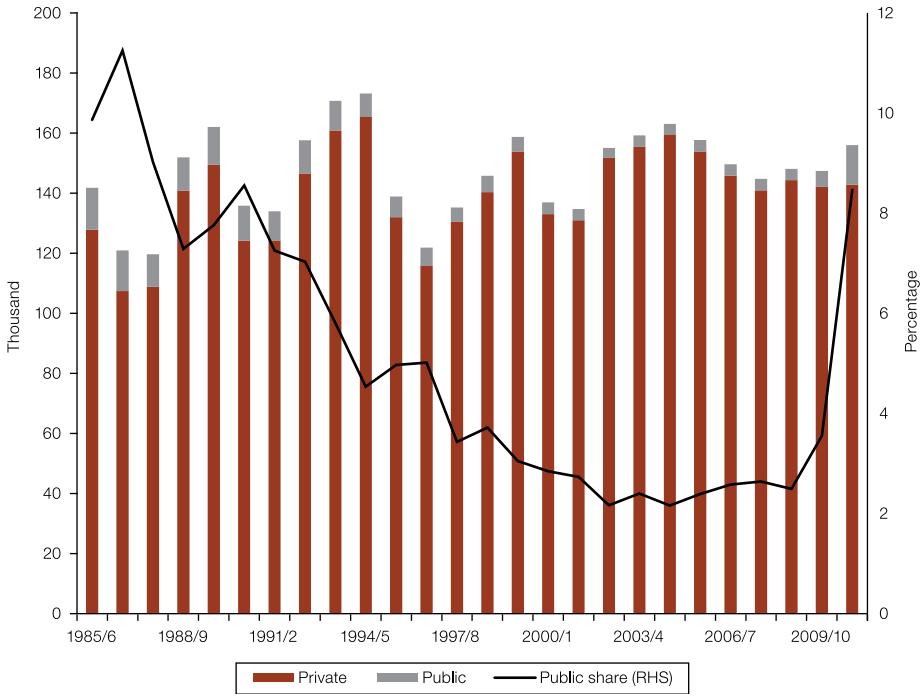
Source: ABS 2012, *Building Activity, Australia, September quarter 2011*, cat no. 8752 and ABS 2012, *Building Approvals, Australia*, December 2011, cat no. 8731.

The contribution of public sector housing completions was significant in maintaining new supply growth in 2010-11 (Figure 3.2), accounting for 8 per cent of all completions, the largest share in 20 years. These include dwellings constructed by, or for, housing associations and other community-based organisations. The 13,200 new public dwellings completed were the most in a single year since the late 1980s. Much of this is attributable to the *Social Housing Initiative (SHI)*[5], which was launched as part of the *Nation Building – Economic Stimulus Plan* in February 2009.

The unusually high number of public sector completions more than accounted for the difference between the Council's projection and the actual outcome. This illustrates the weakness in the private sector which, while output was slightly (0.4 per cent) higher in 2010-11 than 2009-10, produced significantly fewer new homes than was typical over the last decade.

The level of new building in the public sector is expected to decline sharply, given it accounted for less than 3 per cent of all approvals in 2011. The majority of almost 20,000 new social houses funded under the SHI will be completed by the end of 2011-12.

Figure 3.2 Number of dwelling completions, private and public sectors (per annum)



Source: ABS 2012, *Building Activity, Australia, September quarter 2011*, cat no. 8752.0, ABS, Canberra.

Note: Years refer to financial year end June 30.

5 See pages 81 and 82 of 2011 *State of Supply Report.*

Housing supply estimates and projections

This report incorporates completions data for June quarter of 2011 which allows the Council to update its estimate for the total dwelling stock to the end of the 2011 financial year (Table 3.1). The methodology[6] used to project supply trends remains unchanged and is not affected by the revision of the net supply data used to calculate the housing shortfall in Chapter 4.

Table 3.1 Existing supply, June 2011

		Number of dwellings
1	2006 ABS Population Census occupied private dwellings and unoccupied dwellings adjusted for undercounting	8,605,800
	plus	+
2	ABS dwelling completion data for 2007, 2008, 2009, 2010 and 2011	745,900
	minus	-
3	Estimated stock losses in 2007, 2008, 2009, 2010 and 2011 due to demolition	61,500
	equals	=
	Total supply in 2011 (rounded to nearest hundred)	**9,290,200**

Source: Adapted from ABS 2007, *Census of Population and Housing - Details of undercount*, cat. no. 2940.0, ABS, Canberra; ABS 2011, *Building Activity, Australia*, June 2011, cat. No. 8752.0, ABS, Canberra; and National Housing Supply Council estimates.

Note: All years refer to financial year ending June of that year.

The Council estimates that the stock of dwellings in Australia at 30 June 2011 was 9,290,200 (Table 3.1). This is an increase of 142,000 (1.6 per cent) from the 9,148,300 dwellings at the end of June 2010.

The Council continues to produce three scenarios (low, medium and high) for future supply growth. The medium scenario is based on the trend rate of growth in supply since 1981. The highest and lowest deviations from this trend over a four quarter period are taken as the high and low scenarios. The following tables present net additional housing supply – the number of new dwellings completed, plus conversions to residential dwellings, less an adjustment for dwellings demolished.

Table 3.2 shows the Council's projections for the cumulative national net increase in housing supply over the 20 years to 2031. The medium scenario projects a net increase of approximately 140,000 dwellings per year through to June 2013 increasing gradually through to 2031, with an average of approximately 150,000 per year for the period as a whole. This is somewhat lower than the Council's medium projection for the number of households, which increases by an average of 163,000 per year over the same period.

6 For a more detailed explanation of how this estimate was derived, see page 46 in the *2011 State of Supply Report*, and pages 192-193 of the 2010 Report.

The short-term outlook for supply is that net supply growth is expected to be lower than that projected in the medium scenario.

Table 3.2 Projected net increase in supply of residential dwellings, Australia, low, medium and high supply scenarios, 2011–2031

Time period	Low-supply scenario	Medium-supply scenario	High-supply scenario
2011–12 to 2012–13	236,000	288,000	350,000
2011–12 to 2015–16	595,000	725,000	880,000
2011–12 to 2020–21	1,203,000	1,467,000	1,780,000
2011–12 to 2030–31	2,460,000	3,000,000	3,641,000

Source: Based on dwelling completion trend, 1 July 1980 to 31 June 2011, from ABS 2011, *Building activity, Australia, December 2010*, cat. no. 8752.0, ABS, Canberra; and National Housing Supply Council estimates for completions and conversions, net of demolitions.

The Council has also projected net supply growth for each state and territory for each scenario (Table 3.3). Victoria and Queensland are projected to experience a greater increase in housing supply than New South Wales, reflecting building activity over the last thirty years, despite all experiencing strong population growth in recent years[7]. Western Australia is also projected to experience a relatively large proportionate increase in housing supply, consistent with strong population growth in the state. If long-term trends continue, New South Wales, Tasmania and the Northern Territory will see lower proportionate growth in housing supply than the rest of the country.

Table 3.3 Projected net supply growth by state/territory, cumulative 2011-2031

	Low-supply scenario	Medium-supply scenario	High-supply scenario
NSW	528,000	615,000	731,000
Vic	751,000	926,000	1,066,000
Qld	615,000	766,000	964,000
SA	113,000	166,000	203,000
WA	389,000	428,000	544,000
Tas	21,000	35,000	43,000
NT	7,000	12,000	17,000
ACT	35,000	52,000	73,000
Australia		3,000,000	

Sources: Australian Bureau of Statistics, *Building Activity, Australia, December 2011*, cat. no. 8752.0, ABS, Canberra, 2011; and National Housing Supply Council estimates for completions plus conversions, net of demolitions.

Note: Projections by state and territory are based on the lowest, average and highest trend data (from 1 July 1980 to 31 June 2011) for each individual state and territory.

7 ABS 2011, *Regional Population Growth, Australia*, cat.no.3218.0, ABS, Canberra.

All the estimates and projections of net housing supply in this chapter are sensitive to the assumptions that underlie them. This kind of "projection risk" applies especially to the adjustment made for demolitions, which is based on a mixture of data sources, and to the split between occupied and unoccupied dwellings (used when assessing the balance between underlying demand and supply), which relies on dated information from previous censuses. Projected future supply is based on the trend increase in completions since 1981. A different time period would lead to a different projected path – for instance, the trend over the last decade has been a small fall in dwelling completions. So projections based on trend since 2001 suggest that output will continue to fall gradually over coming years.

More detailed tables showing annual gross and net housing supply growth projections by state and territory are available on the Council's website.

Chapter 4 Demand-supply balance

Chapter 4
Demand-supply balance

Assessment of the current situation

The net housing supply estimates in this report have been revised for the period 2001 to 2010 from those published in the *2011 State of Supply Report*. The revised data take into account an adjustment to the calculations of net housing supply. Estimates through to the year ending June 2011 are also presented.

The adjusted net housing supply estimates in this updated report take net new dwellings (completions, plus conversions of other buildings to residential dwellings, less demolitions) and make an adjustment for some of these properties being unoccupied[8], an unchanged method from the previous report.

In the calculations underlying the 2011 Report, 34,700 conversions between June 2001 and June 2010 were included as new dwellings. In fact, there were 18,300 conversions over the period, meaning that 16,400 fewer new dwellings were actually created over the period than had been accounted for.

So the revision is specifically that gross (completions plus conversions) dwelling supply growth was 16,400 lower between June 2001 and June 2010. This, in turn, means *net* supply at June 2010 was 13,500 lower, and the housing shortfall (gap) was 200,000 at that point, rather than the previous estimate of 187,000 published in the 2011 Report[9].

