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**Measuring Housing Affordability in Australia: Recent Developments
and Trends in Agreed National Performance Indicators**

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INTRODUCTION

Suitable housing is a fundamental human requirement. This reflects the importance of housing in meeting the human need for shelter from the elements, and associated needs for privacy, security and amenity.

In Australia, home ownership has traditionally been seen not only as a channel to secure that fundamental requirement for shelter, but also as a good, safe, long term, tax effective investment. Consequently:

- home ownership rates have been fairly constant at around 70% for many decades;
- the family home is the major asset for most Australian households;
- many households have upgraded their homes (through alterations and additions, or a changeover to a better home) to reflect their particular investment or lifestyle choices;
- arguably Australians, on average, have some of the largest homes on the planet, on larger parcels of land; and
- first home buyer entrants into the market have been at near record levels in the recent past.

When house prices, interest rates, or rents rise in Australia, housing affordability emerges for public and policy consideration. There has been an increased focus by governments and the community on housing affordability in recent years, particularly for low and moderate income households. The federal and state and territory governments are implementing new policies designed to make housing more affordable to rent or purchase, including encouraging greater institutional investment in affordable housing, and to improve the adequacy (i.e. make affordable housing more 'suitable') of housing for those in most need.

Identifying those households experiencing affordability problems assists in formulating new policy responses across housing, planning, taxation and other portfolios. However, issues of market segmentation, choice, and the multiple reasons why households invest in housing, mean there has been no generally agreed concept for, nor measure of, housing affordability, and many of the measures that are used to inform the issue of housing affordability are subject to a number of significant limitations, both in terms of the fitness for purpose of the measure being used, and of the suitability of the data used to compile them.

This paper discusses housing affordability in the context of Australia, outlines some of the current measurement issues, and examines trends in selected measures. Recent developments in data sources and methods are discussed, with particular attention paid to measuring the affordability of home ownership, rental affordability, and the related areas of adequate housing for Indigenous Australians and homelessness. These measures are used by ABS for reporting Australia's performance against the new National Affordable Housing Agreement established

between the federal government and all state and territory governments. The paper also considers where improved measures of housing affordability can be used more extensively to inform debate on housing outcomes in the context of addressing the issue of social inclusion.

MEASURES OF HOUSING AFFORDABILITY

Housing affordability is most often interpreted as the capacity of households to meet their current and future housing costs from their own economic resources. Those resources are predominantly their current and future incomes, but may also include reserves of wealth accumulated in assets. Many households exercise significant degrees of choice in making their consumption and savings / investment decisions, including for housing, due to their access to substantial economic resources.

Discussion of housing affordability issues often focuses on three distinct segments of the housing market. While these segments are sometimes influenced by similar factors, the subpopulations affected and the housing services being acquired are generally different. The main market segments of interest from a housing affordability perspective are:

- renters (both private and public), for whom the amount of rent payable and the availability of suitable properties are the key issues;
- potential first home buyers, for whom house prices, interest rates, the need for a deposit, the availability of finance, and ability to service future mortgage payments are key issues; and
- home owners with a mortgage, for whom mortgage payments are affected by increases in interest rates or changes in their own economic or personal circumstances.

A primary focus of housing affordability measures should be to better understand the economic circumstances of those households that may experience difficulty entering or remaining in particular housing markets, because of their limited economic resources or changing circumstances e.g. changes in labour force participation or status, changes in household size or composition, illness or death. Particular attention needs to be paid to specific income groups like low income households and those with little financial option but to rent.

Because there is no agreed concept of affordability, there is no standard measure for it. Many of the measures of housing affordability that figure in the public debate are constructed measures that attempt to capture the circumstances of a 'typical' or 'average' household purchasing an 'average' dwelling, using a measure of central tendency (such as a mean or median). However the distributions they are trying to approximate are not normally distributed. The approach often used can be particularly misleading for the housing market, which is segmented by small geographic area and type of buyer. An average house price for properties transacted in a city or suburb may hide significant differences within that geographic area.

Other measures relate current housing costs to current household income, often as a ratio, with households having a ratio exceeding 30% often being referred to as being in 'housing stress'. The implication in this representation is that, despite the size of their after housing costs incomes that are available to meet other needs, these households are spending too much of their available income on their housing choices.

The most appropriate data sources for analyses of housing affordability are available from the ABS Surveys of: Income and Housing (SIH), conducted every two years; the National Aboriginal and Torres Strait Islander Social (NATSISS) and Health (NATSIHS) Surveys, conducted on a rotating basis every three years; and house sales data compiled by the Valuer Generals agencies across the states and territories.. The SIH and NATSISS/NATSIHS data provide the most accurate measures of income (and increasingly to adjust for housing costs offsets). These sources provide a ranking of household incomes adjusted for size to identify low income households. They also provide reasonable measures of housing costs, and allow the analysis to be segmented for public housing tenants, private tenants, first home buyers and existing owners.

AUSTRALIAN CONTEXT

Home ownership is a widely held aspiration in Australia, providing security of tenure and long term tax effective economic benefits to home owners. For some home owners, the dwelling and the land on which it stands is a major asset, and for many it is their main asset. The home ownership aspiration has widely been referred to as 'the great Australian dream' and is reflected nationally in one of the highest home ownership rates in the OECD that has remained stable over the past 40 years. On average, Australians live in very large homes relative to the average occupancy (persons per household) of the homes.

Australia also has relatively low rates of social provision of housing. With a home ownership rate of 70% and a further 25% of dwellings rented privately, social housing sector accounts for less than 5 percent of the stock of private dwellings.

Housing taxes and transfers

The tax-transfer system affects the housing market through a range of taxes, concessions and transfers. Some provide incentives to higher income households to invest in providing rental properties. In other cases the incentives are targeted at certain housing tenures or income levels. This section outlines the major taxes and transfers affecting housing in Australia. A major review of Australia's tax and transfer system has recently been completed by Australia's Future Tax System Review Panel, with its report and recommendations were released in May 2010.

The review proposes a series of changes to the major taxes and transfers that affect housing in Australia. While not yet adopted by Government, these include:

- reviewing institutional arrangements to ensure zoning and planning do not unnecessarily inhibit housing supply and housing affordability
- reviewing infrastructure charges to ensure they appropriately price infrastructure provided in housing developments;
- increases to maximum rates Rent Assistance and linking amounts to movements in market rents;
- rent concessions through public housing to be replaced by Rent Assistance and new forms of assistance for high needs tenants;
- introducing land tax on all land on a more efficient and uniform basis linked to unit land values, removing disincentives for institutional investment in rental property and integrated over time with property rate assessments; and

- reducing, and ultimately removing, transfer taxes on property, and replacing revenues by efficient taxes, preferably annual land tax.

As one illustration of the impact of the taxation system in Australia on the housing market, from 1993-94 to 2007-08, the number of Australians investing directly in properties for rent nearly doubled, from about 970,000 to close to 2 million, or 15% of all tax payers. By 2007-08, rental interest deductions were about \$21 billion per annum.

Trends in house prices, household incomes and interest rates

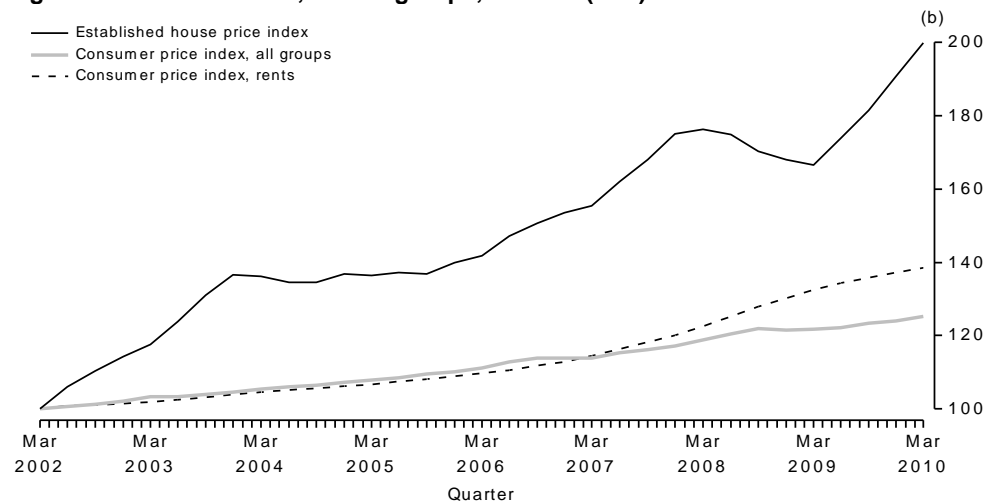
This section examines recent trends in house prices, household incomes and interest rates and discusses the implications for interpreting the measures of housing affordability in Australia.

House prices

The ABS House Price Index (HPI) covers transactions, in all of Australia's capital cities, in detached residential dwellings on their own block of land regardless of age (i.e. including new houses sold as a house/land package as well as second-hand houses). Price changes in the HPI therefore relate to changes in the total price of dwelling and land. The HPI (which excludes medium and higher density dwellings) increased by 100% between March 2002 and March 2010.

