

Bubbling Over

The End of Australia's \$2 Trillion Housing Party

By Philip Soos

Executive Summary

A great deal of debate has occurred in Australia on the notion that the residential property market may be experiencing a bubble, set to burst in a similar fashion to that in the United States. Over the last decade and a half, housing prices have risen substantially since 1996. The lack of affordable accommodation within the capital cities where most Australians live has resulted in concern about the viability of purchasing a home, especially for first home buyers. Rising housing costs have placed many Australians under a heavy financial burden, primarily that of paying down the mortgage on owner-occupied properties.

Despite the misgivings of the public, the economic and financial authorities – the Reserve Bank of Australia, the Treasury, the major commercial banks and real estate industry – have provided assurance that a bubble does not exist and the “doom and gloom” scenarios of a downturn in prices is implausible, the result of fear-mongering. On the other hand, a number of Australian and US economists have offered analyses countering the mainstream account. Some of them accurately predicted the US housing bubble and global financial crisis.

Many property related ratios and valuations, for instance, house price to rent, household debt to assets, median house price to income multiple, mortgage debt to GDP, and household debt to disposable income, indicates that residential property is severely overvalued. Having tracked the rate of inflation from 1992 to 1996, house prices have increased substantially by 127% during 1996-2010, indicating that prices are no longer in step with underlying fundamentals. Rents have not moved in line with housing prices, and it has been found that Australia has no shortage or undersupply of housing.

Without further government intervention in the property market, a collapse in housing prices appears unavoidable, with prices peaking in the last quarter of 2010. While a “soft” landing can be hoped for, the likely result will be a severe recession or a debt-deflation, with values declining by approximately 40% in order to return to underlying fundamentals. If this unwanted outcome occurs, it is argued that the most efficient course of action is to follow the Swedish model of the early 1990s crisis and bail out debtors by writing down debts commensurate with the ability to pay while ensuring that creditors are held responsible for their role in over-lending and thus playing a primary role in the formation of the bubble.

Introduction

Over the last half a decade, and certainly within the last few years, there has occurred an intense debate over the possible existence of a bubble in the residential property market in Australia. This has been spurred on by the tremendous price increases in all forms of private dwellings (houses, townhouses, pairs, units, apartments, etc.) within the capital cities and regional areas of Australia. Two factors may have added to the debate: the burden of mortgage debt and the recent bursting of property bubbles overseas, particularly in the US as the most prominent example, along with other countries such as England, Spain and Ireland. Certainly, news of the recent situation in the US has received much attention, with concerns that Australia could follow the path of the US and European nations.

A collapse in housing prices would result in very adverse consequences for Australian households and the domestic economy. Many sources within the government and industry have sought to assure the population that Australia will not experience a similar scenario to that of the U.S. Regardless of whether there exists a bubble or not, house prices are in the spotlight due to concerns over an ever-increasing lack of affordability for first home buyers and adequate shelter for the homeless. Since 1996, house prices have increased faster than inflation and incomes, sparking concerns among policymakers and the public as to the future of Australian property.

It is little wonder that Australians are worried about a bubble, as millions of workers and families are reliant upon the equity in their major asset (house) and stable employment necessary to finance consumption and to pay bills and the mortgage. Although the short-term economic effects from the start to the peak of a bubble may result in low unemployment, rising incomes, increasing GDP, and general financial stability (the good times), the impact of a bubble deflating is so destructive that comparisons have been made between the shape of Australia's economic future and that of other nations that have suffered from a boom-bust property cycle in the recent past. The fallout that has occurred in Japan and the US are but two relatively recent examples. Japan has suffered through constant deflation and a stagnant economy (called the Lost Decade from 1991 to 2000, though its deflationary woes have continued), and the US economy is struggling to recover, with record levels of public and private debt, bankruptcies, unemployment and foreclosures.

Many no doubt remember the run-up in prices on the stock market during the late 1990s, resulting in a spectacular crash, popularly known as the Dot-Com bubble. Economists and policymakers did not identify the bubble, and it was allowed to run its course until it crashed in 2000, wiping out a substantial amount of wealth. Several years of rapid price gains led to euphoric commentary about the “new economy,” the “weightless economy,” and so on until it became known by the moniker “tech wreck.” With this in recent memory, many wonder if the same is true of Australia’s residential property market: that is, will house prices continue to double every seven years, creating the means through ever-rising equity to fuel growing consumption, purchase of investment properties and a lavish lifestyle? Or will house prices fall markedly, reducing the wealth and standards of most Australians, and forcing many who are paying off investment properties and owner-occupied homes to sell?

This report will analyze Australia’s long term housing history, using data from 1880 to 2011. Historical events and trends may provide a useful indication as to where Australia’s residential property market is currently heading. The focus is specifically on the last decade and a half as this represents the period of the run-up in housing prices. Factors of housing supply and demand will be investigated in order to determine whether current house prices are based upon fundamentals.

Analyzing the Housing Market

Discovering the bubble

There are two methods to determine whether a bubble may exist in a property market. The first is through application of simple statistical analysis and basic economic concepts. Baker (2002) provides one example of this, noticing that housing prices historically tracked the general rate of inflation, and that significant departures were a likely indication of a bubble. Primary property indicators, for instance, the house price to rent ratio and median multiples, provide enough data to track recent trends in the residential property market. Combined with the dismissal of justifications that have little substance (for instance, population growth, housing undersupply), this simplified approach is sufficient to form a determination of whether asset prices are in line with underlying fundamentals. If steadily increasing asset prices are not justified by fundamentals, then a reversion to the mean is the likely outcome. Any economist who has graduated will have the necessary expertise to carry out this sort of analysis. In fact, any person with analytical skills and some knowledge of economic concepts should not be troubled. This report is based upon this method.

The second approach consists of a complex and demanding analysis as it requires the application of non-conventional economic modeling that is not typically practiced within the conventional economics profession today. This type of analysis dispenses with the fictions and unrealistic assumptions that form the basis of mainstream equilibrium theory. Such economic theory assumes equilibrium, a state where supply equals demand, and all resources are produced, allocated and consumed in the most efficient manner possible. Under these conditions, modification or intervention in the system is ill-advised. Other unrealistic assumptions, for instance, rational investors and consumers who possess all information and competitive financial markets that perfectly allocate resources, are considered hindrances to modeling the economy in a realistic fashion. Adding to these complexities are externalities, information asymmetries, uncertainty, moral hazard and imperfect competition.

This dynamic approach comprehends that markets do not correctly price assets as conventional theory says it should. If markets are considered internally inefficient, and combined with government intervention that amplifies these inefficiencies, then markets will naturally undergo the boom-bust cycle that has plagued economies for centuries. Hyman Minsky was one of the first economists to

formulate this non-conventional approach to understanding how modern state capitalist economies functioned.¹ In doing so, he developed a theory called the “financial instability hypothesis,” arguing that market economies are naturally prone to economic cycles, driven by financial markets, and does not rely upon external shocks to generate crises. According to this hypothesis in regards to asset markets, the income and debt relations for economic agents can be categorized into three types: hedge, speculative and Ponzi. Minsky (1992: 7) explains:

Hedge financing units are those which can fulfill all of their contractual payment obligations by their cash flows: the greater the weight of equity financing in the liability structure, the greater the likelihood that the unit is a hedge financing unit. Speculative finance units are units that can meet their payment commitments on “income account” on their liabilities, even as they cannot repay the principle out of income cash flows. Such units need to “roll over” their liabilities: (e.g. issue new debt to meet commitments on maturing debt). Governments with floating debts, corporations with floating issues of commercial paper, and banks are typically hedge units.

For Ponzi units, the cash flows from operations are not sufficient to fulfill either the repayment of principle or the interest due on outstanding debts by their cash flows from operations. Such units can sell assets or borrow. Borrowing to pay interest or selling assets to pay interest (and even dividends) on common stock lowers the equity of a unit, even as it increases liabilities and the prior commitment of future incomes. A unit that Ponzi finances lowers the margin of safety that it offers the holders of its debts.

Thus, the income and debt relations of housing cycles, as experienced in recent years, can be identified as belonging to the last category: Ponzi financing. Assets, in this case, residential property, are not bought for the income stream that it provides (rental income), as it is inadequate to finance the debt used to purchase the property. Rather, property is purchased for the expectation that prices will continue rising in the future, and later sold to realize a capital gain. As prices are bid up in the market, owner-occupiers and investors take on ever-increasing amounts of mortgage debt, supplied by banks and other non-banking lenders, to purchase property. This creates an upwards spiral of increasing prices and debt, leading to a housing bubble. Eventually, the income shortfall becomes so great that

¹ Irving Fisher is another.

agents liquidate their assets en masse, leading to a collapse in values. This situation produces a debt-deflation or depression: a downward spiral of diminishing asset values, wages, and commodity prices, where falling incomes are required to service the same amount of debt. The economy will only recover when the level of debt servicing falls to a point where incomes and savings can begin to finance a greater proportion of consumption and investment.

Given his understanding of the modern economy, Minsky is one of the more practical and relevant economists of the post-World War 2 period, though ignored within the mainstream. There are other economists whose work is similar to that of Minsky, having drawn upon a dynamic approach to modeling and understanding the economy. In a study identifying the small number of mostly heterodox economists who predicted the US housing bubble and global financial crisis, Bezemer (2009a) noted:

Central to the contrarians' thinking is an accounting of financial flows (of credit, interest, profit and wages) and stocks (debt and wealth) in the economy, as well as a sharp distinction between the real economy and the financial sector (including property). In these "flow-of-funds" models, liquidity generated in the financial sector flows to companies, households and the government as they borrow. This may facilitate fixed-capital investment, production and consumption, but also asset-price inflation and debt growth. Liquidity returns to the financial sector as investment or in debt service and fees.

It follows that there is a trade-off in the use of credit, so that financial investment may crowd out the financing of production. A second key insight is that, since the economy's assets and liabilities must balance, growing financial asset markets find their counterpart in a growing debt burden. They also swell payment flows of debt service and financial fees. Flow-of-funds models quantify the sustainability of the debt burden and the financial sector's drain on the real economy. This allows their users to foresee when finance's relation to the real economy turns from supportive to extractive, and when a breaking point will be reached.

Unfortunately, most economists adhere to the conventional neoclassical school of thought and do not adopt the type of thinking described by Bezemer. Over the last several years, however, there has been greater interest in the theories of Minsky due to the economic crises that have occurred in some countries. These crises were not predicted by most conventional economists for the reason that the

unrealistic neoclassical economic theory they have been taught and, in turn, continue to teach, does not permit economists to understand that asset bubbles and subsequent debt-deflations can occur within market economies.² Therefore, it would be beneficial for the public and economy at large if economists were to adopt the dynamic thinking of Minsky and the other economists who possess the foresight and competence to predict asset bubbles and debt-deflations of recent times.

Over the last several years, some economists have warned of a potential bubble within the residential property market in Australia, with some of them residing in the US. This could possibly be due to the fact that the US has had to deal with the largest housing bubble in its history, and review the rampant mainstream fantasy that housing prices always rise, won't fall, and always reflect underlying fundamentals. Experiencing the pain of having this illusion torn away may provide some insight as to why several economists in the US believe Australia may be affected by a bubble in the property market whereas the vast majority of Australian economists appear to believe the opposite.³ Also, many economists who believe that a bubble does exist belong to non-orthodox schools of economic thought. Any economist who has made the claim that a bubble does exist and provides some convincing evidence, and whose analysis can be found within the public domain, will be considered. Table 1 provides an overview of the economists who have offered evidence for a bubble in Australia's residential property market. A brief summary of each economist is found in Appendix A.

² Though some may hold opinions contrary to the economic theory they believe and teach.

³ For simplicity, I will use the term "economist" to describe anyone who has provided a worthwhile analysis, claiming and providing evidence that a bubble does exist in the Australian property market, as not all those profiled are strictly professional or academic economists by trade. For someone to provide such an analysis, at least an intermediate knowledge of economics is necessary.

#	Economist	Country	Occupation
1	Dean Baker	US	Co-director, Center for Economic and Policy Research
2	Edward Chancellor	US	Asset allocation, GMO
3	David Collyer	Australia	Campaign Manager, Prosper Australia
4	Brett Edgerton	Australia	Scientist
5	Karl Fitzgerald	Australia	Projects Coordinator, Prosper Australia
6	Ross Garnaut	Australia	Professorial Fellow in Economics, University of Melbourne
7	Jeremy Grantham	US	Co-founder and Chief Investment Strategist, GMO
8	Michael Hudson	US	Professor of economics, University of Missouri, Kansas City
9	Bryan Kavanagh	Australia	Research associate, Land Values Research Group
10	Steve Keen	Australia	Associate professor in economics and finance, Western Sydney University
11	David Llewellyn-Smith	Australia	Consultant, media business and communications strategy
12	Prakash Loungani	US	Advisor, International Monetary Fund
13	Gerard Minack	Australia	Chief economist, Morgan Stanley Australia
14	Leith van Onselen	Australia	Economist, investment bank
15	Gavin Putland	Australia	Director, Land Values Research Group
16	Kris Sayce	Australia	Financial advisor, wealth management
17	Adam Schwab	Australia	Journalist, finance and business commentary
18	Michael Shedlock	US	Investment advisor, SitkaPacific Capital Management

Table 1: Overview of economists

A short history of Australian housing

Some of the studies of Australia's residential property market have their starting points for data begin only in the late 19th century, due to two factors: the obvious lack of statistics before, and that the greatest depression in the recorded history of this country had occurred along with the bursting of a housing bubble. This event has inspired economists and historians to investigate the circumstances of this period, which has provided the data and background necessary to take a long-term view of property prices in Australia since 1880.

Figure 1 illustrates the long-term housing price history from 1880 to 2006. The data for the index was derived from Stapledon (2007), measuring real housing prices over this period. Clearly, the federal government did not keep a constant record of property prices over this period using one methodology, though if it did, the value of having done so would be immense in terms of economic and historical analysis. The housing prices of both Sydney and Melbourne, Australia's largest cities, were used to as a guide to develop the index, supplemented by data from rental indexes and rental incomes including newspaper reports and advertised asking prices for houses (Stapledon 2007: 7). Unlike the US, a national house price index of residential properties in Australia is more reflective of the entire market as most of the private dwellings are in the eight capital cities, though, of course, there are and will always be differences between cities and regional areas. In fact, two-thirds of Australia's population is concentrated into less than 0.5 percent of the country's land area, with more than half living in the capital cities (Saminather 2010).

Australia's long-term housing price history does certainly contradict views to the effect that house prices never decline and always rise as there are many peaks and valleys. Possibly the most interesting of them is the Melbourne land boom, a period of debt-induced speculative hysteria on residential property markets resulting in a national run-up in prices of 32% from 1887-1891.⁴ The stocks of land, land finance and mining companies were also bid up in this frenzy (Hickson and Turner 2002). Then from the peak of the bubble in 1891 through to 1898, the bubble deflated, with prices falling 32%. The fallout was typical of a deflation: unemployment shot up to 16%, business bankruptcies increased dramatically, immigration and population growth ceased, investors lost their fortunes, and general misery followed.

⁴ All percentage changes reflect real prices, unless otherwise stated.

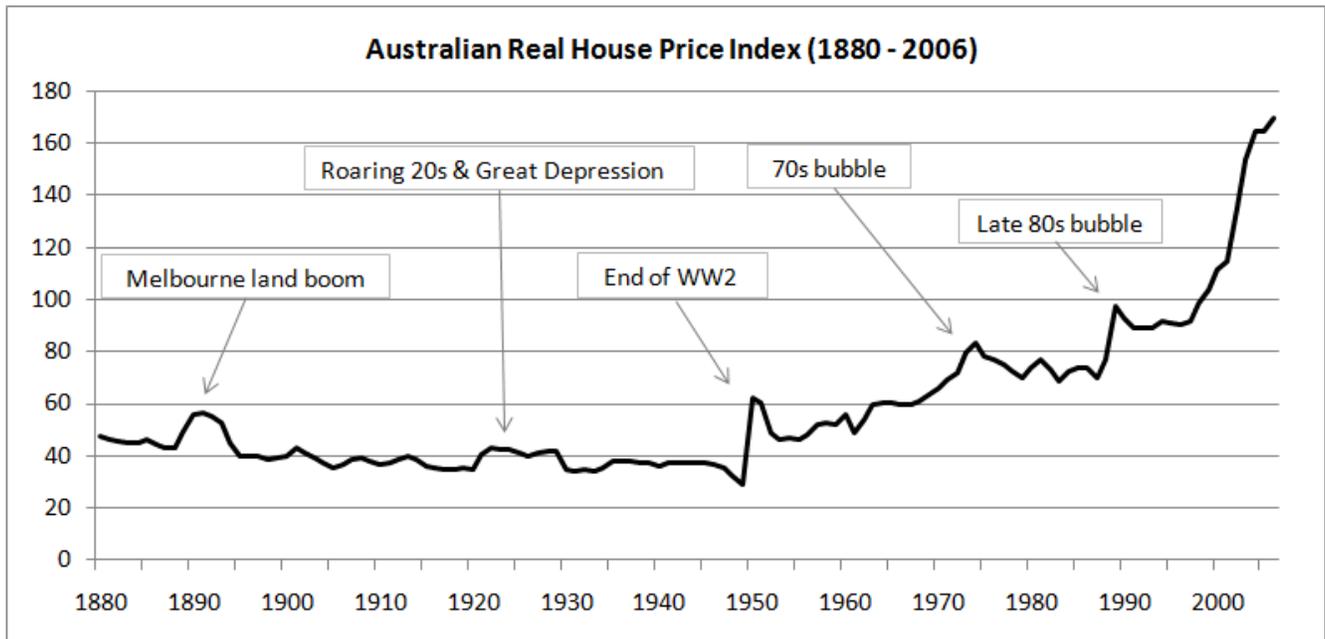


Figure 1: Australian Real House Price Index 1880-2006 (Stapledon 2007: Table 2.5).

A study of Australia’s last two depressions, by two economists at the Reserve Bank of Australia (RBA), the more well-known Great Depression of the 1930s and the lesser-known depression in the 1890s, states that “the depression of the 1890s was substantially deeper and more prolonged than the depression of the 1930s” in terms of real GDP per capita, retail prices and output, with the downturn in the property market constituting a leading factor in the financial collapse. Out of 23 trading banks, 13 were forced to close (Fisher and Kent 1999: 3-5, 44). Directors of the insolvent Mercantile Bank were prosecuted in court, charged with conspiring to cheat and defraud shareholders, depositors, customers and the public generally (Anonymous 1893). The financial and banking system was one that was reflective of a free market system: limited to no regulations, no central bank, no bailouts, no deposit insurance, relatively few barriers to entry, no branching restrictions, and no restrictions on assets, liabilities or bank capital. Collapse of the banking system was due to the bursting of the bubble and “appears from the evidence to be a natural consequence of the system of free banking” (Hickson and Turner 2002: 165).

In the lead up to the Great Depression of the 1930s, house prices increased by 25% from 1920 to 1922, and remained at a stable level until 1929, and in a couple of years from 1929 to 1931, prices fell approximately 18%. Comparatively, the lead up to the earlier depression of the 1890s produced a larger and more destructive bubble. From the Great Depression onwards, the property market remained

stagnant, not recovering to its former highs until after the end of World War 2. Once rent and price controls were lifted, a significant increase occurred of 112% from 1949 to 1950, and then collapsed by 26% from 1950 to 1953 as the market later stabilized.

Another bubble formed during the late 1960s through to the mid-1970s, where prices peaked in 1974, after increasing 40% from 1967 to 1974. The bursting of this bubble resulted in a fall of 16% from 1974 to 1979, recovering and then declining twice again through the period 1979 to 1987. Then property prices sharply increased 39% in a short period of time (1987-1989) before declining 8% from 1989 to 1993. While bubbles of any size are unwelcome in an asset market such as residential property, the two bubbles during the 1970s and 1980s were not as historically significant as the preceding three bubbles: the Melbourne land boom, the Great Depression, and after the end of World War 2 (though it could be contended that the last was the result of purposeful intervention in the form of price and rent controls and thus not a real bubble). The residential property market tracked the general rate of inflation from 1992 until 1996. From then, the largest run up in prices in known history has occurred. The years from 1996 to 2006 saw prices increase 88%. Unfortunately, this house price index finishes in 2006, with no further data available. Fortunately, there is another house price index available from the Australian Bureau of Statistics (ABS). This series, however, only extends as far back as 1986. For the purposes of examining trends, this index is sufficient.⁵

From 1996 to 2010, house prices increased by 127%, as Figure 2 shows. This represents a substantial increase without an obvious event underpinning the run-up in prices, such as the eventual elimination of price and rent controls that occurred in the late 1940s. The rent price index, however, has not deviated considerably in either direction from 1972 (the year the ABS has published rent data) to 2011. It has almost entirely tracked the rate of inflation over this time period, although a slight uplift has occurred since 2006.⁶ Strangely, given that renting a house is a substitute for purchasing (whether outright or by mortgage), one would expect that, considering the substantial increases in prices during recent years, rents would have increased in step with prices as consumers who may be considering purchasing a property change their preference from owning to renting. Clearly, this has not happened.

⁵ The ABS and Stapledon indexes are very similar. For the period 1986-2006, the correlation between them is 0.99.

⁶ The correlation between the nominal rent price index and consumer price index is 0.99.