8 A full explanation of the methodology can be found on pages 167-169 of the *2011 State of Supply Report,* with vacancy rates specified in Table 4.1 on page 104.

9 These figures do not necessarily sum exactly due to rounding.

Table 4.1 Estimates of the net dwelling supply gap, Australia, 2001-2011

Year ending June	Change in underlying demand	Supply growth, net of demolitions, with allowance for unoccupied dwellings excluding 'resident absent'	Cumulative net dwelling supply gap 2001–2011 based on the difference between change in underlying demand and supply adjusted for demolitions and unoccupied dwellings
	('000 households)	('000 dwellings)	('000 dwellings)
2002	138	117	21
2003	140	135	26
2004	138	138	26
2005	137	142	21
2206	137	137	22
2007	162	130	54
2008	157	125	86
2009	211	128	169
2010	159	127	200
2011	163	135	228

Source: National Housing Supply Council estimates of underlying demand; National Housing Supply Council estimates of dwelling completions net of demolitions and adjusted for unoccupied dwellings.

Note: Figures may not sum exactly due to rounding. The net gap is assumed to be zero as at June 2001. All estimates and projections of the shortfall have been rounded to the nearest thousand.

The housing shortfall continued to widen in 2010-11 (Table 4.1). The Council estimates that underlying demand growth outstripped adjusted net supply by 28,000 over the year, taking the cumulative gap to 228,000 dwellings. Other than the larger increase in 2008-09 (largely owing to the peak in net overseas migration in that year), the rate at which the housing shortfall is increasing has held fairly steady since 2006-07.

Looking at the change in the housing shortfall in 2010-11 across the states and territories (Table 4.2), Queensland and New South Wales, and to a lesser extent Western Australia, experienced a growth in housing supply that continued to lag some way behind the Council's estimate of growth in underlying demand.

Table 4.2 Estimated additional underlying demand and adjusted net supply, states and territories, July 2010 to June 2011

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
					('000 households)				
Underlying demand	42	39	44	8	23	2	2	2	163
					('000 dwellings)				
Adjusted net supply growth	27	44	27	9	20	3	1	4	135
Increase in gap in year to June 2011	**15**	**-6**	**17**	**-1**	**4**	**0**	**1**	**-1**	**28**

Source: National Housing Supply Council estimates of underlying demand; National Housing Supply Council estimates of dwelling completions net of demolitions and adjusted for unoccupied dwellings.

Note: Figures may not sum exactly due to rounding.

In Victoria, the increase in net supply was greater than the growth in underlying demand. This resulted in a reduction in the housing shortfall in the state over 2010-11. Table 4.3 shows the estimated balance in each state and territory from June 2001 through to June 2011.

The historic estimates of the housing shortfall across the states and territories have also been revised from those published in the *2011 State of Supply Report*. As a result, the estimated housing shortfall in Victoria in June 2010 is now slightly lower than previously published, while the shortfalls in Queensland, the Northern Territory and Western Australian are now slightly higher. The small housing surplus in South Australia is now even smaller, while the previous surplus in the ACT is now estimated as essentially in balance. There is almost no change in New South Wales' estimated substantial undersupply.

Table 4.3 Estimated dwelling gap since June 2001 ('000 dwellings), states and territories

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
2001	0	0	0	0	0	0	0	0	0
2002	6	0	11	2	2	1	0	0	21
2003	4	-5	21	2	3	2	0	0	26
2004	4	-11	26	2	4	2	0	-1	26
2005	3	-18	28	1	5	2	0	0	21
2006	10	-26	31	0	5	2	1	-1	22
2007	16	-13	38	-1	9	1	4	0	54
2008	22	1	40	-3	17	0	9	0	86
2009	56	18	55	0	29	0	10	1	169
2010	74	16	66	-2	34	1	11	0	200
2011	89	10	83	-3	38	0	12	-1	228

Source: National Housing Supply Council estimates of underlying demand; National Housing Supply Council estimates of dwelling completions net of demolitions and adjusted for unoccupied dwellings.

Note: Figures may not sum exactly due to rounding. Size of gap is measured as the difference between the increase in underlying demand and the increase in adjusted supply. A negative value indicates a surplus.

Table 4.4 presents the estimates of the housing shortfall as a proportion of the projected total number of households as at June 2011 in each state and territory. The number of households is projected using the medium scenario for underlying housing demand.

Caution should be used in any interpretation of the housing shortfall estimates at the state or territory level. These estimates of the extent of housing shortfall all start in 2001 and this implicitly assumes that each market was "in balance" in 2001. While this may have been true for Australia as a whole, it is unlikely to have been the case in every state and territory. It is more useful to consider the estimates as an indication of how the balance between supply and underlying demand has changed since 2001, rather than an absolute measure of the current situation. Sensitivity analysis[10] undertaken by the Council indicates that choosing a different "equilibrium point" in each jurisdiction would not change the national picture significantly, nor necessarily the assessed balance between underlying demand and supply at state or territory level.

10 The Council conducted a sensitivity analysis based on an assumption of equilibrium in each jurisdiction for a period when house prices and earnings had moved broadly in line over a three year period. The Council acknowledges that this is by no means a perfect measure of equilibrium, but it is a useful illustration of what happens if differing equilibrium points are chosen. Under this assumption, the Council estimates that the national housing shortfall was 193,000 at June 2010, very much in line with its existing estimate of 200,000 at that time. It makes relatively little difference to shortfall estimates if individual state and territory equilibrium points are chosen anywhere from the late 1990s to the early 2000s.

A further qualification is that the "gap" represented here is between estimated underlying demand and supply, not market demand and supply. Market demand is moderated much more directly by the availability and price of supply, so the gap between market demand and supply will almost always be less.

The estimates in Table 4.4 indicate that the Northern Territory has by far the largest housing shortfall relative to the total number of households. However, some care should be taken in interpreting this. The relatively small population and number of dwellings, the remote nature of many areas and a highly mobile population all complicate the collection of accurate data, meaning that there are likely to be larger margins of error than in other states and territories.

Queensland, Western Australia and New South Wales also face relatively large shortfalls. The small relative shortfalls in Victoria and Tasmania, and virtual balance in South Australia and the ACT, suggest that the relativity between underlying supply and demand is now much the same as it was in 2001. This should not be assumed to apply to all localities, tenures and population subgroups: as the Council's estimates of "affordable and available housing" indicate (see Chapter 5), there are likely to be undersupplied submarkets within states and regions that seem to be in balance at an aggregated level.

Table 4.4 Estimated dwelling gap at June 2011 as a proportion of the estimated level of underlying demand (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
2011	3.1%	0.5%	4.6%	-0.4%	4.0%	0.2%	14.6%	-0.9%	2.6%

Source: National Housing Supply Council estimates of gap as a proportion of underlying demand estimate in June 2011.

Note: Size of gap is measured as the difference between the increase in underlying demand and the increase in adjusted supply. A negative value indicates a surplus.

Projections for the balance between housing demand and supply

The national housing shortfall is expected to increase further in future years under most of the Council's scenarios for underlying demand and supply growth (Table 4.5). Under the medium demand and supply growth scenarios, the housing shortfall is set to rise by around 141,000 in the five years to June 2016.

If the Council's medium projections of underlying demand turn out to be correct, preventing the national shortfall from increasing over the next five years would require supply growth to match its highest rate (relative to trend over a four quarter period) in the last thirty years, and this would need to be sustained over the entire five year period. Household formation rates under the medium scenario are assumed to be in accordance with age-specific trends over the period 2001-2006, with net overseas migration of 180,000 persons per annum.

As outlined in Chapter 3, there seems little prospect of new housing production increasing significantly in the short-term. In fact, a slowdown to below the medium projection scenario appears more likely, at least over 2011-12 and 2012-13.

Table 4.5 Change in the gap between underlying demand and dwelling supply, five years (June 2011 to June 2016), using different projection assumptions

Demand projection: Underlying demand		Supply projection: Production of dwellings		
		Low adjusted net production	Medium adjusted net production	High adjusted net production
		Increase over five years (2011 to 2016)		
Low household growth	Increase in underlying demand	701,000	701,000	701,000
	Increase in net supply	560,000	683,000	828,000
	Change to gap (a)	142,000	19,000	-127,000
Medium household growth	Increase in underlying demand	824,000	824,000	824,000
	Increase in net supply	560,000	683,000	828,000
	Change to gap (a)	264,000	141,000	-5,000
High household growth	Increase in underlying demand	967,000	967,000	967,000
	Increase in net supply	560,000	683,000	828,000
	Change to gap (a)	407,000	284,000	138,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios; National Housing Supply Council projections based on trends in dwelling completions.

Note: (a) Size of gap is measured as the difference between the increase in underlying demand and the increase in adjusted supply. A negative value indicates a surplus. Figures are rounded to the nearest thousand. Totals may not sum exactly due to rounding.

The Council's projections suggest that increases in housing supply will continue to be lower than growth in underlying demand, and so the housing shortfall is likely to continue to widen over the next five years. Under the Council's medium growth scenarios for underlying demand and supply, the shortfall is projected to rise from 228,000 at June 2011 to 369,000 by June 2016 (Table 4.6).

Table 4.6 Cumulative gap since 2001 between underlying demand and dwelling supply at June 2016, using different projection assumptions

	Supply projection: production of dwellings		
Demand projection: Underlying demand	**Low adjusted net production**	**Medium adjusted net production**	**High adjusted net production**
Low household growth	370,000	247,000	101,000
Medium household growth	492,000	369,000	223,000
High household growth	635,000	512,000	366,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios; National Housing Supply Council projections based on trends in dwelling completions; National Housing Supply Council estimate of initial gap between underlying demand and supply.