Project homes are detached dwellings available for construction on an existing block of land in capital cities. Price changes therefore relate only to the price of the dwelling (i.e. excluding land). The price index for project homes (excluding land) increased by 43% over the period March 2002 and March 2010.

Figure 1: Established HPI, CPI All groups, and CPI (rent)



(a) Weighted average of the eight state and territory capital cities. Separate house only

(b) Reference base March 2002 = 100.

Source: House Price Indexes: Eight Capital Cities (6416.0); Consumer Price Index, Australia (6401.0)

The project home index and the HPI cannot be directly compared. While the project home index captures newly constructed homes, generally expected to be in green fields sites or on individual lots held by householders, the HPI is dominated by the

resale of existing homes. And both series cover only detached housing in capital cities.

In contrast to the price index movements discussed above, between March 2002 and March 2010, market rents, as measured in the ABS's Consumer Price Index (CPI) increased by 39% and the all groups CPI rose by 25%.

| House Price Indexes (a) | | | | | | | | | | |
|--|-----------------|-----------------|------------|------------|-------------|---------------|----------|--------------------|------------------------------|------------------|
| | Capital Cities: | Sydney | Mel-bourne | Brisbane | Adelaide | Perth | Hobart | Darwin | Canberra | Weighted Average |
| Price Index of Project Homes: March 2002 to March 2010 | | | | | | | | | | |
| | Change | 31% | 28% | 57% | 38% | 76% | 62% | 75% | 40% | 43% |
| Detached House Price Index: March 2002 to March 2010 | | | | | | | | | | |
| | Change | 52% | 120% | 151% | 131% | 177% | 184% | 177% | 122% | 100% |
| Housing Finance for Owner Occupation (b) | | | | | | | | | | |
| | State/Territory | New South Wales | Victoria | Queensland | South Aust. | Western Aust. | Tasmania | Northern Territory | Australian Capital Territory | Australia |
| Construction of dwellings: | | | | | | | | | | |
| - At March 2010 | Number | 958 | 2,006 | 1,333 | 493 | 1,136 | 126 | 26 | 112 | 6,190 |
| - From March 2002 | Change | 78% | 48% | 14% | 11% | 60% | 64% | 30% | 38% | 22% |
| Purchase of new dwellings: | | | | | | | | | | |
| - At March 2010 | Number | 658 | 737 | 403 | 191 | 252 | 35 | 11 | 54 | 2,341 |
| - From March 2002 | Change | 133% | 73% | 28% | 48% | 121% | 75% | 175% | 80% | 54% |
| Purchase of established dwellings (c): | | | | | | | | | | |
| - At March 2010 | Number | 10,187 | 6884 | 6427 | 2489 | 3315 | 584 | 281 | 658 | 30825 |
| - From March 2002 | Change | -14% | 10% | -8% | -3% | -13% | -25% | 14% | 18% | -7% |
| Total Financing (c): | | | | | | | | | | |
| - At March 2010 | Number | 11,803 | 9,627 | 8,163 | 3,173 | 4,703 | 745 | 318 | 824 | 39,356 |
| - From March 2002 | Change | -13% | 20% | -3% | 1% | 1% | -15% | 19% | 28% | -1% |
| Estimated resident population: | | | | | | | | | | |
| - Mar 2002 to Dec 2009 | | 9% | 13% | 21% | 8% | 18% | 7% | 15% | 10% | 13% |
| (a) House Price Indexes: Eight Capital Cities, March 2010, ABS Cat no. 6416.0, 2003-04 = 100.0 | | | | | | | | | | |
| (b) Housing Finance, Australia, May 2010, ABS Cat no. 5609.0 | | | | | | | | | | |
| (c) Excludes refinancing across lending institutions | | | | | | | | | | |

As Table 1 shows, the housing markets across Australia are varied - indeed, highly segmented. States/territories have grown at quite different rates over the past 8 years, with the mining boom states of Queensland, Western Australia and the Northern Territory growing the fastest. The construction of dwellings (measured as

the commitments made by lenders to individuals to finance, by way of progress payments, the construction of owner occupied dwellings on land already owned by the borrower, either as project home construction or owner-builders) is a large part of total housing finance in some states (Victoria, Queensland and Western Australia), and a relatively small component in others (New South Wales). However, in New South Wales, turnover of established dwellings dominates the total financing to home owners.

While both the HPI and the Project Home Price Index relate only to detached dwellings, the finance commitments relate to all dwelling units being financed for owner occupier purchase. Over the past 15 years the proportion of the population living in detached housing has reduced slightly, from 80% to 78%. This slow change in the composition of the total stock of housing reflects a significant shift in the composition of new dwelling construction, which over the same period has moved from being around 30% of new dwellings under construction to closer to 50%.

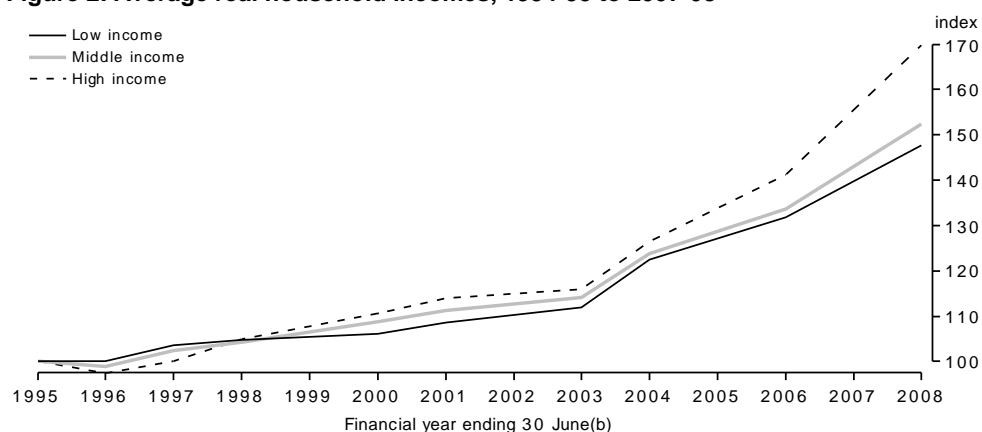
Coupled with the changing composition of housing type in Australia, the size of new dwellings continues to increase. Between 1984-85 and 2008-09, the average size of new dwelling constructed in Australia increased about 45% (now averaging about 220 square metres, see Figure 4 below).

Understanding changes in affordability across this mix of housing circumstances and choices is complex. Adding the changing mix of incomes across housing markets adds to that complexity.

Household income

In real (CPI adjusted) terms, average equivalised disposable household income for Australians of all ages increased by 58% between 1994-95 and 2007-08. Over the same period, the average real equivalised disposable household income of people in the low income group (second and third deciles) grew by 47%, while the increases for people in the middle income (third quintile) and high income (fifth quintile) groups were 52% and 69%, respectively. Much of these increases have occurred since 2002-03.

Figure 2: Average real household incomes, 1994-95 to 2007-08



(a) Adjusted for changes in the Consumer Price Index.

(b) Estimates for 2007-08 are not directly comparable with those of previous cycles due to improvements to the collection of income.

Notes: Base for each index is 1994-95= 100

Survey not run in 1998-99, 2001-02, 2004-05 or 2006-07. Values have been interpolated for these years.

Source: *Household Income and Income Distribution, Australia, 2007-08 (6523.0)*

However, just as the housing supply markets, and the population growth components of housing demand vary across states, so does the income component of demand. The mining boom states of Queensland, Western Australia and the Northern Territory experienced much higher rates of income growth over the 13 years to 2007-08 than did the more populous states of New South Wales and Victoria (Table 2). The stronger income growth in some states leads not only to stronger demand for 'better' homes for those whose incomes are rising strongly, but also strong demand across Australia for them to acquire rental investment properties.

Table 2: Average real equivalised household disposable income, 1994-95 to 2007-08 (a) (b)

| | State / Territory | | | | | | | | |
|--|---|----------|------------|-----------------|-------------------|----------|--------------------|-------------------------|-----------|
| | New South Wales | Victoria | Queensland | South Australia | Western Australia | Tasmania | Northern Territory | Aust. Capital Territory | Australia |
| | Change in income: - 1994-95 to 2007-08 | 54% | 57% | 65% | 57% | 66% | 40% | 64% | 69% |

(a) 2007-08 data are not directly comparable with previous cycles due to improvements in measurement.

(b) In 2007-08 dollars, adjusted using changes in the Consumer Price Index.

Interest Rates

While Australia has a high rate of home ownership (around 70% over the past 40 years), in 2007-08 about half of the owners had a mortgage on their home. Some of the number and value of these mortgages reflects the original decision to purchase, either as a first home or in an upgrade to another property later in life. However, for others, dwellings have been re-mortgaged after being fully owned because the owner chose to leverage equity in the home to fund other investments (such as another property for rent) or to release the equity for consumption (such as boats, holidays etc). In other cases, while the initial mortgage may never have been fully repaid, owners may have redrawn on initial loans, or refinanced the mortgage, to allow other investments or consumption.

