



PHILO CAPITAL ADVISERS

AUSTRALIAN HOUSE PRICES:

WILL BRICKS & MORTAR TURN TO WATER?



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PHILO VANTAGE POINT

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Introduction

What has become known as the “global financial crisis” (the “GFC”) started out as the US “sub-prime” crisis in mid-2007 and is still causing major upheavals in global financial markets three years later. It was initially triggered by the bursting of the US housing boom and the US housing finance market that had fuelled it. A problem that initially was all about sub-prime home loan borrowers in the US ended up triggering the deepest global banking crisis, government debt crisis and economic recession since the Great Depression.

Dozens of banks and other financial institutions that were holding toxic US mortgage securities collapsed and caused global credit markets to seize up almost completely by September 2008. The sudden failure of the banking system spread to the broader economies in several countries, cutting access to finance and in turn causing production, trade and employment to contract suddenly and, in many countries, severely.

Governments not only bailed out banks and other financial institutions to keep their banking systems working, but they also found themselves having to dig deep into their already high budget deficits to fund spending programs to stimulate their economies out of recession.

The crisis spread to many other countries that didn't have a sub-prime financing crisis of their own, but still had experienced booms in housing, construction and banking, fuelled by high levels of debt – including Iceland, Dubai, Greece, Portugal, Spain, Ireland, Italy and Britain, and probably others to follow.

Australia has so far escaped the worst of the crisis – but are we the next to fall?

Of all the “developed” economies, Australia stands virtually alone in escaping the worst impacts of the GFC to date. It went into the GFC with low levels of government debt, low levels of unemployment, a relatively flexible labour market, a flexible currency and a relatively low reliance on exports¹.

But Australia also had its own housing boom in the 2000s. Its house prices are among the highest in the world and the level of household debt (which is primarily housing debt) is also among the highest in the world. Households have very low savings rates and are heavily reliant on foreign debt (via the banks).

Do these factors make Australian house prices an accident waiting to happen?

This paper sets out to address this issue by investigating three key questions:

- Is housing in Australia over-priced – making Australia vulnerable to the same type of housing collapses and broader economic contractions being experienced in several other countries?
- What have been the main forces driving the recent rise in housing prices in Australia, and to what extent have they been unique or different in Australia?
- What is the likely outlook for housing prices over the long term – ie beyond the current cycle? Specifically, are the forces driving housing prices sustainable in the future?

First, a few preliminary comments about housing prices and house price indexes:

- House prices are devilishly hard to measure and compare. They are not like share prices. Every BHP ordinary share is the same as the next BHP ordinary share, and they are bought and sold

at observable prices at public exchanges throughout every trading day by investors all over the world. On the other hand, houses are all different – they are different sizes and quality, they are not traded regularly, and buyers and sellers are driven as much (or perhaps more) by emotional, psychological, social and cultural factors than by pure financial considerations.

- There are no common standards for constructing indexes of house prices. Various indexes use a range of different techniques for sampling, collecting, analyzing and adjusting prices. Most use “median” prices, which often bear little relationship to the overall market, and many do not take into account changes in quality and size of the land or buildings in transactions. Some include all dwellings (including flats, town-houses, terraces, etc), some don't.
- Therefore we can't use house price indicators to say whether actual prices have risen or fallen, or whether it was simply due to changes in the sizes, quality, types or locations of the houses measured in different periods. But indexes can be useful measures when combined with other information on matters such as economic growth, debt, investment, incomes, interest rates, amongst others – many of which we consider in this paper.
- The value of a residential property comprises a component for the land value a component for the value of the building, which includes the structure, fit-out, fittings, appliances, etc - ie everything but the land. In the case of a flat, the land value is the value of a notional share of the land under the block of flats, and the building value is the share of the total structure.
- The land component of a property can increase in value over time (but only if the supply and demand factors are favourable), but the buildings component will always decrease in value and need repairing, maintenance and eventual replacement. As long term investors, we are more interested in the land content because that is what has the potential to provide capital growth, an inflation hedge and perhaps even a profit on resale.
- The problem is that housing price indexes tell us nothing about the mix of land and building values at any point in time or any change in the mix over time, so they can't be used to make investment decisions. Nor do the indexes make allowances for the costs of ownership (repairs, maintenance, council rates & taxes) or the cost of improvements made over time.
- Most studies of housing in Australia are focused on housing “affordability”. Much of the research and data are produced either from the point of view of renters (done by welfare groups lobbying for more rent assistance and public housing) or first home buyers (done by property developer lobby groups arguing for more land releases, looser planning rules and more first home buyer handouts), or by real estate agent lobby groups (arguing for lower property taxes and stamp duties).
- However, as an investor I don't necessarily want to have “affordability” as a goal - in the same way that if I own BHP shares, the last thing I want is “affordable” share prices. Investors are primarily interested in understanding the forces that are likely to keep values and prices rising over time.
- Although only about half of all owner-occupied residential properties have a mortgage, most median price figures are determined by transactions, and most of the transaction activity is 8 between people with mortgages – usually trading up to larger or better located houses while building their families and careers in their 30s and 40s. Most of these buyers have mortgages,

and they are the ones most affected by changes in interest rates and property booms and busts.

- Meanwhile, most retired home owners don't have a mortgage and they don't buy or sell very often, so they are not affected by interest rates or housing booms and busts. The same applies for a large proportion of long term owners with small mortgages. These groups sit bemused on the sidelines as the highly geared buyers and sellers go through the traumas of the regular property boom and bust cycles.
- Consequently, the true value of the entire national housing stock is probably not anywhere near as volatile as the published housing price indexes suggest, because the indexes are based on the frenzy of activity by a minority of buyers and sellers at the margin. The problem is that these indexes are studied and relied upon by buyers, bankers and government policy makers to make decisions that end up driving the property booms and busts. More about booms and busts later.

With these comments and limitations in mind, let's take a look at how house prices have fared, what has driven them, and what is likely to drive them in the future.

Australia -v- the rest of the world

First we look at how Australian house prices have moved in the (almost) global house price boom over the past decade relative to other major economies. The following charts show median house price indexes in a range of countries, starting with a common base of 100 at the start of 2000 to March 2010. The figures are from The Economist House Price Index series which uses the main national house price indicators from several countries.²

Figure 1

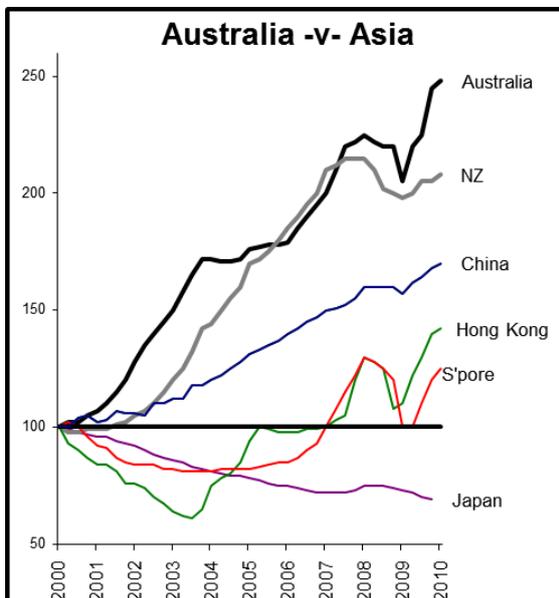
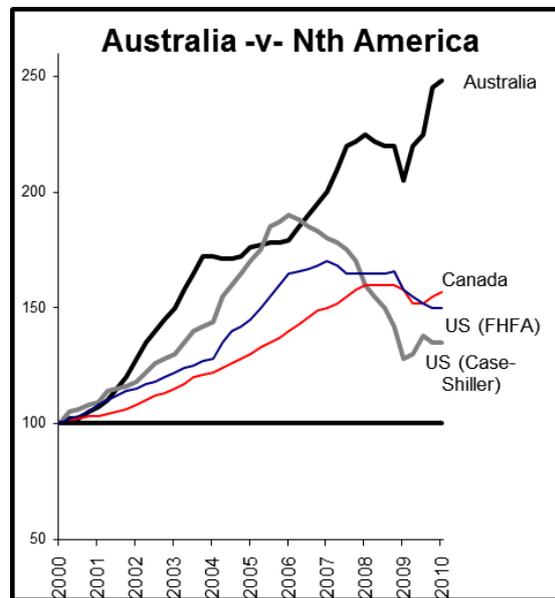