The projections also suggest that the housing shortfall is likely to widen further over the longer term. Table 4.7 shows the increase in the projected shortfall between 2011 and 2031 under the various underlying demand and supply scenarios. Under the medium scenario for underlying demand and supply, the housing shortfall is projected to increase by a further 435,000 households over the next 20 years to 2031. In contrast, if supply growth were to meet the high scenario (such a step-change in production would be likely to require significant structural change in the industry) while underlying demand followed the medium scenario, the present shortfall would be reduced by 168,000 over the period to 2031 (Table 4.7). The longer-term projections differ from the five year projections as, under the medium scenario, the ageing population is projected to reduce the rate of household formation over time. Therefore, demand growth is expected to gradually slow in the later years of the period to 2031, whereas net supply growth would continue to rise at the historic trend rate of increase.

Table 4.7 Change in gap between underlying demand and dwelling supply, 20 years (June 2011 to June 2031), using different projection assumptions

Demand projection: Underlying demand		Supply projection: Production of dwellings		
		Low adjusted net production	Medium adjusted net production	High adjusted net production
		Increase over 20 years (2011 to 2031)		
Low household growth	Increase in underlying demand	2,731,000	2,731,000	2,731,000
	Increase in net supply	2,316,000	2,824,000	3,427,000
	Change to gap (a)	415,000	-93,000	-696,000
Medium household growth	Increase in underlying demand	3,259,000	3,259,000	3,259,000
	Increase in net supply	2,316,000	2,824,000	3,427,000
	Change to gap (a)	943,000	435,000	-168,000
High household growth	Increase in underlying demand	3,874,000	3,874,000	3,874,000
	Increase in net supply	2,316,000	2,824,000	3,427,000
	Change to gap (a)	1,559,000	1,051,000	447,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios; National Housing Supply Council projections based on trends in dwelling completions.

Note: (a) Size of gap is measured as the difference between the increase in underlying demand and the increase in adjusted supply. A negative value indicates a surplus. Figures are rounded to the nearest thousand. Totals may not sum exactly due to rounding.

The cumulative shortfall is projected to increase significantly under the medium scenario. As Table 4.8 illustrates, it would increase from 228,000 in 2011 to 663,000 by 2031.

Table 4.8 Cumulative gap since 2001 between underlying demand and dwelling supply at June 2031, using different projection assumptions

Demand projection: Underlying demand	Supply projection: production of dwellings		
	Low adjusted net production	Medium adjusted net production	High adjusted net production
	Increase over 20 years (2011 to 2031)		
Low household growth	643,000	135,000	-468,000
Medium household growth	1,171,000	663,000	60,000
High household growth	1,787,000	1,279,000	675,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios; National Housing Supply Council projections based on trends in dwelling completions; National Housing Supply Council estimate of initial gap between underlying demand and supply.

The measures of the balance between housing supply and underlying demand point to a significant shortfall in several states. If recent trends continue, the gap will widen further in the coming years.

The Council's estimates since 2001 suggest that housing supply is poorer than it was a decade ago after taking account of the size and age structure of the population. While some of this shortage may be revealed by increased numbers of homeless people or increased use of non-private dwellings, the majority of the adjustment is likely to occur in the way people use the existing stock of dwellings – adult children staying in the parental home, more people per dwelling, more households with three or more adults, and so on. This type of response to housing supply shortfall is likely to vary among different population groups, affecting lower income households more because they are less able to compete successfully for scarcer and more expensive housing. There is also likely to be greater demand for social housing and affordable private rental housing, both of which may experience a greater incidence of overcrowding. In short, the housing shortfall causes lower market demand and its impact on household size ultimately lowers underlying demand.

It is also likely that lower levels of housing production are a response to reductions in effective (market) demand that flow from social changes like later partnering and later childbirth, with consequently later household formation. If the Council's method of projecting household formation understates the extent of such changes in social preference, it will overestimate the extent of the housing gap.

In all likelihood, both factors are at work: demand is reduced (among marginal buyers and lower income renters) by the scarcity of housing and rising house prices relative to income as well as by other social changes, and the slowing of additional supply then feeds back into further reductions in effective and underlying demand. As noted in previous Council reports, inadequate additional supply also flows from a host of other factors that are likely to be potent when applied simultaneously. These include high land prices and a range of development charges that flow to consumers; tightened access to development finance; adverse land release and development assessment policies and practices; and a variety of policy settings that ostensibly encourage investment in housing, but ironically increase its price and reduce access to housing among lower income people.

Finally, it is important to note that the Council's projections are not predictions, they are simply indications of what would happen if certain trends continue. They are highly sensitive to the assumptions used, and are unlikely to be realised in the longer-term because an enduring and substantial gap would be likely to stimulate responses in demand (lower net migration, slower household formation), supply (higher production in manifestly undersupplied markets) or government policy (such as supply stimulating programs).

Chapter 5 Affordability

Chapter 5 Affordability

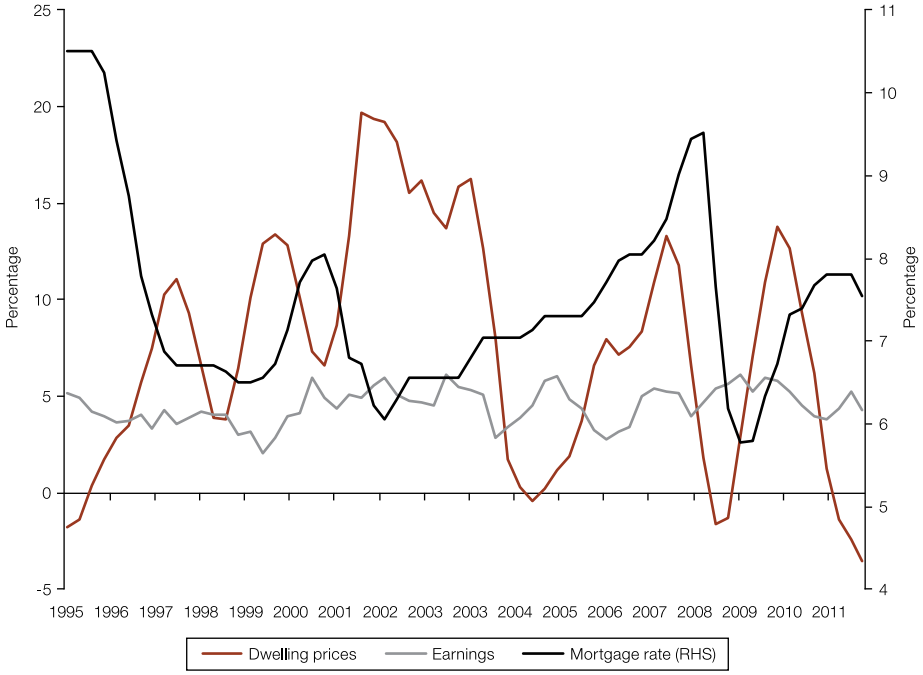
This chapter updates some of the headline measures of housing costs from the *2011 State of Supply Report*. It also includes an updated analysis of the cost of housing faced by lower income households. The 2010 Report set out the original analysis of this information, and this chapter updates this for data that was not available in time for inclusion in the 2011 Report.

Recent trends in housing affordability

At an aggregate level, there have been some signs of affordability pressures easing slightly since late 2010 in the owner-occupied sector. House prices declined, generally modestly, in many areas over 2011 and the reduction in interest rates in late 2011 will have reduced many households' mortgage costs. For example, the HIA-Commonwealth Bank Affordability Index showed[11] a steady improvement in housing affordability for home buyers throughout 2011. However, house prices remain at, or above, pre-GFC levels.

11 Available at hia.com.au, this index measures the accessibility of home ownership for first-home buyers (see pages 124-5 from *2011 State of Supply Report* for more details).

Figure 5.1 House price and earnings growth (annual change), banks' standard variable mortgage interest rate – all Australia



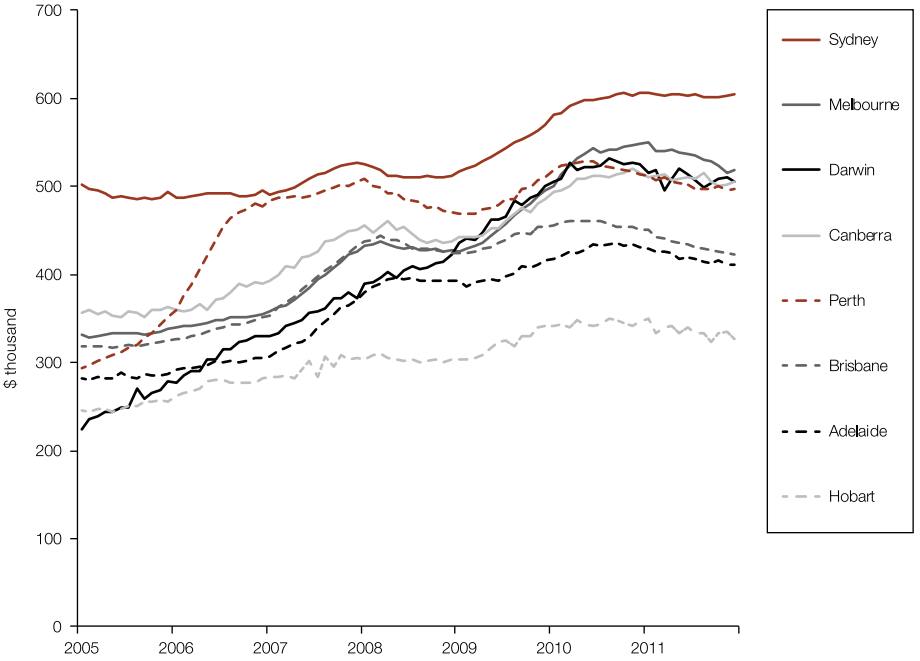
Source: ABS 2012, *Average weekly earnings, cat. No. 6302*, ABS Canberra; RBA February 2012, *Indicator lending rates*; RP Data-Rismark house price data, December quarter 2011.