Table 3 below shows that, in 2005-06, the 2.8 million owner households with a mortgage had a high level of investment in other property, with outstanding loans for those investments accounting for just over a fifth of their total liabilities. Data from 2003-04 also shows that about 2% of all mortgage repayments, on loans primarily for home ownership purposes, relate to other purposes such as consumption. Some analysts in Australia assume that 5% of any increase in household net worth is consumed. The table also shows that renter households also had significant exposure to both the property market (31% of their total assets) and to housing interest rates (property loans were equivalent to 13% of their gross asset values).

Changes in housing loan interest rates therefore impact directly on 2.8 million households with mortgages, as well as on those renter households with property loans. Those with geared investments will perhaps be more sensitive to changes in interest rates than owners just paying off their initial housing loan. Housing affordability picks up the latter case, but usually not the leveraged investments being made or the consumption choices being pursued through mortgage financing.

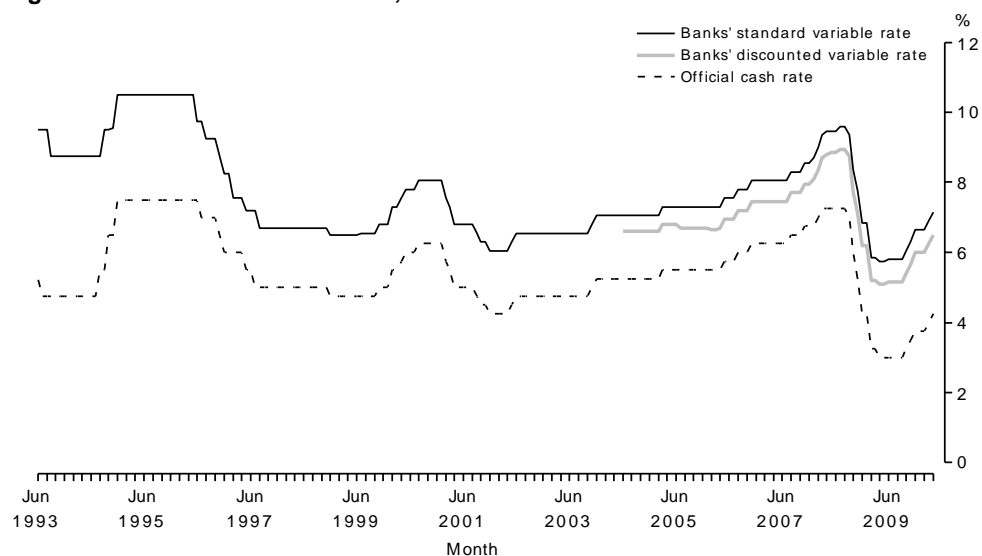
Table 3: Selected owner/renter household assets and liabilities, 2005-06

| | | Owner without a mortgage | Owner with a mortgage | Private renter |
|---|--------|--------------------------------|-----------------------------|-------------------|
| SELECTED HOUSEHOLD ASSETS AND LIABILITIES - MEAN VALUE | | | | |
| SELECTED ASSETS | | | | |
| Total financial assets | \$'000 | 327.1 | 173.9 | 62.5 |
| Non financial assets | | | | |
| Property assets | | | | |
| Value of owner occupied dwelling | \$'000 | 407.6 | 417.3 | 0.0 |
| Value of other property | \$'000 | 117.3 | 104.1 | 49.4 |
| <i>Total property asset</i> | \$'000 | 524.8 | 521.4 | 49.4 |
| Total non financial assets | \$'000 | 630.6 | 624.6 | 94.2 |
| Total assets | \$'000 | 957.6 | 798.0 | 156.7 |
| SELECTED LIABILITIES | | | | |
| Property loans | | | | |
| Principal outstanding on loans for owner occupied dw | \$'000 | 0.3 | 142.3 | 0.0 |
| Principal outstanding on other property loans | \$'000 | 23.2 | 44.9 | 20.1 |
| <i>Total property loans</i> | \$'000 | 23.4 | 187.2 | 20.1 |
| Total liabilities | \$'000 | 33.6 | 207.8 | 30.5 |
| NET WORTH OF HOUSEHOLDS | \$'000 | 924.0 | 590.8 | 126.2 |
| Number of households in the population | \$'000 | 2,718.1 | 2,772.0 | 1,745.3 |

Housing affordability, when expressed as mortgage repayments as a proportion of gross income, is also influenced by the mix of interest and principal repayments being made. In 2007-08, interest accounted for 66% of total mortgage repayments for owners with a mortgage. For first home buyers and changeover buyers with a mortgage (households that had purchased their home in the three years prior to interview), interest on the loan accounted for 72% and 69% of total mortgage repayments respectively. This is because a greater proportion of the repayment is typically applied to interest at the beginning of a loan amortisation schedule, while a greater proportion is applied to principal at the end. However, mortgagors may be well ahead of the required repayment schedule on their mortgage, and be less sensitive to changes in interest rates that might appear to alter their consumption choices but in fact result in

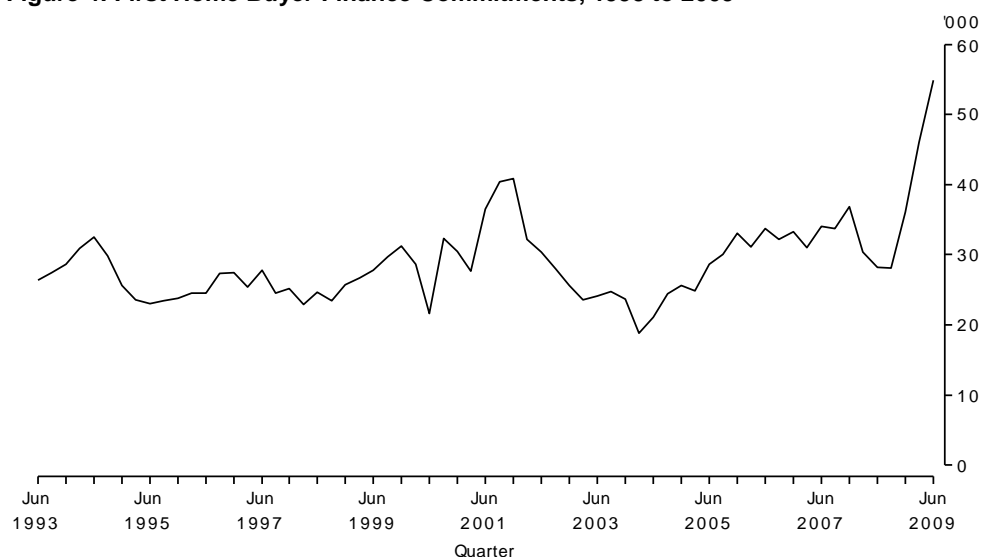
From 2001, average housing loan interest rates increased steadily to a peak of 9.6% in mid 2008, before the loosening of monetary policy in response to the global financial crisis saw rates fall to 5.75% in the space of 8 months. Accompanying the fall in interest rates in 2008-09 was the introduction of a boost to First Home Owner (FHOB) grants. The limited duration of the FHOB, by providing entry level equity, is likely to have brought forward some first home buyer (FHB) decisions into this period. FHB finance approvals in the first half of 2010 are at half the rate experienced on 2009. Understanding housing affordability in Australia includes not only longer term debt servicing considerations but also access into the market.

Figure 3: Home loan interest rates, 1993 to 2009



Source: Reserve Bank of Australia.

Figure 4: First Home Buyer Finance Commitments, 1993 to 2009



Source: Housing Finance, Australia (cat. no. 5609.0)

Dwelling and household sizes

Housing affordability in Australia has reflected the aspirations of most Australians to both own their own homes, and for those homes to be increasing over time in size and quality for change-over buyers. In 2008-09 the average size of the floor area of a new house in Australia was 248m², an increase of 53% over the previous 15 years. Other residential dwellings, which include apartments and townhouses, also increased in size, from 99m² to 141m², or 42% over the same period, as well as increasing their share of the total new dwelling construction.

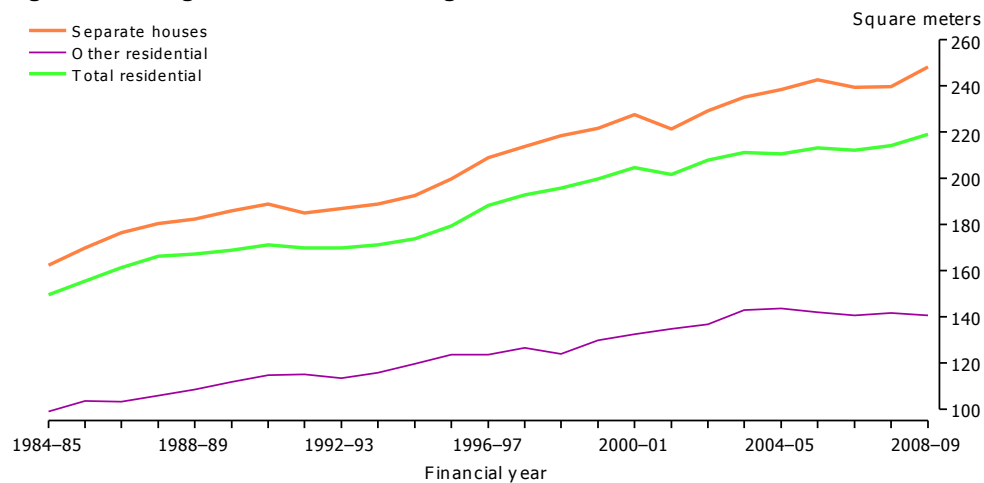
Only in the United States have new dwellings been constructed in recent years of about the same size as those being built in Australia (Table 4).