Figure 2



Australia's house price performance over the past decade has been very similar to New Zealand (although NZ was slower out of the blocks as usual!). Australia also recovered more strongly out of the GFC recession, assisted by the huge government stimulus payments and by the mining booms primarily in Qld and WA. China's house price figures disguise the recent booms in apartment prices in several major cities, but overall, prices have risen only modestly.

Japanese prices have been falling since the bursting of their massive property bubble in 1990, and still continue to fall steadily as their economic stagnation continues. The smaller Asian tigers took several years to recover from the Asian crises of the late 1990s and consequently their booms didn't get under way until around the middle of the 2000s decade.

House prices in the US were the first in the world to peak and then fall. The two different measures of US house prices show that prices peaked in 2005-6 and are still falling. (The Case-Shiller index³ covers 20 of the largest cities across the US and showed that prices dropped an average of 30% from the peak.

On the other hand, the Federal Housing Finance Agency (FHFA) index⁴ covers single family homes in the US that were financed with prime mortgages through the Freddie Mac and Fannie Mae securitization programs, so it doesn't include the "sub-prime" mortgage market, which is where the biggest losses occurred. By that measure, prices fell 12% nationally)

Canada's boom was much more subdued and prices are now steady after a minor fall in the GFC.

I have divided in Europe into 3 categories – "stable", "falling" and "recovering" countries when comparing them to Australian house prices indexes.

Figure 3

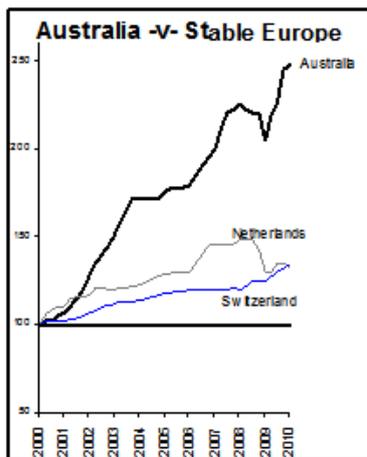


Figure 4

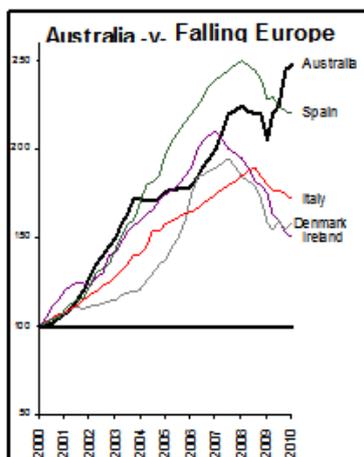
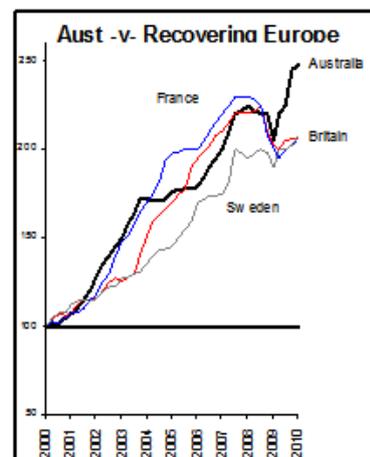


Figure 5



Spain, Italy, Denmark and Ireland were hardest hit and are still falling (no reliable data is available for Greece). On the other hand, prices in Britain, France and Sweden fell moderately in the GFC and are now recovering. Ireland has been hardest hit of all the European countries in the above charts. There the boom peaked in 2007, which was the earliest in Europe, and prices are down 30% nationally, which is on a par with the savage collapse in the US Case-Schiller 20-city index.

Britain and France have followed very similar paths to Australia on the way up and in their collapses, but the recovery in Australia has been much stronger.

Australia in the 2000s housing boom & bust

Australian house prices are now higher than any other major country relative to prices at the start of the 2000s decade. The next chart plots house prices on two measures – prices relative to long term rental yields (on the vertical scale) and price relative to their 1997 levels (on the horizontal axis):⁵

Figure 6

Countries toward the upper portion of the chart appear over-priced (measured relative to their long term rental yields), and countries toward the right hand side have experienced high price growth since the late 1990s. Australia is in the upper right corner, indicating that our prices have experienced the most growth, and that they are also the most over-priced relative to rents. And they are still rising.

Australian house prices followed a different path to the rest of the developed world in the past

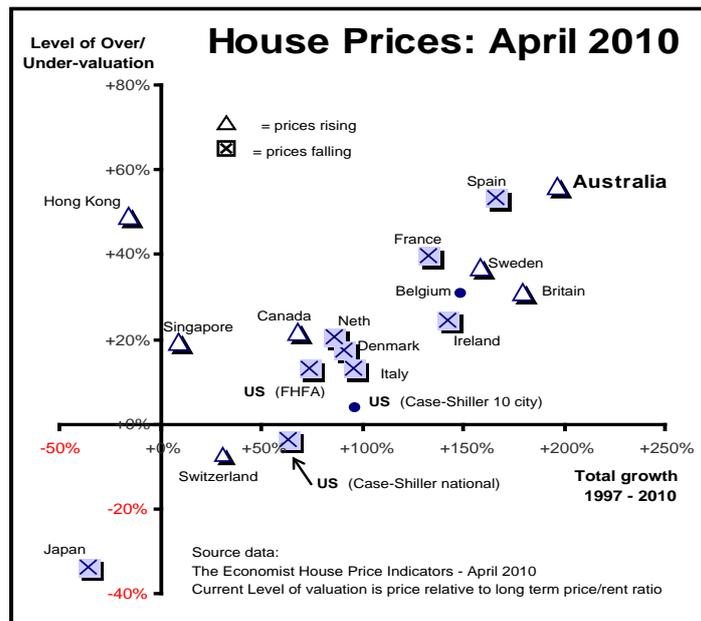
decade. Early in the decade Australia's house prices grew more quickly and more strongly than in virtually all other developed countries, in part because we suffered least in the dot-com collapse, and escaped the global dot-com recession in 2000-1. Not only did Australia not have a large IT sector, the construction boom for the 2000 Sydney Olympics and the spending spree leading up to the introduction of the Goods & Services Tax in July 2000, and the introduction of the First Home Owners' Grant scheme prevented a mild slowdown here from turning into a recession.

By the time the housing booms in other countries were just starting to take off, Australia's boom was already well under way. While the rest of the world was still cutting interest rates to stimulate slow economies out of the dot-com recession, Australia was alone in the world in making two official interest rate rises in May and June 2002 and then another two rate hikes in November and December 2003. These were enough to stop the housing boom at the end of 2003 and the resultant slow-down in housing and housing finance activity over 2004 and 2005 sent several major mortgage funds, home builders and property investment schemes to the wall.

This slowdown in building activity exacerbated an already chronic undersupply of new housing in the light of the continued strong population growth. Rising demand from the strong economy and growing population, when combined with restricted supply, kick-started the price rises again between 2005 and 2008 when the GFC hit Australia.