Note: The mortgage rate is the average standard variable rate for banks quoted by the RBA. Earnings are for full-time workers.

On historic comparison, most measures of affordability for home owners or purchasers are stretched, and the rental market remains tight. Rents have continued to grow more rapidly than household incomes, and vacancy rates remain low in most capital cities.

The recent weakness in house prices is clearly illustrated in Figure 5.1, at a time when earnings growth has held up reasonably well and mortgage interest rates have reduced slightly.

Figure 5.2 Capital city house prices, 2005 to 2011 ($ thousands)



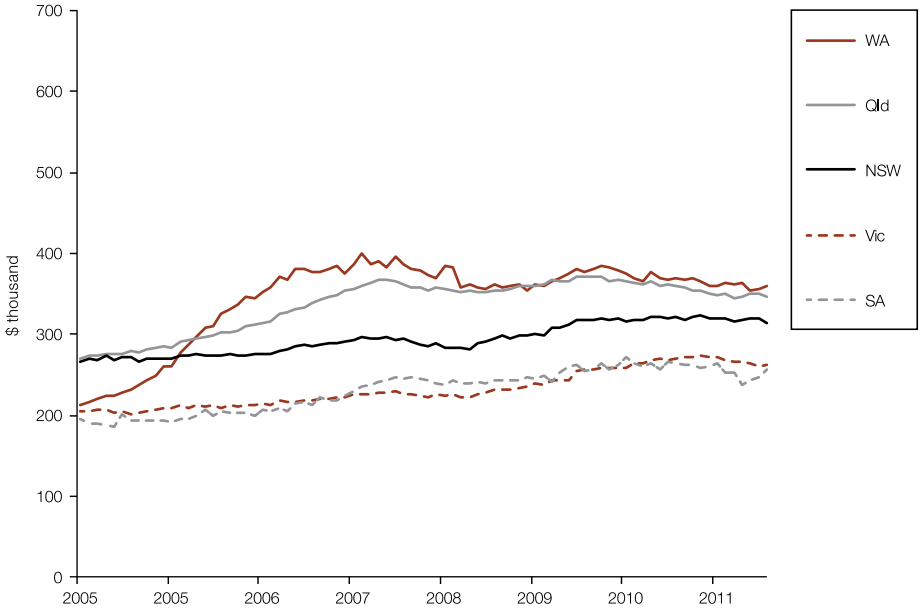
Source: RP Data-Rismark house price indices, 2012.

Note: Hedonic prices – average prices after adjusting for elements of quality that affect price (such as location within the city, number of bedrooms and land size).

The weakness in house prices was more acute in Brisbane and Melbourne over calendar year 2011, with declines of more than 6 per cent in both these cities. In contrast, Sydney, which did not experience as steep an increase in prices over the last decade as the other capital cities, was the only city to experience a decline of less than 1 per cent over the year[12]. Price falls over 2011 were typically a little larger in the capital cities than elsewhere, although this should be considered against a much larger increase in the capital cities in recent years – 82 per cent against 29 per cent from 2005 to 2011 (Figures 5.2 and 5.3).

12 RP Data-Rismark house price data, December quarter 2011.

Figure 5.3 Rest of state house prices, 2005 to 2011 ($ thousands)



Source: RP Data-Rismark house price indices, 2012.

Note: Hedonic prices – average prices after adjusting for elements of quality that affect price (such as location within the city, number of bedrooms and land size). No data is available for non-capital city areas in Tasmania or the Northern Territory.

The rental market is where a housing shortage is likely to be felt most acutely, particularly at the lower end. This is partly because the private rental market is more fluid than the owner-occupier market. It is much easier, and less costly, to move across rented accommodation than it is to sell and purchase in the owner-occupier market. The higher turnover rate amongst tenants means that a shortage of properties has a more immediate impact on a higher proportion of households in the sector. The lower end of the rental market also caters for around 50 per cent of households dependent on government income support, most of whom are in the bottom decile of household incomes who are most likely to find themselves squeezed as costs increase.

Rents continued to increase across the country in 2011, with the *Real Estate Institute of Australia (REIA)* reporting an increase in median rents of just over 4 per cent nationally[13]. Perth (with an 11 per cent increase) and Sydney (5 per cent) experienced the largest increases, with increases between 0 and 3 per cent in the other major cities. Darwin was the exception, where rents declined by 4 per cent.

13 Data for 3 bedroom house, change from last quarter of 2010 to last quarter of 2011.

States' rental bond boards record rents on new leases. These also show a 5 per cent increase in Sydney[14] over 2011, and a 70 per cent rise over the decade, and a 3 per cent annual increase in Melbourne[15] where rents are 69 per cent higher than a decade ago.

When looking over the decade to the end of 2011, rents (up 81 per cent according to the REIA[16]) have increased only a little less than house prices (up 87 per cent[17]). However, both have increased by considerably more than the 58 per cent rise in average earnings[18].

Figure 5.4 clearly illustrates these trends. What the chart does not show is that the cost of purchasing a home with a mortgage has not risen as sharply as the increases in prices. This is because interest rates are now significantly lower than in the mid-1990s.

The increase in rental costs comes despite the possibility that rents may have been held down by landlords' expectations of capital growth (reducing the need to run strongly positive cashflows) and the interaction with negative gearing rules. If, following recent weakness in house prices, expectation of future capital growth diminishes, this may lead to future upward pressure on rents.

While the national and state and territory trends in prices, mortgage costs, rents and rental vacancy rates provide some indication of what is happening to housing affordability at an aggregate level, they provide limited insight into where the greatest strains are. They also give no indication of the situation faced by those in the lower end of the rental market.

14 Available from Housing NSW, www.housing.nsw.gov.au/

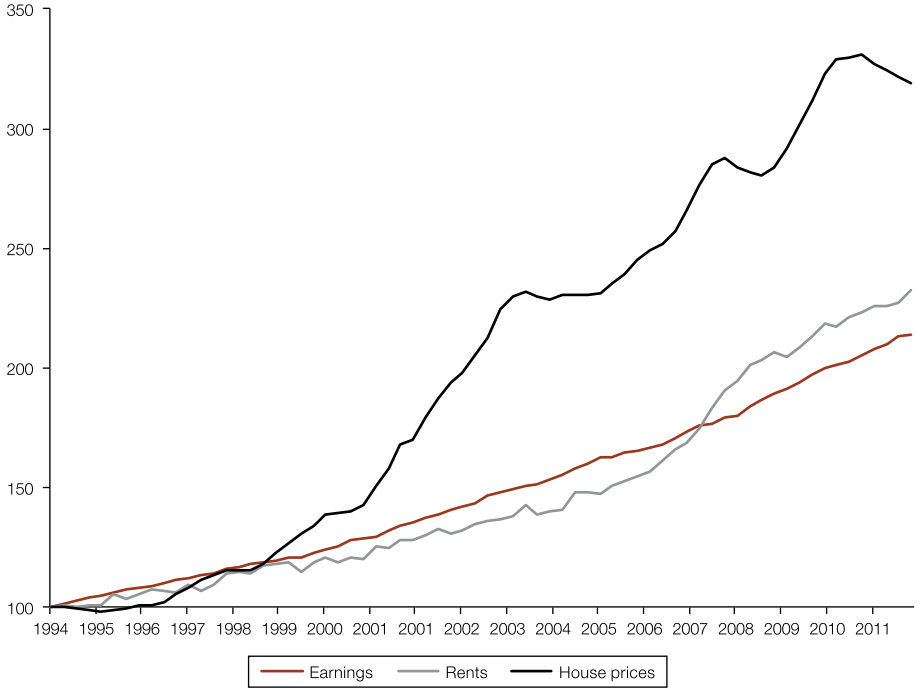
15 Available from Victorian Department of Human Services, www.dhs.vic.gov.au/home.

16 REIA March 2012, Quarterly median rents on three-bedroom houses.

17 RP Data-Rismark house price indices.

18 Full-time adult ordinary time earnings from Australia, November 2011, *Average Weekly Earnings* cat. no. 8752.0, ABS, Canberra, 2012.

Figure 5.4 Average rents, earnings and house prices indexed to third quarter of 1994



Source: ABS 2012, Average weekly earnings, cat. No. 6302, ABS Canberra; RP Data-Rismark house price indices, 2012; REIA March 2012, *Quarterly median rents on three-bedroom houses*.

Note: Each series indexed to third quarter of 1994. Earnings are for full-time workers.

Analysis of *Survey of Income and Housing*

The following analysis uses data from the *2009-10 Survey of Income and Housing (SIH)*[19] to assess housing affordability in the mortgage and rental sectors for households in the lower portion of the income distribution. These figures are also compared to equivalent analysis undertaken on the *2007-08 SIH*.

When looking at the mortgage sector, it is worth noting that the 2009-10 survey took place at a time when interest rates, while rising, were somewhat below current levels. In contrast, the 2007-08 survey took place before the sharp cuts in interest rates in response to the GFC. The Reserve Bank of Australia (RBA) reports that banks' standard variable rates on home loans[20] over 2007-08 averaged 8.8 per cent, compared to 6.5 per cent in 2009-10 (some $300 a month lower on a loan of $200,000)[21]. These changes clearly have a significant impact on households' mortgage repayments. The analysis of the rental sector is less likely to be impacted by short-term movements in interest rates.