While dwelling sizes have been increasing, average household sizes in Australia have been getting smaller. Increasing life expectancy and declining fertility rates have contributed to an increase in the number of individuals living alone, more childless couples, and fewer children in those families that do have them. As a consequence, the average number of people per household in 2007-08 was 2.56, down from 2.7 a decade earlier and 3.1 in 1976. Analysis of housing affordability includes consideration of the total house/land amenity being delivered to the occupiers.

Overall, most Australians appear to be satisfied with the housing available to them. In 2007-08, 91% of home owners were satisfied or very satisfied with their current dwelling, and only 3% were either dissatisfied or very dissatisfied. Renters were less satisfied (88%) and more dissatisfied (8%). The most common reason for renters' dissatisfaction with their dwelling was poor condition, followed by being too small.

While people in Australia in 2007-08 seemed generally satisfied with their dwelling, 16% of them had recently moved into their dwelling. The main reason for the move, for owners, was to purchase the current dwelling, while for renters the main reason was being given notice by the landlord of their previous dwelling.

Figure 5: Average floor area of dwellings, 1984-85 to 2008-09



(a) Excludes survey records with floor area data less than 25 square meters and greater than 1800 square meters per dwelling for new houses and less than 25 square meters and greater than 800 square meters per dwelling for new other residential dwellings.

Source: Data available on request, Building Activity Survey

Table 4: Home ownership and dwelling size, by country

| | Home ownership rate | | Average floor area of new dwellings | |
|-----------------|---------------------|---------|-------------------------------------|---------------|
| | Year | Percent | Year | Square meters |
| Australia | 2007-8 | 68 | 2009-10 | 219 |
| Austria | 2006 | 65 | 2002 | 101 |
| Belgium | 2006 | 75 | 2005 | 105 |
| Czech Republic | 2006 | 77 | 2005 | 101 |
| Denmark | 2006 | 68 | 2004 | 107 |
| Finland | 2006 | 74 | 2003 | 90 |
| France | 2006 | 66 | 2003 | 111 |
| Germany | 2006 | 54 | 2004 | 114 |
| Great Britain | 2006 | 71 | 2001 | 83 |
| Greece | 2006 | 81 | 2001 | 125 |
| Hungary | 2006 | 93 | 2002 | 94 |
| Ireland | 2006 | 79 | 2003 | 105 |
| Italy | 2006 | 82 | 2003 | 77 |
| Luxemburg | 2006 | 77 | 2001 | 120 |
| Netherlands | 2006 | 66 | 2000 | 116 |
| New Zealand | 2006 | 67 | 2002 | 176 |
| Poland | 2006 | 96 | 2004 | 107 |
| Portugal | 2006 | 84 | 2003 | 89 |
| Slovak Republic | 2006 | 90 | 2004 | 132 |
| Spain | 2006 | 90 | 2003 | 101 |
| Sweden | 2006 | 69 | 2005 | 94 |
| United States | 2007 | 68 | 2009 | 226 |

Source: ABS Building Activity Survey, Italian Housing Federation, US Census Bureau, Statistics New Zealand, Eurostat EU-SILC, Office of National Statistics

AUSTRALIAN GOVERNMENT INITIATIVES

In December 2008 the Australian Prime Minister, on behalf of the Commonwealth Government, and the heads of each State and Territory government within the federal system of Australia, signed a National Affordable Housing Agreement (NAHA). The NAHA provides a framework for the governments to work together to improve housing affordability and homelessness outcomes for Australians.

Through the NAHA, the Commonwealth and the States/Territories have committed to a range of reforms that will improve housing affordability to ensure:

- people who are homeless or at risk of homelessness achieve sustainable housing and social inclusion
- people are able to rent housing that meets their needs
- people can purchase affordable housing
- people have access to housing through an efficient and responsive housing market
- Indigenous people have improved housing amenity and reduced overcrowding, particularly in remote areas and discrete communities

The ABS was charged with reporting 6 of the 8 outcome performance indicators included in the first cycle of performance reporting for the agreement in late 2009. To report on the performance indicators, the ABS made improvements to its preferred measures, extended the range of data available for analysis, developed a new measure to report on the affordability of home ownership, and has increased its survey sample sizes in future cycles to improve market segmentation and still provide estimates that have reasonable standard errors.

AFFORDABILITY OF HOME OWNERSHIP

Measurement issues

This section outlines some of the measurement issues that are encountered when examining the affordability of home ownership, including the distribution of house sale prices.

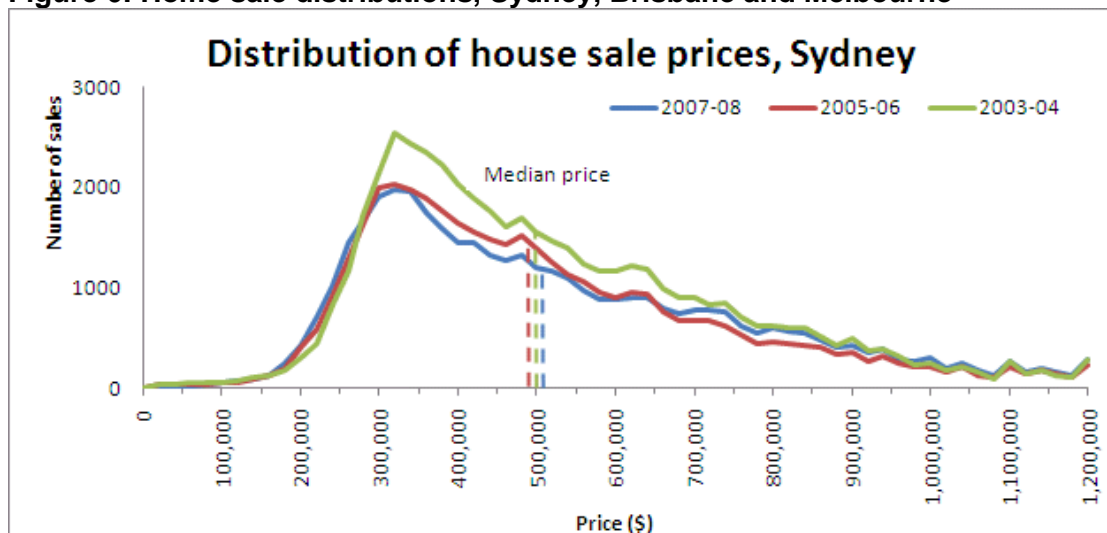
The skewed distribution of home sale prices means that a mean or a median price is often not an accurate representation of the 'average' sale price, particularly for first home buyers looking to enter the market. About two thirds of the total turnover in dwelling sales in Australia for owner occupation are made to change-over buyers - people looking to upgrade, down size, sea change or tree change, or very often simply to follow their changing place of employment. In addition to owner occupiers, about a quarter of the total finance commitments made on dwellings are for renter investment purposes.