Of course, prices and rents in capital cities and urban areas are higher than in regional and remote areas, reflecting the demand for property within areas of concentrated dwellings.⁷

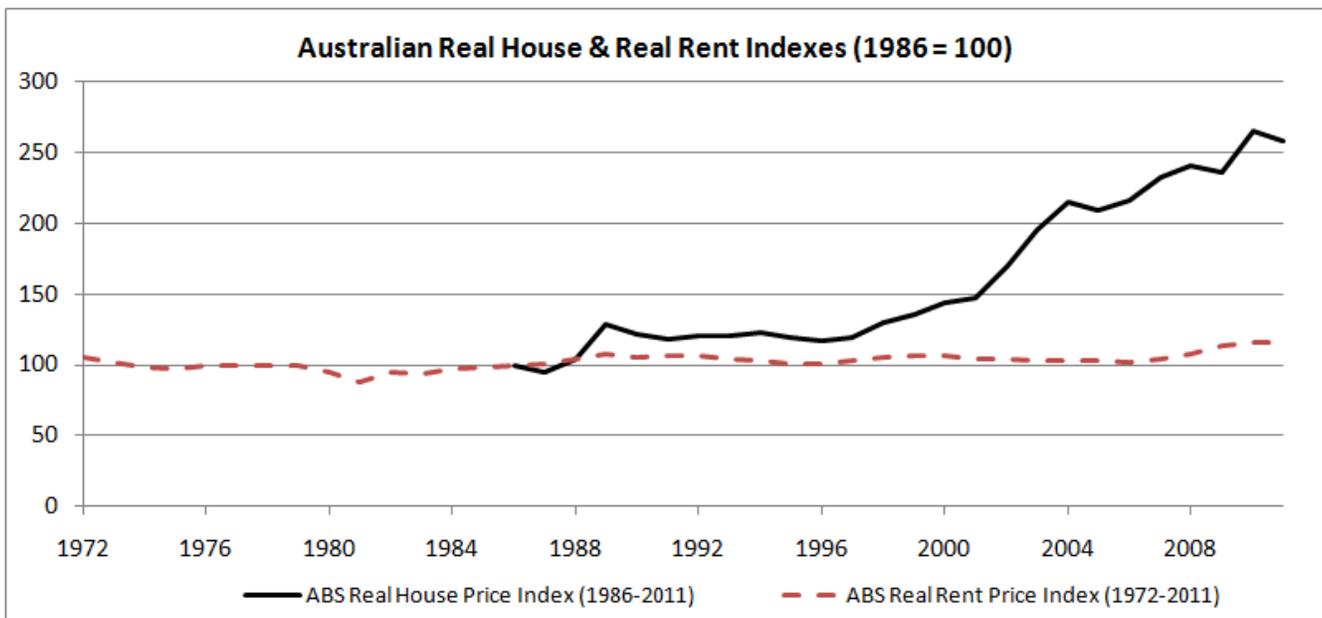


Figure 2: ABS House Price Index 1986-2011 (ABS 2011a; 2011b).⁸

The following table outlines the history of major house price movements during 1880-2010.⁹ In the 126 years (1880-2006) of the Stapledon house price index, there has not occurred an increase in prices without a corresponding correction, apart from 1961-1964 where prices increased 23% and then leveled off, tracking the rate of inflation. Of the short 25 year period (1986-2011) the ABS house price index assesses, the same holds true. This tends to suggest that major increases in property prices are generally not based upon underlying fundamentals but market distortions (for instance, price and rent controls) and debt-fuelled speculative bubbles. The question to ask is whether the greatest price rise in the history of Australia residential property will go the way that 8 of the last 9 occurrences have.

⁷ This report tends to focus upon data at the national level rather than specific markets.

⁸ The ABS keeps a record of a house price index, available from its website. The problem is that the index underwent a methodological revision in 2004, implemented in June 2005. This has resulted in the pre-2005 data being rendered incompatible with the post-2005 data. As a remedy, the post-2005 data has been rescaled to fit onto the pre-2005 data. Fortunately, the post-2005 data has been revised backwards slightly to 2002 and this shows that the rescaling does not result in a noticeable deviation.

⁹ Although ABS data is available to the first quarter of 2011, the house price index appears to have peaked in the fourth quarter of 2010. The first quarter of 2011 has registered a 3.2% fall from the previous quarter.

#	Increase (%)	Decrease (%)	Index	Downturn
1	31.7 (1887-1891)	-31.5 (1891-1898)	Stapledon	Yes
2	20.5 (1920-1929)	-18.2 (1929-1931)	Stapledon	Yes
3	111.6 (1949-1950)	-25.5 (1950-1953)	Stapledon	Yes
4	21.4 (1953-1960)	-12.7 (1960-1961)	Stapledon	Yes
5	22.9 (1961-1964)	N/A	Stapledon	No
6	39.8 (1967-1974)	-16 (1974-1979)	Stapledon	Yes
7	9.7 (1979-1981)	-10.2 (1981-1983)	Stapledon	Yes
8	7.4 (1983-1985)	-5.4 (1985-1987)	Stapledon	Yes
9	39 (1987-1989)	-8.6 (1989-1992)	Stapledon	Yes
10	127.1 (1996-2010)	?	ABS	?

Table 2: Major house price movements (ABS 2011a; Stapledon 2007: Table 2.5).

Given the substantial run-up in house prices from 1996 to 2010, the value of Australia's residential property stock has increased considerably. During this period, the total value has increased from \$1.5 trillion to \$4 trillion, or 166%.

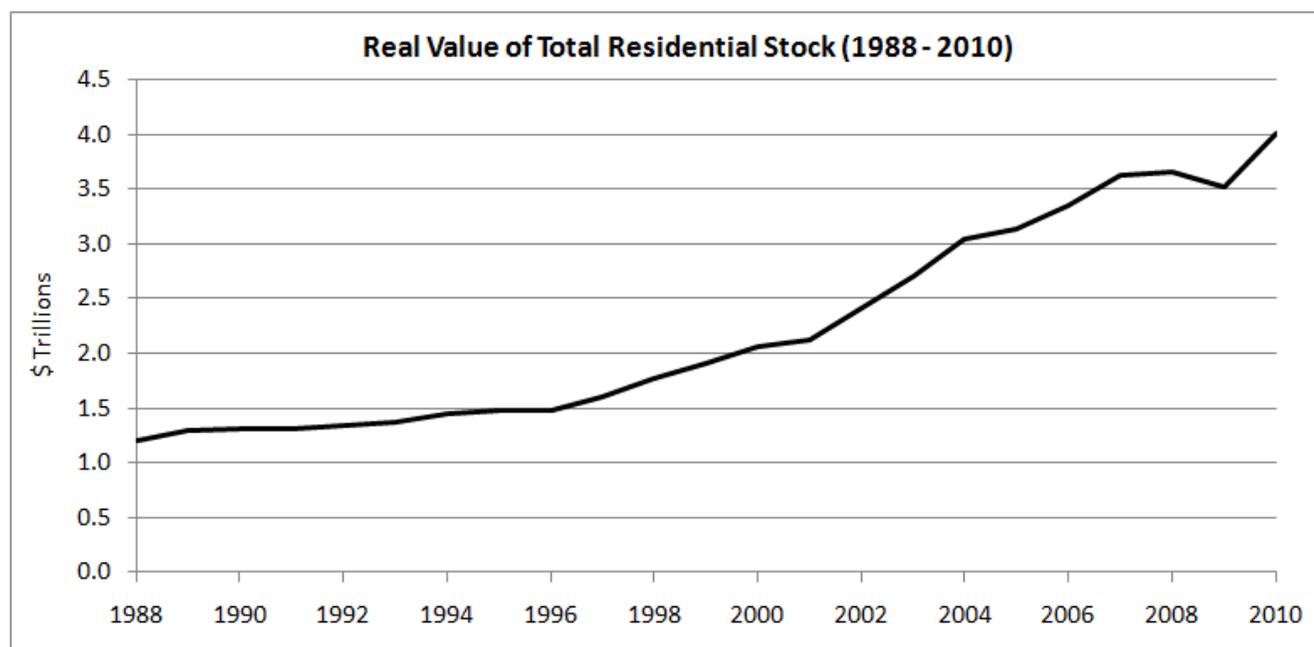


Figure 3: Real value of total residential stock 1988-2010 (RBA 2011b).

The price to rent ratio

Figure 4 shows the ratio between house and rent prices from 1988 to 2011.¹⁰ This ratio is similar to the price to earnings ratio used in stock market analysis, denoting how much someone is willing to pay for each dollar in rental income. The reason why this ratio is typically used to determine whether property is overvalued is because it is difficult, likely impossible, for bubbles to occur in rental income, similar to that of business and personal incomes.¹¹ Given that the rental income component tends to remain stable over the short and long term, the price component is the deciding variable.

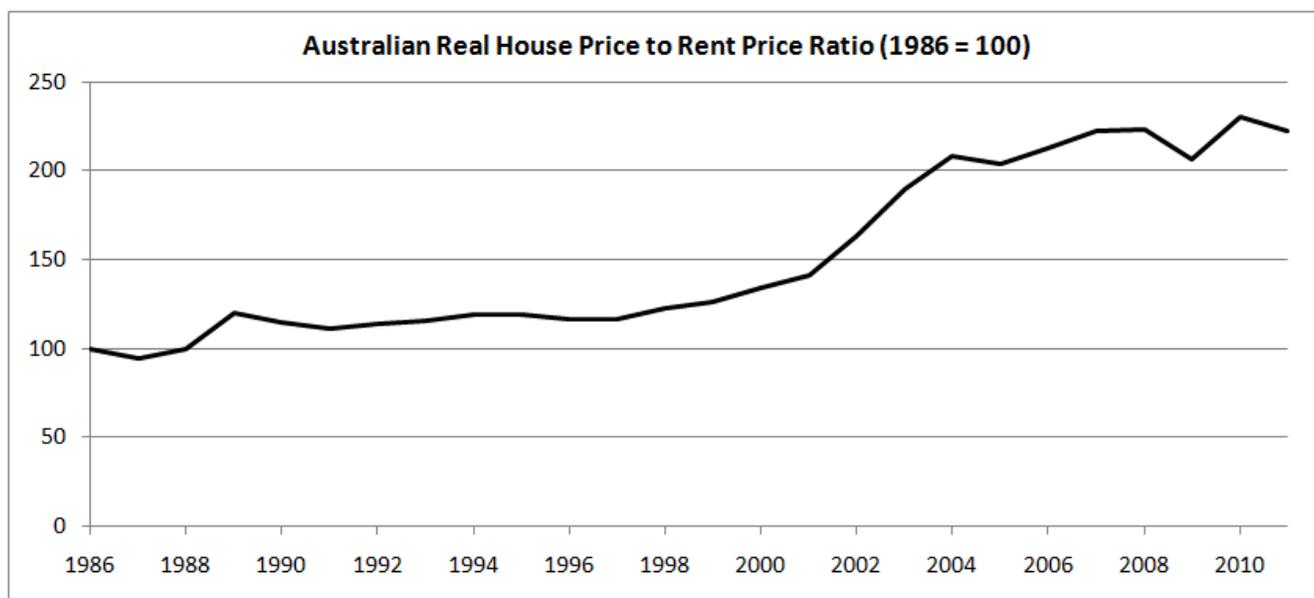


Figure 4: Australian real house price to rent price ratio (ABS 2011a; 2011b).

The trend of the price to rent ratio is very similar to that of the price index in Figure 2, which is not surprising considering that the rent index has remained stagnant for 39 years, from 1972 to 2011. As rents have barely deviated from the rate of inflation, the entire rise in the ratio is due to house prices, not rents. From 1991 to 1997, the ratio remained steady, registering a tiny 4% rise over this period. 1997 to 2001 saw the ratio increasing by 21%, a considerable upswing, followed by a rapid rise of 48% between 2001 and 2004, and then leveling off. The volatility is likely due to the slight uptick in the rent

¹⁰ A more accurate ratio would use a rent price index with costs subtracted. As is shown later on, net rental income is less than \$0, meaning that, on average, Australian property has negative earnings potential. This indicates that a true rent index would be declining over time rather than remaining steady. If this is the case, then the overvaluation implied by the price to rent ratio is actually understated.

¹¹ Except for the incomes of senior government bureaucrats and corporate executives.

price index combined with moderate increases and decreases in the house price index, for instance, the fall after the GFC in 2008 and resurgence in 2009. Overall, the increase was 97% from 1996 to 2010. Yet, the rent price index has barely moved above the rate of inflation over a 15 year period from 1996 to 2010, rising a moderate 15% as shown in Figure 2. Clearly, there are two possible conclusions to be drawn from the trend in the ratio. The first is that investors are purchasing property for the expected rental income but have been grossly mistaken in their expectations. The second is that investors are purchasing property for the expected increase in prices (capital gains), rather than rental income. The latter is the case, unless a mass delusion, even over a short time period, has completely deceived investors to purchase property for expected rental income.

Minack (2008) states that rental yields provide a good indicator of how poorly the net returns to property have been over the last several decades, compared with equity returns far in advance. Using the gross rental yield as an indicator of returns on a property is misleading due to the costs incurred by owners, for instance, maintenance and council rates. On average, maintaining a property consumes an average of 2.3% of the capital value (Minack 2008), leading to a divergence between gross and net rental income. By analyzing the return on assets, Minack (2008) notes the potential overvaluation of Australian property:

The (obvious) fact that the net rental yield is significantly below the gross rental yield has two important implications. First, it means that property on a yield basis is now far more expensive than the most commonly used investment measures suggest. The gross rental yield of about 3% implies a net rental yield of less than 1%. On a price/earnings basis, residential housing is an investment asset with a P/E of more than 100. Second, the property boosters ignore these costs when they look at historical returns. This produces a huge distortion in long-run property returns.

Rational investors can make better returns from term deposit accounts. Obviously, they are not in the property market for the expected rental income, but for capital gains. A P/E ratio like this on a stock would indicate that it is firmly within bubble territory, grossly inflated compared to fundamentals. A P/E ratio of 20 or more on a stock implies overvaluation unless significant earnings in recent years have justified the rising price that investors are willing to purchase at. During the tech bubble, P/E ratios nearly reached 50, with investors willing to overlook this fundamental metric in favor of more subjective criteria, for instance, the worth of future technological wonders the weightless information

economy was supposed to produce. As history has shown, the P/E ratio merited close attention, and was certainly not to be ignored.

Minack (2010) confirms that residential property is used for speculative purposes, as property investors make their decisions on the basis of future capital gains rather than rental yields:

Australian Tax Office data confirm that residential investment is a poor investment: total rent has not covered total costs since FY2000 (again, the date the bubble started to inflate). In short, this is an investment that depends on capital gain for its payback. With net income not even covering interest charges, this is a classic Hyman Minsky Ponzi scheme. Ponzi owns the house, and he's betting that house prices keep rising.

Not only is the aggregate private rental market a loss-making affair, but a rising share of landlords are making rental losses. The percentage of landlords claiming a rental loss (that is, rent not covering interest and other costs) has increased from 50% to 70% over the past decade. It's not just that there are more landlords, there are more loss-making landlords. This matters a lot. Much of the discussion on the residential market concentrates on owner-occupiers. But arguably property investors represent a significantly larger risk if they became widespread sellers of their loss-making investments.

The pushback is that rental properties are largely owned by upper income earners. Certainly, property investment is more prevalent at higher income scales. But it is simply wrong to assert that rental properties are largely owned by high-income households: losing on residential property investment is largely a middle-class affair. Only 3% of all loss-making properties are owned by taxpayers with a taxable income of over \$200,000. Taxpayers who earn \$80,000 or less own 80% of all loss-making properties. The reported losses on rental properties are a meaningful percentage of taxpayers' income. The average rental loss, in dollar terms and relative to income, is typically around 10% of income.

During the 2010 CPA conference in Brisbane, Luci Ellis, Head of Financial Stability Department at the RBA, let slip (cited in Schwab 2010a):

If rental yields are very low, investors are buying properties without really thinking about the rental yield ... buying an asset just because you are expecting the price to rise in the future, well that is actually the academic definition of a bubble.

Given the greatly inflated house price to rent ratio, it should thus come as no surprise that the political economy journal, *The Economist*, calculated that property is overvalued by 61% (Anonymous 2010a). Given that rental income has not increased over the last decade and a half to justify the substantial rise in house prices, the obvious conclusion is that, by this ratio, the Australian residential property market is severely overvalued. Two years before the US bubble peaked, Baker (2004) noted that “No one can produce an explanation as to how fundamental factors can lead to a run-up in home sale prices, but not rents.” In this regard, Australia is no different to the US. The divergence between house prices and rental incomes cannot continue without a correction.

The median multiple

One of the fundamental indicators of residential property is the house price to income ratio. This is typically called the median multiple, and expressed by the simple equation: median house price divided by the annual median income. Historically, when a property market transitions from fundamentals to an inflated bubble, this ratio rises as prices far outstrip incomes during the boom phase. One of the most well-known sources of information regarding median multiples is the annual report produced by the housing think-tank Demographia. Its current report covers 325 residential property markets, including Australia. On the validity of using median multiples to study housing markets, Demographia (2011: 7) reports that:

The Median Multiple is a reliable and easily understood structural indicator for measuring the health of residential markets and facilitates meaningful and transparent comparisons of housing affordability. Further to this, the Median Multiple provides a solid foundation for the consideration of structural policy options for restoring and maintaining housing affordability in local markets.

Demographia provides a ranking system to assess the health of a market according to the median multiple of a city, that is, the median house price and median household income that are both specific to that city. The ranking of three or less is considered affordable as long-term data shows that the

median multiple approximately averaged this value, based upon fundamentals, before the global run-up in prices across the surveyed countries in the late 1990s. Table 3 displays the four categories.

Rating	Median Multiple
Severely Unaffordable	5.1 & Over
Seriously Unaffordable	4.1 to 5.0
Moderately Unaffordable	3.1 to 4.0
Affordable	3.0 or Less

Table 3: Median multiple rankings derived from Demographia (2011: 8).

All of Australia’s major cities and many towns are ranked as severely unaffordable, with a median multiple of 5.1 and over, and five towns are listed as seriously unaffordable. Predictably, the capital cities are ranked on and near the top of the list.

Housing Market	Median	Housing Market	Median
Sydney	9.6	Bendigo	5.9
Coff’s Harbour	9.1	Wagga Wagga	5.8
Melbourne	9.0	Cairns	5.7
Sunshine Coast	8.4	Tamworth	5.7
Gold Coast	7.7	Canberra	5.6
Geelong	7.2	Mackay	5.6
Wollongong	7.2	Rockhampton	5.4
Adelaide	7.1	Townsville	5.4
Newcastle-Maitland	7.0	Ballarat	5.3
Brisbane	6.6	Hobart	5.3
Bundaberg	6.6	Toowoomba	5.2
Mandurah	6.6	Shepparton	4.9
Darwin	6.4	Albury-Wondonga	4.5
Alice Springs	6.3	Bunbury	4.5
Devonport-Burnie	6.3	Launceston	4.5
Perth	6.3	Mildura	4.2

Table 4: Australian median multiples derived from Demographia (2011: 14-15).

Demographia (2011: 20) reports that the major factor in rising house prices is due to the price of land rather than building costs: “95 percent of the increase in standardized house and land prices combined between 1993 and 2006 was attributable to land costs, and only 5 percent in house construction cost.” This would be unsurprising on the basis that a bubble was forming in the market as the land component

rises in price rather than that of buildings and construction materials. The latter typically depreciates in price.

Figure 5 shows the history of median multiples relating to every capital city from 1981 to 2010. All show substantial increases since 1996, and especially since 2000.