19 6523.0 - *Household Expenditure Survey and Survey of Income and Housing, User Guide,* Australia, 2009-10, ABS Canberra

20 RBA March 2012, *Indicator lending rates*.

21 The equivalent rate was 7.4 per cent in February 2012.

It should also be noted that the impact of rising or falling house prices on most home-owning households is unlikely to be particularly significant in the short-term. The vast majority are not recent movers, so will not face a change in housing costs as a result of a change in transacted house prices. In general, mortgage holders' monthly outgoings are much more sensitive to changes in interest rates, with price movements only having a significant impact when they enter the market or move. However, in the longer-term, higher house prices clearly lead to larger mortgages and higher housing costs for those able to get into the market.

The opposite is true for the rental market. Interest rates have no direct impact on rents unless landlords decide to pass increased or declining costs on to tenants – although rising business costs for landlords would be expected to feed through at some point.

However, rising "average" rents feed directly into higher housing costs quite quickly for a relatively large share of tenants. Many tenants' leases prescribe fixed rents for a certain period (often 12 months) but a review relative to the market at the end of that time. A rise in average rents will, therefore, feed through into higher costs within a year for a larger proportion of tenants than would a rise in average house prices for owner occupiers' housing costs. In addition, tenants tend to move more often than do owner-occupiers, so they face the prospect of paying the current "market value" for a property more often. Many owner-occupiers will have bought their homes some years ago probably at lower prices than the current market rate.

The following indicators are calculated based on the proportion of lower income households[22] facing direct housing costs of greater than a set proportion of their gross income.

Results presented in this report from the *2007-08 SIH* below are modestly different from those published in the *2010 State of Supply Report*. This is due to a change in the methodology used by the ABS to calculate household income. The data presented in this report (for both the 2007-08 and 2009-10 surveys) are all based on the new methodology.[23]

22 When the term "lower income households" is used in this section, it refers those whose income is at or below the 40th percentile of an equivalised disposable income scale. Equivalised income accounts for the differences in a household's size and composition. The Council has also analysed the situation for those in the bottom half of the income distribution as sorted by equivalised income. The actual analysis of housing affordability for these households is based on their gross household income.

23 The updated methodology for calculating gross household income varies from previous methods in a number of ways including: all payments received from the current or former employer are accounted for (which includes some non-cash benefits, bonuses, and payments for irregular overtime not previously included); income earned as a silent partnership and some private trust income reclassified as investment, rather than unincorporated business, income; the inclusion of lump sum workers' compensation receipts; and a wider range of financial support from family outside the household. For a more detailed description of the changes to income estimates, see *Household Expenditure Survey and Survey of Income and Housing, User Guide*, cat no 6503.0, ABS, Canberra, pages 73-75.

Mortgage holders

Key findings from the *SIH* for households with a mortgage (Table 5.1, Figure 5.5) include:

- Across Australia, 48 per cent of lower income households with a mortgage faced direct housing costs of more than 30 per cent of gross income in 2009-10, the same proportion as in 2007-08.
- 27 per cent faced costs of more than 50 per cent of income, up from 25 per cent in 2007-08.
- 42 per cent of mortgage-holding households in the bottom half of the income distribution (at or below the 50th percentile) faced costs of more than 30 per cent of their income, up from 41 per cent in 2007-08.
- 19 per cent of mortgage-holding households in the bottom half of the income distribution faced costs of more than 50 per cent of their income, an unchanged proportion from 2007-08.

Overall, there was little change in the proportion of households paying more than 30 per cent of their income in housing costs between 2007-08 and 2009-10. However, there was a 17 per cent rise in the number of households with income at or below the 40th percentile facing mortgage costs of more than 50 per cent of income. Generally, the situation improved a little outside capital cities, but deteriorated within them[24].

24 The split of lower income households in the capital cities and rest of states was based on the lowest 40 per cent of earners nationally – i.e. this is for the lowest 40 per cent across the country, not the lowest 40 per cent in the capital cities and the lowest 40 per cent in the rest of state.

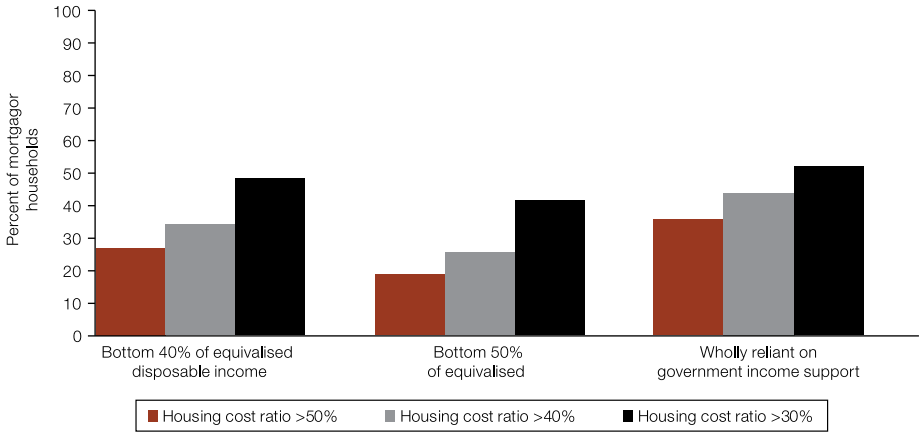
Table 5.1 Number and proportion of mortgagors with equivalised disposable incomes below the 40th or 50th percentiles, or wholly depending on government income support payments, paying more than 30 per cent or more than 50 per cent of their gross income in repayments.

	2007-08		2009-10	
	Number	Proportion	Number	Proportion
Number of mortgagors paying more than 30 per cent of gross income in repayments				
Income at or below 40th percentile				
All Australia	296,000	48%	316,000	48%
Capital Cities	173,000	51%	197,000	52%
Rest of States	124,000	45%	119,000	43%
Income at or below 50th percentile				
All Australia	372,000	41%	408,000	42%
Capital Cities	223,000	44%	263,000	45%
Rest of States	150,000	38%	145,000	37%
Number of mortgagors paying more than 50 per cent of gross income in repayments				
Income at or below 40th percentile				
All Australia	151,000	25%	176,000	27%
Capital Cities	84,000	25%	115,000	30%
Rest of States	67,000	24%	61,000	22%
Income at or below 50th percentile				
All Australia	175,000	19%	188,000	19%
Capital Cities	101,000	20%	123,000	21%
Rest of States	74,000	19%	64,000	16%
Number of mortgagors wholly dependent on government income support				
Paying more than 30 per cent of gross income in repayments				
All Australia	25,000	42%	39,000	52%
Capital Cities	11,000	46%	24,000	59%
Rest of States	13,000	40%	15,000	44%
Paying more than 50 per cent of gross income in repayments				
All Australia	12,000	21%	27,000	36%
Capital Cities	5,000	19%	18,000	43%
Rest of States	8,000	23%	9,000	27%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: This table corresponds to Key Indicator 3 in the *2010 State of Supply Report* (pages 99-100). Results from the 2007-08 *SIH* have altered due to the change in how the ABS defines income.

Figure 5.5 Housing cost outcomes for home buyers, 2009-10



Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: Housing cost ratio refers to housing cost as a per cent of gross household income.

Table 5.2 shows the relative stress levels for mortgage holders by state and how these changed between the last two *SIHs*. It looks at those in the lowest 40 per cent of the income distribution in each state. These groups will not always be the same households as those who are in the bottom 40 per cent of the national income distribution. For example a household from a state with lower median income than the national average may not be in the bottom 40 per cent within the state, yet may be in the bottom 40 per cent of country as a whole. It shows New South Wales as the state with the highest proportion of low income households facing mortgage bills in excess of 30 and 50 per cent of income, followed by Western Australia.

Most of the research into mortgage arrears and defaults[25] points to a loss of income being the most significant driver of mortgage stress, although rising interest rates obviously can be important. Between the 2007-08 and 2009-10 surveys, interest rates fell but unemployment rose. While job losses can lead to mortgage stress, changes in personal circumstances (such as illness or relationship breakdown) also have an impact.

25 Such as Berry *et al* 2010 *Mortgage default in Australia: nature, causes and social and economic impacts* available at www.ahuri.edu.au.

Table 5.2 Proportion of mortgagors in the lowest 40 per cent of the income distribution facing direct housing costs of 30 and 50 per cent or more of income

	30% or more of income		50% or more of income	
	2007-08	2009-10	2007-08	2009-10
NSW	48%	54%	31%	32%
Vic	47%	43%	17%	24%
Qld	55%	49%	28%	25%
SA	47%	46%	23%	27%
WA	45%	50%	31%	29%
Tas	31%	41%	12%	16%
ACT*	n.a.	n.a.	n.a.	n.a.
NT*	n.a.	n.a.	n.a.	n.a.
Australia	48%	48%	25%	27%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Notes: *Small sample sizes mean that splits for the ACT and Northern Territory are not reliable enough for publication. Some discretion should be exercised in drawing firm conclusions from these data as small sample sizes can lead to relatively large margins of error. The lowest 40 per cent of earners are identified for each jurisdiction in this analysis. These are not exactly the same households as those identified as the bottom 40 per cent nationally in the analysis in Tables 5.1 and 5.5.

Renters

Between 2007-08 and 2009-10, there was an increase in the number of lower income households facing high housing costs in the private rental market. Rental affordability deteriorated across both the capital cities and the rest of the states (Table 5.3 and Figure 5.6). Commonwealth Rent Assistance payments are included in households' income. The key findings of this analysis for renters include:

- 60 per cent of lower income private tenants paid rents in excess of 30 per cent of their income in 2009-10, and 25 per cent paid in excess of 50 per cent. This compares to 57 per cent and 15 per cent, respectively, in 2007-08.
- 68 per cent of private renters wholly reliant on government income support, paid rent in excess of 30 per cent of total household income, including Commonwealth Rent Assistance, and 28 per cent paid in excess of 50 per cent.