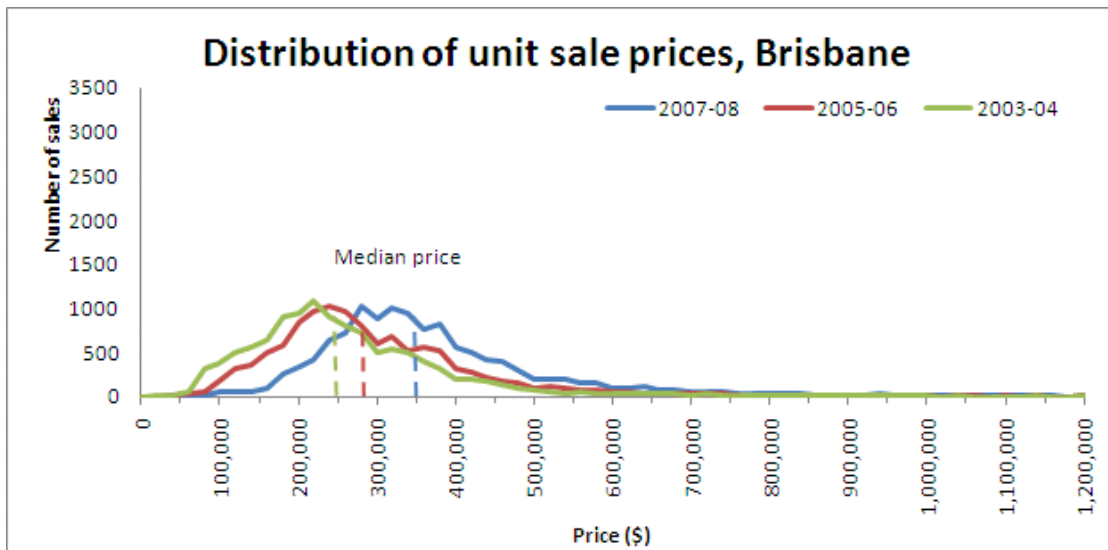
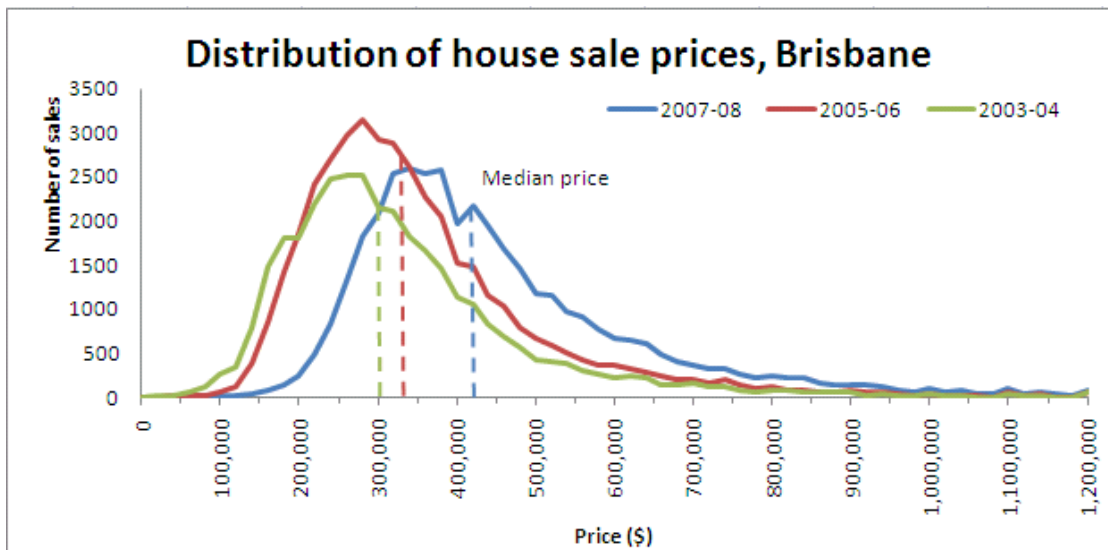
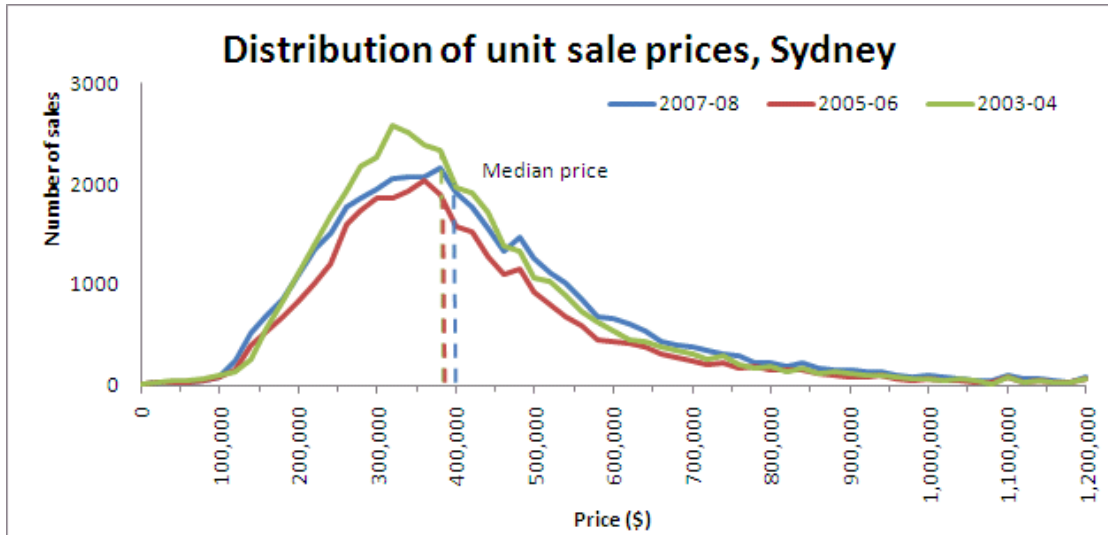
On average, first home buyers purchase smaller, less costly dwellings, putting them in a very different market to the changeover buyers, who account for over 70% of the turnover in the Australian housing market for owner occupiers and generally reflect trading up to higher value properties. In 2007-08, the median value of the dwelling (as estimated by the householder) of first home buyers who purchased in the three years prior to being interviewed, was \$350,000, compared with \$420,000 for changeover buyers who purchased in the same period. The change-over buyers are looking for a different type of dwelling, for example, a larger, newer home, possibly in a better location. Tax effective Investment opportunity and life style choice drive these upgrades.

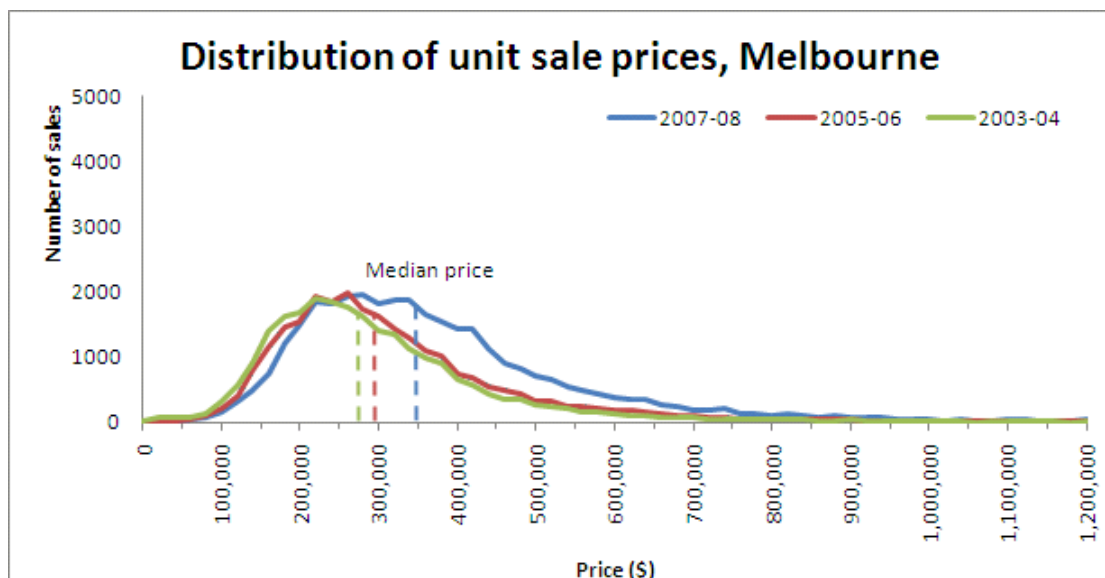
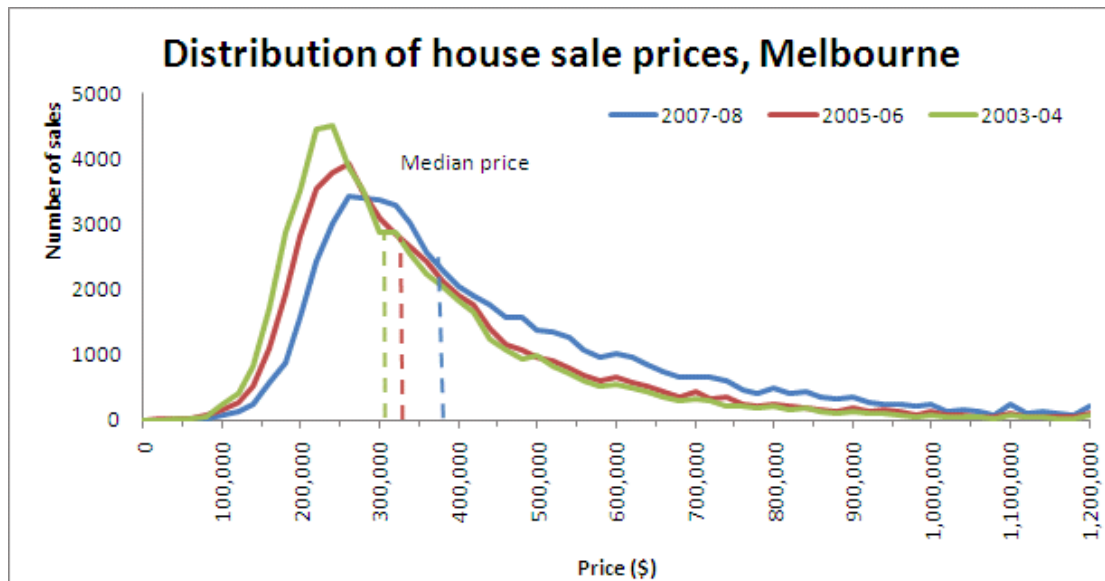
Analyses that express housing affordability in terms of a ratio of median house price for all sales to population wide median income fail to take account of the high degree of segmentation in the Australian housing market. More than two thirds of home sales in Australia are going to change-over buyers that hold significant equity in their current home and need only to afford, from their current incomes, the net additional borrowing for their upgrade. In the 1990s, first home buyers, usually with a small deposit, on average, borrowed a little more than the total refinancing for change-over buyers, even though change-over buyers were buying much more expensive dwellings. Since July 2003, in most months the average loan size for change-over buyers has been lower than for first home buyers. In 2007-08, first home buyers who had purchased their home in the previous 3 years had average weekly housing costs that were 30% higher than for recent change-over buyers, despite the homes of the change-over buyers being worth 20% more, on average, than those owned by the first home buyers.