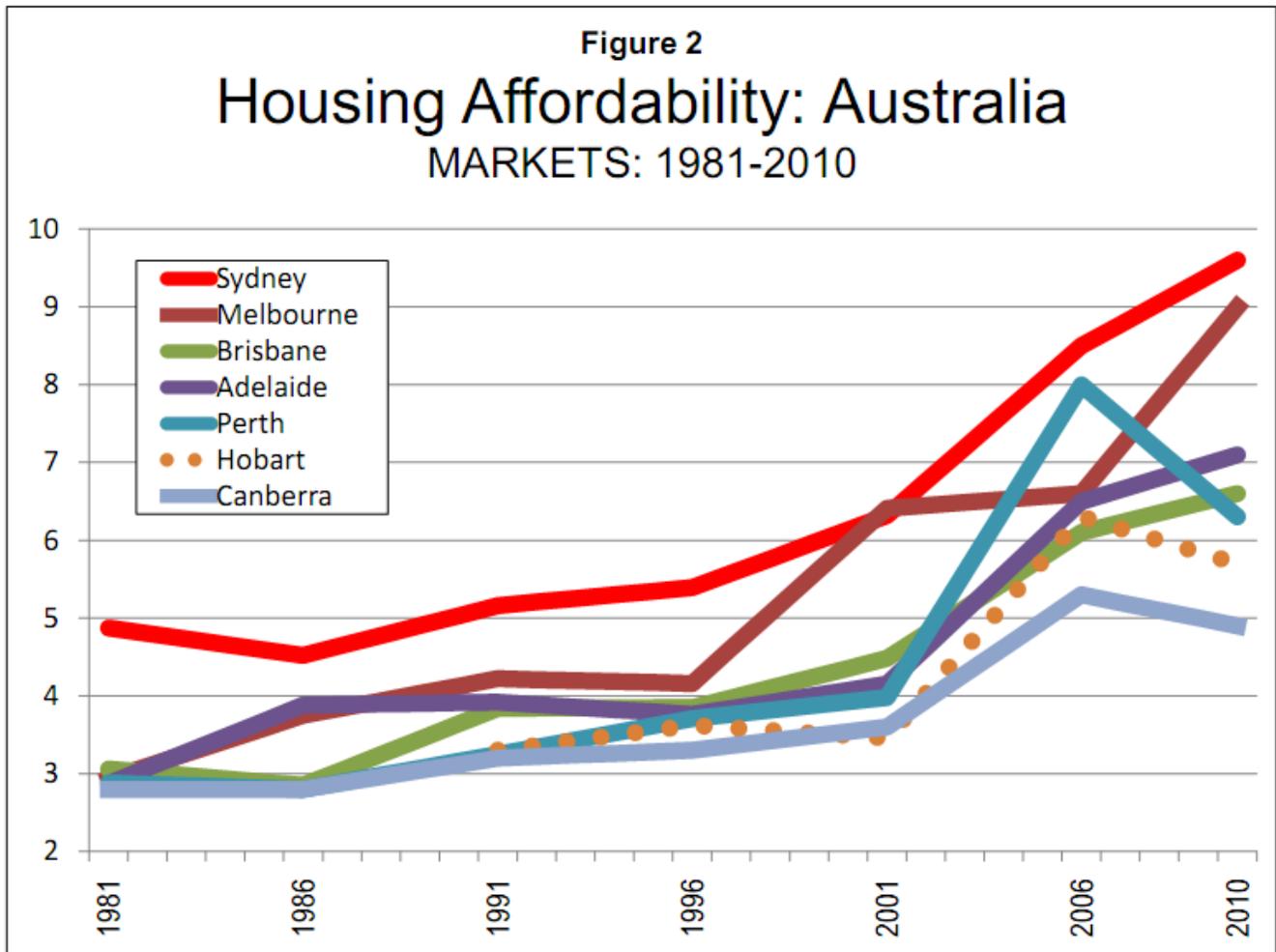


Figure 5: Median multiple of Australian capital cities 1981-2010 (Demographia 2011: 15).¹²

One of the more interesting accounts of using median multiples was by the Commonwealth Bank of Australia (CBA) on the 9th of September 2010. The bank released an investor report on the residential property market, which provided an analysis in favour of the mainstream view that prices reflect underlying fundamentals (CBA 2010). The usual reasons were provided to explain the recent rise in prices: increasing population growth, larger house sizes, strong net migration, low unemployment,

¹² The “Figure 2” at the top of the graph is due to its placement in the Demographia report.

recourse lending, and so on. The house price to income ratio (median multiple) was cited for the capital cities, and compared to other prominent coastal cities in the US, UK, Canada and New Zealand. It was argued that property located within coastal cities commands a premium, increasing prices and that a valid comparison requires one coastal city be evaluated against another coastal city. The next day, on the 10th of September, Sayce (2010) published an article uncovering the deception that the CBA made in regards to the international comparison of cities with the house price to income ratios. For all non-Australian cities, the CBA (2010: 4) used the ratios found in the report published by the housing think-tank Demographia. For the Australian cities, ratios were provided by the financial services firm UBS. Yet Demographia’s report also contained the ratios for the Australian cities cited. The following table displays these figures.

Coastal city	Ratio (UBS)	Ratio (Demographia)
Sydney	6.2	9.1
Melbourne	5.7	8.0
Brisbane	4.7	6.7

Table 5: Difference in house price to incomes ratios derived from Sayce (2010).

Clearly, the ratios provided by UBS are substantially lower than those provided by Demographia. The reason why the CBA chose the lower ratios from UBS was to deceive investors into believing that the ratios were not high by historical and international standards. Sayce (2010) explains the deception:

Simply because if they’d used the Demographia numbers it would draw exactly the opposite conclusion to the argument they’re trying to make. The fact is, they’ve conveniently grabbed the bunch of numbers that fits their argument and discarded the ones that don’t. ... Paints a slightly different picture doesn’t it? Actually, it paints a completely different picture. One shows an unsustainable bubble, the other shows a bunch of figures comparable to elsewhere in the world.

If a major bank is willing to cherry pick statistics in a way favourable to itself, it signals that it is just not some economists who are worried about the formation of a bubble, but rather lenders who face the possibility of insolvency are concerned. The chart plotting population growth to dwelling starts (CBA 2010: 5) does not make sense, as the left and right hand indexes do not match, the uplift in population is shown to occur in 2004 but house prices started to gradually increase above the rate of inflation in

1996 and substantially since 2000, and dwelling start data do not provide an accurate indicator of dwelling growth due to building discontinuations and demolitions. One of the explanations provided for the increased demand of housing credit (mortgage debt) is the low interest rate and low inflationary environment. This cannot explain the rapid increase in house prices, because an even larger boom should have occurred during the 1960s due to low real interest rates and inflation. Another explanation is the rising dwelling size (CBA 2010: 6), with the trend increasing smoothly since 1986. There is no correlation, let alone causation, between size and prices, considering that since 1986, the house price indexes (ABS and Stapledon) show that prices have decreased, tracked sideways and increased. Unbelievably, the CBA (2010: 7) provides a graph tracking the household debt to income ratio from 1988 to 2008 of Australia, including the US, UK, New Zealand, Canada, Germany and Japan, citing that Australia's ratio is similar to that of the listed countries. Yet Japan, the UK, and the US have all suffered from the bursting of housing bubbles, along with the possibility that Canada and New Zealand may well be in the midst of a similar buildup to a property bubble. Simply put, the CBA is assuring investors that Australia's property market is sound because the household debt to disposable income ratio is in line with other countries whose economies are currently ravaged by bursting bubbles!¹³ The rest of the report evaluates other factors such as GDP, unemployment, delinquency rates, etc. but this says little either way as to whether prices reflect fundamentals. It should come as no surprise that the CBA is attempting to suppress fears about a possible bubble as it may be the most exposed of the Big Four banks in Australia. Llewellyn-Smith (2010) evaluates the CBA report, concluding: "But in the meantime we might rightly ask: is CBA's reputation in global markets currently so at risk that it need resort to the spin pilloried in its own advertising?"

Housing shortages and population growth

One of the primary justifications provided to explain the rapid increases in house prices over the last decade has been the lack of affordable rental properties combined with a substantial undersupply of houses compared to market demand. This is the simple supply and demand argument: if there is greater demand than supply, then prices will correspondingly rise. If supply is greater than demand, prices will fall. In terms of this model, prices may increase, for instance, due to a lack of construction of new

¹³ The "kangaroo" argument stipulates that Australia's residential property market is somehow unique compared to the rest of the world, and similarities between it and other countries whose property markets are affected by bubbles is invalid by definition.

housing and onerous government regulations, while increasing population levels impact upon the demand side. Certainly, one of the primary arguments put forward by the government and industry is that a serious undersupply of housing exists, causing escalating prices. As confirmation of this, the tight supply of rental properties is often remarked upon. The low level of rental properties, typically denoted by a low vacancy rate of below 3%, is noteworthy because the evidence shows that there is a substantial surplus of vacant housing available but not listed on the rental market. Over the last several years, it has fallen to the lower end of the band, approximately 1-2%, assuming there is some sort of equilibrium rate of vacancies, though it is not clear how such a figure can be derived. This logic is reliant on a further assumption that the property market is clear of any substantive distortions to achieve an equilibrium rate. Official definitions of the vacancy rate refer to the percentage rate of rental properties listed as vacant for purposes of renting to tenants rather than vacant properties that aren't listed by property owners on the market. The official vacancy rate is sometimes used as proof of an undersupply.

Earthsharing Australia (2008) performed an analysis of Melbourne's property market via an inventive technique: using water consumption figures to determine whether a property was vacant or not. This study was conducted in 2008 and a cut-off point of 50L/day averaged over six months was used given that the efficient water use of a sole occupant is 118L (a dripping tap can use more than the cut-off figure).¹⁴ Anonymous data from the water authorities (City West Water) was used to calculate the absolute number and rate of currently vacant properties over the six month period, from January to June, in ten inner suburbs.¹⁵ The results are astounding: instead of the low vacancy rate of 1.4% that the Real Estate Institute of Victoria (REIV) has stated, there is an average vacancy rate of 7% within inner Melbourne suburbs. Approximately 50% of all the vacant properties consumed no water and the other half were under the cut-off point. It is difficult to believe that so many could be holiday houses, as owners would likely prefer properties in outlying and regional areas, or that these properties are all undergoing repairs and renovations.

The same study was performed for January to June 2009, using an improved methodology, revealing a real vacancy rate of 6.86% across Melbourne's suburbs, including a staggering 29% vacancy rate in

¹⁴ Using a similar method by means of electricity readings, it was found that China has 64.5 million vacant dwellings (Anonymous 2010b).

¹⁵ The more extensive data listed in the appendices can be found here (Earthsharing Australia 2009c; 2009d).

Carlton South, a popular inner suburb and 17% in West Melbourne. In total, there were 44,753 vacant properties located in Melbourne's inner, western and south-eastern suburbs. Also, there was a vacancy rate of 17.3% among commercial and industrial properties in the south-eastern suburbs, pointing to considerable underutilization. The methodology was inherently conservative, applying a 50% margin of error, did not count sites which could be created through subdivision, and did not include properties that consumed a level of water above the cut-off figure for any part of the study period (Earthsharing Australia 2009a; 2009b). Again, in 2010, a similar analysis took place, examining a wider area of Melbourne using an even more conservative methodology than in the previous year. The genuine rental vacancy is reported to be 4.94%, a slight fall from 2008 and 2009 but still more than twice the REIV official rate of 1.7% over the same period (Earthsharing Australia 2010). Extrapolating across all of Melbourne, there are approximately 61,000 vacant private dwellings (Fitzgerald 2011). These reports look at Melbourne only; the same results are likely to be replicated elsewhere in the capital cities and towns. According to the ABS 2006 census data, there were 830,376 unoccupied private dwellings during the time the surveys were taken, out of a total of 8,426,559 (ABS 2007). This means that hundreds of thousands of private dwellings are lying vacant around Australia, with owners foregoing rental income. As stated before, a fraction are holiday homes, undergoing renovations and awaiting sale, but to what proportion is not revealed in the census data. Also, many people would not have been home on the census night. It would be a false notion, however, to assume that because approximately 10% of dwellings are currently unoccupied that they are been kept off the market solely for the expectation of capital gains as the same vacancy rate was revealed for previous census years (ABS 1997; 2007).

As noted, one of the primary reasons given for the run up in property prices is that a substantial undersupply of housing exists, compared to the demand emanating from increased immigration and demographic change. Much like the idea that a low rental vacancy rate is driving up rents, this line of reasoning has a major flaw: confusing need for actual demand. The National Housing Supply Council (NHSC) released its report on the state of the residential property market, investigating supply and demand factors, estimating a gap (or undersupply) of 85,000 private dwellings in 2008 (NHSC 2010). This report has been used by the government and real estate industry as proof of the undersupply of private dwellings, and therefore the reason why property prices have increased, will continue to increase, and will not fall in the near future. The problem, as Keen (2011) describes, is that the derived figure of 85,000 dwellings is based upon the need of homeless persons, caravan park residents, those sleeping rough, and couch surfers. The NHSC has produced evidence of social need, but the need of

these persons, typically on the lower end of the income and wealth scales, does not translate into actual demand on the property market. These people, however unfortunate their circumstances, do not have the financial power to turn their needs into demand on the market. Sayce (2009) demonstrates the pitfall of the NHSC's methodology: "The housing market will always rise because of the 'chronic' housing shortage, a 'chronic' housing shortage being measured by the number of homeless people!" According to the NHSC, the homeless and caravan park residents represent a partial cause for rising house prices. Despite the NHSC's distorted methodology, it is difficult to ascertain what the real gap or undersupply, if any, actually is. Hometrack, a housing research firm, performed a study of Australia's property market using postcodes, finding that Australia may, in fact, have an oversupply of between one to two million dwellings (Keen 2009). The lower figure of one million is similar to that of the number of vacancies recorded by the 2006 ABS census. Before the housing bubbles burst in the US and Ireland, the same rationalization for inflated prices was provided in the form of the undersupply argument, typically by industry associations. After the market peaked and then deflated, it was revealed that overbuilding was actually the case, and a significant surplus of housing exists, creating an enormous backlog of properties that are either lying vacant or awaiting sale (Kitchin et al. 2010; van Onselen 2011a). On the matter of blaming the homeless for rising prices, similar sentiments prevailed earlier in 2009 when the government relaxed foreign investment rules allowing for greater participation in foreign ownership of residential properties in Australia. Reports detailed Chinese coming into Australia to purchase high-end properties, thus driving up prices and reducing choice for the rest of Australians (Dobbin 2009). Given the possibility of a housing bubble in China, investors may be looking to purchase property elsewhere (this could mean Australia), effectively importing a bubble (Zappone 2010b).

According to the studies conducted by Earthsharing Australia, there are tens of thousands of vacant dwellings lying dormant in Melbourne, far in excess of possible holiday homes, current renovations, awaiting sale, etc. meaning that there could well be hundreds of thousands of vacant properties across Australia, as the 2006 census suggests, more than enough to house all those in need.¹⁶ Schwab (2010b) questions the logic behind the supposed undersupply:

¹⁶ Perhaps the NHSC should investigate why there are so many vacant properties lying idle while many people in desperate need do not have access to the shelter and security they require. This is reminiscent of the current situation in the US: millions of people living in miserable conditions on the streets while millions of homes are vacant. Johnson (2010) provides a useful summary for the reasons behind homelessness.

The question remains - if there is a housing shortage, why are rents not increasing? There can be two possibilities: either the rental market is fundamentally broken and there is no link between demand, supply and price, or there really isn't a housing shortage.

The reasons why investors will forego rental incomes on vacant properties probably has most to do with the rapid increases in housing prices over recent years: people see capital gains, rather than rental income, as the primary return on their investment properties. Vacant housing requires little to no maintenance costs, there are no tenants to expel and agency or body corporate fees are avoided. Depending on the laws and regulations of each state, tenants need to be provided with a notice to vacate, which may take months.¹⁷ Investors may see this waiting period as intolerable due to personal or financial reasons, for instance, wanting to offload the property if market conditions become unfavourable. There is not a shortage of housing or rental properties but rather that many properties are kept off the market for considerable periods of time by speculators hoping to realize capital gains far in advance of rental incomes that have not increased in line with prices over the last decade and a half.

Figure 6 plots the year-on-year percentage change of the population and housing stock in Australia, from 1902 to 2010. From 1951 through to 2008, the growth in dwellings was greater than the growth of population in Australia. It would be too simple, however, to assert that this means that prices should have been falling since 1951; as Australia's long-term house price index shows, prices often moved erratically. Nevertheless, it is difficult to see how the trend in population and dwelling growth could produce a shortage of housing specifically from 1996 onwards, given that no major event or policy change occurred in regards to population and dwellings that could have resulted in increasing house prices. From 1996 to 2010, population increased by 22% and the number of dwellings by 27%. Only recently in 2008 did the growth in population exceed that of dwellings; by then house prices had already significantly increased. Garnaut (2009: 17) points out that:

In Australia over the period 1985-2009, an average of one residential dwelling was built per 1.75 new Australians. This rate of building is well in excess of the current average of 2.55 persons per occupied dwelling.

¹⁷ In Victoria, the notice to vacate given to tenants is between two to three months.

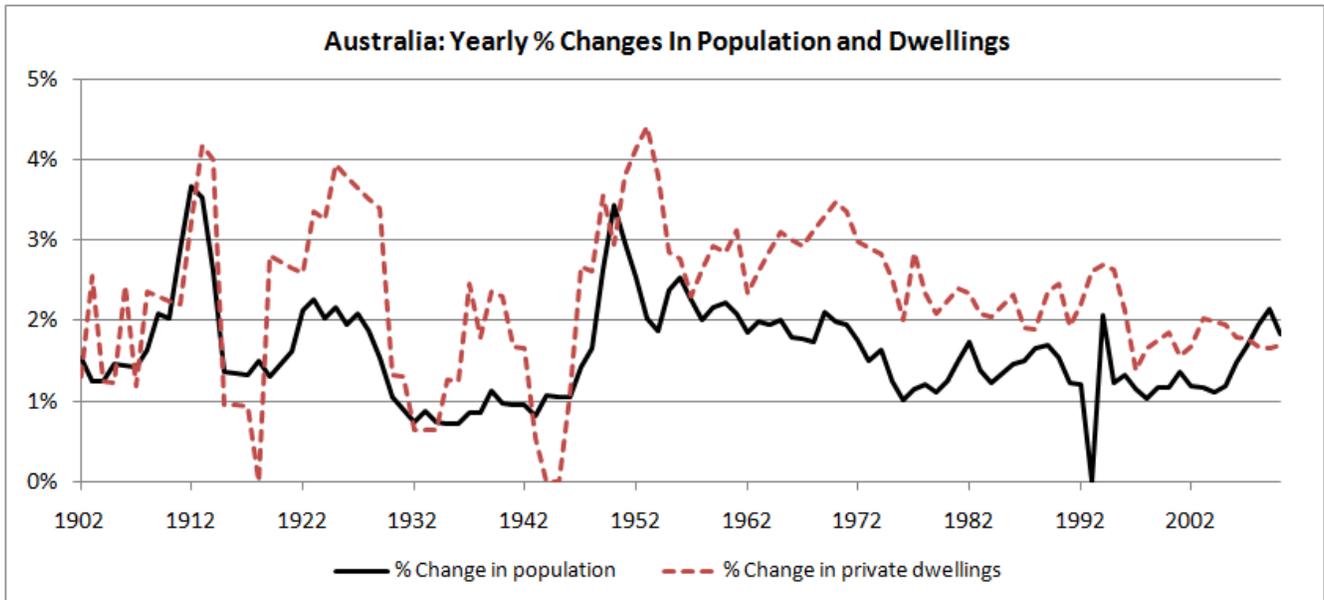


Figure 6: YoY change in population and dwellings 1902-2010 (ABS 2010a; 2010b; Stapledon 2007).

Figure 7 shows the average occupancy ratio, which measures the average number of people per dwelling. It is one of the primary indicators of demographic change; as people and households have become wealthier over time, more dwellings are built as a proportion to population, and fewer and fewer people live together.

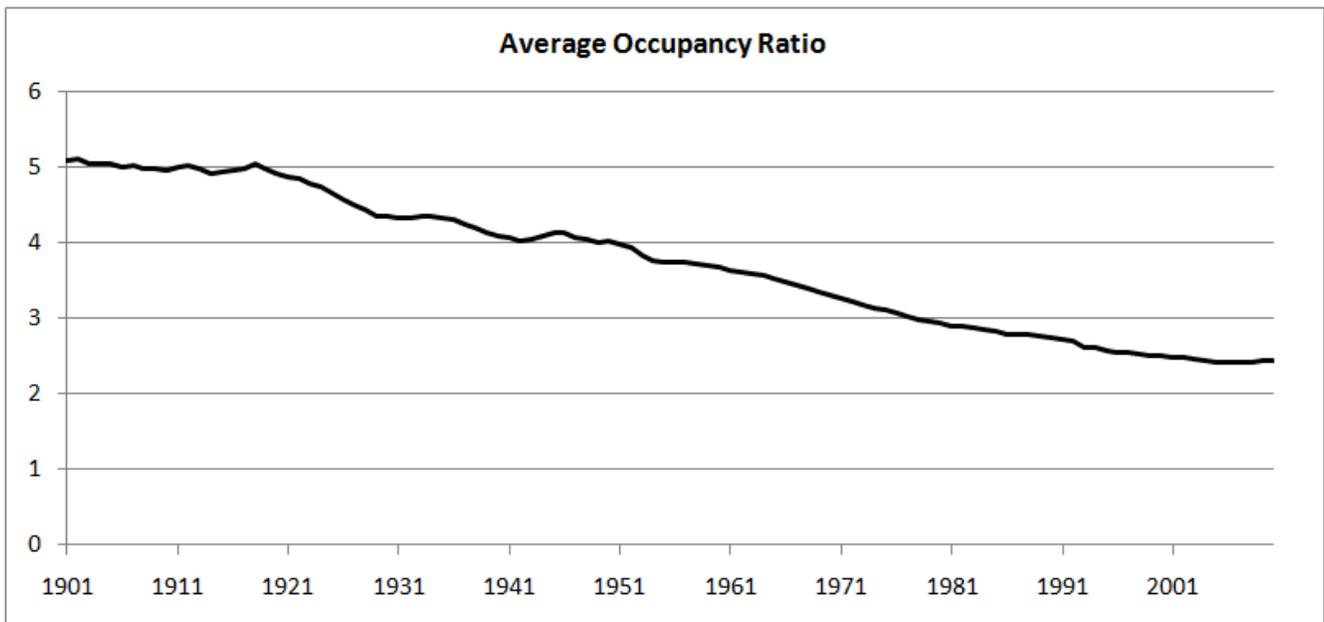


Figure 7: Average occupancy ratio (ABS 2010a; Stapledon 2007: Table 2.5).