Table 5.3 Number and proportion of private renters with equivalised disposable income below the 40th or 50th percentiles, or wholly depending on government income support payments, paying more than 30 per cent or more than 50 per cent of their gross income in rent

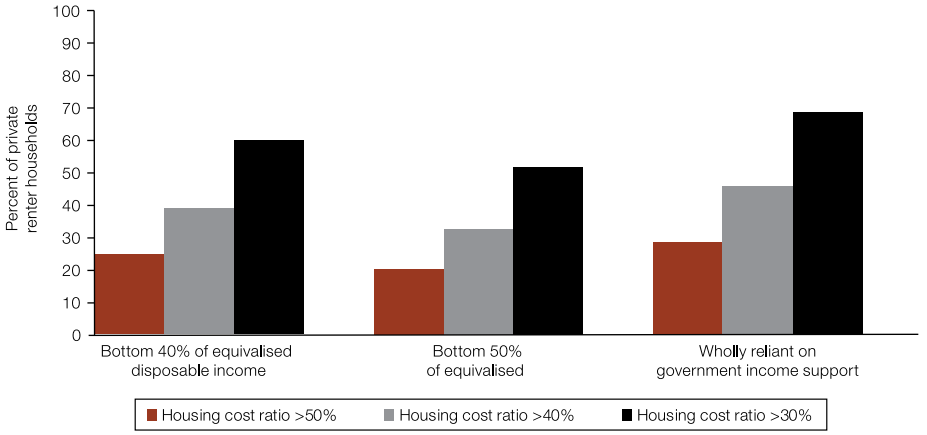
	2007-08		2009-10	
	Number	Proportion	Number	Proportion
Number of renters paying more than 30 per cent of gross income in rent				
Income at or below 40th percentile				
All Australia	436,000	57%	513,000	60%
Capital Cities	270,000	62%	320,000	67%
Rest of States	166,000	50%	193,000	51%
Income at or below 50th percentile				
All Australia	487,000	48%	556,000	52%
Capital Cities	310,000	53%	350,000	58%
Rest of States	178,000	42%	206,000	44%
Number of renters paying more than 50 per cent of gross income in rent				
Income at or below 40th percentile				
All Australia	156,000	15%	211,000	25%
Capital Cities	102,000	23%	147,000	31%
Rest of States	54,000	16%	64,000	17%
Income at or below 50th percentile				
All Australia	160,000	16%	215,000	20%
Capital Cities	104,000	18%	151,000	25%
Rest of States	56,000	13%	64,000	13%
Number of renters wholly dependent on government income support				
Paying more than 30 per cent of gross income in rent				
All Australia	115,000	73%	121,000	68%
Capital Cities	60,000	73%	67,000	76%
Rest of States	55,000	73%	55,000	61%
Paying more than 50 per cent of gross income in rent				
All Australia	41,000	26%	50,000	28%
Capital Cities	20,000	25%	31,000	35%
Rest of States	21,000	28%	19,000	22%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: This table corresponds to Key Indicator 4 in the *2010 State of Supply Report* (pages 101-102). Results from the *2007-08 SIH* have altered due to the change in how the ABS defines income. Rent-free properties are included in this analysis. It also includes the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups and the property is being rented at below the market rate. If these categories and/or rent-free properties were excluded from the analysis, it would increase the proportion of renters in housing stress.

Generally, a larger proportion of lower income rental tenants faced direct housing costs of more than 30 per cent of income than did lower income purchasers.

Figure 5.6 Housing cost outcomes for renters, 2009-10



Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: Housing cost ratio refers to housing cost as a per cent of gross household income. Rent-free properties are included in this analysis. It also includes the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups and the property is being rented at below the market rate. If these categories and/or rent-free properties were excluded from the analysis, it would increase the proportion of renters in housing stress.

The interstate analysis (Table 5.4) shows that New South Wales saw the largest proportion of lower income rental households facing housing costs of 30 per cent or more of income, although this had fallen slightly since 2007-08. It also had the largest proportion under greater stress levels – facing rental costs of 50 per cent or more of income - which increased between 2007-08 and 2009-10. Queensland had the second highest readings, with both measures increasing noticeable over the two surveys.

Table 5.4 Proportion of renters in lower 40 per cent of income distribution with housing costs of more than 30 per cent and 50 per cent of income

	30% or more of income		50% or more of income	
	2007-08	2009-10	2007-08	2009-10
NSW	65%	62%	22%	28%
Vic	51%	57%	25%	20%
Qld	52%	61%	19%	26%
SA	62%	58%	11%	20%
WA	47%	57%	16%	25%
Tas	55%	55%	8%	15%
ACT*	n.a.	n.a.	n.a.	n.a.
NT*	n.a.	n.a.	n.a.	n.a.
Australia	57%	60%	20%	25%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Notes: *Small sample sizes mean that splits for the ACT and Northern Territory are not reliable enough for publication. Some discretion should be exercised in drawing firm conclusions from these data as small sample sizes can lead to relatively large margins of error. These results include the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups and the property is being rented at below the market rate. If these categories were excluded from the analysis, it is likely that the proportion of renters in housing stress would increase. The lowest 40 per cent of earners are identified for each jurisdiction in this analysis. These are not exactly the same households as those identified as the bottom 40 per cent nationally in the analysis in Tables 5.3 and 5.6.

Housing affordability by household type

The *SIH* also allows an analysis of housing costs by household type. Table 5.5 shows the proportion of middle and lower income mortgagors facing housing costs at more than 30 and more than 50 per cent of income. It shows that low income, lone person households were more likely to face relatively high costs than were other household types – at least where there was a large enough sample to draw reasonably robust conclusions. There are a number of household categories where there were not enough respondents to draw reliable conclusions, although these groups are relatively small in relation to all lower income groups.

However, these results are based on a simple ratio measure of affordability which highlights the weakness in this approach. More sophisticated measures, such as those based on residual incomes, may not lead to the same conclusions. Different household types are likely to face differing living costs outside direct housing costs.

Table 5.5 Proportion of lower and middle income mortgagors in housing stress by household type, 2009-10

	40th percentile		50th percentile	
Housing costs as proportion of income	**>30%**	**>50%**	**>30%**	**>50%**
Couple family with dependent children only	50%	22%	41%	14%
One parent family with dependent children only	54%	28%	48%	20%
Couple only	42%	28%	42%	22%
Lone person household	65%	51%	63%	44%
All households	48%	27%	42%	19%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: Sample sizes in the survey for "Couple family with dependent children and other persons", "One parent family with dependent children and other persons", "Other one family households", "Multiple family households with dependent children" and "Multiple family households with no dependent children" are not large enough to provide reliable results. In total, these groups account for 11% of lower income mortgagors. Less than 30 responses in the *SIH* in each category in the survey is deemed to be too few to be reliable. The income cut-offs are made at a national level as in Table 5.1.

The split for lower income renters in Table 5.6 shows that "couples with dependent children only" were less likely to be in housing stress than other types of household. This group made up a significantly smaller proportion of lower income renters (22 per cent) than mortgage holders (40 per cent). Once again, low income lone person households saw a higher proportion in housing stress than other groups – they also accounted for a higher proportion of low income renters (30 per cent) than mortgage holders (15 per cent).

Table 5.6 Proportion of lower and middle income renters in housing stress by household type, 2009-10

	40th percentile		50th percentile	
Housing costs as proportion of income	**>30%**	**>50%**	**>30%**	**>50%**
Couple family with dependent children only	43%	13%	34%	10%
One parent family with dependent children only	64%	18%	57%	16%
Couple only	66%	25%	58%	20%
Lone person household	80%	44%	73%	37%
All households	60%	25%	52%	20%

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: Sample sizes in the survey for "Couple family with dependent children and other persons", "One parent family with dependent children and other persons", "Other one family households", "Multiple family households with dependent children" and "Multiple family households with no dependent children" are not large enough to provide reliable results. In total, these groups account for 19% of lower income renters. Less than 30 responses in the *SIH* in each category in the survey is deemed to be too few to be reliable. These results include the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups and the property is being rented at below the market rate. If these categories were excluded from the analysis, it is likely that the proportion of renters in housing stress would increase. The income cut-offs are made at a national level as in Table 5.3.

Affordable and available rental properties

As part of a stocktake of the broader rental market, the Council assessed how many properties were affordable and available for lower income groups, using a methodology analogous to that employed by the US Department of Housing and Urban Development[26] that was pioneered in Australia by Wulff and Yates[27]. The key findings of this analysis are:

- In 2009-10, there were 1,256,000 private rental dwellings that were affordable for the 857,000 private renter households with incomes at, or below, the 40th percentile.
- Of these, 937,000 were occupied by households in higher income groups. As a result, the apparent surplus of affordable rental dwellings for the lowest two income quintiles was actually a major shortfall of 539,000 dwellings (over 60 per cent of underlying demand), up from a shortage of 473,000 dwellings in 2007-08.
- For the 1,149,000 private renters with household income at, or below, the 50th percentile, there were 1,709,000 affordable rental properties.
- This apparent surplus for those with income at, or below, the 50th percentile was in fact a shortfall of 599,000 (compared with 504,000 in 2007-08) after deducting those properties occupied by higher income groups.

The following paragraphs and tables provide more detail.

Table 5.7[28] shows the shortage of private rental properties that were affordable (rents less than 30 per cent of income) for lower income households, and compares the situation from 2007-08 and 2009-10. The negative figures indicate that the number of affordable dwellings was significantly greater than the number of lower income rental tenant households although the lower value in 2009-10 indicates that the surplus has declined. Figure 5.7 shows that there is an absolute shortage for low income households with incomes in the first quintile of the equivalised disposable income distribution. Even if all of the "affordable" dwellings were allocated to these low income households (without any regard to whether dwellings were appropriate in terms of size or location), there would not be enough dwellings to ensure that lower income households could be protected from rental stress. For all lower income households, the shortage of affordable dwellings is exacerbated by the fact that many are not available because they are rented by higher income households as discussed below.