The following graphs show the skewed distributions for home sales in Australia's three largest cities that account for 46% of Australia's households. The graphs show that, regardless of where the median sale value is located in the distributions, a very significant number of transactions occur at much lower, much more affordable, price points.

Figure 6: Home sale distributions, Sydney, Brisbane and Melbourne







Recent developments in sources and methods

To improve understanding of the nature of, and developments in, the housing market in Australia the ABS has utilised sale prices of all residential properties sales in Australia. All sales are registered with the Land Titles Offices in each state and territory. Using these sales registrations, together with income data from the ABS Survey of Income and Housing, has allowed the development of a new measure of the affordability of home ownership in Australia.

This new measure presents the proportion of homes sold that are 'affordable' to low and moderate income households.

To reflect, to some extent, the diversity of housing markets across a vast geography, separate analysis is undertaken for each capital city (which together account for 63% of all households in Australia), and for each area outside the capital city in each

state. Not only are property prices highly localised and varying significantly between and within jurisdictions, incomes are similarly localised.

The NAHA home purchase affordability performance indicator

This section presents data for the home purchase affordability performance indicator, developed for reporting against the National Affordable Housing Agreement (NAHA), for 2003-04, 2005-06 and 2007-08.

Under this NAHA performance indicator, a home is considered affordable if a household would have to spend no more than 30 per cent of its gross household income on mortgage repayments. These calculations assume that: the interest rate is the standard variable mortgage rate, averaged over the year; the household has provided a deposit of 10 per cent of the purchase price; and that the loan is for a 25-year period. The measure takes all homes sold over the relevant period, and calculates how many of these would have been affordable to households with equivalised disposable household income at the 60th percentile of the distribution.

Nationally, 27.5% of homes sold were affordable to moderate income households in 2007-08. In the capital cities, the proportion was slightly lower at 26.1%.

Table 5: Proportion of homes sold that are affordable by moderate income households (a)

| | | NSW | VIC | QLD | WA | SA | TAS | AUST(b) |
|----------------|---|------|------|------|------|------|------|---------|
| CAPITAL CITY | | | | | | | | |
| 2007-08 | % | 26.5 | 39.1 | 9.8 | 5.4 | 32.1 | 27.6 | 26.1 |
| 2005-06 | % | 11.0 | 44.9 | 38.3 | 42.6 | 46.7 | 32.7 | 34.5 |
| 2003-04 | % | 7.5 | 24.4 | 20.7 | 51.4 | 65.5 | 50.4 | 27.8 |
| ALL HOUSEHOLDS | | | | | | | | |
| 2007-08 | % | 27.5 | 40.6 | 16.6 | 9.7 | 34.4 | 34.6 | 27.5 |
| 2005-06 | % | 21.8 | 46.0 | 36.2 | 43.3 | 51.4 | 49.5 | 37.3 |
| 2003-04 | % | 18.2 | 37.7 | 31.2 | 57.2 | 69.7 | 55.1 | 35.8 |

(a) Households at the 60th percentile of the distribution of equivalised disposable household income

(b) Includes Northern Territory and Australian Capital Territory. Estimates for Northern Territory and Australian Capital Territory are not shown separately

Source: Valuer General data, ABS Survey of Income and Housing

Table 6: Median gross weekly household income of moderate income households (a)

| | | NSW | VIC | QLD | WA | SA | TAS |
|------------------|----|-------|-------|-------|-------|-------|-------|
| CAPITAL CITY | | | | | | | |
| 2007-08 | \$ | 1,914 | 1,895 | 1,545 | 1,525 | 1,596 | 1,291 |
| 2005-06 | \$ | 1,343 | 1,523 | 1,442 | 1,621 | 1,290 | 1,016 |
| 2003-04 | \$ | 1,200 | 1,104 | 1,007 | 1,176 | 1,338 | 942 |
| BALANCE OF STATE | | | | | | | |
| 2007-08 | \$ | 1,337 | 1,272 | 1,534 | 1,408 | 1,158 | 1,140 |
| 2005-06 | \$ | 1,257 | 1,065 | 1,250 | 1,273 | 1,180 | 1,086 |
| 2003-04 | \$ | 960 | 1161 | 931 | 1,118 | 1,166 | 741 |

(a) Households at the 60th percentile of the distribution of equivalised disposable household income

Source: ABS Survey of Income and Housing

RENTAL AFFORDABILITY

Measurement issues

This section outlines some of the measurement issues that are encountered when examining rental affordability. Many measures of rental affordability focus on low income households, because many other households exercise significant degrees of choice in making their consumption and savings / investment decisions, including for housing, due to their access to substantial economic resources.

Close to one million income units renting in the private rental market in Australia are reimbursed part of their housing costs in the form of Commonwealth Rent Assistance (CRA). CRA is a non-taxable income supplement paid, subject to substantiation of rental costs, to qualifying recipients of income support payments and family tax benefit payments.

Housing costs to income ratios are significantly affected by the treatment of CRA amounts as numerator and denominator adjustments. However, in many measures of rental affordability, these reimbursements are neither offset from the housing costs nor deducted from income of the principal tenant when comparing tenure and landlord types.

Table 7 shows the significance of CRA to the housing costs of its recipients.

Table 7: Housing costs and CRA of income units reporting receiving CRA, 2007-08

| | | |
|--------------------------------|----|-----|
| Weekly housing costs | \$ | 182 |
| Weekly amount of CRA | \$ | 43 |
| Weekly housing costs minus CRA | \$ | 139 |

Source: ABS Survey of Income and Housing

Recent developments in sources and methods

To effectively measure rental affordability, 2007-08 was the first cycle of the ABS Survey of Income and Housing to directly collect CRA payments reported by respondents. For earlier years ABS has modelled CRA information using very detailed income, housing and relationship data reported in the survey.

The NAHA rental affordability performance indicator

This section presents data for the rental affordability performance indicator, developed for reporting against the National Affordable Housing Agreement (NAHA).

For this indicator, a household is considered to be in rental stress if its rental costs exceed 30 per cent of its gross income. This is a common measure in Australia of housing stress.

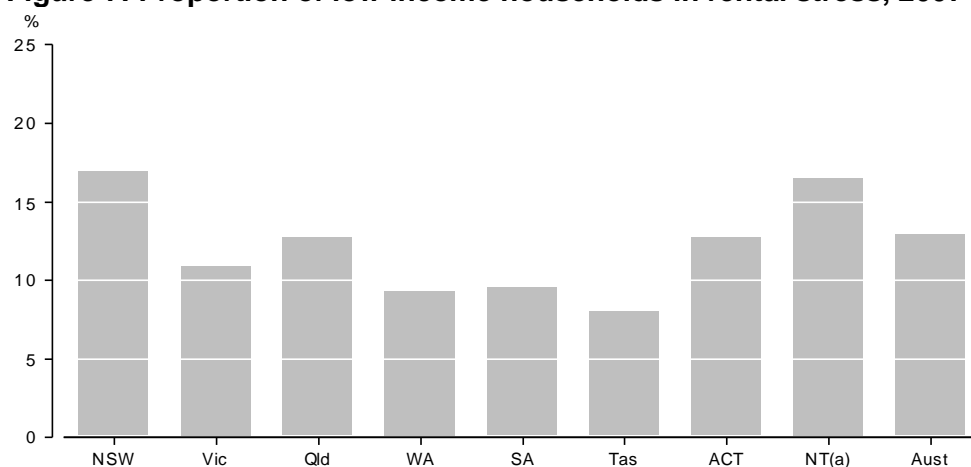
Rental costs are defined as the amount paid in rent, plus any rates payments made by the tenant, less Commonwealth Rental Assistance (CRA) or other ongoing rent assistance.

Low-income households are defined as those in the bottom 40 per cent, or bottom two quintiles, of equivalised disposable household income, excluding CRA, in each State and Territory, and separately for each capital city and the balance of each state to take account of the differing incomes and rental markets across Australia's geography.

Table 8 and figure 7 below shows the summary rental stress data reported for NAHA for 2007-08. Across Australia, 13% of low income households were in rental stress. Across States and Territories, the proportion ranges from 8% in Tasmania to 17% in NSW and the Northern Territory.

The NAHA rental affordability measure was initially designed to reflect a housing outcome measure for all low income households. However, many low income households, particularly retired people now receiving age pensions or relatively low superannuation, own their homes. ABS also provided an alternate measure – the proportion of low income renter households in rental stress (Table 9). For 2010 reporting, this alternate version of the rental affordability indicator has replaced the wider scope used to report in 2009.