Since 1901, it has declined from an average of 5.1 people per dwelling to 2.5 in 2010, and is likely to maintain a steady ratio over the next couple of decades. Again, it is difficult to see how household formation could create a shortage given that it has scarcely changed in the last decade or two. A ratio less than 2 is implausible given that couples and families live together rather than in separate dwellings.

Government policies and programs

As home ownership is seen as a foundation of Australian society, the government, over the decades, has intervened into the residential property market to bolster the home ownership rate by means of a variety of subsidy programs and tax policies. Societal values seem to indicate that prosperity and security require that people own rather than rent a property; “rent money is dead money” as the maxim goes. Currently, the home ownership rate stands at 70% in Australia (Eslake 2011a). Unfortunately, the promotion of home ownership has become an end in itself, promoted for its own sake rather than based upon letting people decide what’s in their own best interests. Home ownership has been elevated to the level of a religious doctrine by vote-seeking politicians, property investors and industry, regardless of the current and future problems it may create.

Both federal and state governments provide several subsidy programs, tax exemptions and tax breaks to Australian property owners apparently for the purpose of granting greater opportunity to participate in the “Australian Dream” of home ownership. One of the most well-known programs is the First Home Owners Grant (FHOG). It was re-introduced by the Howard administration in July 2000, with recipients receiving a \$7,000 subsidy to offset the cost of the GST, and was increased further in 2008 to \$14,000 for the purchase of new homes.¹⁸ Some state governments provided an additional subsidy to the scheme. The FHOG has been supplemented with additional grants known as the First Home Owners Bonus and First Home Owners Boost. Another program, though less known, is the First Home Saver Account scheme (FHSA), designed to encourage first home owners to accumulate a sizeable deposit through a combination of government contribution and individual savings. The account proceeds are taxed at 15 percent, and withdrawals that are used to pay for a property are tax free, capped at \$75,000 (Senate 2008: 144). In 1999, the Howard government enacted a 50% cut to the capital gains tax (CGT) on the nominal gains of an asset if it was held for at least one year;

¹⁸ Eslake (2011a) points out that the Australian government has been providing cash handouts to first home buyers for almost half a century. The FHOG and related programs are the latest incarnation of these handouts.

additionally, the owner-occupier home is exempt from CGT. Negative gearing is a popular tax policy, allowing landlords who make a rental loss to write off a portion of the loss against tax. As housing prices have risen significantly over the years, many landlords have purchased investment properties with the intention of running their properties at a loss (negatively geared). Some states have either reduced or exempted first home buyers from paying stamp duty. The Senate Select Committee on Housing Affordability in Australia 2008 report on Australia’s residential property market provides a detailed summary of the various forms of assistance that the government provides to established owners, first home buyers and renters (Senate 2008: Chapters 4 and 9). The following table outlines the various tax subsidies and exemptions that the government has granted to property owners.¹⁹ To place the total in perspective, it approximates to almost one fifth of federal tax revenue for 2007-2008.²⁰

Tax policy	Cost (\$)
Capital gains tax exemption for owner-occupied housing	20
Discount on capital gains on investor housing	6
Land tax exemption for owner-occupied housing	10
Negative gearing for rental housing	2
Non-taxation of imputed rent for owner-occupied housing	15
Total	53

Table 6: Taxation expenditures (\$ billion in 2007-08) derived from Senate (2008: 61)²¹

The costs of these policies are significant, yet there does not appear to be a study or analysis that attempts to determine what total costs are apart from Senate (2008: 60), noting:

The combined total of capital gains tax arrangements, land tax exemption and negative gearing arrangements is estimated to be in the order of \$50 billion per year. That reflects against the \$1½ billion in the Commonwealth–State Housing Agreement and the \$1 billion spread over four to five years proposed for the new National Rental Affordability Scheme

¹⁹ This does not include the taxpayer expenditure of the FHOG and FHSA programs. Eslake (2011a) estimates that the FHOG program has cost taxpayers over \$10 billion for a nine year period. There are currently no figures available on the size of the government’s contribution to the FHSA scheme, though it is likely to be small compared to the other policies mentioned here.

²⁰ \$53 billion / \$286 billion = 18.5%. Tax revenue figure from ABS (2011c).

²¹ Senate (2008: 61 fn. 36-40) provides the estimates and sources for each of these tax policies.

and the Housing Affordability Fund. These tax concessions also mean that the overall support to wealthy homeowners is greater than that to low income renters.

Despite the intentions of the government in attempting to boost the home ownership rate by offering these programs and tax arrangements to established owners and first home buyers, these policies have come under criticism from some quarters. These criticisms attack the outcomes of the policies, as they may have in fact contributed to worsening housing affordability by inflating prices rather than helping first home buyers and renters. The FHOG has become the focus of criticism, as it has allowed first home buyers to increase their purchasing power, leveraged with additional debt greater in value than the original price of the subsidy. Markets have reacted by capitalizing the cost of the subsidy into housing prices. In effect, this has had the effect of increasing property prices, thus negating the subsidy, and worsening housing affordability. Keen (2010a: 61-62) explains the irrationality of this government program:

Hence absurdities like the First Home Owners Boost, which ostensibly gave buyers an additional \$7,000 to help them buy their first home. In reality, recipients levered up The Boost via a loan, and it caused a bidding frenzy by sucking more would-be buyers into the market. Whoever the ‘winning bidder’ was had to give the vendor \$30,000 more than he or she would have got without The Boost. Pretend to help out buyers on the one hand, really assist vendors on the other - and entice Australians into yet more debt. That was the reality of this policy, which I prefer to describe by its effect rather than its name: it was really the First Home Vendors Boost (FHVB).

And its impact didn’t end with the First Home Vendor. Instead, the seller then became a buyer of another property, who turned the additional \$30,000 from the First Home Buyer into \$200,000 of leveraged buying power when they went shopping for their next home. House prices were driven up, not merely at the sub-\$500,000 level where First Home Buyers operate, but right out to the \$1 million mark. Mission Accomplished for the government on this one: appearances of helping out the buyer are maintained, while the objective of helping to sustain the house price bubble is also met.

The home ownership rate has not increased with the re-introduction of the FHOG, and has led many young Australians into a lifetime of debt by leveraging up with a great deal of mortgage debt to

purchase property at inflated prices. Moreover, by increasing the purchasing power of first home buyers, it lures many into purchasing a property with a debt load they may well struggle to service. Simply put, the FHOG is more of a political stunt designed to win votes rather than a carefully thought out subsidy scheme designed to promote affordability, and has backfired by inflating house prices. Worse still, the program has become a target for fraudsters, as Collier (2011) explains: “crime syndicates buying homes in false names to use them to house drug crops, parents using children's names to fly under the radar, and property investors forging utilities documents.” Eslake (2011a) accurately describes the FHOG:

It’s hard to think of any government policy that has been pursued for so long, in the face of such incontrovertible evidence that it doesn't work, than the policy of giving cash to first home buyers in the belief that doing so will promote home ownership.

Negative gearing has been criticized on similar grounds: it provides a subsidy to investors though little data exists to support the policy. The purported reason for allowing negative gearing is that it provides investors with an incentive to purchase property for rental purposes, thus increasing the stock of rental properties on the market.²² This is the claim made by the real estate industry and government; but this cannot occur as it simply substitutes renters for owner-occupiers, which means that previous owner-occupiers will purchase or rent elsewhere. Strangely enough, the FHOG is supposed to increase the home ownership rate for reasons of owner-occupation while negative gearing is supposed to increase the number of rental properties available for rent. This may appear to be a contradiction, as intentionally increasing the number of first home buyers reduces the number of properties available for investors to purchase in order to rent out and vice versa. Moreover, negatively geared investors have greater purchasing power than first home owners at auction because taxpayers subsidize investors if they make a loss; owner-occupiers with a mortgage, including first home owners, can’t offset their loss if mortgage payments are greater than disposable income. In this regard, Putland (2011a) notes:

They say that if the interest bill on your investment property exceeds the rental income, the excess is deductible against your wage/salary income although it is not incurred in the process of earning that wage/salary income. Meanwhile an expense that is incurred in the

²² It is illegal to claim negative gearing against an investment property that is not been rented out or not listed on the market for rental purposes, though there probably are landlords who do engage in such deception.

process of earning your wage/salary, namely the cost of travel to and from work, is not deductible. That's not a consistent application of any "basic premise". It's one rule for the gentry and another for the peasants.

Negative gearing hurts first home buyers because an investor can claim a tax deduction for the margin by which the interest bill exceeds the rent, whereas an owner-occupant can't claim a tax deduction for the margin by which the interest exceeds the rental value; this enables investors to outbid owner-occupants for the same property.

The Australian Tax Office (ATO) provides a summary of landlords' net rental income for 2007-2008, with 1,198,449 or 69.4% of landlords reporting that their net rental income was less than \$0, making a loss of \$12.75 billion. The remaining portion, 527,946 or 30.6%, made a gain of \$4.12 billion. The total net rental income was a loss of \$8.63 billion (ATO 2010: 15). As Table 6 shows, negative gearing has cost taxpayers \$2 billion in 2007-2008. In 2008-2009, the net loss was \$6.5 billion and Eslake (2011b) comments that:

This is a pretty large subsidy from people who are working and saving to people who are borrowing and speculating (since those landlords who are making "running losses" on their property investments expect to more than make up those losses through capital gains when they sell the properties).

And it's hard to think of any worthwhile public policy purpose that is served by it. It certainly does nothing to increase the supply of housing, since the vast majority of landlords buy established properties: 92 per cent of all borrowing by residential property investors over the past decade has been for the purchase of established dwellings, as against 82 per cent of all borrowing by owner-occupiers.

As has occurred with the FHOG, "the availability of negative gearing contributes to upward pressure on the prices of established dwellings, and thus diminishes housing affordability for would-be home buyers" (Eslake 2011b). The end result is that negative gearing has encouraged the formation of a landlord class that intentionally makes a net loss; taxpayers are footing the bill without evidence that it

has produced the outcomes that its supporters claim.²³ Brown et al. (2011) suggest that negative gearing has generated similar distortions to the changes in CGT policy, though more attention should be placed on the latter rather than the former. McAuley (2009) argues that the CGT discount has favoured speculation over long term investment.

The FHOG and negative gearing have done little to add to the existing residential property stock. Data shows that a greater proportion of mortgage debt is directed towards purchasing existing housing, rather than financing construction. van Onselen (2011b) writes that:

...the share of investment in new construction has fallen for the past 25 years, from around 60% in the mid-1980s to 6% currently. So despite the favourable tax treatment provided to property investors in Australia, for every 17 investment homes purchased in December 2010, only one was a new dwelling that actually added to housing supply and rental availability. ...investor loans for new construction have remained relatively flat for the past 25 years whereas loans for second-hand properties surged from around 2000 onwards, coincident with the reduction in Capital Gains Tax.

Garnaut (2008: 20) concurs:

In 1999, the then conservative Australian Government reduced the capital gains tax by half in the highest tax bracket, to 25 per cent. Investors voted with their wallets. In 1990 investment loans represented 16 per cent of Australian mortgages at \$13 billion. By 1999, such loans had grown from a low base to \$82 billion, or 29 per cent of total mortgage debt. Over the next nine years, investment property loans grew 378 per cent to \$310 billion, or 31 per cent of total mortgage debt.

It is possible that policy could be slightly improved by restricting the FHOG and negative gearing to the purchase of new instead of established housing as it provides an incentive to use debt to spur construction rather than purchasing within the existing stock of housing. Others have argued that subsidy programs and tax arrangements should be restricted in various ways, for instance, subject to means testing or made available only to low-income Australians (Senate 2008: Chapter 9). Whether

²³ Senate (2008: 64-69) provides a summary of the views held by its supporters and detractors.

these policies can be altered in minor ways to ensure somewhat more efficient outcomes misses the point: first home owners and renters are not better off than they were a decade ago as housing affordability continues to worsen. Gittins (2007) makes the point about the nature of the assistance provided by the government:

All those measures would work if you were the only person who benefited from them. That is why they sound like they would help. But because all the other would-be home buyers you are competing against also benefit, the attempt to make prices more affordable ends up pushing them higher.

Eslake (2011a) highlights the one policy that did succeed in increasing home ownership rates was back during the 1950s and 1960s when the federal government provided low-interest rate loans to state governments to build houses for first home owners. The home ownership rate jumped from 53% in 1947 (unchanged from 1911) to a historical high of 72% in 1961. Given that the last couple of administrations have had a preference towards market-based solutions (Johnson 2010), the current government is unlikely to support this type of policy. Established owners would oppose it on the basis that this form of government intervention would not drive up prices as has occurred with the FHOOG and negative gearing. Despite the array of policies designed to promote housing affordability and home ownership over the last two decades, the rate currently stands at approximately 70%. As well as inflating housing prices, current policy has decidedly favoured speculation in the residential property market. On this matter, Kohler (2004) puts it well when he states:

Five years ago Treasurer Peter Costello told Australians: “Work for a living and we'll tax you at close to 50 cents in the dollar; speculate and we'll only take 25 cents. Not only that but, as a special deal - while stocks last - we'll pay half your speculating costs.”

Eslake (2011b) questions policies that promote a lower marginal tax rate on borrowing and speculation than on working and saving, which has the effect of penalizing productive enterprise. With these policies in place, Australians are encouraged to make unearned capital gains through speculation on the stock and property markets, rather than working for an income and investing in productive businesses. Despite the self-serving protests to the contrary by government, industry and property owners, the policies implemented over the last decade have exacerbated the very problems that they were supposed to solve.

Some arguments against a collapse

It is argued that Australia faces no problem because of prudent lending standards that did not follow the extreme carelessness of lenders in the US. For instance, sub-prime mortgages with a loan-to-value (LVR) of 85% and above were common across the US. Lending practices were so loose that some sub-prime mortgages had an LVR up to 125%, with the excess used to finance the consumption of holidays, furniture and cars. Despite arguments that Australian lenders have been frugal, LVRs have increased from a responsible 70% during the 1960s-1970s to the highest ratios seen yet; for instance, Mortgage House, a non-bank lender, is offering loans topping out at a LVR of 105%, and the major banks are also offering similar LVRs (Anonymous 2010c):

...Westpac raised its LVR for new customers from 87 per cent to 92 per cent, reversing the cut it made back in January; while ANZ also last week raised the maximum LVRs from 95 per cent to 97 per cent for existing customers, and from 90 per cent to 92 per cent for new borrowers. Commonwealth Bank has left its LVRs unchanged, at 97 per cent...

Incredibly, Westpac announced it would accept imputed rental payments as a form of saving and Australia's fifth largest lender, ING, now provides a never-ending mortgage that has no fixed term and no requirement to pay any principle along the way (van Onselen 2011c). Certainly the US system was debt-leveraged and irresponsible, but this ultimately tells us nothing either way about whether Australia will avoid a collapse or not. The vast majority of loans are variable, making them sensitive to increases in the official interest rate, and the banks have publicly stated that they will pass on the increases. If property prices were to increase further, outstripping net incomes, then it could be expected that LVRs would be increased past already historical highs. It is often stated that Australian financial institutions have not lent recklessly, but the mortgage debt to GDP ratio has surpassed even that of the US. By the end of 2009, this ratio hit a historical high of 90% (Keen 2010: 62). Figure 8 displays the trend of mortgage debt. As can be expected, the ratio has increased over the last two decades. Household interest payments as a percentage of disposable income have increased sharply since 2001, reflecting the burden of payments for the increased load of mortgage debt. It is unsurprising that debt has risen substantially against both housing assets and disposal incomes over the last decade and a half, as real incomes have not kept pace with prices, so a greater percentage of debt is needed for financing.

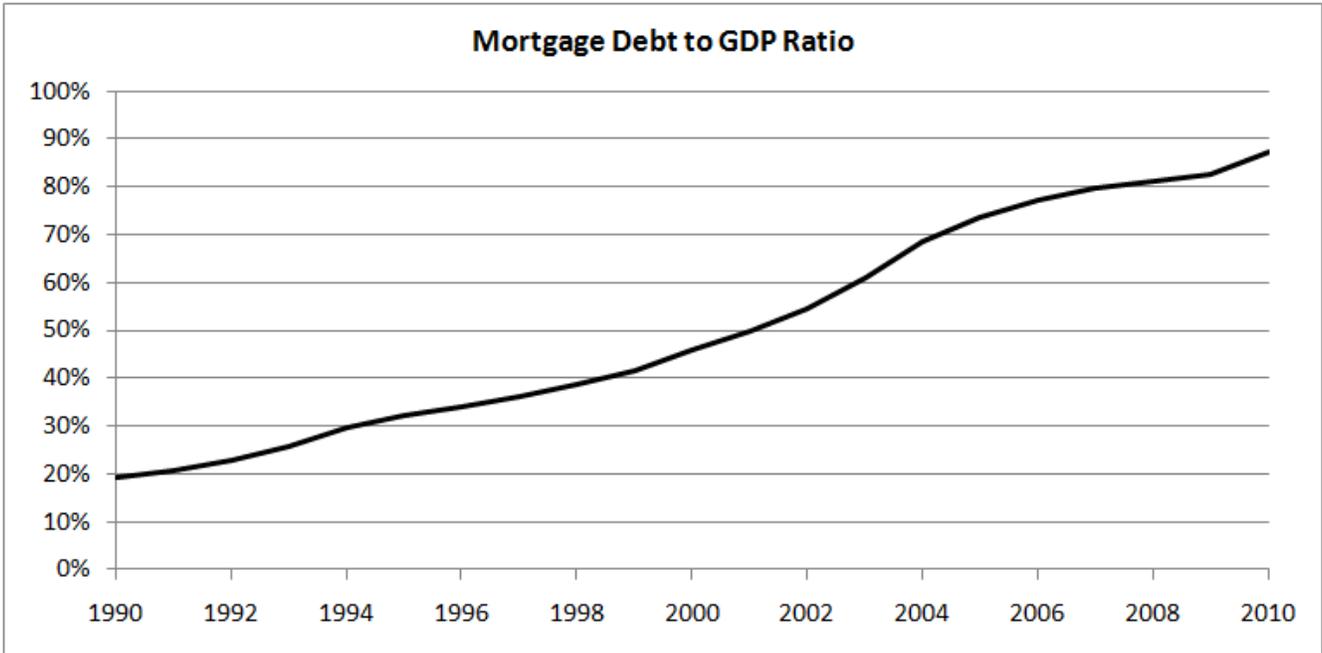


Figure 8: Mortgage debt to GDP ratio 1990-2010 (RBA 2011c).

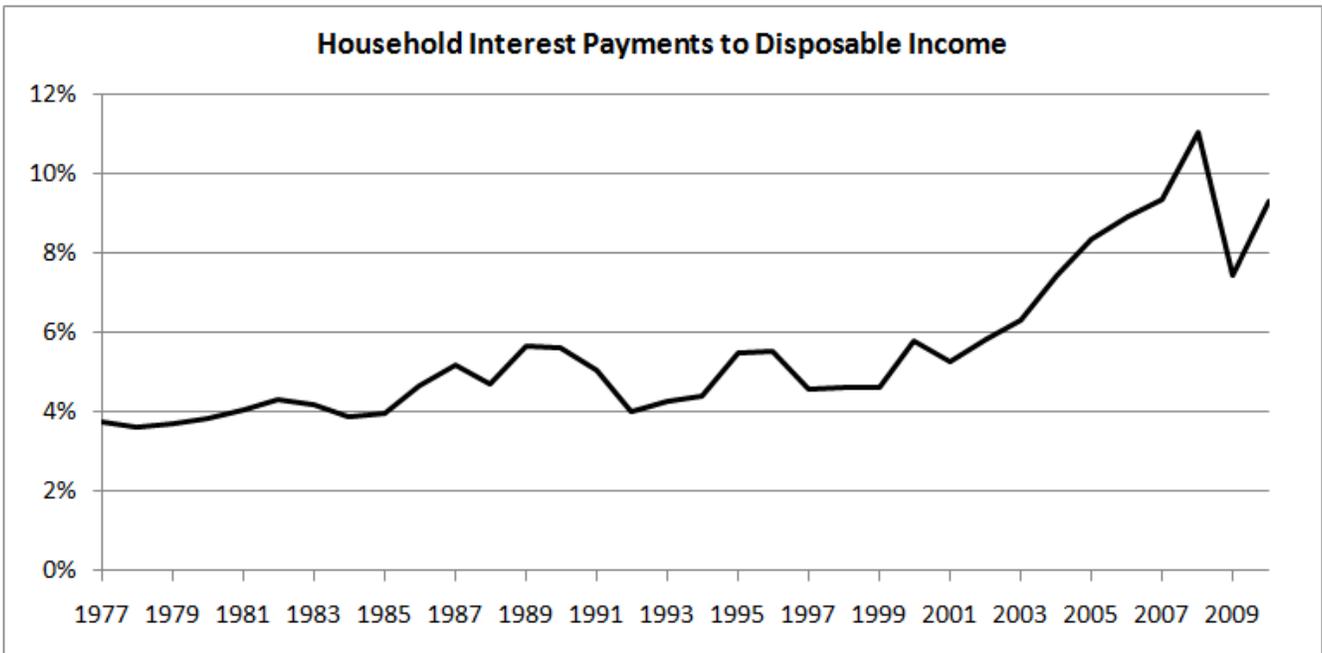


Figure 9: Household interest payments to disposable income 1977-2010 (RBA 2011a).

