Abstract

Purpose- The purpose of this paper is to provide an explanation as to why Australian house prices did not succumb to a similar fate as the US and UK residential property market in the aftermath of the global financial crisis. The research details several reasons to explain why Australia’s house prices were unlikely to succumb to the price falls experienced in the US, UK and Europe.

Design/methodology/approach- The method used in this paper involves analysis of historical and current data to provide a comparative analysis of the determinants of house prices in Australia and the US, including an analysis of housing affordability.

Findings- From the evidence presented, the factors, which played the most significant role in creating the conditions for the US house bubble, were not evident in the Australian housing market. Interestingly, the constrained level of supply of new housing in the major cities of Melbourne and Sydney appear to have impacted upon the demand.

Keywords: House affordability, house prices in Australia and US
Introduction

In the housing affordability literature, three concepts of affordability are used; purchase affordability, repayment affordability and income affordability. Purchase affordability considers whether a household is able to borrow enough funds to purchase a house, repayment affordability considers the burden imposed on a household repaying the mortgage while income affordability simply measures the ratio of house prices to income. In this paper income, affordability provides the basis for comparing the relative prices of both US and Australian housing while purchase and repayment affordability compares the financial costs and regulations across both markets.

Australia’s house prices rose 87 per cent in real terms between 1996 – 2007, by comparison US house prices rose in real terms by 60 per cent (4.8 per cent per annum) between 1960 and 2006. The long term trend growth for US house prices is about 1.6 per cent (Figure 1), compared to Australia’s trend rate of 2.9 % (since 1975). In the aftermath of the 2007/08 recession the US experienced significant falls in house prices of approximately 30 per cent (Sept quarter peak 2006 - Dec quarter 2008). These dramatic falls in US house prices inspired one economist in Australia to predict that Australian house prices would tank by 40 per cent by the end of 2009. In hindsight we have know that such dire predictions were far off the mark and was not only wrong in terms of size but also in direction of the price change. This paper attempts to provide a detailed analysis of the US and Australian housing markets by providing a focus on significant differences between the US and Australian housing markets. The most severe house price declines in US house prices occurred in the bubble markets of California, Florida, Phoenix and Las Vegas. Virtually all of these markets experienced house price declines of 50 percent or more from the peak of the housing bubble. By contrast the explosion in Sydney and Melbourne housing markets continued well after the financial crisis to record a flat rate of growth (their lowest in 10 years ) from quarter three 2010 to quarter three 2011. This object of paper is to provide an explanation of why Australian house prices did not succumb to a similar fate as the US and UK residential property market. The paper details significant differences between these markets. In particular we test the hypothesis that both markets are fundamentally different by focusing on the drivers of house prices across both markets over both the short and long term.

Housing Affordability

To begin a discussion on housing affordability one should have at least a conceptual idea of what constitutes housing affordability. Here Whitehead (Gabriel et al 2005, p6) has pointed out that definitions usually focus on the relationship between housing expenditure and household income, typically to establish a standard in respect of which the amount of income spent on housing is deemed unaffordable. For example, traditionally, financial institutions have applied a rule of not allowing households to take out home loans requiring more than 30 per cent of gross income for their servicing (Select Committee 2008, p35).

Analysts employing measures of affordability typically adopt a ratio approach by measuring the relationships between household incomes and housing costs. A
ratio approach usually uses a benchmark average or percentile levels of incomes and costs to assess the extent of variability between places or household types and/or assessing changing circumstances over time (Paris 2007). There are many technical and conceptual problems associated with using a ratio approach. A core problem with the ratios approach is that incomes and costs change significantly over life cycles, generally with higher proportions of income being spent on house purchase during the early years of a mortgage or loan and lower proportions at a later date. During periods of rapid house price and income inflation, therefore, very high costs may be associated with the early years of a mortgage repayment, but this can soon followed by much lower real costs and rapid growth in equity.

The complexity surrounding affordability measurement means that there is no one measure adequate for assessing the nature and degree of housing affordability. In this paper we analyse three concepts of affordability namely; purchase affordability, repayment affordability and income affordability. Purchase affordability considers whether a household is able to borrow enough funds to purchase a house, repayment affordability considers the burden imposed on a household repaying the mortgage while income affordability simply measures the ratio of house prices to income. In this paper income affordability provides the basis for comparing the relative prices of both US and Australian housing while purchase and repayment affordability compares the financial costs and regulations across both markets.