Meanwhile house prices in the US and Europe continued to soar until the final collapse in the sub-prime crisis in 2007-8. Australia's house prices also suffered least in the GFC (apart from Canada and Switzerland) and have recovered the most strongly since the fall.

We need to explore the underlying forces that have driven house prices to where they are today, and whether these forces are sustainable in the future.



Forces driving housing prices

Below are some of the main forces driving housing prices in Australia. For each of the major items we consider:

1. the extent to which it has shaped prices to date
2. the extent to which they are unique to Australia, by comparing them to other major countries
3. the outlook for the future – whether both the current direction (or path) and the level are sustainable

Some of the forces driving the demand for housing include:

- Greater demand for dwellings, due to:
 - Population growth
 - Declining number of people per household (household formation rates)
- Larger dwellings and higher quality
- More money per household to spend on housing, due to:
 - Rising incomes per household, due to:
 - Rising incomes per person
 - More income earners per household
 - Larger housing loans per dollar of income, due to:
 - Falling housing interest rates, due to:
 - > Declining inflation & base interest rates
 - > Declining lending margins
 - Longer loan terms
 - Higher loan-to-value ratios
 - Households spending more of their income on housing, saving less
 - Greater portion of people able to borrow, due to:
 - Looser credit standards
 - Government policies encouraging housing
 - Domestic demand for housing investors
 - Demand from foreign investors

Some of the main forces driving the supply of housing include:

- Restrictions on releases of new land for housing
- Restrictions on subdivision within existing built up areas
- Preferences for houses on own land
- Access to finance for property developers
- Concentration of population into large isolated cities

Size & importance of the housing market in Australia

First we look at the housing sector in Australia to understand its size and importance in Australian asset markets. Australian households own assets worth \$6 trillion, and more than half of this (around \$3.5 trillion) is in the form of residential property. Despite the rise of the superannuation retirement savings system, housing has remained more than half of total household wealth. If we deduct owner-occupier housing debt of \$770 billion and investment housing debt of \$330 billion from the total value, the net housing wealth in Australia still amounts to \$2.4 trillion – which is twice the total value of superannuation funds.

While the bulk of \$3.5 trillion housing total is owner-occupied housing, around \$900 billion is in investment properties owned by 1,300,000 private investment property owners.

The following chart shows the growth in value of all assets owned by Australian households since 1988.⁶

Figure 7

We can see that, following steady rises since the early 1990s recession, the values of dwellings, superannuation funds and direct shares all suffered losses in the GFC but are now recovering. The next chart shows the mix of household assets over time.⁷

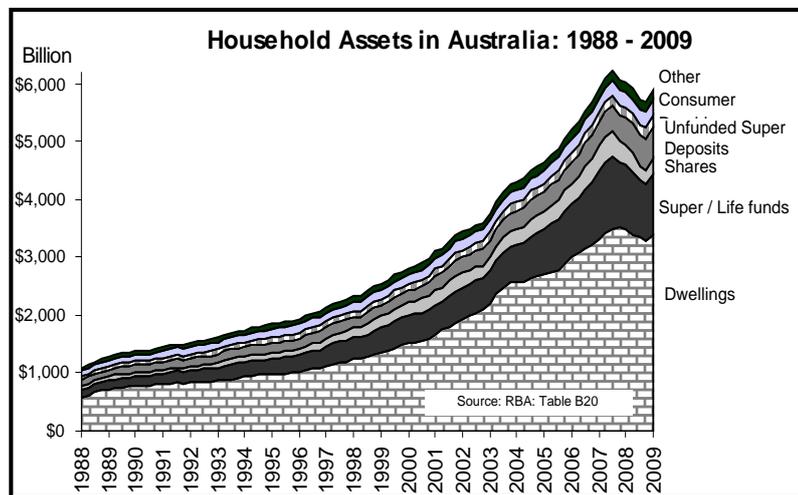
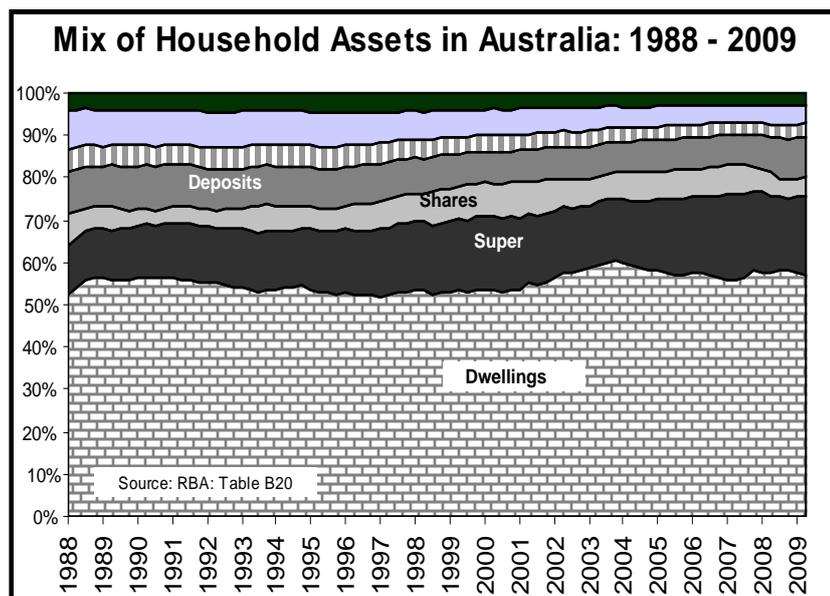


Figure 8

Private residential dwellings have made up around 50% to 60% of all household assets since the late 1980s, despite the dramatic rise of superannuation since the introduction of industry superannuation in the late 1980s and broad-based compulsory superannuation in the early 1990s. Because superannuation contributions are



provided primarily by employers as an employment cost, this has not encroached on the natural inclination for Australians to invest in residential property – both in owner-occupied homes and in investment properties.

Rising incomes and living standards

[Conclusion: significant contributor, path sustainable – Australia higher than most countries]

This has been one of the main drivers of rising housing prices in Australia, and also a significant differentiator relative to other developed countries. Not only have national incomes and incomes per capita been rising strongly in Australia, incomes per household have been rising at an even stronger rate because the number of people per household has been falling.

The next chart shows the growth in prices of housing – of existing houses and new homes - relative to inflation and household incomes.⁸

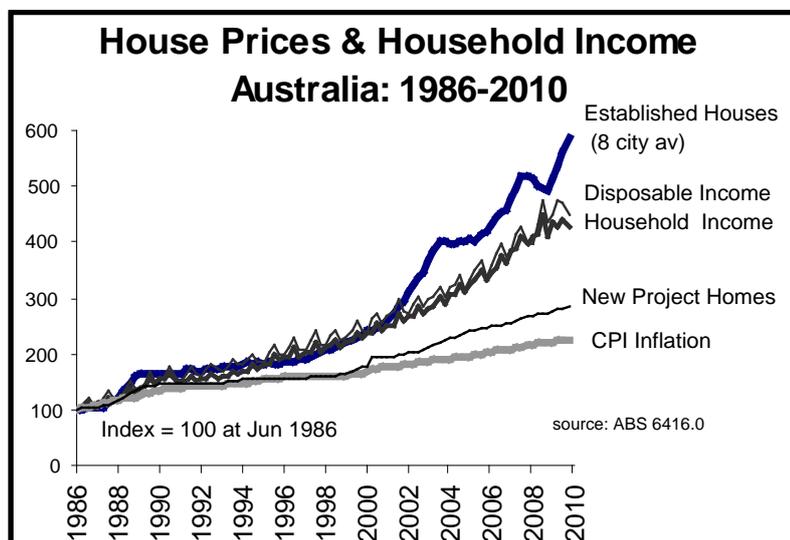
Figure 9

Prices of new homes have risen only slightly more than the inflation rate, and well below the level at which household incomes have risen – ie new homes (which are primarily bought by first home buyers) have become more affordable relative to household incomes over time.