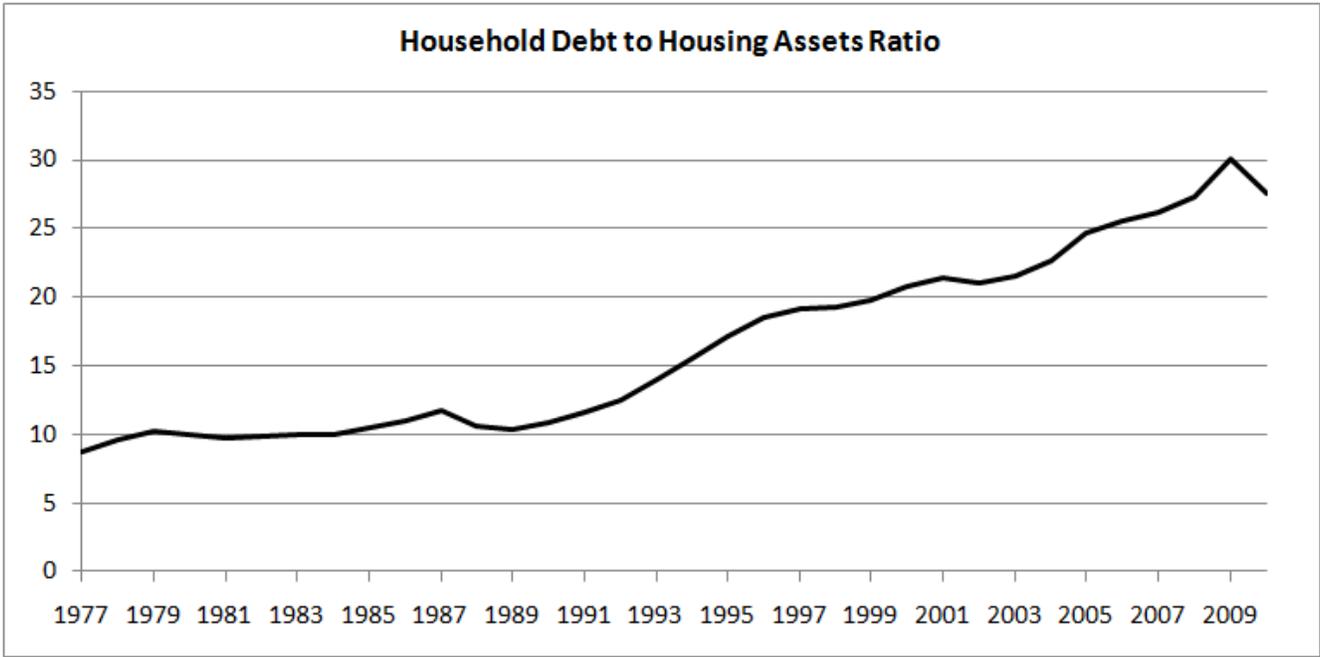


Figure 10: Housing debt to housing assets ratio 1977-2010 (RBA 2011a).

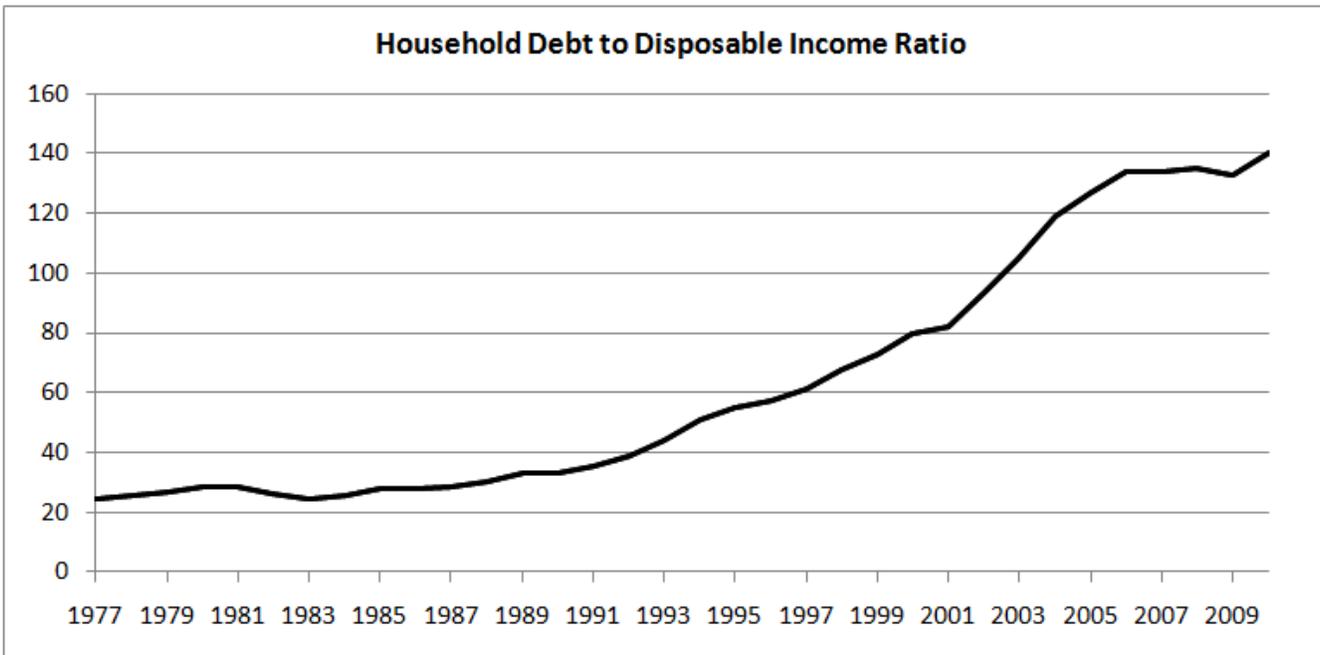


Figure 11: Housing debt to disposable income ratio 1977-2010 (RBA 2011a).

One of the justifications for increasing the LVRs for loans is that past performance is an indicator of the future. The claim is made that because Australia's present delinquency rates are currently low, and have been for the last decade or so, it will continue to be low. Thus, the LVRs can be ramped up without increasing the rate of delinquencies. Spain and the US provide good examples of this fallacy:

from 2000 onwards, the rates of delinquencies were less than 1%, similar to that of Australia, and both economies appeared to be in sound shape. Then the housing bubbles burst in 2006 and 2008 for the US and Spain, respectively. Predictably, delinquency rates rapidly increased and the economies now suffer from debt-deflations. In the US, between late 2001 and early 2006, the delinquency rate on sub-prime mortgages fell slightly before quickly rising after the peak of the bubble which the Case-Shiller index indicates was the first quarter of 2006. Alt-A loans, also of questionable quality, had a falling rate during this time period as well. Currently, Australia's delinquency rates are not dissimilar to that of the US before the bubble peaked (Edgerton 2008b). During the boom phase of a property bubble, the popular delusion of forever-increasing property prices combined with the wealth effect serves to mask the danger that once prices stagnate, peak and then decline, throwing the economy in reverse, delinquency rates can rapidly snowball once the downturn sets in. As the US experience shows, sub-prime mortgage delinquency rates actually fell during the boom phase of the bubble. Thus, whether rates are historically low and steady cannot be used as an indicator of either the future health of mortgage loans or the housing market.

Stapledon (2009) asserts that collapse will be avoided, in part, due to Australia's more free market banking and financial system, whereas the US system relies upon a great deal of government intervention. This, once again, tells us little about whether Australia will avoid a price decline. Government intervention and market distortion characterizes the Australian system. The primary lenders are the Big Four banks (CBA, Westpac, NAB and ANZ), constituting an oligopolistic market, and are backed by the RBA as lender of last resort. These lenders are so large that they employ the "too big to fail" tactic, meaning that if any of them faced bankruptcy, they would drag all the other major financial institutions under (investment banks, commercial lenders, hedge funds, etc.), leading to a major financial catastrophe necessitating government bailout, as they are all tied together in a financial web. In other businesses, for instance, a hardware or bookstore chain, if a major competitor goes bankrupt, other competitors will see this is a benefit, but this is not the case with the financial industry. When financial profits are dependent on the issuance of ever-more mortgage debt to finance continually rising property prices, a downturn can make a lender insolvent in short order. The systemic risk posed to financial markets is excessive even during the stable periods, and becomes overwhelming when large financial firms leverage their positions and/or too much debt is lent out on speculative frenzies. Firms that are too big to fail will not internalize costs; rather these firms will externalize risks to the greatest possible degree given their market size and the moral hazard created by government intervention (Taleb and Tapiero 2009). Australian banks, as with US banks, are not just too big to fail,

they are also too big to jail (see Bauerlein and Jeffery 2010). State-granted corporate charters enormously subsidize investors, providing a lucrative incentive to pool substantial conglomerations of capital to finance firms and ventures far above what would exist under conditions of a free market, which may constitute a primary factor in the development of firms becoming too big to fail.²⁴

The federal government has also provided deposit guarantees and has been supporting the residential mortgage-backed securities (RMBS) market by investing up to \$16 billion to support non-bank lenders, regional banks and building societies that would not otherwise lend or at least lend far below current levels. The RMBS market represents a form of securitization similar to that found in the US, though not as widespread. This policy encourages moral hazard as investors more so than non-bank lenders stand to lose if housing prices were to decline, resulting in increasing defaults and thus decreasing the value of the securities. Moral hazard provides the incentive for non-bank lenders to lend more liberally than they should, whereas free market discipline would force them to adopt conservative lending practices. Unsurprisingly, non-bank lenders offer the highest LVRs. Stapledon (2009) makes the claim that there is minimal securitization and no government involvement, unlike the US market. Government intervention into the RMBS market falsifies this claim. Should the RMBS market sour, institutional private-sector investors will flee, leaving the government as the only potential purchaser of these securities. The effect of the RMBS market with government involvement is to increase moral hazard and thus riskier lending.

²⁴ Rights for capital in the form of corporate charters expose the rank hypocrisy of economic liberals today. They contend that rights for people (social welfare, minimum wage legislation, workplace rights) cause disruptions in labor markets and thus should be cut back. Strangely enough, nothing is said about the increasing of rights for corporations which are limited liability, sovereignty and immortality. In the US, they have the legal rights of immortal persons with free speech. Open any introductory microeconomics textbook today and one can always find a section on labour markets and the models that show the inefficiencies that these rights for labour cause. Then turn to the section that analyzes the market distortions that rights for capital causes – no such section exists. Journals, textbooks, conference proceedings, government reports, etc. are overflowing with labour market analyses but the author knows of no studies that analyze how state-granted rights to capital distort the workings of the market. It is outright double standards: rights for labour that benefit the public are bad, rights for capital that benefits the rich are not even commented upon, let alone have the economics profession call for their removal. Also unmentionable by economic liberals today is the widespread use of government-granted monopolistic intellectual property rights via patents, copyrights, trademarks and trade secrets, though it is not known how extensive the use of intellectual property is by the banking and financial industries. “Innovations” in the form of financial products (for instance, derivatives) may be protected by patents and firm logos by trademarks.

The Australian government does not just provide protectionism to the banking and financial industry; it also provides property owners with a great deal of assistance estimated at approximately \$53 billion per year through various programs and tax arrangements. From 1996 to 2010, the value of the residential property stock has risen by \$2.5 trillion over this period, delivering a massive gain to property owners. This increase in property values reflect unearned income that is neither attributable to the labour of property owners nor the profits stemming from the productive use of capital. Simply put, taxpayers are forking out more than \$53 billion per year to property owners as they privatize approximately \$2.5 trillion in economic rents or unearned income.²⁵ This represents one of the greatest transfers of wealth in Australian economic history. Given the enormous giveaway to property owners, it is unsurprising that tax breaks for housing costs five times more than public housing and rent assistance (Disney 2010). Unfortunately, very little is mentioned within the mainstream about this. Despite the level of assistance noted above, the government, supported by popular opinion, is dedicated to reducing social welfare for the poor and homeless, indicating that it is time for them to accept individual responsibility and fend for themselves. Policy is reflective of this attitude, as funding for public housing has declined over the years. When the Rudd government committed further funding for public housing, it was due to the economic stimulus package in response to the GFC, rather than its supposed dedication to helping the homeless and struggling renters (Johnson 2010). The difference between the treatment of property owners and that of the lower-income segments of the population could not be starker. The government has intervened to distort the residential property market in favour of established owners against first home buyers and renters, under the pretext of helping first home buyers and renters!

Australia's banking, financial and real estate industries, including the residential property market, are not reflective of any free market ideal, but rather is based upon the principle that underpins a great deal of economic policy: the socialization of risk and cost, but privatization of ownership, management and profit. This is one of the legacies of economic free-market "rationalism" in Australia: state subsidy and protection for the rich, freer market discipline for everyone else.²⁶ Baker (2006) calls this the workings of the conservative nanny state, a powerful and interventionist welfare state that works for the

²⁵ This figure will be smaller due to the 27% increase in the residential property stock over the period 1996-2010.

²⁶ Elsewhere, this type of economic "reform" is called neo-liberalism. There are two problems with this term: despite the rhetoric, the actual policies put in place are not new, and typically have nothing to do with furthering economic liberalism.

wealthy.²⁷ In these times of supposed economic liberalism, this welfare state for the rich shows no sign of abatement. Policy is based upon a simple principle: market discipline is good for you, but not for me. During periods of apparent stability, industry and its executives preach the gospel of the free market while receiving stupendous amounts of direct and indirect protection and subsidy. When economic disaster strikes, they run off to huddle behind the conservative nanny state, waving the books of Milton Friedman and Ludwig von Mises, demanding that the government bail them out. One can question if the actions of executives and managers are actually incompetent; knowing that the powerful corporate welfare state is going to bail them out regardless, it encourages moral hazard and risky lending so that the institutions they work for can make ever more profit and market share during the good times, not to mention the unearned rents of multi-million dollar pay packages and bonuses. If the financial industry were subject to free market discipline today, it would collapse to a tiny fraction relative to the economy as an inevitable crash would result in a bankruptcy cascade, and without the various forms of government intervention to support them, these sectors would never grow to such commanding heights again.

Another argument offered for thinking Australia will not experience a downturn is that loans are recourse, meaning that borrowers are liable for the full cost of the loan and thus more responsible than under non-recourse conditions. Thus, if a property incurs negative equity and the owners are forced to sell, the borrowers are liable for the difference between the value of the mortgage and house sale price. In some of the states of the US, if a borrower faces negative equity, they have the option of leaving the property to the bank, and walking away, with the lender taking a hit equal to the difference between loan value and property price (this is called “jingle mail” in reference to the house keys been sent to the lender in the mail). This is one of the legacies of the New Deal legislation which allows for individuals to clear their debt burdens in order to give themselves a new start if facing excessive financial stress. Whether loans are recourse or non-recourse makes little difference to owner-occupiers and investors who have expected prices to endlessly rise and never fall due to euphoric speculation and the wealth effect. If borrowers are told by government, industry and economists that prices reflect underlying fundamentals and their economic models declare that efficient markets can’t be affected by bubbles and deflations, then they may well discern that the risks of a substantial correction is mere doom and

²⁷ Dean Baker’s *The Conservative Nanny State: How the Wealthy Use the Government to Stay Rich and Get Richer* provides a great analysis of economic policy, examining the various government and market outcomes that are used by the rich to predictably enrich themselves.

gloom, nonsense spouted by a few radical people attempting to gain media attention. The knowledge of current circumstances of first home owners and investors is limited to the last decade or two, when the economy has powered through without the adverse effects of a strong downturn or high unemployment. Feeling that the future will continue on as it has in the past, borrowers will continue loading themselves up with substantial amounts of debt, hoping that increased equity and incomes will help to pay down the mortgage. As Minack (2010) puts it, “long-term economic performance has produced a class of Australians who have never experienced job losses since the recession of the early 1990s.” Garnaut (2008: 21-22) describes the psychological process underpinning the speculative euphoria:

By the middle of the first decade of the twenty-first century, the psychology of the boom was well established. After multiple years of strong growth and rising asset values, risks seem to diminish in financial markets. The gambler has thrown the dice a number of times, and each time has won, while the investors who have remained cautious are less successful and fall from favour. Those with money to lend or invest as equity in speculative ventures watch the gambler throw and win, and begin to think that he has skills beyond the ordinary human. The gambler who borrows heavily for speculative investment, the lender who accepts high margins for disproportionate risk, and others who suspend the normal judgements of prudence appear on the rich lists. They become responsible for investing higher proportions of the world’s capital.

The speculators become popular heroes and more influential in political systems. Those in leadership positions who take seriously their responsibilities for imposing constraints on the use by investors of other people’s money are pushed to the margins of public life. Some of the prudent, including regulators, also come to believe that risk is not what it used to be, and are less confident of their old positions. If they make this transformation in perception early enough, they retain their influence and may even become maestros of a new financial order.

Stapledon (2009) presents the case that the comparison that has been made of Australia and the US is fundamentally wrong. Instead, a more legitimate comparison is that between Australia’s coastal cities and California, whose population is concentrated into the coastal cities, for the reason that coastal cities command a premium due to location. Regarding the comparison between Australian and US coastal cities that the CBA (2010) report also uses as a justification, Llewellyn-Smith (2010) points out the obvious:

You will forgive this writer if he points out that if 83 per cent of Australians live in coastal cities then that surely constitutes 83 per cent of the housing market. There is, therefore, no greater market against which a premium for coastal property can be justified. As opposed to other nations, where an even spread of population means there is elevated demand for coastal living as a reward for success. Nor has there been a great Australian exodus to the coast from the bush in the past 15 years. We've always lived by the seashore.

As elsewhere, California's economy has experienced a severe deflation due to a rapid run-up in prices and then decline once the bubble burst. Picking California is an interesting choice considering the three cities, Los Angeles, San Diego and San Francisco, had the greatest run-up in prices collectively in the S&P Case-Shiller Composite-20 Index. Boston, which is also on the coast, recorded a much smaller run-up in prices and commensurate decline. Other prominent cities in coastal and bay areas are not compared. It appears that California, whose cities experienced the greatest combined rise in prices out of any US state, has been chosen by Stapledon and the CBA to make Australia's national price rise look less-bubble prone.

Another reason, though it is not often used, is that the increased dwelling sizes over the last couple of decades could be responsible for the run up in prices. This line of reasoning assumes that the dwelling and construction costs are proportionate for the current level of income for owner-occupiers and investors. If prices are based upon fundamentals, then the building costs are rational, and so are dwelling sizes. On the other hand, if a bubble does exist, the wealth effect spurs the consumption and construction of ever-larger houses, including investors purchasing more properties than they would normally have done. In this case, building costs and dwelling sizes are not in line with fundamentals, for instance, disposable household incomes, meaning that when a correction occurs, newly constructed dwellings are likely to be smaller.

One Country's Disaster

It has been noted that several countries have suffered from the bursting of bubbles within the residential property markets. The US is the most visible of these countries, as it is the world's largest economy. Moreover, it is generally accepted that the GFC originated from the economic implosion that occurred there. A brief summary of the history of the US housing sector will be presented here, as it foreshadows what will potentially occur in Australia.

From 1996 to 2006, the U.S. experienced a sharp increase in real house prices, which, to the surprise of many economists, turned out to be a bubble that burst in the first quarter of 2006, leading to a devastating economic crisis in 2008. Figure 12 shows the real house price index from 1890 to 2011.

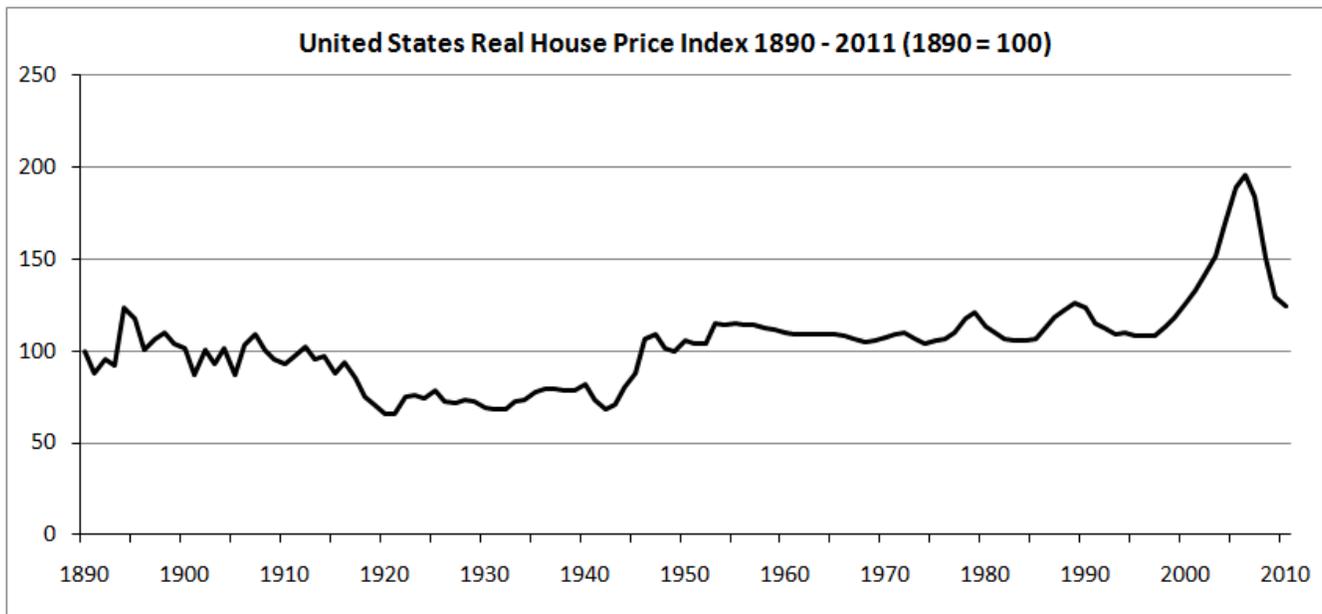


Figure 12: US real house price index 1890-2011 (Shiller 2011).