Several factors drive housing affordability; from the demand side demographic influences, changes in finance costs and immigration exert varying degrees of influences on house prices, while on the supply side the main drivers are land availability, infrastructure costs, government taxes and transfers. The paper is formatted as follows firstly we compare house prices in Australia and the US using a number of alternative measurements, we next examine the main drivers of house prices across both markets within a demand and supply framework, we next investigate the differences between the US and Australian regulations regards the provision of housing finance, finally the conclusion contrasts some policy implications drawn from the study for both markets.

Figure 1
Income affordability (i.e., the ratio of house prices to income) takes a more long-term picture of affordability; as a median measure, it compares the ratio of mortgage repayments on an average household loan to average household earnings. Banks and real estate institutes and government agencies typically employ the measure.

Demographia International (2010) uses income affordability to derive their affordability index; house prices are considered to be ‘severely unaffordable’ if the price-to-income ratio exceeds a median multiple of 5.1, seriously unaffordable (4.1 – 5), moderately unaffordable (3.1 – 4), affordable (3 or <). Accordingly in the 3rd quarter of 2008, 24 Australian towns and cities (out of 64 markets globally) were deemed severely unaffordable. Of the 272 markets surveyed in 2009, there were 103 affordable markets, (98 in the US) this is an improvement from 87 in 2008. Among the major markets, Vancouver is the least affordable (9.3), followed by Sydney (9.1), Melbourne (8.0), Adelaide (7.4), London (7.1), New York (7.0) and San Francisco (7.0).

Confirming the above income affordability data, a 2007 OECD study claims the price of housing relative to incomes is 50 per cent higher in Australia than in other countries as a group. Over the peaks of the recent global financial crisis house prices in Australia did experience a decrease but nothing compared to the decrease in prices reported in US UK or Ireland. The OECD found the estimated overvaluation of Australian homes in 2004 was 51.8 per cent. The next highest overvaluation was in Britain at 32.8 per cent. The OECD concludes that Australian house prices are higher due to a lack of housing stock, higher migration levels, low interest rates and more competition from lenders. Another factor with special importance to Australia is the growth in people investing in property specifically to rent. Buy-to-let mortgages have grown in most nations. Around seven per cent of loans in Britain are for investment, while in the US 15 per cent of home sales were for investment, the comparative figure for Australia is around 30 per cent (by late 2003). In New South Wales, the rate was 42 per cent of all mortgages, and in Victoria it was 35 per cent.
The Reserve Bank of Australia has shown that until the late 1990s the price to income ratio was at 3.0 or below in Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States. By comparison Figure 3 shows that the trend for Australia's house price ratio doubled to 6 by 2003 falling slightly over 2005/06 until falling slightly again in 2009.

**Figure 3**
*Australia's House Price to Income*

Comparing the affordability for first homebuyers and house prices, Figure 4 shows that for over a decade affordability declined to 2008. Potential first home purchasers were unable to become homebuyers because rising house prices had increased the deposit gap and repayment requirements. Many young adults were remaining for longer periods in the parental home or sharing housing instead of forming independent households. First homebuyer affordability improved by 36 per cent in the year to September 2009, due to the reduction in interest rates and measures such as the First Home Grant scheme, although this has since been partially reversed.
The Drivers of Australian House Prices - Bubble or Fundamentals!

In Australia, there is consensus amongst government and the private sector that there is a severe housing crisis, with rampant un-affordability and a housing shortage. Today, the median income household would be required to pay more than 50 percent of its income to service a new mortgage on the median priced house in Sydney or Melbourne. In Dallas-Fort Worth or Atlanta with similar populations, the household would pay under 20 percent.

The loss of housing affordability in Sydney and Melbourne is partly due to land use regulation at both the state and local level, which has virtually eliminated affordable land for building. On average, it takes from 6.25 to 14.5 years to convert urban fringe land into new houses.