On the other hand, prices of existing houses (which constitutes around 98% of housing stock at any one point in time) have risen along with increases in household incomes.

From the mid 1980s banking deregulation through to 2001, prices of existing houses kept pace with rises in household incomes – apart from a brief housing boom in 1988-9 which collapsed in the early 1990s recession. From that time up to 2001, house prices rose at around the same pace as household incomes.

The big change was in the period 2000 and 2004 when house prices took off at a much greater pace than were supported by incomes. However, between 2004 (when the four interest rate hikes stopped the housing boom) and 2010, house prices have only risen at around the same pace as incomes. Australia's housing boom stopped in 2004-5 while the booms in many other countries were still rising toward the great GFC housing collapse. Prices fell briefly in 2008-9 but are now back above their pre-GFC levels, but they are still higher, relative to rises in household incomes, than they were in 2004.



Uniqueness to Australia:

Australia has been the stand-out performer of the developed world this decade in terms of growth in real national income per person. The first of the next two charts shows the growth during the 2000s decade up to when the GFC struck in 2008, and the second shows the period to 2009, which includes the 2009 impact of the GFC on growth.⁹

Figure 10

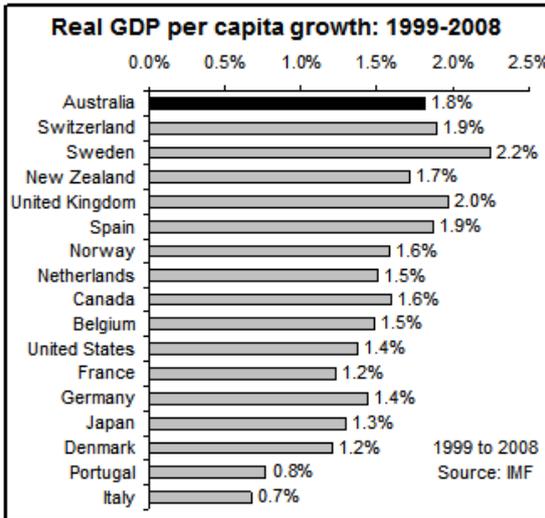
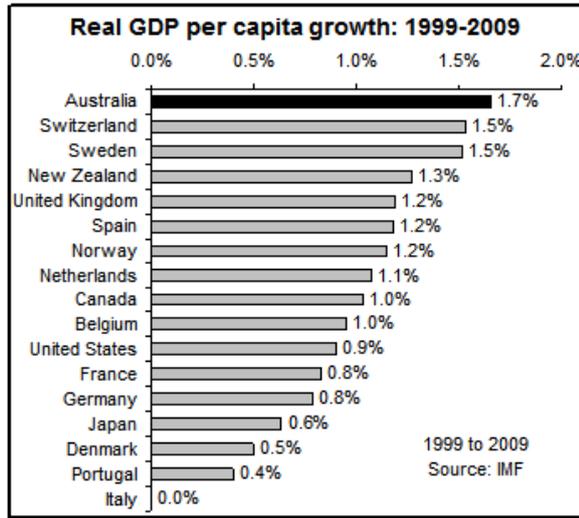


Figure 11



Both before and after the impact of the GFC, Australia has had one of the highest rates of growth in real living standards, and this has underpinned the growth in housing values.

The next charts show the international comparisons of the relationship between house price growth and national income growth measured by GDP growth (in both charts, GDP and house price growth are both expressed in real terms, ie after domestic inflation in each country). The period used is 2000 to 2008, when the GFC struck global credit markets.¹⁰

Figure 12

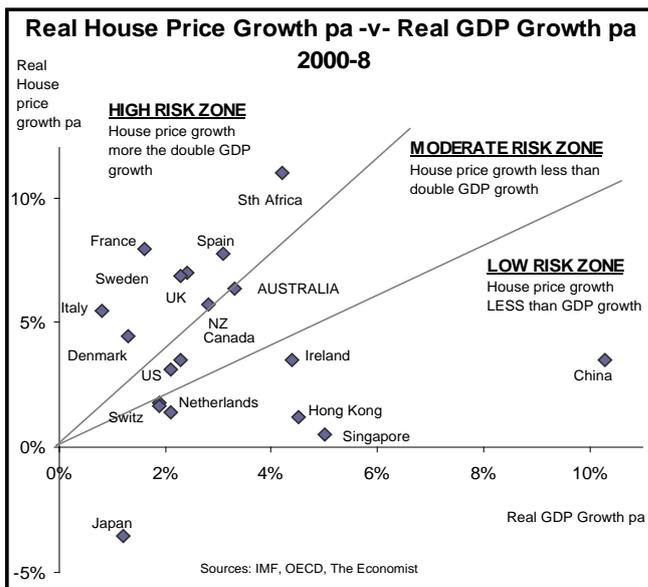
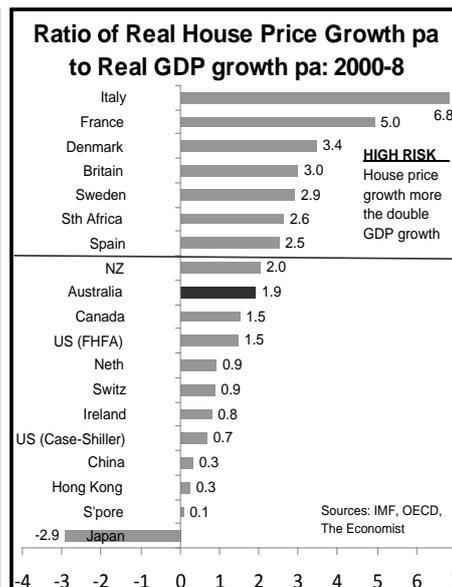


Figure 13



The stand-out countries are Italy, France, Denmark, Sweden, UK, Spain and South Africa – where the real rate of growth in house prices have been more than double the rate of growth their underlying economies over the decade, meaning the growth in house prices was not supported by economy-wide income growth and economic output. (The most extreme case is South Africa, which has been so far off the scale it has not even been possible to show it on previous charts in this paper.)

The US appears in the “moderate risk” zone on this measure as at the end of 2008 because their property prices had already fallen 20% by that stage. Also, Ireland falls into the “low risk” zone as its prices had already fallen by 15% by 2008, and prices in Ireland have fallen another 15% since then.

Outlook:

Real income growth in Australia is expected to continue to be driven by strong population growth (driving primarily by continuing high levels of immigration), rising participation rates and continuing productivity growth driven by strong levels of investment.

Although real incomes and real economic output growth in Australia have exceeded those in the UK, Europe and US and Canada, Australian house price growth has been even stronger – especially over the period 2001 to 2003. This excess component of house price growth is not sustainable, and are not necessarily likely to grow at faster rates than the US and Canada over the long term.

Greater demand for housing as investment asset

[Conclusion: was a contributor to past price rises in recent decades – current level sustainable]

Australians have taken to housing as an investment, especially since the 1970s, when high inflation decimated real returns from shares. It is still the most popular form of investment for most families. Some 1 in 6 households own one or more investment properties. Despite strong returns from shares in the 1980s, 1990s and 2000s, and the dramatic broadening of the general shareholder base through privatizations and demutualisations of major companies like Telstra, Qantas, Commonwealth Bank, AMP and National Mutual (now AXA) and NRMA (now IAG), shares are still generally regarded by many investors as being very volatile, unpredictable and unreliable. Most Australians regard property as much more tangible, concrete and reliable – many investors feel strongly that there is nothing like being able to drive past your investment and check up on it.