From 1996 to 2006, house prices rose faster than the rate of inflation, which is important considering that prices have traditionally tracked the average rate of inflation since 1890, despite the booms and busts that have occurred over the decades. Over this ten year period, prices rose by 86%. Such a rapid increase in house prices over a relatively short period of time should have resulted in a great deal of concern and a national discussion over the state of the residential property market. As with any bubble, the danger of it bursting presents a clear and present danger to the economy, so policy makers and economists ought to pay attention to developments that mimic bubble-like behavior. One recent

example is that of the Dot-Com bubble of 1995-2000, where speculation on publicly listed tech firms reached a frenzied peak in March 2000, before rapidly deflating in 2000-2002.

As with the dot-com bubble, the vast majority of economists missed and/or denied the existence of a bubble on the stock market, and this scenario has repeated itself with the housing bubble. Concerns were continually raised over the years previous to 2006 about the possibility of a bubble forming within the property market. Unfortunately, many economists and analysts dismissed such concerns as nonsense.²⁸ These dismissals emanated from all quarters. For instance, in October 2005, Ben Bernanke, the then chairman of the President's Council of Economic Advisers, and now chairman of the Federal Reserve, testified before the Congressional Joint Economic Committee on the general state of the economy. In his testimony, Bernanke (2005: 7) stated:

House prices have risen by nearly 25 percent over the past two years. Although speculative activity has increased in some areas, at a national level these price increases largely reflect strong economic fundamentals, including robust growth in jobs and incomes, low mortgage rates, steady rates of household formation, and factors that limit the expansion of housing supply in some areas. House prices are unlikely to continue rising at current rates. However, as reflected in many private-sector forecasts such as the Blue Chip forecast mentioned earlier, a moderate cooling in the housing market, should one occur, would not be inconsistent with the economy continuing to grow at or near its potential next year.

A few months before Bernanke's testimony, Alan Greenspan, the then chairman of the Fed, testified before the same Congressional committee. Greenspan (2005) said:

Although a "bubble" in home prices for the nation as a whole does not appear likely, there do appear to be, at a minimum, signs of froth in some local markets where home prices seem to have risen to unsustainable levels. ... Although we certainly cannot rule out home price declines, especially in some local markets, these declines, were they to occur, likely would not have substantial macroeconomic implications. Nationwide banking and widespread securitization of mortgages make it less likely that financial intermediation

²⁸ Anonymous (2008) has produced a list of prominent economists and commentators who have gone on the record for stating that little to no evidence exists for a property bubble in the U.S.

would be impaired than was the case in prior episodes of regional house price corrections. Moreover, a substantial rise in bankruptcies would require a quite-significant overall reduction in the national housing price level because the vast majority of homeowners have built up substantial equity in their homes despite large home equity withdrawals in recent years financed by the mortgage market. ... In conclusion, Mr. Chairman, despite some of the risks that I have highlighted, the U.S. economy seems to be on a reasonably firm footing, and underlying inflation remains contained.

The Joint Center for Housing Studies at Harvard University claimed, with little evidence (Baker 2003), that there was no cause for concern over a property bubble developing primarily due to rising household incomes, increasing household formation and low interest rates (Joint Center for Housing Studies 2003). It was argued from other (supposedly informed) quarters, for instance, David Lereah, the chief economist of the National Association of Realtors, who asserted that the real estate boom was not a bubble and prices would continue to rise.²⁹ With such prominent individuals and institutions downplaying the risk or denying the existence of a bubble, then the vast majority of U.S. homeowners would have no hope of identifying a bubble in the housing market.

It is important to note, however, that there were a few economists who predicted the bubble and its resulting effects upon the U.S. economy. In 2009, the economist Dirk Bezemer aggregated the number of economists who predicted the U.S. housing bubble and the resulting economic crisis (Bezemer 2009b). This list has a total of twelve economists, with a third of them outside the U.S., with most of them belonging to the Austrian, Georgist and Keynesian rather than neoclassical, schools of economic thought.³⁰ Inclusion on this list required passing a four-step selection criteria: accounting for how they arrived at their conclusion, analysis of the post-bubble economy, the actual prediction must have been made by the economist directly in the public domain, and lastly, some timing of the actual prediction (Bezemer 2009b: 7). Some of these economists were quite vocal in their views.³¹

²⁹ Lereah (2006) has gained a great deal of notoriety with the publication of his book *Why the Real Estate Boom Will Not Bust - And How You Can Profit from It*. He wrote this as the housing bubble was reaching astronomical heights and was published in the first half of 2006. According to the Case-Shiller index, the first quarter of 2006 was the peak of the bubble.

³⁰ Dean Baker, Wynne Godley, Fred Harrison, Michael Hudson, Eric Janszen, Steve Keen, Jakob Brøchner Madsen, Jens Kjaer Sørensen, Kurt Richebächer, Nouriel Roubini, Peter Schiff and Robert Shiller (Bezemer 2009b: 9).

³¹ The debate in the US between Peter Schiff and Arthur Laffer comes to mind. Schiff argued that the property bubble was going to burst and plunge the U.S. economy into a recession. Laffer ridiculed such a notion.

In an interview with the New York Times, the economist James Galbraith mentioned that only ten to twelve out of fifteen thousand economists saw the housing bubble, and when asked about the economics profession, he said (Solomon 2008):

It's an enormous blot on the reputation of the profession. There are thousands of economists. Most of them teach. And most of them teach a theoretical framework that has been shown to be fundamentally useless.³²

The story regarding the non-existence of the bubble went hand-in-hand with admiration of the “great moderation,” referring to the alleged control of financial and economic instability by central banks through their use of interest rate policy. This term was coined by the economists Stock and Watson (2002), and later widely popularized in a speech given by Bernanke (2004) entitled “The Great Moderation.” Lucas (2003), in his presidential address before the American Economic Association, went so far as to say that the threat of depression has been forever averted by means of sage economic policy. In effect, economists and policymakers were engaged in self-congratulation, believing, at least for a period of time, that the threat of financial crises had been reduced to insignificance through the implementation of macroeconomic and monetary policies based upon conventional neoclassical theory. This wayward belief in the “great moderation” continued until the financial catastrophe in 2008 essentially bankrupted the banking and financial system in the U.S., saved only by the largest government bailouts and guarantees in its economic history.

The initial Troubled Asset Relief Program (TARP) program authorized the U.S. Treasury to purchase what were defined as “troubled assets” from the banks, to the tune of \$US700 billion. TARP, however, comprised just one of the many programs implemented by the government to bail out the collapsing economy. Neil Barofsky, the Special Treasury Department Inspector General, whose job is to oversee the TARP program, testified before the Congressional House Committee on Oversight and Investigations that the entire bailout packages, when aggregated, reached \$US23.7 trillion (Barofsky 2009). The bailout and stimulus packages passed by the government, while having the effect of saving the large commercial and investment banks have not prevented the rapid deflation of the housing bubble, as Figure 12 illustrates. Recent data has shown that house prices may be stabilizing, at least in

³² It is likely that Galbraith is referring to neoclassical economic theory here.

the short term (Shiller 2011; S&P 2011). The entire bailout package dwarfs the previous bailout of the savings and loans industry during the 1980s and 1990s when the industry suffered enormous losses. The total cost to taxpayers due to that episode of financial malfeasance was \$US124 billion (Curry and Shibut 2000).

The economic fallout has been devastating in terms of increasing unemployment over the last few years. The popularly quoted U-3 measure of unemployment currently stands at 9.0% for April 2011 and at 15.9% according to the broader U-6 measure (BLS 2011). Shadow Government Statistics, which purports to offer more realistic measures of economic statistics than the government's, puts the overall unemployment at a higher rate of approximately 22% (Williams 2011). House prices have fallen 40% from the peak of the bubble in the first quarter of 2006 to the first quarter of 2011 (Shiller 2011).³³ This averages a fall of 8% per year, or 0.67% per month. It appears doubtful that, without the implementation of non-orthodox fiscal and monetary policies, the economic situation in the U.S. will change for the better in the near future.

Further in-depth reviews of the politics and economics of the US housing bubble and GFC exist elsewhere (see Baker 2009, 2010a; Prins 2010).

³³ The last quarter that data was available.

Possible outcomes in Australia

Will the downturn in Australia follow the path of the US, which was sharp and dramatic, or Japan, which has suffered from declining house prices and deflation over the last two decades? It is simply too difficult to determine, given the differing factors at play. Some economists have argued that a 40% drop in Australian house prices is likely, while others suggest a smaller overvaluation of 20%, hoping for a softer landing. Regardless of the intensity of the house price decline, the effects are not going to be healthy, even though a decline will lead to greater housing affordability. As Minack (2010) has noted, aggregate rental incomes have not covered aggregate costs since 2000, the year the bubble is believed to have started.³⁴ If this year is the beginning of the bubble or Ponzi financing phase, and the residential property market eventually adjusts to reflect fundamentals, then according to the following ratios and valuations, house prices will have to fall: house price to rent ratio (42%), residential property stock value (49%), and median multiple (approximately 30-50%, depending on the housing market). The household interest payments to household disposable income, mortgage debt to GDP and household debt to household disposable income suggest that the level of mortgage debt is far above historical levels.

From 1991 to 1995, prices tracked the rate of inflation, after the late 1980s bubble deflated. According to the Minsky analysis, this period represents hedge financing, where rental income is sufficient to pay down principle and interest over the life of the mortgage. The speculative financing phase may correspond to the period 1996 to 2000, as prices steadily rose but not to the degree where mortgage payments could not be met by rental income. Financial stress may occur, but it is isolated rather than widespread. From 2000 onwards, prices rapidly increased, and the house price to rent ratio likewise moved in step, along with other fundamental indicators. This is the phase of Ponzi finance, as rental incomes cannot cover the costs of rising mortgage debt, let alone other associated costs of maintaining a property. Debts are financed only by the rapid escalation of house prices. Eventually, the debt burden becomes so extreme that owner-occupiers and investors experience trouble financing these costs and sell their properties en masse, resulting in a collapse in housing prices. Rising interest rates may be the cause of the imminent downturn.

³⁴ It is a distinct possibility that the bubble began back in 1996 as prices increased steadily above the rate of inflation and it occurred along with other countries in a “synchronized global house price bubble” (Edgerton 2008: 1). Nevertheless, the following ratios and valuations are calculated from 2000 to 2010.

Rising interest rates may dampen house price growth and result in a downturn due to the increased burden of debt repayments. After the effects of the GFC hit in late 2008, the RBA dropped the interest rate to a historical low of 3% in 2009, and combined with the FHOG, enticed many new first home owners into leveraging up by taking on mortgages that appeared attractive at that time. If the RBA continues to adhere to rate rises, then it may prove the tipping point for bursting the bubble.

With the total value of housing reaching \$4.01 trillion in 2010, 313% of GDP, which is currently at \$1.28 trillion (ABS 2010c; RBA 2011b), a downturn in prices will have the effect of wiping out a great deal of wealth. Baker (2002: 13) cites a study, pertaining to the US, that estimates for every dollar that residential wealth increases, consumption rises 6 cents through the wealth effect. The same result is found for Australia (Thomson and Tang 2004). It is possible to construct a general estimate of the loss in consumption when the bubble bursts, depending on the severity of the fall. This estimate does not include the reduction in demand from the slump in housing investment, the collapse in the construction industry or that caused by private debt deleveraging.

Decline (%)	Residential wealth loss (\$bn)	GDP (%)	Consumption loss (\$bn)	GDP (%)
5	201	15.6	12	0.9
10	401	31.2	24	1.9
15	602	46.8	36	2.8
20	802	62.3	48	3.7
25	1,003	78.1	60	4.7
30	1,203	93.7	72	5.6
35	1,404	109.1	84	6.6
40	1,605	124.9	96	7.5
45	1,805	140.5	108	8.4
50	2,006	156.1	120	9.4

Table 7: Measuring the effect of a decline in house prices

Wood and Parkinson (2009) estimate that a 10% fall in prices could leave over 300,000 Australians in a position of negative equity. Those people are primarily younger couples who took out large mortgages during the build-up to the bubble. They lack savings to fall back on should they endure financial stress,

and have little recourse to further support. Unemployment will prove devastating to owner-occupiers who have high LVRs and negative equity. Currently, thousands of Australians are accessing their superannuation in a desperate attempt to stave off foreclosure, having accessed \$50 to \$70 million in 2009-2010. Under federal laws, owner-occupiers can apply for early access to their superannuation if they can prove to the Australian Prudential Regulation Authority (APRA) that they face the threat of foreclosure of their property by their lender (Lewis 2011).

Once there are no more people willing to purchase speculative properties and the line of first home buyers evaporates, the market will peak and then fall. In all likelihood, according to the data, the bubble has already peaked. Prices will fall, and the drop in demand caused by a slower accumulation of private debt will impact upon the economy, increasing unemployment. This will, in turn, cause many borrowers (both owner-occupiers and investors) to default, and finally have their properties repossessed. As has been observed many times in other countries, properties will flood onto the market and demand will abruptly fall. The cycle will feed upon itself, and drive down prices faster than it took to build up. How fast prices will fall cannot be estimated with any accuracy. The euphoric expectations of the last decade and a half will vanish, replaced by the urgency to sell as quickly as possible. While it is expected that prices will fall significantly, rents are unlikely to move to a great extent.

Worst still, if China is currently in the grip of a housing bubble, this could spell further distress to the economy due to a fall in the commodities sector. Australia's economy has greatly benefitted from the commodities boom during the 2000s, due to China's ravenous appetite for minerals. As has occurred with many property bubbles, substantial over construction is a likely possibility, also including the infrastructure needed to service the newly developed residential areas within the cities and towns of China. A severe downturn caused by falling property prices would likely signal the end to the increased commodity demand, adversely affecting the mining sector and placing further stress on the economy.

Two possible outcomes, each of which is seen as not unlikely, are noted here. The first is the hoped-for soft landing, where prices will drop by 10% to 20% over the course of the next decade, while incomes, GDP, and rents slowly rise, resulting in prices finally reflecting underlying fundamentals. This scenario is less than rosy, however, as even a moderate fall in house prices will result in further unemployment, stagnating wages, and a general decline in the sectors directly and indirectly associated with housing. A further argument against this scenario is the 1.2 million negatively-g geared property investors who own one or more properties each. A stagnating market, let alone falling prices, will cause investors to sell

their properties once no more capital gains can be made. This alone will assert significant downward pressure on the property market. The second outcome, a more severe scenario, is a decline in prices of 40% or more. If this occurs, then a debt-deflation is guaranteed, similar to the economic situation experienced in the US and Ireland. Facing a debt-deflation, there exist three broad policies that the government can implement.

The first is to do nothing and let the entire financial system collapse, along with a significant proportion of the industrial sector. In terms of unemployment and declining GDP, this is likely to be the worst possible option, politically and economically. The political party in power when the downturn occurs will not be fondly remembered for letting the system collapse. While it may be satisfying to see the FIRE (finance, insurance and real estate) sector implode due to its unmitigated avarice and incompetence, the effects will be widespread and lethal. There are many who did not share in the wealth of the bubble and are net savers, having avoided burdening themselves down with excessive levels of debt and yet will be affected by the fallout. Clearly, it would not be politically wise to do nothing while a substantial proportion of the public suffers due to circumstances they had little to no control over.

The second policy option is to bail out creditors: financial institutions such as hedge funds, commercial lenders, investment banks, etc. This is the approach favored by the wealthy, as it leaves the institutional structure untouched and modes of private wealth and privilege in place. As seen with Ireland and the US, this approach requires massive bailout programs, that when aggregated, amounts to more than 100% of GDP. Given the enormous political and economic power of the FIRE sector, and despite the opinions of the public, it is a distinct possibility that the major political parties in the pocket of lobbyists will bailout the FIRE sector. With a substantial proportion of debt funded from offshore, foreign banks will also be pushing for a bailout of domestic banks so that they will be paid back. While economic fundamentals such as GDP and unemployment are unlikely to fall to levels in the first scenario, the examples of the countries noted show that conditions will not be pleasant. Bailing out creditors does nothing to deal with the problem that caused the crisis in the first place: the level of private debt. This burden, combined with increasing unemployment and firm bankruptcies, will take many years, perhaps decades, to pay down until the private debt to GDP ratio falls down to an appropriate level that allows the economy to get back on track.

The third option is to bail out debtors by means of cutting down debts to the debtors' ability to pay or to abolish mortgage debt completely through a debt moratorium. This will, of course, result in banks becoming insolvent as they have lost their assets and interest payments. The government will then have to nationalize the banks, get the books in order, and then either keep the banks under public ownership or slowly privatize them one by one.

One of the success stories of reviving an economy after a crisis is that of Sweden. During the late 1980s and early 1990s, a housing bubble formed in the economy. The bubble rapidly deflated in 1991 to 1992, causing a crisis, and the government moved in to bail out the banking and financial sector. The cost of the entire bailout program amounted to 4% of GDP, though it could have been half of that (2%) or even zero, depending on rates of return.³⁵ The Swedish strategy centered on ensuring the banking sector was held responsible for over-lending and that the public made a return on selling distressed assets that the government took over. Part of the program provided incentives for banks to write down the debts that borrowers had incurred. While the strategy did not constitute a straight debt moratorium, it combined aspects of both a bailout and debt write downs, with the public interest served first and foremost (Dougherty 2008; Ergungor 2007).

It will be argued that writing down debts encourages a lack of personal responsibility and moral hazard. While this is true, it remains the only way to get the economy back on track, avoiding the risk of a Japanese-style Lost Decade or two. On the other hand, it can be argued that informed lenders should never have lent out such a large amount of debt in the first place. In this context, the asymmetry between lenders and borrowers should be noted. On one side is the financial and banking industry, supported by the RBA and Treasury, regulated by ASIC, with a legion of the country's most experienced and highly-paid economists to offer advice. On the other side are atomized borrowers, trusting the advice given by local bank managers and real estate agents. As history has shown, if industry and government economists cannot see a trillion dollar bubble forming in the economy, then atomized borrowers have no chance of doing so. Putland (2011b) recognizes this point:

³⁵ Compare this with the US bailout, with the total indentified by Barofsky (2009), costing around 167% of GDP (\$23.7 trillion / \$14.2 trillion). Though the comparison with Sweden is inexact, it provides an idea of the significance of implementing a proper bailout and debt write down strategy.

Protecting the lender against default is the purpose of the collateral. When the collateral has been seized, any further claim against the borrower is double dipping. As the lender has more power and more information than the borrower, it is the lender's responsibility to make sure the collateral will cover the debt. If the lender has failed to discern a bubble or to leave sufficient margin for the possibility of a bubble, that failure is the lender's fault and its consequences should be the lender's problem.

If debts are not written down to the ability to pay, then homeowners will become modern-day serfs to financial interests (Hudson 2010). Australian mortgages are recourse, rather than non-recourse, meaning that even if the property is foreclosed on, the banks will seize other assets, perhaps even make a claim on future wages. This will undoubtedly reduce many individuals and families to a position of crushing poverty. Worse still, if they also lose their jobs and cannot find alternative employment, they will be trapped in a cycle of poverty for many years, perhaps decades. On this basis, leaving the country is likely the best course of action to undertake. To somewhat ameliorate the homelessness and desperation of those having their properties foreclosed, Baker (2010b) suggests the implementation of the "right to rent." The plan would allow former homeowners to stay in their properties for a substantial period of time, paying the market rate of rent. This may actually reduce the number of foreclosures as it allows the former homeowners' time to sort out their financial affairs and pay off their debts. It requires no new bureaucracy, no unearned gains to the renters, does not bail out the lenders in any manner, and avoids the unpleasantness of evicting desperate families that may have no alternative accommodation to turn to.

Another useful strategy is for the central bank to develop a bubble prevention policy. Prevention of asset bubbles is typically not seen as the business of central banks; yet the formation and bursting of these bubbles directly impacts the mission of the central bank: price stability and full employment. Severe recessions and debt-deflations caused by bursting asset bubbles result in price instability and mass unemployment. Economists say that the power of the central bank is restricted to interest rate changes; however, it has a potent tool at its disposal: the loudspeaker. When the governor and leading central bank economists speak, the public, mass media and businesses listen. Thus, if the central bank had spoke up, warning of a bubble as prices are far removed from fundamentals, the bubble may have burst much earlier, resulting in smaller economic fallout. Unfortunately, this requires central bank economists to stick their necks on the line as the government, industry and public will blame them for causing the crisis, regardless of where fault lies. This provides a deterrent for the central bank to speak

up. Furthermore, a definitive definition of what constitutes an asset bubble does not appear to exist. It would certainly help the economy at large if the central bank (or the government) were to develop a definition that can then be used to identify the formation of asset bubbles so they can be dealt with before they grow out of control.