The August 2009, RBA ‘Statement of Monetary Policy’ opined; “The number of housing starts is likely to remain at levels well below most estimates of underlying demand. Lifting home-building in the longer-run will require further progress on the supply side, including addressing factors that are increasing the cost of development of new housing, both on the edges of cities and closer to the city centres.” The gap between dwelling supply and underlying demand has led to pressures on house prices and rent levels, and thus to housing affordability problems concentrated among low-income households. Figure 5 shows the gap between population growth and housing commencements is increasing, as the latter appears to be going in the opposite direction to population growth.
The National Housing Supply Council estimate that over the five years to 2013, the overall gap between total underlying demand and total supply is projected to grow to 203,000 dwellings (based on assumptions of medium growth in supply and underlying demand).

Australia’s third largest home loan mortgage provider the ANZ suggest that if housing supply remains on its current trajectory “by mid-2010 Australia will have an unprecedented underlying housing shortage of 250,000 dwellings!”. The blue bars in Figure 6 below show ANZ Bank’s estimates of housing demand less housing supply.

The housing bubble in the US

The housing bubble in the United States grew up alongside the stock bubble in the mid-90s, for detailed analysis of the events leading to the bubble’s peak and eventual bust refer to Shiller (2006) (Shiller, R. 2006. Irrational Exuberance (2nd edition). Princeton, NJ: Princeton University Press). Essentially consumers who had increased their wealth substantially with the extraordinary run-up of stock prices were spending with the savings rate out of disposable income falling from close to 5.0 percent in the middle of the decade to just over 2 percent by 2000. The stock wealth induced consumption boom encouraged consumers to spend some of their new stock wealth on housing. This increase in demand had the effect of
triggering a housing bubble because in the short-run the supply of housing is relatively fixed. The expectation that prices would continue to rise led homebuyers to pay far more for homes than they would have otherwise, making the expectations self-fulfilling.

**Figure 7**
*US National Home Price Index*

By 2002, (Figure 7) house prices had risen by nearly 30 percent after adjusting for inflation. Given the long history of stable house prices shown in the government data, and the even longer history in the data series constructed by Shiller, it should have been evident that house prices, were being driven by a speculative bubble rather than the fundamentals of the housing market.

The run-up in prices in both the ownership and rental markets was having a substantial supply-side effect, as housing starts rose substantially from the mid-90s through the late 90s. By 2002, Figure 8 housing starts were almost 25 percent above the average rate over the three years immediately preceding the start of the bubble (1993-95). The increase in building showed up first as an over-supply of rental
housing, with the vacancy rate rising to near record levels above 9.0 percent in 2002, compared to a rate of 7.5 percent in the mid-90s.

The extraordinarily low interest rates accelerated the run-up in house prices. From the fourth quarter of 2002 to the fourth quarter of 2006, real house prices rose by an additional 31.6 percent, an annual rate of 7.1 percent. This fuelled even more construction, with housing starts eventually peaking at 2,070,000 in 2005, more than 50 percent above the rate in the pre-bubble years.

The bubble did begin to burst in 2007, as the building boom led to oversupply where prices could no longer be supported as Figure 7 shows by the middle of 2007, prices nationwide had peaked and began to head downward. This process accelerated through the fall of 2007 and into 2008.

The story from the demand side brought into place the makings for a ‘perfect storm’. The lead up to the bubble witnessed a relaxation in lending standards, default rates began to soar in 2006 and 2007, and banks began to tighten their standards and to require larger down payments. The most severe tightening took place in the markets (20 to 25 percent down payment) with the most rapidly falling prices, which in turn excluded many potential homebuyers from the market.

By the end of 2007, real house prices had fallen by more than 15 percent from peak. House prices in many of the most over-valued markets, primarily along the two coasts, had fallen by more than 20 percent. The rate of price decline in the Shiller index implies that real house prices would decline by more than 30 percent from their 2007 peaks by the end of 2008. This would mean a loss of more than $7 trillion in housing bubble wealth (approximately $100,000 per homeowner). The lost wealth is almost equal to 50 percent of GDP.

**Housing finance Australia vs. US**

The Reserve Bank of Australia tightened monetary policy in the lead up to the global financial crisis over the period May 2002–March 2005 and then more aggressively till September 2008. However, in the US interest rates went in the opposing direction where the Fed used stimulatory monetary policy to boost activity in 2003–2006, fuelling the over-building.