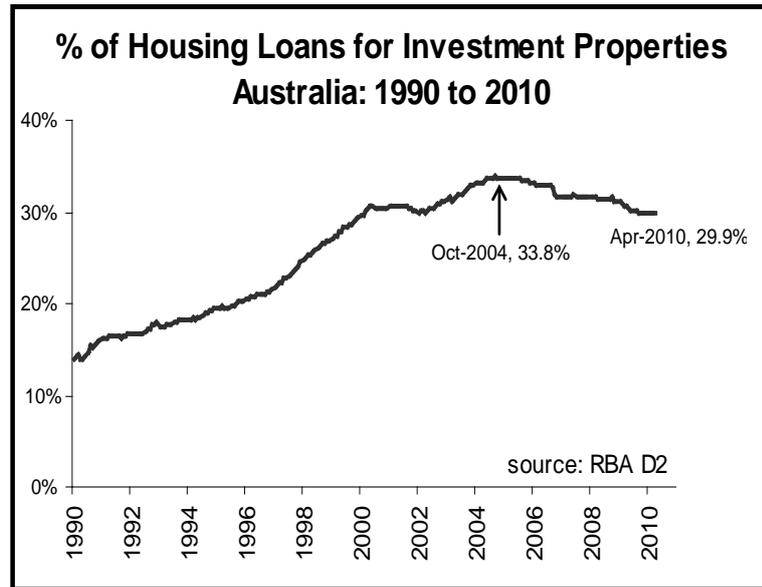
There a number of tax breaks available to investors – including negative gearing and capital gains tax discounts - but these also apply to other types of investment assets. Property investment also offers tax-deductibility of depreciation, and this is also (mistakenly) seen as an advantage by a large proportion of investors. (In reality, the tax deductibility of depreciation is simply a recognition by the tax office that the buildings and fit-out are wearing out and declining in value, and that the owner will soon need to invest more money to repair or replace them in order to be able to keep charging rent)

One genuine attraction of property for investors is that lenders are much more willing to lend against real estate (particularly residential) than against shares or other types of investment asset. The proportion of housing finance that is used to buy investment properties has been rising in recent decades. It constituted only 15% of total housing finance in 1990, rising to more than one third of housing finance at the top of the housing boom in 2004, and has since fallen slightly in the GFC¹¹.

Figure 14
Uniqueness to Australia:

The level of investment property ownership by Australian households is very high by international standards. The Australian level is around double the levels in the US and Canada, and in the UK the level is only 2% of households. Levels of property investment in Europe are also very low – reflecting their culturally and historically low levels of home ownership. Portugal is a special case, where up to a

third of new housing developments are holiday properties for foreigners¹². This is primarily for holidaying and speculation, whereas the Australian pattern is primarily for long term rental.


Outlook:

The rising demand for investment properties has contributed to rising property prices and lowering of rental yields. The current high levels of ownership of investment properties is likely to be sustainable, especially in light of the likely reduction in home ownership rates for owner-occupation, driven in turn by the slow and steady rise of single parent households, the trend to fewer children, more childless couples and increases in labour mobility (see below). Although the current levels are probably sustainable, this driving force in pushing up prices to where they are today is unlikely to contribute to further price growth in the future, because the level of investment property ownership is not expected to rise significantly from current levels.

The severe volatility of share prices and dividend levels in the GFC put many investors off shares for life (or at least for many years) and this is likely to cause a partial retreat back to the perceived safety of property as a preferred investment.

There is a natural ceiling on prices that will be paid for investment properties. Net rental returns must remain commercially viable and competitive with other asset classes. The superannuation retirement savings system in Australia is extremely complex and foreign to most people, and property investment is likely to continue to be the predominant retirement strategy for much of the population.

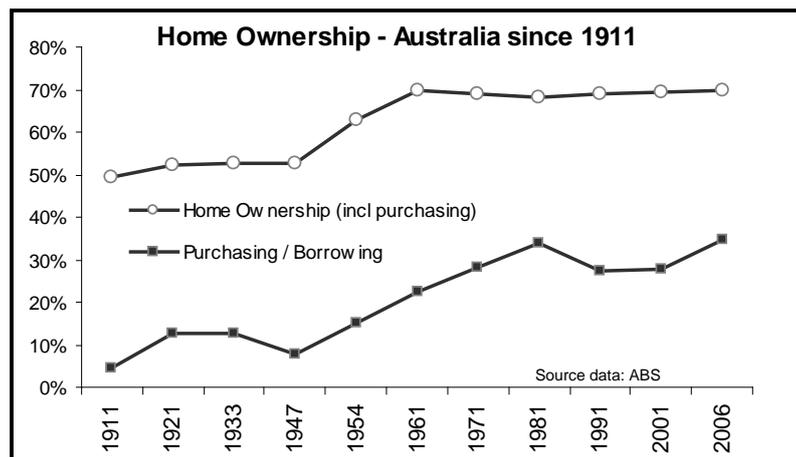
Home ownership rates

[Conclusion: Not a major contributor to past price rises since the 1960s – current level not sustainable – likely slow reversal]

For several decades Australia has had one of the highest rates of home ownership in the world. Around 70% of households own their homes (either outright or with a mortgage) and this level has been reasonably constant since the 1960s¹³.

Figure 15

The rise in home ownership was one of the key drivers of rising demand for housing in Australia in the three decades following the Second World War, in parallel with the growth of building societies which financed much of the post-war housing boom. The economic



and social conditions in the post war decades drove this rapid rise in home ownership – regulated labour markets, centralised wage setting, relatively low levels of income inequality (see below), government ownership of many industries, high levels of industry protection, a fixed exchange rate, regulated housing interest rates, and a predominance of young families.

The conditions that drove the rising home ownership rates in the 1950s, 60s and 70s are no longer present, and consequently the level of home ownership in Australia has not risen further over the past 50 years.

Since the 1980s we now have de-regulated labour markets, largely market-based wage setting, rising income inequality, reduced industry protection, privatisation of most government enterprises, a floating currency, and de-regulated housing loan interest rates. In addition the predominance of young families has been replaced by the rise in single person households, single parent households, childless households, rising divorce rates and an aging population. At the same time, more flexible labour markets are driving less labour stability & more labour mobility, and a decline in demand to own a home.

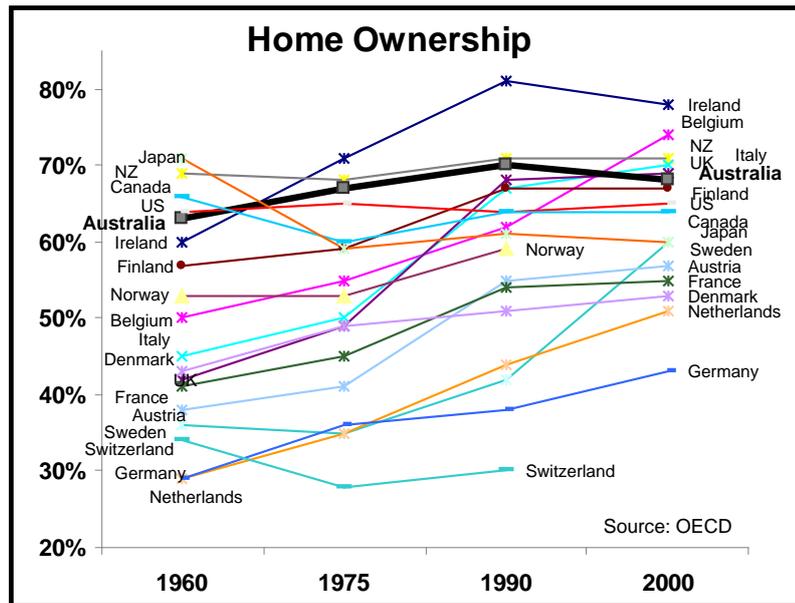
Uniqueness to Australia:

These economic and social shifts are not unique to Australia, are also occurring in most other developed countries. However most other developed countries have defied these major structural shifts in underlying economic, social and demographic fundamentals and have actually increased their levels of home ownership in recent decades¹⁴.