Figure 7: Proportion of low income households in rental stress, 2007–08



(a) Excludes households in collection districts defined as very remote, accounting for about 23% of the population in the Northern Territory.

Source: ABS Survey of Income and Housing

Table 8: Proportion of all low income households in rental stress(a), 2007-08

| | <i>Unit</i> | <i>NSW</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i> | <i>SA</i> | <i>Tas</i> | <i>ACT(b)</i> | <i>NT(c)</i> | <i>Aust</i> |
|---|-------------|------------|------------|------------|-----------|-----------|------------|---------------|--------------|-------------|
| <i>Numerator - number of low income households in rental stress</i> | | | | | | | | | | |
| Capital city | '000 | 117 | 76 | 31 | 27 | 20 | *3 | 7 | *4 | 285 |
| Balance of state | '000 | 62 | *11 | 50 | **3 | *5 | *4 | - | - | 134 |
| Total | '000 | 179 | 87 | 81 | 30 | 25 | 7 | 7 | *4 | 419 |
| <i>Denominator - total number of low income households</i> | | | | | | | | | | |
| Capital city | '000 | 642 | 575 | 281 | 246 | 194 | 34 | 54 | 17 | 2,043 |
| Balance of state | '000 | 420 | 223 | 352 | 79 | 68 | 47 | - | - | 1,195 |
| Total | '000 | 1,062 | 797 | 632 | 325 | 262 | 81 | 54 | 24 | 3,238 |
| <i>Proportion of low income households in rental stress</i> | | | | | | | | | | |
| Capital city | % | 18.3 | 13.2 | 11.0 | 11.2 | 10.3 | *8.6 | 12.7 | 21.9 | 14.0 |
| Balance of state | % | 14.7 | *4.9 | 14.2 | *3.3 | *7.1 | *7.6 | - | - | 11.2 |
| Total | % | 16.9 | 10.9 | 12.7 | 9.3 | 9.5 | 8.0 | 12.7 | *16.5 | 12.9 |

(a) The 40% of households with equivalised disposable household income (excluding CRA) up to the 40th percentile, calculated for capital city and balance of state, on a state-by-state basis.

(b) Balance of state estimates for the ACT are not separately available.

(c) Excludes very remote, accounting for about 23% of the population in the NT.

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

Table 9: Proportion of low income renter households in rental stress(a), 2007-08

| | <i>Unit</i> | <i>NSW</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i> | <i>SA</i> | <i>Tas</i> | <i>ACT(b)</i> | <i>NT(c)</i> | <i>Aust</i> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|
| <i>Numerator - number of low income households in rental stress</i> | | | | | | | | | | |
| Capital city | '000 | 117 | 76 | 31 | 27 | 20 | *3 | 7 | *4 | 285 |
| Balance of state | '000 | 62 | *11 | 50 | **3 | *5 | *4 | - | - | 134 |
| Total | '000 | 179 | 87 | 81 | 30 | 25 | 7 | 7 | *4 | 419 |
| <i>Denominator - total number of low income renter households</i> | | | | | | | | | | |
| Capital city | '000 | 254 | 195 | 98 | 87 | 72 | 13 | 19 | 13 | 748 |
| Balance of state | '000 | 136 | 62 | 118 | 17 | 24 | 15 | - | - | 377 |
| Total | '000 | 391 | 257 | 216 | 104 | 96 | 29 | 19 | 13 | 1,125 |
| <i>Proportion of low income renter households in rental stress</i> | | | | | | | | | | |
| Capital city | % | 46.1 | 38.9 | 31.5 | 31.6 | 27.8 | *22.1 | 35.9 | 39.1 | 38.1 |
| Balance of state | % | 45.1 | *17.6 | 42.3 | *15.4 | *20.2 | *23.2 | na | np | 35.4 |
| Total | % | 45.7 | 33.8 | 37.4 | 28.9 | 25.9 | 22.7 | 35.9 | 29.7 | 37.2 |

(a) Renter households in the 40% of households with equivalised disposable household income (excluding CRA) up to the 40th percentile, calculated for capital city and balance of state, on a state-by-state basis.

(b) Balance of state estimates for the ACT are not separately available.

(c) Excludes very remote, accounting for about 23% of the population in the NT.

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

In addition to the geographic disaggregations, the rental affordability performance indicator is also disaggregated by: age; sex; country of birth; Indigenous status; dwelling type; number of bedrooms; utilisation; landlord type; household type; household size; number of employed residents; income level; and main income source.

ADEQUATE HOUSING FOR INDIGENOUS AUSTRALIANS

Many Indigenous people in Australia, live in houses are overcrowded or that do not meet community standards of acceptable condition for human habitation, particularly in remote areas and discrete Indigenous communities.

Measurement issues

This section outlines some of the measurement issues that are encountered when examining: condition measures for assessing acceptable standards of accommodation; and issues in measuring overcrowding in Indigenous communities.

The housing circumstances of Indigenous people often differ markedly from those of other Australians. Inadequate housing has been identified as a factor affecting the health of Indigenous people, due to overcrowded dwellings and sub-standard household facilities. These issues are relevant to Indigenous people whether they live in remote or urban areas.

Adequacy of housing can be considered in a number of ways. It can be defined as the suitability of a residential dwelling to permit a reasonable quality of life and adequate access to employment and education, health and community services, public amenities and social supports. Alternatively, it can be considered in terms of the following properties: is of sufficient size so that a family is not living in overcrowded conditions; is in reasonable repair; and provides the basic amenities considered essential by the community.

Accurately measuring the condition of a dwelling is impacted by who judges the condition, whether they are the respondent, the interviewer or a building inspector. Accurately measuring overcrowding in Indigenous communities is impacted by the presence of visitors, who arrive in large numbers and stay for some time for family, community, cultural and ceremonial reasons.

Recent developments in sources and methods

This section discusses recent developments in the sources and methods used to measure dwelling condition and overcrowding for performance reporting purposes.

Dwelling condition

The ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) asks the members of the household to report on the condition of the dwelling in which they live. Information is collected on the dwelling's structural quality, its need for repair and the presence, or absence, of working basic amenities.

The ABS developed a measure of adequate housing based on its structural quality and presence of working basic facilities, as reported by householders.

The self reported assessment of the adequacy of a dwelling's basic infrastructure does provide a good indicator of the basic functioning of the dwelling for safe living. While it is not a substitute for qualified building inspection, it does provide a whole of population perspective that can track dwelling adequacy over time regardless of changes in tenure type that may be driven by other aspects of improving the housing outcomes for Indigenous Australians. For example, a building inspection approach for social housing may be appropriate for just that tenure. But if measures to improve both Indigenous rates of home ownership and renting in the private are successful, an acceptable dwelling condition based on inspection in a rapidly shrinking component of the market may mask an overall deterioration in the dwelling conditions experienced by Indigenous people. The survey measure allows the tracking of the state of the 'health hardware' delivered through housing regardless of compositional change in tenure arrangements, and allows comparisons of outcomes for those those tenures.

For this indicator, a house is assessed as being acceptable if it has no more than two major structural problems and if it has working facilities for washing people, washing clothes and bedding, storing and preparing food, and sewerage.

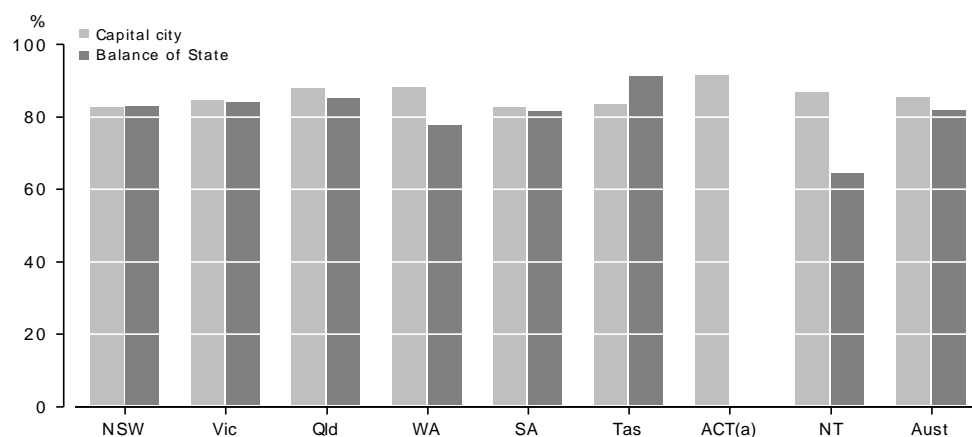
Across Australia, 83% of Indigenous households were living in houses of an acceptable standard.