Another important policy is to limit the amount of credit created and supplied by the banking and financial industry so that people, households and businesses do not load themselves down with unsustainable amounts of debt which is then used to speculate on assets, creating unsustainable Ponzi schemes. Radically increasing the reserve ratio, perhaps all the way to 100%, will surely put the brakes on credit creation. On the demand side of the equation, the amount of debt that homeowners can take on could be limited to ten times the annual imputed rent, as Keen (2010b) has advocated:

With leverage limited by actual or imputed rental income of the property, a higher price for a property would mean a lower level of leverage - since the successful bidder would be the one who had put more of his/her own money towards the purchase. It would also allow a real landlord class to evolve - not one that makes a loss on renting as now, needs a tax break to remain solvent, and makes money by flogging the property at an even higher price to another loss-making speculator-landlord, but a class that makes a net profit from rental income.

The numerous government programs including tax subsidies and exemptions relating to the residential property market should all be eliminated, apart from public housing and rent assistance granted to the lower-income strata. While the justification for these programs is to improve housing affordability for first home owners and renters, it has done the opposite by significantly inflating house prices and making housing affordability worse. It has been estimated that the tax subsidies and exemptions alone total \$53 billion per year, with the FHOG costing taxpayers another \$1 billion per year. Without the enormous assistance provided to established owners and the market defects it generates, it is possible that expenditures relating to public housing and rent assistance could decrease as renting and buying property becomes more affordable, resulting in further taxpayer savings.

Another bubble-preventing policy consists of implementing a land value tax to tax away the unearned portion of the uplift in property values that accrues to owners and provides an incentive to put land to productive use. Without the ability to privatize unearned rents, this potentially removes the incentive to

speculate in property markets to make capital gains, and can replace the many distorting taxes placed upon capital, consumers and labour.³⁶ Dywer (2003), Kavanagh (2007), Prosper Australia (2008) and Smith (2000) provide useful analyses on the theory and practice of land value and resource rent taxes.

It is critical for policymakers to eliminate the basket of subsidies and protection of the banking, financial and real estate industries. The “too big to fail” policy is a must; no firm should be allowed to grow to a size that endangers the economy if it becomes insolvent. Once a firm reaches a stipulated asset size, it should be broken up into smaller, competing firms that cannot gain an oligopolistic hold on the market. Invalidating corporate charters of firms that do not add to the productive capacity of the economy in some form is another technique of ensuring that financial predator firms do not dominate the economy.

There is currently no centralized data gathering service in regards to property prices and transactions as with shares on the stock market. Shares with prices as little as 1 cent have a transaction recorded by the Australian Securities Exchange (ASX) when it changes ownership. Yet, residential properties worth hundreds of thousands of dollars, with many having a price tag of over a million dollars, do not have the transaction recorded on an exchange.³⁷ The data gathered from such an exchange will prove invaluable for economic and statistical analysis relating to the residential property market. A law can be implemented requiring either the agent or purchaser to submit the details of the property transaction to the government or authorized third-party for the purposes of information gathering. The system for declaring clearance rates has also been questioned as real estate agents have an incentive not to report auctions that did not result in a sale as they want to portray auctions as a successful method for selling properties (Vedelago 2011). Real estate institutions and agents should be required by law to truthfully declare the result of all auctions and not massage statistics to present more favourable outcomes.

³⁶ Australia’s Future Tax System Review (also called the Henry Tax Review after Ken Henry, the Secretary of the Department of the Treasury) makes a significant move in this direction by advocating greater land value and resource rent taxes while decreasing personal and business income taxes (Treasury 2011).

³⁷ Strangely enough, Australian law stipulates that firms and people cannot legally offer financial advice without a financial services license while there are no restrictions placed upon real estate agents who can offer advice on million dollar assets without restriction. A similar license should be required of real estate agents and also require them to belong to a professional body before they are allowed to advise clients.

The ABS should engage in a complete revamp of housing statistics. Given its significance for economic and historical analysis, it is astonishing that the ABS does not provide in-depth housing data considering the popular interest regarding the residential property market and the importance that is placed upon housing in Australia. Although current data is adequate enough to identify trends, it is not good enough.³⁸ For instance, the ABS should revise its house price index back to 1986, the first year of the pre-2005 data series, using one consistent methodology to allow for more accurate research. It would also be useful if the ABS could back-track the house price index to the earliest feasible year. Abelson et al. (2005) and Stapledon (2007) clearly demonstrate that this can be accomplished, despite the inherent difficulties associated with the lack of precise data. More importantly, the lack of data relating to land values needs to be corrected.³⁹ Regardless of the methodology used to compose house price and rent price indexes, a detailed description of the methodology including all data (allowing for privacy concerns) should be placed in the public domain to allow for verification.⁴⁰ While there are other data sets, for example, the RP Data-Rismark Home Value Index, they are proprietary and therefore not available in the public domain.⁴¹

Few, if any, of the above policies will be politically feasible. For instance, the removal of tax subsidies and exemptions will provoke a voter backlash, let alone the storm of criticism generated by the banking, financial, construction and real estate industries. Within the mainstream, the view is that a bubble does not exist; therefore there is no need for the government to radically alter current policy. Only when the bubble bursts and the economic fallout becomes apparent will the public and government be willing to take a look at the policies implemented over the last couple of decades and decide to make changes.

³⁸ Abelson and Chung (2005) argue that there have been few reliable published data for housing prices.

³⁹ Dwyer (2003) compiles probably the most comprehensive land value data set to date.

⁴⁰ Irvine (2009) has pointed out some of the flaws in the ABS surveys that are used to gather housing data to compose the index.

⁴¹ Even proprietary indexes are problematic in that it is difficult, if not impossible, for the public to verify the methodology and data.

Conclusion

From 1996 to 2010, housing prices increased by 127%, far above the rate of inflation and incomes. Rents, on the other hand, have tracked the rate of inflation for the most part, with a slight uplift from 2006 onwards. Accordingly, the price to rent ratio has climbed dramatically since 1996, along with other residential property related metrics: median multiple, mortgage debt to GDP ratio, household debt to household disposable income, household debt to household assets, and household interest payments to disposable income.

It is asserted by the financial and real estate sectors and the government that housing prices reflect underlying fundamentals: demographic change, population growth, a supply shortage, easier access to housing credit (mortgage debt) through deregulation, a low interest rate and low inflationary environment, and prudent lending. Therefore, prices are rational and a substantial correction is unlikely to occur.

Despite the explanations, it has been shown that Australia's housing shortage is the result of methodological chicanery; by including homeless people and caravan park residents, and then twisting their social need into market demand, a large deficit in housing can be constructed. In addition, hundreds of thousands of dwellings lie vacant across the country. Clearly, there is no shortage of property in Australia. Similar claims were made elsewhere in countries that are suffering from the bursting of bubbles in their residential property markets.

The run-up in housing prices is not based upon fundamentals; rather, owner-occupiers and property investors have been encouraged to take on ever-increasing amounts of mortgage debt by banks and other lenders to finance speculation on the residential property market, creating a Ponzi scheme. Government tax policies and programs have served to worsen the problem rather than fixing it. The First Home Owners Grant, negative gearing, and the changes to capital gains tax have provided borrowers with a set of perverse incentives to purchase property in the hope of making unearned capital gains rather than net profits from long term rental income. As housing prices are not based upon fundamentals, a correction in prices will have to occur.

How sharp the correction in prices will be is difficult to determine, although most predictions given are between 20% and 40%. If prices fall by 20%, approximately \$800 billion in housing wealth will be wiped out, leading to a 3.7% fall in consumption just through the reversal of the wealth effect, not including other factors that impact upon demand. In the more severe scenario, if a larger 40% fall were to occur, then \$1.6 trillion in housing wealth will evaporate, with a 7.5% fall in consumption. The effect of such a decline in prices will lead Australia into a severe recession or a debt-deflation.

The negative effect on workers, households and businesses will be considerable, as they must service the same level of debt regardless of income and cash flow. This will burden the economy and future generations with interest repayments on loans that should never have been made. Those nearing retirement age will have their equity reduced, and sometimes wiped out, leaving them dependent on social welfare and superannuation. Activity within the construction industry will plummet, and unemployment will rise, resulting in a further fall in consumption and investment. The government will attempt to counter these effects through expansionary fiscal policies and lower interest rates, though it will be a case of too little, too late, as the government is extremely unlikely to debt-spend to the degree necessary to offset the fall in demand due to private debt deleveraging. Unless the government decreases the level of debt to the ability to pay or eliminates a great deal of it through a debt moratorium, Australia will be stuck in a spiral of falling prices, wages, consumption, and growth.

Seemingly, the majority of economists, especially those in prominent positions within institutions such as the RBA, Treasury, universities, the banking, financial and real estate industries, reject the notion that a bubble exists in the residential property market. This is unsurprising, given the track record of establishment economists in overlooking asset bubbles. The Dot-Com bubble that formed in the stock market during the late 1990s and the GFC of 2008 are but two examples where the vast majority of economists missed the obvious, even when there were some economists who did accurately predict such events and attempted to warn the public of impending danger. Thus, the analysis and commentary of mainstream economists, especially those within leading policy-making positions, tell us little about the future of the housing market and general economy, and their optimism should be greeted with a great deal of skepticism.

Appendix A

Dean Baker is co-director of the Washington D.C.-based economic think-tank Center for Economic and Policy Research (CEPR). In 2002, he questioned whether the run up in house prices was based upon fundamentals. Baker was proved correct as we now know that four years later the bubble did indeed burst (Baker 2002). Baker is on record for stating that if interest rates were significantly raised, this could result in a fall in house prices, pointing to one of the primary property market indicators, the price to rent ratio, as an obvious sign that a bubble did exist, as rents had not increased in line with prices. Therefore, it was not the fundamentals of supply and demand that were determining prices (Zappone 2010a).

Brett Edgerton, a former scientist having worked for federal and state governments, has written that Australia is “in a relatively synchronised global house price bubble” caused by cheap credit, Australians’ penchant for risk taking, federal government policy frameworks, and that the bubble is now close to deflating Edgerton (2008a). Edgerton has also produced analyses comparing mortgage delinquencies in Australia with the US and the relative merits of renting over purchasing property.

David Collyer and Karl Kitgerald are part of Prosper Australia, a political economy think tank based in Melbourne, Australia. The organization advocates ideas and policies based upon the work of the classical economist Henry George, believing that poverty and property bubbles is based upon the misuse of the third factor of production, land. It is the sister organization to Earthsharing Australia. Prosper Australia is the only organization in Australia to consistently speak up about the potential formation of a bubble, which they call “The Great Australian Land Bubble.” Both Collyer and Fitzgerald have asserted for many years that property prices reflect, not fundamentals, but a Ponzi scheme that is soon to collapse. Bryan Kavanagh and Gavin Putland are also associated with Prosper Australia.

Ross Garnaut, along with David Llewellyn-Smith, authored the book *The Great Crash of 2008*. Garnaut is Vice-Chancellor’s Fellow and Professorial Fellow in Economics at the University of Melbourne, and Llewellyn-Smith is the co-founder of *The Diplomat*, an international relations, economic and business magazine, and also runs a blog on MacroBusiness. They call the global run-up in property prices as “the greatest bubble in history,” fueled by speculative mania. Examining the

politics and economics of the GFC that occurred in 2008, they identify the decline in house prices as a primary cause, along with securitization and poor lending standards. Garnaut and Llewellyn-Smith analyze the residential property markets in three countries: the US, UK and Australia, noting that the latter is following the path of the former countries.

One of the more forthright economists is Jeremy Grantham, co-founder and Chief Investment Strategist of Grantham Mayo Van Otterloo (GMO), an asset management firm based in Boston. Grantham has a long record of predicting bubbles and is seen as one of the world's leading investor strategists. In discussion with his firm's investors, Grantham has said that Australia has an obvious housing bubble that would require a 42% fall in house prices to return to its historical long term trend, noting that the price of housing was 7.5 times that of household income, suggesting that housing was overpriced by approximately double. According to Grantham, Australia's residential market was a "time bomb" ready to explode, and quipped that "bubbles have quite a few things in common but housing bubbles have a spectacular thing in common, and that is every one of them is considered unique and different" (Jimenez 2010). Edward Chancellor, who is also employed at GMO, has voiced similar concerns about the Australian residential property market, noting that prices are around 70% above the long-term trends and that the property market looks vulnerable to further interest rate increases (Chancellor 2010).

Michael Hudson is a professor of economics at the University of Missouri, Kansas City, and a research associate at the Levy Economics Institute of Bard College. In 2006, Harper's Magazine published his article as a cover story, correctly predicting the collapse of the US housing market and subsequent GFC (Hudson 2006). Hudson, along with Steve Keen and Bryan Kavanagh, has also presented at a symposium in Australia at the Melbourne Town Hall, entitled "Lifting the Lid on the GFC," predicting that a bubble in the Australian residential property market would soon burst. Hudson has also written about the interaction between the financial, insurance and real estate (FIRE) industries and property markets, explaining how parasitic financial interests harm the productive economy by creating asset bubbles, to the expense of all else (Hudson 2010).

Two economists from the Melbourne-based Land Values Research Group (LVRG), Bryan Kavanagh and Gavin Putland, have written for years that a bubble has formed within Australia's property market. At the "Lifting the Lid on the GFC" symposium, Kavanagh presented his analysis of Australia's property market, arguing that a bubble does indeed exist (Kavanagh 2009). Previously, in a paper in the

British journal *Geophilos*, Kavanagh (2001) predicted that Australia would face a severe downturn in the form of a deflationary phase, starting in the period from 2003 - 2009, an analysis based upon the economic theory of the early Russian economist Nikolai Kondratieff. Putland (2010) contends that the market is approximately “45% overvalued relative to spending power as measured by per-capita GDP,” and that a substantial correction in prices will have to occur, with property owners making capital losses.

Possibly the most outspoken of all the economists is Steve Keen, associate professor of economics and finance at the University of Western Sydney. In 2006, Keen was asked to provide expert opinion in a court case⁴² on the matter of a couple who had refinanced their mortgage five times, and were under tremendous financial stress (Keen 2005). According to Keen, the defendants were subject to predatory lending, or a “Ponzi” loan, named after the well-known fraudster Charles Ponzi (1882-1949). This means that the loan was provided with the expectation that the borrower will not benefit and will also not meet contractual obligations, thus making the mortgages arguably illegitimate. If such lending were to become widespread, it could lead to asset bubbles and financial instability. From developing this court testimony, which was itself based upon past analysis (Keen 1995), Keen realized that Australia was in danger of developing a large asset bubble within the residential property market. Since then, he has constructed a website with regular blogs,⁴³ given numerous talks, and has conducted media interviews in an attempt to bring public attention to this threat.

Prakash Loungani, an International Monetary Fund (IMF) economist, gave a presentation at the National Economists Club, Washington D.C., in May 2010 (Loungani 2010a). The presentation analyzed the residential property markets of 19 countries. Most OECD countries recorded steep rises, with the exception of Germany and Japan between the years 2000 to 2006. Many of the countries under study had price to income and price to rent ratios far above that of the 1970 to 2000 period, indicating that these property markets were overvalued and thus bubble-prone. From the period of 2000 to 2006, Australia’s market rose by almost 50%, fell approximately 8% from 2007 to 2008, and then rose again in 2009. According to the aforementioned ratios, Australia has the second most significant price gap (price to income average 1970 to 2000) of the countries in question, second only to New Zealand, and

⁴² Permanent Mortgages Pty Ltd v Michael Robert Cook and Karen Cook (Department of Justice and Attorney General 2008).

⁴³ <http://www.debtdeflation.com/>

the fourth largest gap in the price to rent average 1970 to 2000. Loungani saw cause for concern given that many of the housing downturns were associated with financial instability and may negatively affect residential investment, private consumption and overall GDP (Loungani 2010b). His analysis reveals that, historically, housing prices ultimately track fundamentals, and thus considerable departures are a cause for concern.

The chief economist of Morgan Stanley Australia, Gerard Minack, has stated that Australia has a bubble in the property market. Minack (2010) believes that the market “remains a major macro risk,” and that Australian housing is expensive according to every value metric. According to Minack, the property market is approximately 50% overvalued in terms of house prices to GDP, 35% in terms of housing stock relative to household disposable income, and 40% overvalued in terms of the price to rent ratio. His analysis continues on from an earlier report examining rental yields, property costs, and housing affordability (Minack 2008).

Leith van Onselen is an economist who is employed at an investment firm in Australia, and has worked as an economist in the Australian Treasury and as a senior economist in the Victorian Treasury. Since 2010, van Onselen has written articles analyzing the state of the property market, published on the websites *The Unconventional Economist* and *MacroBusiness*, warning of a property market bubble. Among other works on housing macroeconomics and policy, van Onselen has provided a comparative study between the regulatory frameworks of the US state of Texas and Melbourne, Australia, describing how lightly-regulated, liberalized residential markets offer more affordable housing.

Kris Sayce is a financial advisor in one of Australia’s wealth management firms, and previously worked as a broker in London. He is currently the editor of the Australian online financial newspaper, *Money Morning*, and helped to establish the Australian version of the e-newsletter, the *Daily Reckoning*. Over the last few years, Sayce has continually warned of a bubble in the housing market, caused by government intervention and the loose lending policies of the banking and financial system, and has taken the lead in scrutinizing claims offered by the financial and real estate industry over the apparent health of the housing market.

Adam Schwab was a corporate lawyer specializing in mergers and acquisitions at a legal firm before becoming a founding director of AJ Capital, a privately-owned corporate accommodation and services group. Having written extensively for Australian newspapers and online commentaries, including

authoring articles on the bubble and associated policies that have fueled its growth, Schwab is very critical of the excesses of the banking and financial industry, and the corporate sector in general.

Michael Shedlock is an investment advisor for SitkaPacific Capital Management and also runs a website called Mish's Global Economic Trend Analysis. Adhering to the Austrian school of economic thought, Shedlock is distrustful of government policies and corporate malfeasance that have brought the economies of many countries to ruin. Shedlock has produced a great deal of analysis concerning housing and financial markets, primarily those of the US, and has written that the Australian property market is following the US in many respects, that is, building up into a bubble.

References

Abelson, Peter and Demi Chung. (2005). "The Real Story of Housing Prices in Australia from 1970 to 2003," *The Australian Economic Review*, Vol. 38, No. 3, pp. 265-281.

Abelson, Peter, Roselyne Joyeux, George Milunovich and Demi Chung. (2005). "Explaining House Prices in Australia: 1970-2003," *The Economic Record*, Vol. 81, No. 255, pp. 96-103.

ABS. (1997). "1996 Census Data : Australia," *Australian Bureau of Statistics*,
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/96bcp01996?OpenDocument&tabname=Details&prodno=96bcp0&issue=1996&num=&view=&>

ABS. (2007). "2006 Census QuickStats: Australia," *Australian Bureau of Statistics*,
<http://www.censusdata.abs.gov.au/ABSNavigation/prenav/ViewData?method=Place%20of%20Usual%20Residence&subaction=-1&producttype=QuickStats&areacode=0&action=401&collection=Census&textversion=false&breadcrumb=PL&period=2006&javascript=true&navmapdisplayed=true&>

ABS. (2010a). "3101.0 Australian Demographic Statistics," *Australian Bureau of Statistics*,
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Sep%202010?OpenDocument>

ABS. (2010b). "8752.0 Building Activity, Australia," *Australian Bureau of Statistics*,
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8752.0Dec%202010?OpenDocument>

ABS. (2010c). "5206.0 Australian National Accounts: National Income, Expenditure and Product," *Australian Bureau of Statistics*,
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5206.0Dec%202010?OpenDocument>

ABS. (2011a). "6416.0 House Price Indexes: Eight Capital Cities," *Australian Bureau of Statistics*,
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6416.0Mar%202011?OpenDocument>

ABS. (2011b). "6401.0 Consumer Price Index, Australia," *Australian Bureau of Statistics*, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6401.0Mar%202011?OpenDocument>

ABS. (2011c). "5506.0 - Taxation Revenue, Australia, 2009-10," *Australian Bureau of Statistics*, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5506.02009-10?OpenDocument>

Anonymous. (1893). "The Mercantile Bank Prosecutions," *The Argus*, 15th April, <http://trove.nla.gov.au/ndp/del/article/8538188?searchTerm=Melbourne%20%22land%22%201892&searchLimits=l-title=The+Argus+%28Melbourne%2C...>

Anonymous. (2008). "The Unofficial List of Pundits/Experts Who Were Wrong on the Housing Bubble," *Economics of Contempt*, <http://economicsofcontempt.blogspot.com/2008/07/official-list-of-punditsexperts-who.html>

Anonymous. (2010a). "Froth and stagnation," *The Economist*, <http://www.economist.com/node/16542826>

Anonymous. (2010b). "Property speculation leaves 64.5 million vacant homes in China," *AsiaNews*, <http://www.asianews.it/news-en/Property-speculation-leaves-64.5-million-vacant-homes-in-China-18895.html>

Anonymous. (2010c). "Lenders back to throwing cash at buyers," *Adelaide Now*, <http://www.adelaidenow.com.au/money/lenders-throwing-cash-at-buyers/story-e6fredkc-1225918973988>

ATO. (2010). "Taxation Statistics 2007-2008," *Australian Tax Office*, http://www.ato.gov.au/content/downloads/cor00225078_2008TAXSTATS.pdf

Baker, Dean. (2002). "The Run-Up in Home Prices: Is it Real or Is it Another Bubble?," *Center For Economic and Policy Research*, Washington D.C., http://www.cepr.net/documents/publications/housing_2002_08.pdf

Baker, Dean. (2003). "An Analysis of The Harvard Center's Case Against the Housing Bubble," *Center For Economic and Policy Research*, Washington D.C., http://www.cepr.net/documents/publications/harvard_housing_bubble.pdf

Baker, Dean. (2004). "Bush's House of Cards," *The Nation*, <http://www.thenation.com/article/bushs-house-cards>

Baker, Dean. (2006). "The Conservative Nanny State: How the Wealthy Use the Government to Stay Rich and Get Richer," <http://www.conservativenannystate.org/cnswebbook.pdf>

Baker, Dean. (2009). *Plunder and Blunder: The Rise and Fall of the Bubble Economy*. Sausalito, CA: PoliPointPress, <http://www.cepr.net/books/plunderandblunder.pdf>

Baker, Dean. (2010a). *False Profits: Recovering from the Bubble Economy*. Sausalito, CA: PoliPointPress.