Figure 16

In most countries (except NZ, US, Japan, Switzerland and Canada), the levels of home ownership have risen while Australia has remained flat. The most rapid rises have been in Ireland, UK, Italy and Belgium, which is where the housing markets are now most under pressure.

The underlying driving forces that should be resulting in lower levels of home ownership affect all



developed countries, but we can see that most countries defied the underlying forces and increased home ownership in the recent boom. Probably the major cause was cheaper money, looser credit standards, and the promises of easy riches. Of course it was unsustainable and it all came crashing down in the GFC for the countries that defied the underlying forces.

Outlook:

As these economic and social shifts continue, the outlook is for a slow decline in the level of home ownership from the current historically high levels. Declining levels of home ownership, together with the trend to more numerous & smaller households – should lead to a rising proportion of renters.

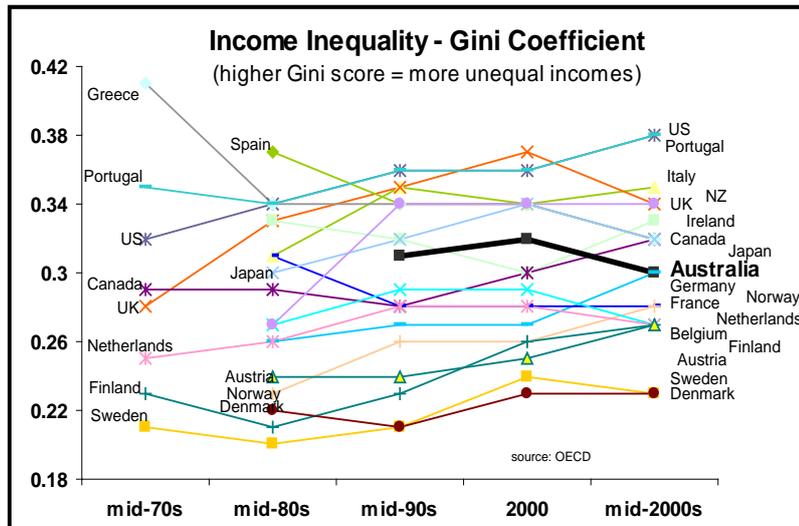
Egalitarian society

It has often been suggested that one reason for Australia’s high levels of home ownership is its so-called classless or egalitarian society, but this is not the case. The most egalitarian societies are those in northern Europe and they have low levels of home ownership. The most unequal developed world countries are US and Portugal, followed by Italy, UK, NZ, Ireland Canada and Japan. Australia falls between these two groups.

The following table shows each country’s “Gini coefficient” which is a commonly used measure of income inequality across a society. High Gini scores indicate high levels of income inequality (disparity between rich and poor) and low scores indicate more equal sharing of incomes across society¹⁵.

The northern European countries have less unequal incomes in part due to their higher levels of taxes and welfare systems. The most egalitarian societies have relatively low levels of home ownership. The absence of high pensions in Australia compared to the relatively high pensions paid in northern and western Europe, may

Figure 17



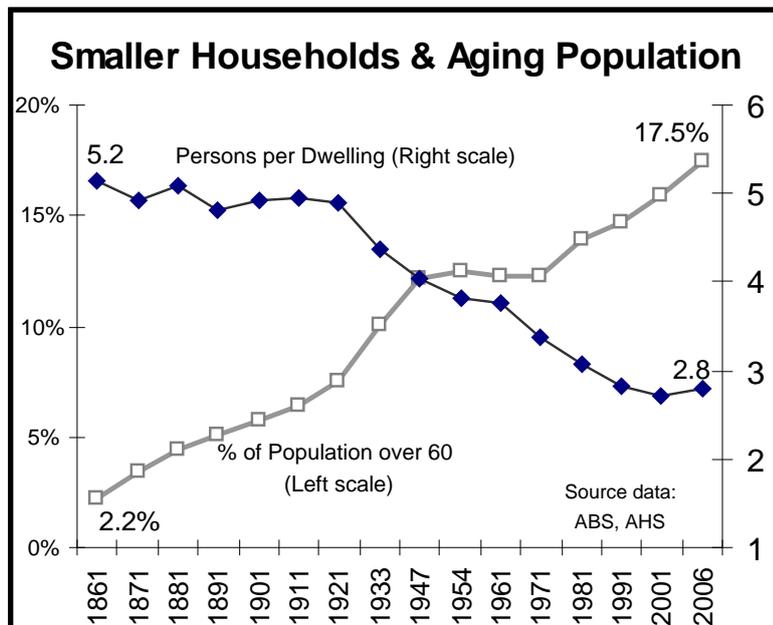
be a key reason why Australians have come to view home ownership as an essential form of saving for retirement. Most Australians view property (their family home and also investment property) as their main “nest egg” for retirement.

Household formation - more dwellings per total population

[Conclusion: Significant contributor to past price growth – path sustainable]

Figure 18

A century ago there were an average of 5 people per household in Australia, but now there this is down to just 2.8 people, and this has been driving up the demand for dwellings at a much quicker rate than the general level of population growth. A variety of forces are responsible for this trend – including: fewer children per family, extension of average lifespan through improvements in health, nutrition and medical



treatments, a shift away from dangerous physically demanding occupations to safer jobs in services, professions and clerical occupations, and rising divorce rates.

The next chart shows the trend in the number of people per household, and the proportion of the total population that are over 60 years of age in Australia¹⁶:

Uniqueness to Australia:

These forces are common to virtually all countries outside of Africa – in both developed and emerging economies. Australia is further down the path than the US, New Zealand and Canada in both the number of people per household and the proportion of total population over 60, but it is still short of the levels in northern and western Europe, as shown in the following tables¹⁷.

Figure 19

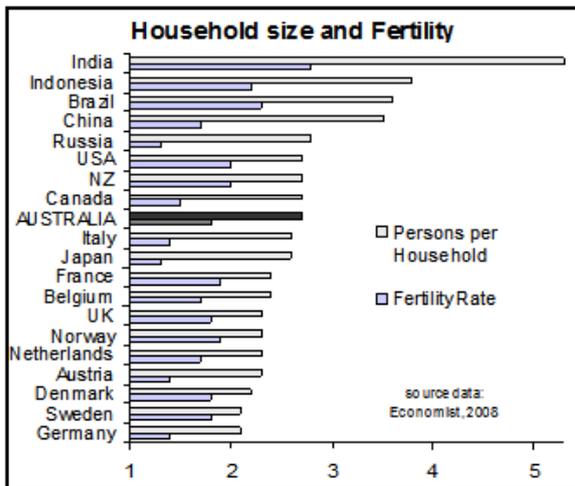
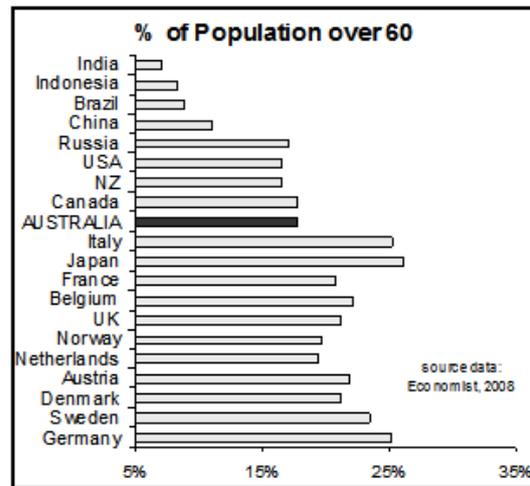


Figure 20



These factors having been driving the overall demand for housing in Australia as in other countries.