The housing finance system operating in the US differs significantly compared to that in Australia (Laing, 2011). In Australia, there is one supervisor for all banks (Australian Prudential Regulatory Authority) and non-bank deposit-taking institutions, while in the US there are multiple regulators. The single regulator now appears to be a major factor explaining the superior performance of the Australian banking system.

In the US, the use of non-recourse loans is widespread; this facility allows the mortgagee to walk away from paying out the loan in full (i.e. to default). In other words where the value of the property is less than the mortgage the mortgagor has no recourse to the mortgagee for the shortfall.
To help facilitate non-recourse loans the US Fannie-Mae provided a public subsidy to the housing market by providing free mortgage insurance (guarantee on mortgage payments). This allowed US banks and other loan originators to shift mortgages off their balance sheets. By contrast, most mortgages in Australia are included in banks’ balance sheets.

By 2008 the rate of defaults and foreclosures in the US jumped sharply (Figure 9). By contrast, Australian banks experienced historically lower default rates vis-à-vis those in the US. Higher default rates increases the supply of houses coming onto the market and places downward pressure on house prices. One outcome here was the build up in non-performing loans from 1 percent to 5 percent over 2007-09 Figure 9.

Figure 9
Non-performing Housing Loans

The US subprime market exploded during this period, rising from less than 9 percent of the market in 2002 to 25 percent of the market by 2005. Compounding credit risks was the attraction to borrowers that many of the Alt-A mortgages was issued on interest free terms. By the peak of the bubble the total of subprime and Alt-A categories comprised more than 40 percent of the loans issued by banks. By contrast, there was a very small subprime market in Australia, which at its height would have amounted to approximately 10 per cent of housing loans. The fact that these loans in Australia are non-recourse prevented even the most stressed mortgage holder’s from walking away from their liabilities, in the end when default was the only option the percentage of defaults on house mortgagees relative to total house mortgages was approximately 1 – 2 percent.

Gan and Hill (2009) argue that deregulation of the Australian mortgage market resulted in an increase of the average mortgage length and per period mortgage-payment-to-income ratio. In this new environment, it appears that purchase affordability improved without any impact on repayment affordability. That is, a household with a given initial level of wealth and expected future income stream can now buy a more expensive house than previously (i.e., purchase affordability has improved), but the burden of repayment for any particular mortgage (i.e., repayment affordability) has indebted the household with longer repayments. This outcome is exacerbated in an environment of rising house prices.
Summary and Conclusion

The data in this paper suggests that Australia has one of the most unaffordable residential housing sectors across the developed world. A recent release by the ABS indicates that home ownership fell from 72 percent of households to 68 percent between 1994-5 and 2007-8. Over the same period, the United States, with similar demographics and demographic trends, experienced an increase from in home ownership from 65 percent to 68 percent.

If the supply of additional housing in Australia does not keep up with increased underlying demand, the pressure on the price of existing housing stock will increase which in turn may should stimulate additional supply, but might further reduce effective demand for privately produced housing. In the latter case more Australians will become homeless; more people will be forced to live in caravans, share accommodation and/or stay longer in the parental home. In this situation low-income households would be particularly disadvantaged.

Land use regulation policies have severely reduced housing affordability in several Australian residential property markets. By contrast markets in the residential property markets in the US with more traditional, more responsive planning continue to supply housing for the next generation for approximately the same share of household income as in previous generations.

Australia’s increasing immigration rates have had a significant influence on the demand for housing, especially given the large proportion of young adults among the immigrant population. Continued high migration alongside the fall in dwellings constructed in 2009–10 is likely to put more pressure on the housing market, especially for lower income households.

In conclusion we have surveyed a broad range of factors which directly impinged on house prices in both the US and Australian residential property markets, we also examined the data both historically and in the lead up to the housing bubble in the US. From the evidence, the factors, which played the most significant roles in creating the conditions for the US house bubble, were not evident for the Australian housing market. In fact, the growing demand push factors combined with the constrained supply factors in providing new housing stock in particular for the major cities of Melbourne and Sydney appear to have anything but abated. These conditions can only lead to continuing rise in Australian house prices for these markets or a levelling of prices given that further price increases are unsustainable.
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