Baker, Dean. (2010b). "The Right to Rent Plan," *Center For Economic and Policy Research*, Washington D.C., <http://www.cepr.net/documents/publications/right-to-rent-2009-07.pdf>

Barofsky, Neil. (2009). "Statement of Neil Barofsky," House Committee on Financial Services Subcommittee on Oversight and Investigations, http://www.house.gov/apps/list/hearing/financialsvcs_dem/barofsky_testimony.pdf

Bauerlein, Monika and Clara Jeffery. (2010). "Too Big to Jail?," *Mother Jones*, <http://motherjones.com/politics/2010/01/too-big-jail>

Bernanke, Ben S. (2004). "The Great Moderation," *Eastern Economic Association*, <http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm>

Bernanke, Ben S. (2005). "The Economic Outlook," *Testimony before the Joint Economic Committee*, <http://www.house.gov/jec/hearings/testimony/109/10-20-05bernanke.pdf>

Bezemer, Dirk J. (2009a). "Why some economists could see the crisis coming," *Financial Times*, http://www.ft.com/intl/cms/s/0/452dc484-9bdc-11de-b214-00144feabdc0.html?nclick_c#axzz1N30WJHIY

Bezemer, Dirk J. (2009b). "No One Saw This Coming: Understanding Financial Crisis Through Accounting Models," *Munich Personal RePEc Archive*, http://mpra.ub.uni-muenchen.de/15892/1/MPRA_paper_15892.pdf

BLS. (2011). "Table A-15. Alternative measures of labor underutilization," *Bureau of Labor Statistics*, <http://www.bls.gov/news.release/empsit.t15.htm>

Brown, Rayna, Rob Brown, Ian O'Connor, Gregory Schwann and Callum Scott. (2011). "The Other Side of Housing Affordability: The User Cost of Housing in Australia," *The Economic Record*, pp. 1-17.

CBA. (2010). "Australian residential housing and mortgages: CBA mortgage book secure," *Commonwealth Bank of Australia*, http://www.commbank.com.au/about-us/shareholders/pdfs/2010-asx/Australian_Residential_Housing_and_Mortgages_slide_pack_9_September_2010.pdf

Chancellor, Edward. (2010). "How long has the lucky country got?," *Financial Times*, <http://www.ft.com/cms/s/0/be5b9b52-2308-11df-a25f-00144feab49a.html#axzz1LT5hPM9y>

Collier, Karen. (2011). "First homeowner grant fraudsters face jail under tough penalties," *Herald Sun*, <http://www.heraldsun.com.au/news/first-homeowner-grant-fraudsters-face-jail-under-tough-penalties/story-e6frf7jo-1226058527707>

Curry, Timothy and Lynn Shibut. (2000). "The Cost of the Savings and Loan Crisis: Truth and Consequences," *FDIC Banking Review*, Vol. 13, No. 2, pp. 26-35, http://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf

Demographia. (2011). "7th Annual Demographia International Housing Affordability Survey," *Demographia*, <http://www.demographia.com/dhi.pdf>

Department of Justice and Attorney General. (2008). "Permanent Mortgages Pty Ltd v Michael Robert Cook and Karen Cook," *New South Wales Supreme Court*,
<http://www.lawlink.nsw.gov.au/scjudgments/2006nswsc.nsf/00000000000000000000000000000000/a8634decd74561e2ca25720a007da27d?OpenDocument>

Disney, Julian. (2010). "Welfare for the wealthy," *ABC*, <http://www.abc.net.au/unleashed/33946.html>

Dobbin, Marika. (2009). "Chinese buyers fuel top-end property boom," *The Age*,
<http://www.theage.com.au/business/chinese-buyers-fuel-topend-property-boom-20090918-fvga.html>

Dougherty, Carter. (2008). "Stopping a Financial Crisis, the Swedish Way," *New York Times*,
<http://www.nytimes.com/2008/09/23/business/worldbusiness/23krona.html>

Dwyer, Terry. (2003). "The Taxable Capacity of Australian Land and Resources," *Australian Tax Forum*, Vol. 18, No. 1, pp. 21-68.

Earthsharing Australia. (2008). "I Want To Live Here: Vacancies in Melbourne Report,"
<http://www.earthsharing.org.au/wp-content/uploads/iw2lh-08-report.pdf>

Earthsharing Australia. (2009a). "I Want To Live Here 2009: Vacancies in Melbourne Report,"
http://www.earthsharing.org.au/wp-content/uploads/IW2LH_09_final.pdf

Earthsharing Australia. (2009b). "I Want To Live Here: Vacancies in Melbourne Report, January - June 2009," http://www.earthsharing.org.au/wp-content/uploads/Earthsharing_Vacancies_In_Melbourne_Report.pdf

Earthsharing Australia. (2009c). "I Want To Live Here 2009: Vacancies in Melbourne Report," *Appendix 1*, http://www.earthsharing.org.au/wp-content/uploads/App1_IW2LH09.pdf

Earthsharing Australia. (2009d). "I Want To Live Here 2009: Vacancies in Melbourne Report," *Appendix 2*, http://www.earthsharing.org.au/wp-content/uploads/App2_IW2LH09.pdf

Earthsharing Australia. (2010). "Speculative Vacancies in Melbourne 2010,"
http://www.earthsharing.org.au/wp-content/uploads/SVR10_final_1.pdf

Edgerton, Brett F. (2008a). "Brisbane House Price Forecast," *Homes4Aussies*,
<http://www.homes4aussies.com/080708paper.pdf>

Edgerton, Brett F. (2008b). "Comparing US and Australian Residential Mortgage Delinquencies through the Bubbles and Their Aftermaths," *Homes4Aussies*,
<http://www.homes4aussies.com/delinq.pdf>

Ergungor, O. Emre. (2007). "On the Resolution of Financial Crises: The Swedish Experience," *Federal Reserve Bank of Cleveland*, <http://www.clevelandfed.org/research/POLICYDIS/pdp21.pdf>

Eslake, Saul. (2011a). "Billions in handouts but nothing gained," *Sydney Morning Herald*,
<http://www.smh.com.au/business/billions-in-handouts-but-nothing-gained-20110315-1bvvs.html>

Eslake, Saul. (2011b). "Time to change the unfair rules for negative gearing," *Sydney Morning Herald*,
<http://www.smh.com.au/business/time-to-change-the-unfair-rules-for-negative-gearing-20110424-1dsu6.html>

Fitzgerald, Karl. (2011). "46,220 empty homes – the genuine housing supply issue," *Earthsharing Australia*, <http://www.earthsharing.org.au/2011/05/20/46220-empty-homes-the-genuine-housing-supply-issue/>

Garnaut, Ross and David Llewellyn-Smith. (2009). *The Great Crash of 2008*. Australia: Melbourne University Press.

Gittins, Ross. (2007). "Renters can't home in on jackpot," *Sydney Morning Herald*,
<http://www.smh.com.au/articles/2007/09/18/1189881508793.html>

Greenspan, Alan. (2005). "The Economic Outlook," *Testimony before the Joint Economic Committee*,
<http://www.federalreserve.gov/boarddocs/testimony/2005/200506092/default.htm>

Hickson, Charles R. and John D. Turner. (2002). "Free banking gone awry: the Australian banking crisis of 1893," *Financial History Review*, Vol. 9, No. 2, pp. 147-167.

Hudson, Michael. (2006). "The New Road to Serfdom: An illustrated guide to the coming real estate collapse," *Harper's Magazine*,
http://www.insurgentamerican.net/download/MichaelHudson/Hudson_RoadToSerfdom.pdf

Hudson, Michael. (2010). "The Counter-Enlightenment: Its Economic Program - And The Classical Alternative," *Progress*, http://www.prosper.org.au/wp-content/uploads/Progress1096_APR2010_final.pdf

Irvine, Jessica. (2009). "Home truths about your biggest asset," *Sydney Morning Herald*,
<http://www.smh.com.au/opinion/contributors/home-truths-about-your-biggest-asset-20090724-dw2x.html>

Johnson, Guy. (2010). "Housing and homelessness: an obvious connection, isn't it?," *Dissent*, Autumn/Winter, pp. 54-56.

Joint Center for Housing Studies. (2003). "The State of the Nation's Housing: 2003", *Harvard University*, <http://www.jchs.harvard.edu/publications/markets/son2003.pdf>

Kavanagh, Bryan. (2001). "The Coming Kondratieff Crash," *Geophilos*, Vol. 1, pp. 84-93,
<http://lvrg.org.au/files/coming-kondratieff-crash-2001.pdf>

Kavanagh, Bryan. (2007). "Unlocking the Riches of Oz: A Case Study of the Social and Economic Costs of Real Estate Bubbles 1972 To 2006," *Land Values Research Group*,
<http://lvrg.org.au/files/riches-of-oz.pdf>

Kavanagh, Bryan. (2009). "Lifting the Lid on the GFC," *Land Values Research Group*,
http://www.thedepression.org.au/lifting_the_lid.pdf

Keen, Steve. (1995). "Finance and economic breakdown: modelling Minsky's Financial Instability Hypothesis," *Journal of Post Keynesian Economics*, Vol. 17, No. 4, pp. 607-635.

Keen, Steve. (2005). "Expert Opinion," <http://www.debtdeflation.com/blogs/wp-content/uploads/2007/04/KeenOpinionPonziLoans.pdf>

Keen, Steve. (2009). "Lies, damned lies, and housing statistics," *Business Spectator*, <http://www.businessspectator.com.au/bs.nsf/Article/Lies-damned-lies-and-housing-statistics-pd20090408-QW3PH?opendocument&src=rss>

Keen, Steve. (2010a). "Australia's Faustian deal with debt," *Dissent*, Autumn/Winter, pp. 61-64.

Keen, Steve. (2010b). "Two ways to beat debt addiction," *Business Spectator*, <http://www.businessspectator.com.au/bs.nsf/Article/Two-ways-to-beat-debt-addiction-pd20100913-99C2Y?opendocument&src=rss>

Keen, Steve. (2011). "Our bubble's bigger than their bubble," *Business Spectator*, <http://www.businessspectator.com.au/bs.nsf/Article/Our-bubbles-bigger-than-their-bubble-pd20110216-E5AP5?opendocument&src=rss>

Kitchin, Rob, Justin Gleeson, Karen Keaveney and Cian O'Callaghan. (2010). "A Haunted Landscape: Housing and Ghost Estates in Post-Celtic Tiger Ireland," *National Institute for Regional and Spatial Analysis*, <http://www.nuim.ie/nirsa/research/documents/WP59-A-Haunted-Landscape.pdf>

Kohler, Alan. (2004). "How tax system egged on property speculation," *Sydney Morning Herald*, <http://www.smh.com.au/articles/2004/06/28/1088392603764.html>

Jimenez, Katherine. (2010). "Housing market a 'time bomb', says investment legend," *The Australian*, <http://www.theaustralian.com.au/business/housing-market-a-time-bomb-says-investment-legend/story-e6frg8zx-1225880119320>

Lereah, David. (2006). *Why the Real Estate Boom Will Not Bust - And How You Can Profit from It*. US: Crown Business.

Lewis, Steve. (2011). "Thousands raid superannuation to avoid home loss," *Herald Sun*, <http://www.heraldsun.com.au/money/superannuation/thousands-raid-superannuation-to-avoid-home-loss/story-e6frfh5x-1226035815336>

Llewellyn-Smith, David. (2010). "CBA raises eyebrows on global roadshow," *Sydney Morning Herald*, <http://www.smh.com.au/business/cba-raises-eyebrows-on-global-roadshow-20100914-15avx.html>

Loungani, Prakash. (2010a). "More Room to Fall? Prospects for House Prices in Major Economies," Presentation, *National Economists Club*, <http://www.national-economists.org/gov/loungani10.pdf>

Loungani, Prakash. (2010b). "More Room to Fall? Prospects for House Prices in Major Economies," A Summary of Remarks, *National Economists Club*, <http://www.national-economists.org/gov/loungani10.html>

Lucas, Robert. (2003). "Macroeconomic Priorities," *AEA 2003 Presidential Address*, <http://home.uchicago.edu/%7Esogrodow/homepage/paddress03.pdf>

McAuley, Ian. (2009). "The Case for Restoring Capital Gains Tax Neutrality," *TaxWatch*, http://www.taxwatch.org.au/ssl/CMS/files_cms/McAuley%20-%20UC%20-%20case%20for%20restoring%20capital%20gains%20tax%20neutrality%20-%202005.2009.pdf

Minack, Gerard. (2008). "Why I'm a housing bear," *Eureka Report*, <http://www.eureka-report.com.au/iis/iis.nsf/pages/E476205CD5517551CA2574A90005B163?OpenDocument>

Minack, Gerard. (2010). "Living in a Bubble," *Morgan Stanley Global Economic Forum*, <http://www.morganstanley.com/views/gef/archive/2010/20100817-Tue.html>

Minsky, Hyman P. (1992). "The Financial Instability Hypothesis," *The Jerome Levy Economics Institute of Bard College*, Working Paper No. 74, <http://www.levyinstitute.org/pubs/wp74.pdf>

NHSC. (2010). “2nd State of Supply Report,” *National Housing Supply Council*,
http://www.fahcsia.gov.au/sa/housing/pubs/housing/national_housing_supply/Documents/StateofSupplyReport_2010.pdf

Prins, Nomi. (2010). *It Takes a Pillage: An Epic Tale of Power, Deceit, and Untold Trillions*. Hoboken, N.J.: Wiley.

Prosper Australia. (2008). “Land Value Taxation,” *Treasury*,
http://taxreview.treasury.gov.au/content/submissions/pre_14_november_2008/Prosper_Australia.pdf

Putland, Gavin R. (2010). “40 years of housing bubbles and recessions,” *Land Values Research Group*,
<http://blog.lvrg.org.au/2010/10/40-years-of-housing-bubbles-and.html>

Putland, Gavin R. (2011a). “More hypocrisy on negative gearing,” *Land Values Research Group*,
<http://blog.lvrg.org.au/2011/04/more-hypocrisy-on-negative-gearing.html>

Putland, Gavin R. (2011b). “Take the banks' umbrella away,” *The National Forum*,
<http://www.onlineopinion.com.au/view.asp?article=11720>

RBA. (2011a). “B21 Household Finances - Selected Ratios,” *Reserve Bank of Australia*,
<http://www.rba.gov.au/statistics/tables/xls/b21hist.xls>

RBA. (2011b). “B20 Selected Assets and Liabilities of the Private Non-Financial Sectors,” *Reserve Bank of Australia*, <http://www.rba.gov.au/statistics/tables/xls/b20hist.xls>

RBA. (2011c). “D2 Lending and Credit Aggregates,” *Reserve Bank of Australia*,
<http://www.rba.gov.au/statistics/tables/xls/d02hist.xls>

Saminather, Nichola. (2010). “Housing Shortage Makes Australian Home Prices Almost Twice U.S.,” *Bloomberg*, <http://www.bloomberg.com/news/2010-07-05/housing-shortage-defuses-australia-s-time-bomb-as-prices-top-u-s-by-82-.html>

- Sayce, Kris. (2009). "The 830,000-home question," *Business Spectator*,
<http://www.businessspectator.com.au/bs.nsf/Article/The-830000-home-question-pd20090826-VA5S8?OpenDocument&src=sph>
- Sayce, Kris. (2010). "Has Commonwealth Bank Deliberately Misled Investors?," *Money Morning*,
<http://www.moneymorning.com.au/20100910/has-commonwealth-bank-deliberately-misled-investors.html>
- Schwab, Adam. (2010a). "Housing bubble backflip from RBA's Ellis," *Crikey*,
<http://www.crikey.com.au/2010/10/07/housing-bubble-backflip-from-rbas-ellis/>
- Schwab, Adam. (2010b). "Housing shortage? Don't dwell on it, there isn't one," *Crikey*,
<http://www.crikey.com.au/2010/10/12/housing-shortage-dont-dwell-on-it-there-isnt-one/>
- Senate. (2008). "A good house is hard to find: Housing affordability in Australia," *Select Committee on Housing Affordability in Australia*, http://www.aph.gov.au/senate/committee/hsaf_ctte/report/report.pdf
- Shiller, Robert. (2011). "Real House Price Index," *Irrational Exuberance*,
<http://www.econ.yale.edu/~shiller/data/Fig2-1.xls>
- Smith, Julie P. (2000). "Land Value Taxation: A Critique Of 'Tax Reform, A Rational Solution'," *Research School of Social Sciences*, Australian National University,
<http://econrssh.anu.edu.au/pdf/DP417.pdf>
- Solomon, Deborah. (2008). "Questions for James. K. Galbraith," *New York Times*,
<http://www.nytimes.com/2008/11/02/magazine/02wwln-Q4-t.html>
- S&P. (2011). "S&P/Case-Shiller Home Price Indices – Seasonally Adjusted U.S. Home Price Values," *Standard & Poor's*, <http://www.standardandpoors.com/indices/sp-case-shiller-home-price-indices/en/us/?indexId=spusa-cashpidff--p-us---->
- Stapledon, Nigel D. (2007). "Long Term Housing Prices in Australia and Some Economic Perspectives," *PhD Thesis*, University of New South Wales, Australia.

Stapledon, Nigel D. (2009). "Housing and the Global Financial Crisis: US versus Australia," *The Economics and Labour Relations Review*, Vol. 19, No. 2, pp. 1-16.

Stock, James H. and Mark M. Watson. (2002). "Has the Business Cycle Changed and Why?," *National Bureau of Economic Research*, Cambridge MA, <http://www.nber.org/papers/w9127>

Taleb, Nassim N. and Charles S. Tapiero. (2009). "Too Big to Fail, Too Big to Bear, and Risk Externalities," *Center for Risk Engineering*, New York University Polytechnic Institute, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1497973

Thomson, Matt and Kam Ki Tang. (2004). "An Empirical Assessment of House Price Adjustments on Aggregate Consumption," *School of Economics*, University of Queensland, [http://cama.anu.edu.au/macroworkshop/Matt Thomson.pdf](http://cama.anu.edu.au/macroworkshop/Matt%20Thomson.pdf)

Treasury. (2009). "Australia's future tax system: Report to the Treasurer," *Treasury*, http://taxreview.treasury.gov.au/content/downloads/final_report_part_1/00_AFTS_final_report_consolidated.pdf

van Onselen, Leith. (2011a). "So much for the Californian housing shortage," *MacroBusiness*, <http://macrobusiness.com.au/2011/04/so-much-for-the-californian-housing-shortage/>

van Onselen, Leith. (2011b). "Negative gearing on the nose," *MacroBusiness*, <http://macrobusiness.com.au/2011/04/negative-gearing-on-the-nose/>

van Onselen, Lieth. (2011c), "Banks continue to lower lending standards," *MacroBusiness*, <http://macrobusiness.com.au/2011/03/banks-continue-to-lower-lending-standards/>

Vedelago, Chris. (2011). "Auction statistics questioned," *The Age*, <http://www.theage.com.au/victoria/auction-statistics-questioned-20110716-1hj4h.html>

Williams, John. (2011). "Alternate Unemployment Charts," *Shadow Government Statistics*, http://www.shadowstats.com/alternate_data/unemployment-charts

Wood, Gavin, and Sharon Parkinson. (2009). "Negative Equity and House Price Risk in Australia," *AHURI RMIT Research Centre*, <http://mams.rmit.edu.au/jq98xwbgf0fpz.pdf>

Zappone, Chris. (2010a). "Rates could pop house price bubble: economist," *The Age*, <http://www.theage.com.au/business/rates-could-pop-house-price-bubble-economist-20101001-15zvn.html?autostart=1>

Zappone, Chris. (2010b). "Australia's mortgage debt blow-out," *Sydney Morning Herald*, <http://www.smh.com.au/business/property/australias-mortgage-debt-blowout-20100224-plex.html>

Acknowledgements

Helpful comments from Geoff Edwards, formerly Associate Professor, Department of Economics and Finance, La Trobe University, are acknowledged. Responsibility for the content of this paper lies with the author.

Disclaimer

Please note that any views expressed in this paper should not be used in place of specific financial advice.

About the author

Philip Soos is a Masters research student and employed researcher at Deakin University, working his way towards a doctorate in political economy. He specializes in the comparative analysis of domestic and international pharmaceutical research and development systems. Philip also holds MBA and IT degrees from RMIT University and Swinburne University of Technology, respectively. He can be contacted at psoos@deakin.edu.au