Outlook:

With the expected continued rise in single person households, single parent households, high divorce rates, later marriage, fewer children, and longer life expectancy, the trend to more dwellings per total population (fewer people per household) is expected to continue and should probably reach the rates currently seen in western & northern Europe. One factor slowing Australia down along this path is our strong level of immigration – which is helping to keep Australia's population relatively young compared to Europe and has underpinned the strong demand for housing. The US also has a similar pattern of immigration helping keep the population relatively young compared to the rapidly aging populations of western and northern Europe.

Larger houses

Over the past 60 years Australian houses have doubled in physical size but the number of children in the average household has declined, and the total number of people per household has reduced by 30%. At the same time the size of the average housing block of land has also halved. Not only has the size of the buildings increased significantly, the level and quality of the fit-out and appliances have also increased steadily over time.

This trend toward larger buildings and better quality is a function of rising incomes and standards of living. But we will see below that the overall level of spending on housing has not increased as a share of overall national economic output.

Uniqueness to Australia:

This has been a common trend in the developed and developing world as standards of living have risen. The culture of competitive consumption (of goods, services as well as housing) that accelerated in the post Second World War period shows no sign of abating.

Outlook:

As the number of people per household continues to decline in future years, the trend toward larger dwelling sizes will probably reverse. But as standards of living continue to rise, the quality of fit-out and appliances and the levels of spending, will probably continue to rise along with incomes.

As the physical dwelling sizes (both in buildings and land sizes) is likely to decline in the future, this will likely reflect in smaller dwelling sizes and smaller blocks of land. This will also probably reflect in smaller rises in “median” prices per dwelling – ie greater wealth spread across more, but physically smaller, dwellings per head.

However for investors the effect is very different. Greater demand for smaller dwellings and/or smaller blocks of land will drive land prices higher on a per metre basis – and that is what interests investors most, even though the “median” price per transaction may be smaller.

Levels of investment as share of total spending

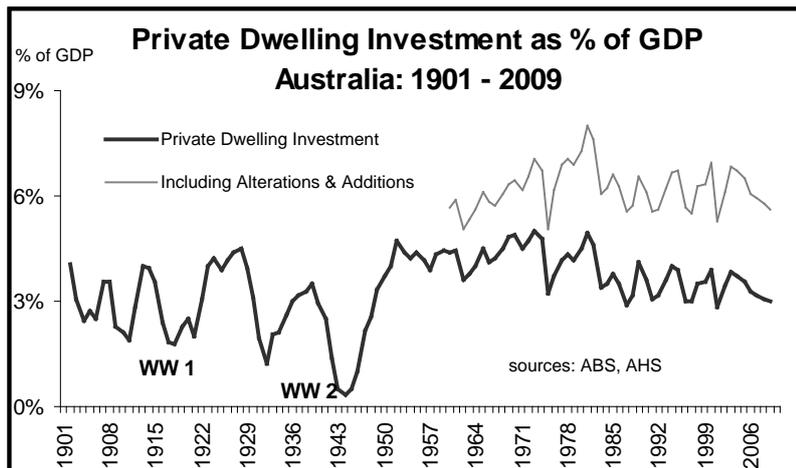
[Conclusion: Not a major contributor to past price growth – level sustainable]

The level of spending on housing as a share of total national spending has remained relatively stable over the past century in Australia. The following chart shows purchases of new and existing dwellings in Australia as a percentage of GDP since 1901. It shows that, apart from the two world wars and the 1930s depression, investment has amounted to around 3% to 4% of total national spending over the century¹⁸.

Figure 21

Spending on dwelling purchases has been on steady decline since the 1960s. However, since 1960s we have figures for alterations & additions to housing, which has risen steadily and has been relatively stable through business cycles (unlike home purchases).

Together the total spending by households on housing (including alterations and additions) as a share of total national spending has remained relatively stable at around 6% of GDP over the post WW2 period.

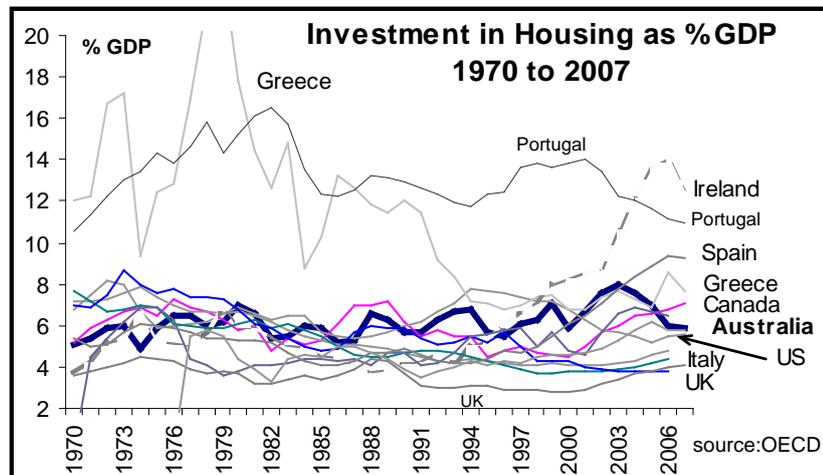


Uniqueness to Australia:

When we look at the patterns in other countries we see a very different picture¹⁹:

Figure 22

This shows that not only has the level of spending (investment) in housing in Australia been relatively steady over the past four decades, it clearly highlights the countries that have suffered heavy fallout from house price collapses – Ireland, Portugal, Spain and Greece.



On the other hand, a low and steady level of investment in housing does not necessarily prevent price booms and busts from taking place.

UK and US experienced severe housing booms and busts in the late 1980s/early 1990s and again in the GFC. The difference has been that the level of investment is a relatively low share of the overall economy in the US and UK, so less damage is done to the rest of the economy. In the UK the level of investment in housing as a share of national spending is the lowest in the developed world, but this share doubled in the boom leading up to the GFC.

On the other hand, in Ireland, Portugal, Spain and Greece the level of housing is a much bigger share of the overall economy and so the busts are having a greater impact on the rest of their economies in these cases. This factor, when combined with the high levels of government debt in those countries is causing the huge debt crisis we are witnessing at present.

In contrast, Australia's spending on housing as a share of total national spending has been falling since the housing peak in 2004, while most other countries were booming, leading up to, and contributing to, the GFC crisis.

Outlook:

The level of housing spending as a share of total national spending has remained relatively constant for a century and did not contribute to the rise in house prices. This situation is not likely to change in the future.