Table 10: Proportion of Indigenous households living in houses of an acceptable standard (a), 2008

| | <i>Unit</i> | <i>NSW</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i> | <i>SA</i> | <i>Tas</i> | <i>ACT(b)</i> | <i>NT(c)</i> | <i>Aust</i> |
|---|-------------|------------|------------|------------|-----------|-----------|------------|---------------|--------------|-------------|
| <i>Numerator - number of Indigenous households living in houses of an acceptable standard</i> | | | | | | | | | | |
| Capital city | '000 | 18 | 7 | 14 | 8 | 5 | 3 | 2 | 4 | 60 |
| Balance of state | '000 | 36 | 7 | 32 | 10 | 5 | 5 | na | 7 | 101 |
| Total | '000 | 53 | 13 | 46 | 18 | 10 | 8 | 2 | 11 | 161 |
| <i>Denominator - total number of Indigenous households</i> | | | | | | | | | | |
| Capital city | '000 | 21 | 8 | 16 | 9 | 6 | 3 | 2 | 5 | 70 |
| Balance of state | '000 | 43 | 8 | 37 | 13 | 6 | 6 | na | 10 | 123 |
| Total | '000 | 64 | 16 | 53 | 22 | 12 | 9 | 2 | 15 | 193 |
| <i>Proportion of Indigenous households living in houses of an acceptable standard</i> | | | | | | | | | | |
| Capital city | % | 82.7 | 84.7 | 88.1 | 88.4 | 82.6 | 83.6 | 91.6 | 86.8 | 85.4 |
| Balance of state | % | 83.0 | 84.1 | 85.2 | 77.8 | 81.7 | 91.3 | na | 64.5 | 82.0 |
| Total | % | 82.9 | 84.4 | 86.1 | 81.9 | 82.1 | 88.6 | 91.6 | 71.8 | 83.2 |

(a) Working facilities (for washing people, for washing clothes/bedding, for storing/preparing food and sewerage) and not more than two major structural problems.

Figure 8: Proportion of Indigenous households in adequate dwellings, 2008



(a) Capital city estimates for the ACT relate to total ACT.

Note: Defined as a household with four working facilities (for washing people, for washing clothes/bedding, for storing/preparing food and sewerage) and not more than two major structural problems.

Source: 2008 National Aboriginal and Torres Strait Islander Social Survey

Overcrowding

While there is no universally accepted definition of what constitutes an overcrowded household, the ABS uses the widely applied Canadian National Occupancy Standard.

The Canadian National Occupancy Standard specifies who can reasonably be expected to share bedrooms, taking into account the age and sex of household members. This measure does not take into account visitors who were staying in the dwelling for less than six months.

Across Australia, 13% of Indigenous households were overcrowded in 2008. Overcrowding was much higher outside of capital cities (15.8% compared with 9.3% in capital cities) and much higher in states with relatively high proportions of their Indigenous population in remoter areas (Queensland, Western Australia and the Northern Territory (Table 11 below).

Table 11: Proportion of Indigenous households living in overcrowded conditions (a) 2008

| | Unit | NSW | Vic | Qld | WA | SA | Tas | ACT(b) | NT | Aust |
|--|------|-----|-----|-----|----|----|-----|--------|----|------|
| <i>Numerator - number of overcrowded Indigenous households</i> | | | | | | | | | | |
| Capital city | '000 | 2 | 1 | *2 | 1 | 1 | *0 | *0 | 1 | 7 |
| Balance of state | '000 | 5 | 1 | 7 | 2 | 1 | *0 | 0 | 2 | 19 |
| Total | '000 | 7 | 1 | 8 | 3 | 1 | 1 | *0 | 5 | 26 |
| <i>Denominator - total number of Indigenous households(c)</i> | | | | | | | | | | |
| Capital city | '000 | 21 | 8 | 16 | 9 | 6 | 3 | 2 | 5 | 70 |
| Balance of state | '000 | 43 | 8 | 37 | 13 | 6 | 6 | na | 10 | 123 |
| Total | | 64 | 16 | 53 | 22 | 12 | 9 | 2 | 15 | 193 |

| | | '000 | | | | | | | | | |
|------------------|---|--|-----|-------|------|------|------|------|------|------|--|
| | | <i>Proportion of Indigenous households living in overcrowded conditions(c)</i> | | | | | | | | | |
| Capital city | % | 8.4 | 7.8 | *10.5 | 10.1 | 9.2 | *7.0 | *4.7 | 13.4 | 9.3 | |
| Balance of state | % | 11.0 | 6.9 | 16.7 | 18.4 | 11.6 | 5.8 | na | 43.8 | 15.8 | |
| Total | % | 10.2 | 7.4 | 14.8 | 15.1 | 10.4 | 6.2 | *4.7 | 34.0 | 13.4 | |

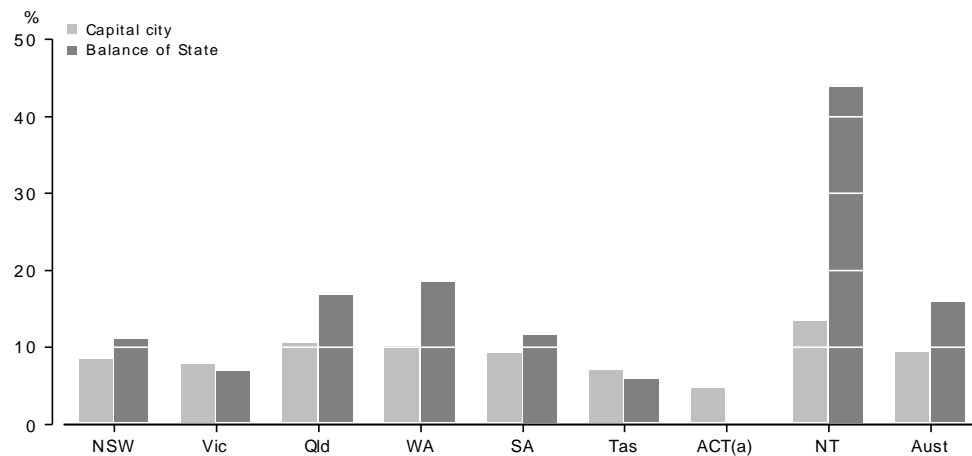
(a) Overcrowded conditions are defined using the Canadian National Occupancy Standard for 'needing 1,2,3,4 and > 4 bedrooms'.

(b) Balance of state estimates for the ACT are not separately available.

(c) Includes where overcrowded conditions are 'Not Known', which account for approximately 0.8 percent of all Indigenous private dwellings.

Source: NATSISS

Figure 9: Proportion of Indigenous households in overcrowded conditions, 2008



(a) Capital city estimates for the ACT relate to total ACT.

Note: Defined using the Canadian National Occupancy Standard as requiring one or more additional bedrooms

Source: 2008 National Aboriginal and Torres Strait Islander Social Survey

CONCLUSION

Housing affordability is a social issue in many countries. Understanding the issue in Australia's context is complex. The large geographic spread, coupled with Australia's relatively small population, requires segmented analysis for some purposes in ways that creates some complexity in then bringing the components together in a meaningful summary way.

Even within cities and their surrounds, the distances and the transport and social infrastructure issues have lead some analysts, when responding to notions of a housing crisis, to refer instead to a 'transport crisis'.

Other analysts have referred to a 'two speed' economy, with the mineral resource rich states and territories growing strongly in terms of population, jobs and incomes.

Both the rapid population growth in these jurisdictions, and the phenomenon of a large scale fly-in / fly-out workforce, create housing 'hot spots' both in the mining towns and in feeder locations that send workers in for their shifts. Localised housing supply is not as elastic as labour supply when incomes rise very rapidly.

Many of the more traditional housing affordability summary measures at a population level that are often used are not effective at either articulating the scale of the issue or its incidence across time or geography.

To address the issue of measuring outcomes for the population in the face of many disparate components of supply and demand (including choice), in Australia a range of new affordable housing measures have been developed to provide some transparency on the performance of governments. These measures, many of which are presented in this paper, focus on those households with lower incomes to take out of much of the analysis the circumstances of those with both real choice in their housing preferences and circumstances. Those people who can trade off lack of amenity in housing when pursuing high incomes can be considered to be adjusting their consumption of housing services over time in ways to maximise their total consumption possibilities over time.

Several of the new Australian performance indicators (PIs) therefore focus on:

- rental affordability for the bottom 40% of the income distribution;
- home purchase affordability for the bottom 60% of the income distribution;
- overcrowding in Indigenous households;
- adequate dwelling condition for Indigenous housing; and
- homelessness.

Regarding rental and ownership affordability, the compilation of the aggregate PIs explicitly segments the markets geographically to account, at least in some measure, for the spread of circumstances and housing markets across states and territories, and between capital cities and the balance of these states. ABS household surveys have received additional funding to increase sample sizes to better support the measurement of change over time across geography, as well as for the many disaggregations of the higher level PIs to allow consideration of the context and circumstances surrounding performance in terms of social inclusion and groups at risk of disadvantage.

ABS also reports the overarching performance indicator regarding population wide home ownership rates.

PIs are also required for housing supply meeting underlying demand for housing, and for housing market efficiency. These PIs are still under development and consideration by the National Housing Supply Council, which has been established by government to aggregate and assess data on housing supply and demand and to report to the Commonwealth Minister for Housing on its findings.

The process of developing and reporting the new PIs, required under the National Affordable Housing Agreement, has not only aided transparency in public reporting on government performance, but helped analysts and policy makers understand some of the shortcomings in alternative measures, and sharpened the focus on priorities in data development for decision making in governments and the community.

July 2010