26 Nelson, K. (1994), *Whose shortage of affordable housing*, Housing Policy Debate, 5(4):401-442. US Department of Housing and Urban Development.

27 Yates, J., Wulff, M. and Reynolds, M. (2004) *Changes in the supply of and need for low rent dwellings in the private rental market*, Australian Housing and Urban Research Institute, Final Report. www.ahuri.edu.au – an update of Wulff, M. and Yates, J (with T. Burke) (2001) *Low Rent Housing in Australia, 1986-1996*, Australian Housing Research Fund Project Number 213, Canberra: Commonwealth of Australia.

28 The income segmentation for the analysis in Tables 5.7 and 5.8 and Figure 5.6 is based on gross household income rather than on the equivalised income used in the rest of the *SIH* analysis. As with the rest of the analysis, the actual affordability calculations are performed on gross household income.

Table 5.7 Shortage (surplus) of rental dwellings affordable to renters with gross incomes below the 40th or 50th percentiles

	2007-08	2009-10
40th percentile		
Whole of Australia	-670,000	-398,000
Capital cities	-384,000	-186,000
Rest of State	-286,000	-213,000
50th percentile		
Whole of Australia	-723,000	-560,000
Capital cities	-453,000	-336,000
Rest of State	-270,000	-224,000

Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: This table corresponds to Key Indicator 5 in the *2010 State of Supply Report* (page 104). Results from the 2007-08 *SIH* have changed due to the change in how the ABS defines income. These results include the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups, and the property is being rented at below the market rate. Negative numbers indicate a nominal surplus of dwellings that are affordable for households in their respective income groups.

Table 5.8 shows the shortage of rental properties that were both affordable and available for lower income households. These figures are calculated by excluding (from the numbers in Table 5.7) properties that were nominally affordable for lower income households but occupied by those with higher incomes.

Table 5.8 Shortage of affordable and available rental dwellings for renters with gross incomes at or below the 40th or 50th percentiles

	2007-08	2009-10
40th percentile		
Whole of Australia	473,000	539,000
Capital cities	297,000	341,000
Rest of State	176,000	198,000
50th percentile		
Whole of Australia	504,000	599,000
Capital cities	323,000	388,000
Rest of State	181,000	211,000

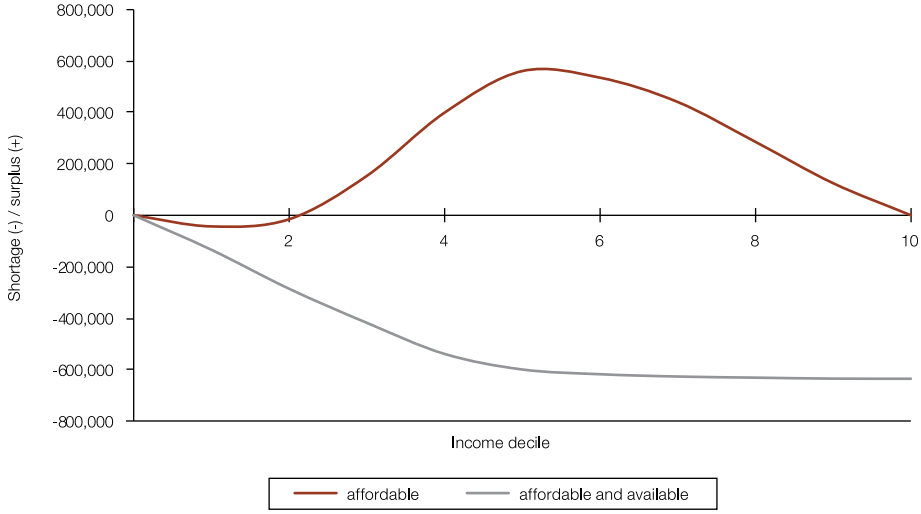
Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: This table corresponds to Key Indicator 6 in the *2010 State of Supply Report (page 105). Results from the 2007-08 SIH* have changed due to the change in how the ABS defines income. These results include the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups, and the property is being rented at below the market rate.

Figure 5.7 illustrates how many rental properties are affordable (on the 30 per cent of income definition), as reported in Table 5.7 but repeated for each income decile. There is a shortfall for the lowest income groups, but a theoretical surplus for the cumulative total thereafter.

The "affordable" (red) line in Figure 5.7 represents a net position for all households up to that decile point. The survey is based on households (rather than dwellings), so the total number of renting households is equal to the number rental properties. At the top end of the scale effectively all the housing stock is affordable to the highest earners. As a result, there is no shortage or surplus for those households at that very top end.

Figure 5.7 Affordable and available rental dwellings by income deciles, 2009-10



Source: Derived from ABS, *Microdata: Income and Housing, Basic and Expanded CURF on CD_ROM/RADL, 2007-08 and 2009-10*, cat no. 6541.0.30.001, ABS, Canberra, 2011.

Note: Affordable means rent is less than 30 per cent of gross income; available means the dwelling is not occupied by a higher income household. These results include the "other" landlord category in the *SIH*, so no attempt is made to remove examples such as where the landlords are employers, families or community groups, and the property is being rented at below the market rate.

The chart also illustrates the cumulative shortfall of available and affordable rental dwellings (the black line). The affordable and available stock is calculated for households in each income decile (as in Table 5.8) and the line represents the cumulative shortfall for households up to that point – those in higher income deciles generally do not face a shortfall. The vast majority of dwellings available for rent are affordable for households in the top half of the income distribution.

Broader-based measures of housing affordability

As was noted in the 2011 Report, there are other costs associated with housing, such as utility bills and travel costs, which the Council's analysis of the *SIH* does not take into account. The ABS itself noted that if direct associated costs were added to estimates in the *SIH*, then average housing costs would be more than doubled for owners without a mortgage, and would increase by about 13 per cent for owners with a mortgage[29].

There has been debate on how to incorporate often significant, non-discretionary, costs when analysing housing affordability, for example, how to incorporate increased travel time to work and fuel bills when a household lives further from an employment hub.

One example of how this might be handled is provided in an exploratory analysis by Burke, Stone and Ralston (2011)[30] which employed a "residual" measure of housing affordability. Essentially, this methodology estimated the funds a household would have left for direct housing costs after "relevant expenditure as measured by some budget standard is taken into account". One advantage of this measure over the simple ratio measure employed in this report is that it recognises this relevant expenditure varies for different types of household – for example, a household with a child faces higher non-housing costs than one without.

While their aggregate results were not dissimilar from those obtained from the Council's use of the "30/40 rule" – those amongst the bottom 40 per cent of the income distribution paying more than 30 per cent of their income in housing costs – they do show a higher incidence of difficulties amongst lower income households. Burke *et al* suggested two main reasons for this. Firstly, social housing tenants are defined as not facing affordability problems under the 30/40 rule as their rents are set at a certain proportion of their income. Under the residual method these households may still face difficulties. Second, there are some outright owners who the residual methodology report as facing problems, which the 30/40 rule would not as it would not record them as facing any direct housing costs.

29 ABS 2011 cat. no. 4130.0 – *Housing and Occupancy Costs* These costs include repairs, maintenance and dwelling insurance. The disproportionate increase between owners with and without a mortgage arises from the much lower direct housing costs faced by owners without a mortgage.

30 Burke, T, Stone, M, Ralston, L, (2011) *The residual income method: a new lens on housing affordability and market behaviour*, Australian Housing and Urban Research Institute www.ahuri.edu.au/publications/download/50597_fr.

Future work on affordability

The Council will look into broader housing costs in future, including analysing the impact on journey-to-work time and fuel costs of new dwellings at the city fringe. The previously cited analysis by Burke *et al* employed average fuel costs for travel, and energy costs for heating and cooling, based on a budget standard rather than identifying actual costs. As a result, variations in costs across locations were not taken into account. Tailoring this form of analysis to actual expenditure (using, for instance, unit record data from ABS' Household Expenditure Survey) could reveal more about the "affordability trade-off" between expensive housing close to jobs and services, and less costly housing more distant from such opportunities. Difficulties, however, will arise in distinguishing non-discretionary from discretionary expenditure.

These are important considerations in the broader concept of housing (or living) costs. Locational variations could usefully be included in measures of affordability, and this could have a bearing on assessment of the economic and social impact of infrastructure investment.

Even without taking these broader costs into account, the various measures of affordability analysed by the Council all suggest that a significant and growing proportion of lower income households face continuing high housing costs. This is particularly true of those in the private rental sector, in which a housing shortfall is most likely to be felt. It experiences greater turnover (is "higher velocity") than the owner-occupied sector, in which prices (rents) adjust relatively quickly to increased demand, and less wealthy households are more likely to struggle to afford suitable accommodation.

Chapter 6 Conclusion

Chapter 6 Conclusion

The aim of this report is simply to update some the data underlying the Council's quantitative analysis of the underlying state of housing supply in Australia.

The updated estimates and projections suggest that, although production improved over 2010-11 and house prices eased in most market segments over the past 18 months or so, growth in underlying demand continues to exceed that of production, and the underlying housing shortage has therefore worsened rather than diminished. It remains important to address the sources of this shortage, including building and home finance approvals pointing to the likelihood of comparatively few additions to housing stock over the next couple of years.

It is also important to recognise how the apparent shortfall manifests itself in households' formation and living standards.

Having fewer dwellings, at least relative to the number that would be required if the household population had evolved in line with previous trends, may be represented fairly as a deterioration in living standards – or, at least, a slowing in the rate of improvement enjoyed by previous generations. Most of the adjustment to limited housing supply is likely to take place within the existing stock, which will need to carry a higher population than past and anticipated demographic trends would otherwise lead us to expect. A variety of changes in living patterns could occur, including adult children living at home longer; increasing use of non-private dwellings such as boarding houses; people forming households later in life; more multi-generational households; and increased incidence of overcrowding, particularly in the social housing sector and lower end of the private rental market. Some of these changes will have a greater social and/or economic impact than others.

The immediate prospects are for supply growth to slow over the next year or two. This suggests that, assuming population growth continues at or near projected levels, the undersupply will worsen. The residential development and construction industry faces a number of challenges that work against its ability to increase the production of new stock. These challenges are likely to be exacerbated in the short-term by the soft market and fragile global financial markets potentially affecting the flow of credit to the broader economy.

While a slowing of house prices has taken some of the steam out of measures of average affordability, the Council's analysis of the latest *Survey of Income and Housing* suggests that many households continue to face strains in meeting direct housing costs. It is unsurprising that these pressures look to be most acute in the nation's capital cities, where the greatest shortfalls of affordable housing are likely to be, and at the lower end of the private rental market.

The aim of this update does not extend to making comments on policy or practice beyond those expressed in the 2011 full Report. The updated data support the Council's conclusions at that time. In brief, the Council continues to believe that the focus of policy and program practice should be on increasing housing supply, bearing in mind the need to produce the types and mix of housing that help to support inclusive and sustainable communities. The focus needs to be more specific than simply increasing the number of homes being built, although that is certainly important and would help over time to address the supply of affordable housing for particularly vulnerable groups. But more selective increases in supply directed to particular types of households, types and styles of housing, and specific locations are likely to work more quickly and effectively.

Appendix

Appendix National Housing Supply Council membership

Members of the National Housing Supply Council

The Council comprises a Chair plus eleven Members. Appointments to the Council are made by the Minister for Housing in consultation with the Treasurer. The Chair is appointed for up to three years and Members for two years. The Minister, in consultation with the Chair, will elect a deputy Chair. The Chair and Members will be appointed as individuals and not as a representative of organisations or businesses.

The Chair is responsible for convening and chairing the Council meetings and presenting the annual *State of Supply Report* to the Minister for Housing.

Members will be appointed for their individual capacity and expertise in an area relevant to the housing industry as set out below. Members are responsible for attending meetings and contributing to the work of the Council by offering insight and guidance based on their expertise.

Sector representation sought in the membership of the council encompasses the housing, property and building and construction industry, planning and development, social welfare and community housing, banking and finance, and housing research.

Current Members of the Council are:

Dr Owen Donald, Chair	Former Director, Housing Victoria; Former CEO, Australian Housing and Urban Research Institute
Mr Saul Eslake, Deputy Chair	Chief Economist, Bank of America-Merrill Lynch Australia
Ms Janet Buhagiar	Director, Social Policy, NT Government
Ms Dyan Currie	National President, Planning Institute of Australia
Professor Sue Holliday	Managing Director, Strategies for Change Pty Ltd; Professor of Planning Practice, UNSW
Professor Graeme Hugo	Australian Research Council Professorial Fellow, University of Adelaide
Mr Mark Hunter	CEO Residential, Stockland
Mr Simon Norris	General Manager, Clarendon Homes Queensland

Ms Mary Patetsos	Chair, SA Local Government Grants Commission; Board Member, South Australian Housing Trust
Mr Nigel Satterley AM	Managing Director, Satterley Property Group
Ms Ruth Spielman	Executive Officer, National Growth Areas Alliance
Dr Judy Yates	Honorary Associate Professor, University of Sydney

In addition, the following senior Australian Government officers attend Council meetings:

Paul Tilley	General Manager, Markets Group, Treasury, ex-officio participant observer
Brenton Thomas	Principal Advisor, Treasury, ex-officio participant observer
Sean Innis	Group Manager, FaHCSIA, ex-officio participant observer

Support to the Council in developing this report was provided by Paul Samter, Grey Robertson, Mark Harry, Julia Graczyk, Anthony Krieg and Leanne McGrath in the Council's Secretariat, now based in the Treasury. The Council gratefully acknowledges their invaluable assistance, including with analysis and drafting the report. The findings and views expressed is this report are, however, those of the Council and do not necessarily reflect those of the Government or its agencies, including the Treasury.

Further information on the Council's terms of reference can be found in previous State of Supply reports.

Glossary

Australian Bureau of Statistics (ABS)

The ABS provides statistics on a wide range of economic, industry, environment and energy, people and regional matters, covering government, business and the community in general.

affordable housing

Housing that is affordable for households on low to moderate incomes, when housing costs are low enough to enable the household to meet other basic long-term living costs. For example, housing costs should be less than 30 per cent of household income for occupants in the bottom 40 per cent of household incomes.

average household size

The average number of people per household in a given area.

Census

The Census of Population and Housing, carried out every five years by the Australian Bureau of Statistics. It aims to accurately measure the number of people in Australia on Census night, and to gather information on their key characteristics and the dwellings in which they live. Census 2006 is the most recent Australian Census for which data is available (a Census was conducted in 2011 but the results are yet to be published).

Commonwealth Rent Assistance (CRA)

A non-taxable Commonwealth Government supplementary payment added on to the benefit or family payment of people who rent in the private rental market above applicable rent thresholds.

conversion

Conversions are additional dwellings created by alterations or additions to residential buildings; conversions of non-residential buildings to residential buildings; or construction of non-residential buildings. Throughout this report conversions are taken to be from non-residential buildings to residential buildings – specifically those that add to housing supply but are not counted as a housing 'completion'.

dwelling approval

Permission to commence construction of a building, such as a building permit issued by local government authorities and other principal certifying authorities, contract let or

day labour work authorised by Commonwealth, state/territory, semi-government and local government authorities, or major building approval in areas not subject to normal administrative approval, e.g. building on remote mine sites.

dwelling completion

A building is completed when building activity has progressed to the stage where the building can fulfil its intended function.

effective demand

The quantity of housing that owner-occupiers, investors and renters are able and willing to buy or rent in the housing market.

equivalised disposal income

Equivalence scales devised to make adjustments to the actual incomes of households in a way that enables analysis of the relative wellbeing of households of different size and composition. For example, it would be expected that a household comprising two people would normally need more income than a one-person household if the two households are to enjoy the same standard of living.

homelessness

A person is homeless if he or she does not have access to adequate housing that is safe and secure. People who are homeless fall into three broad groups; that is, those who are:

- sleeping rough (living on the streets)
- living in temporary accommodation, such as crisis accommodation or with friends or relatives
- staying in boarding houses or caravan parks with no secure lease and no private facilities.

household

The household is the basic unit of analysis in this publication. A household consists of one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling. The people in a household may or may not be related. They must live wholly within one dwelling.

household growth scenario

A projection scenario of household growth based on (among other factors) the projected rate of net overseas migration.

housing stress

The condition of households (in the bottom 40 per cent of income distribution) paying more than 30 per cent of their gross income on mortgage or rental repayments.

lower-income household

A household with income in the bottom 40 per cent of all household income distribution.

National Housing Supply Council (NHSC)

The National Housing Supply Council was appointed by the Treasurer and the Minister for Housing and announced by the Prime Minister in May 2008. The Council provides projections, advice and analysis of trends in demand and land availability to measure and assess the supply of land and housing and its relationship with demand to assist the government in assessing adequacy of supply and future needs for up to 20 years.

negative gearing

A taxation arrangement applicable when costs exceed investment income, under which the loss may be deducted from other taxable income.

net overseas migration (NOM)

A figure calculated from incoming and outgoing passenger movements at Australian ports maintained by the Department of Immigration and Citizenship. A person must have been in Australia for 12 of the previous 16 months to be counted.

net transition probability approach

A statistical approach that projects probable change in household types at the national and sub-national level. This is the approach used by Macdonald and Temple to produce the Council's estimates of underlying housing demand.

non-private dwelling (NPD)

A non-private dwelling is a residential dwelling with accommodation that is not included in the Census of Population and Housing list of private dwelling categories. NPDs are classified according to their function. They include hotels, motels, guest houses, jails, religious and charitable institutions, military establishments, hospitals and other communal dwellings. Where this type of accommodation includes self-contained units (as provided by hotels, motels, homes for the elderly and guest houses), the units are enumerated as part of the NPD. Complexes such as retirement villages, which have a combination of self-contained units, hostel and/or nursing home accommodation, are enumerated as NPDs.

private dwelling

Defined in the Census as a house, flat, part of a house, or even a room, but can also be a house attached to, or rooms above, a shop or office, an occupied caravan in a caravan park, a boat in a marina, a houseboat or a tent if it is standing on its own block of land. A caravan situated on a residential allotment is also classed as a private dwelling.

Reserve Bank of Australia (RBA)

The Reserve Bank of Australia is Australia's central bank. It conducts monetary policy, works to maintain a strong financial system and issues the nation's currency.

second home

Often referred to as a holiday home, a second home is a dwelling that is owned by, but not the principal residence of, an individual.

semi-detached, row or terrace house, townhouse

A dwelling having its own private grounds with no other dwellings above or below but attached to an adjacent dwelling.

social housing

Rental housing that is provided and/or managed by government or non-government organisations, including public and community housing.

tenure type

The nature of a person's or social group's legal right to occupy a dwelling. Tenure types include owner (fully owned or being purchased/ with mortgage), renter (private housing or public housing/community housing), rent free, life tenure scheme, shared equity or rent/buy scheme. The category 'other' includes being occupied rent free and being occupied under a life-tenure scheme.

underlying demand

The need for housing based on the number of households in the population, rather than the demand actually expressed in the market (effective demand).