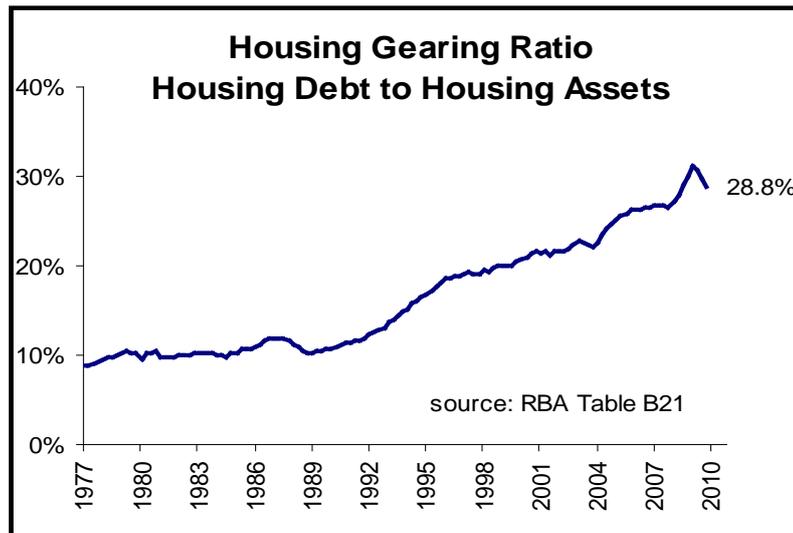
Larger housing debts

[Conclusion: significant contributor to prices since the 1980s – sustainability different for different underlying drivers of debt levels – see below]

The level of housing debt in Australia, relative to the household asset values, has almost tripled since the late 1980s²⁰:

Figure 23

It has been the increased availability of debt which has been the key driver behind people being able to bid up the prices of the properties they buy. There are several underlying drivers behind this trend and we will consider these shortly.



The next chart shows the rise in housing interest costs as a percentage of household disposable

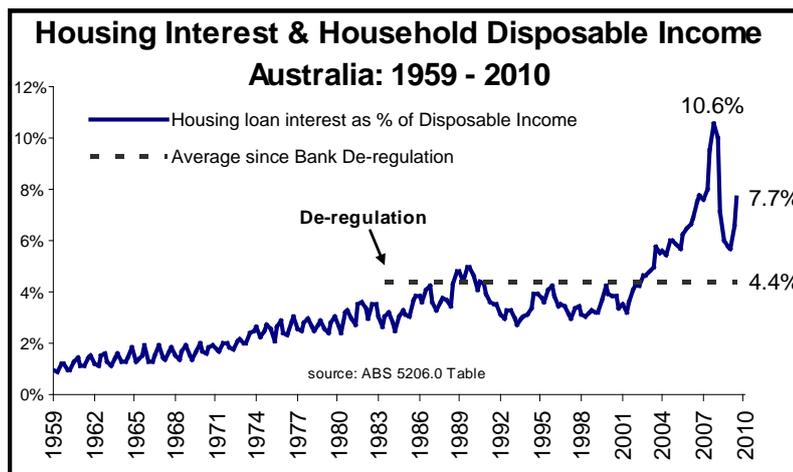
income in Australia since 1959. Although the household gearing ratio rose during in the 1990s, the share of household incomes devoted to interest payments didn't take off until well into the 2000s housing boom²¹.

Figure 24

The total level of housing loan interest paid as a percent of household disposable income really took off in the period late 2003 to late 2008.

Official cash rates rose from 4.75% in October 2003 up to the peak level of 7.25% by March 2008, where it remained until the first rate cut in

September 2008 just



before the Lehman crisis. It was at the height of the cash rate cycle in 2007 and 2008 that the interest burden on households hit the peak above 10% of disposable income.

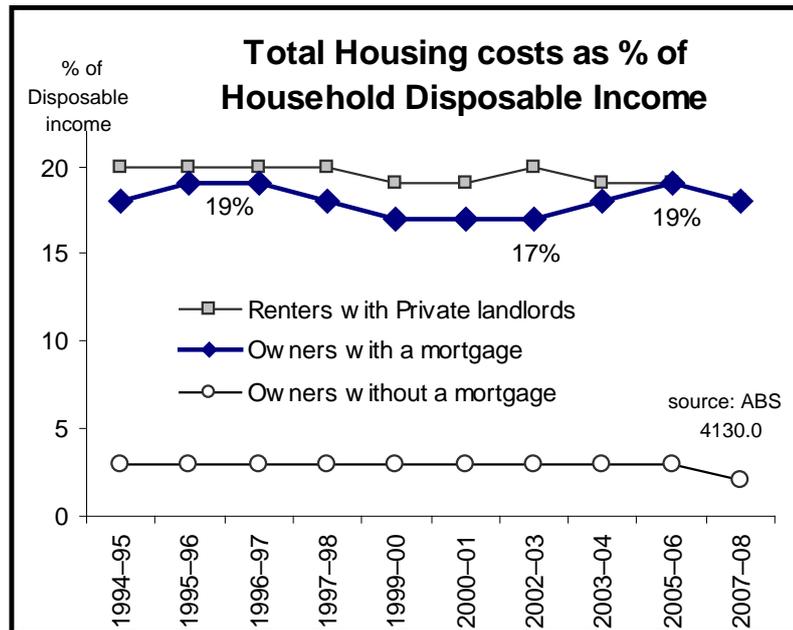
The above two charts take total national household debt levels and national interest totals and divides them by total household disposable income, so the resultant debt and interest burdens are artificially spread over all households, including in those households with no housing debt – ie renters and households who own their homes outright.

The next chart takes these housing costs and looks at the impact of housing costs on three different types of households – renters, households with mortgages and owners without mortgages. This provides a much clearer picture of the actual impact of housing costs on households. It shows that most of the rise in the Australian level of household debts to total disposable income and interest costs to income was due to a rise in the number of total borrowers in the market and not due to any significant increase in the level of debt per household with mortgage²².

Figure 25

From this it is evident that the housing cost burdens per average household with a mortgage did not rise significantly during the housing boom.

Total housing costs for households with mortgages (predominantly mortgage repayments) rose from 17% of disposable income in the early part of the 2000s decade to 19% of income by 2005-6



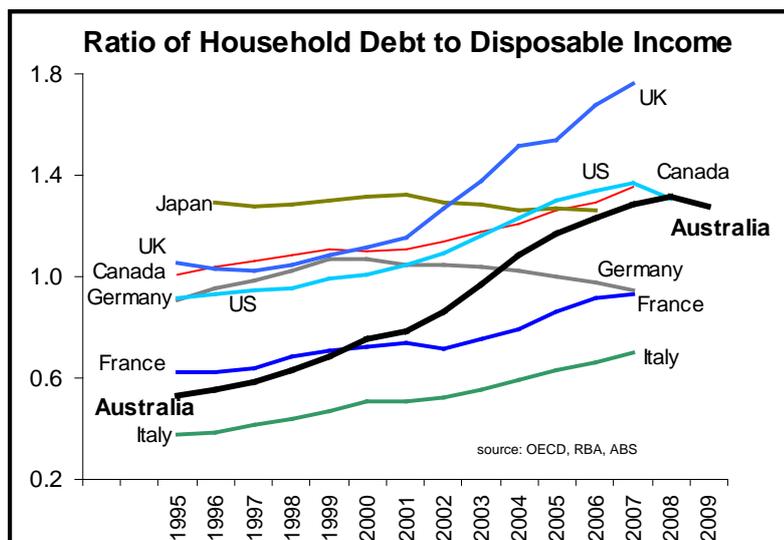
at the height of the boom while interest rates were rising. No doubt there are pockets of housing stress as interest rates rise, but the primary cause of rising interest costs across the total population has been the rise in number of mortgage holders, and not repayment stress within households with mortgages.

Uniqueness to Australia:

Australian households are by no means the most indebted households in the world. In Australia, like in all other major countries except Japan, household debt levels increased as interest rates fell since the 1980s. From a position of around half the debt levels of UK, Canada, the US and Germany, and a third those in Japan, Australia's household debt levels grew at a much more rapid pace since the mid 1990s than all countries except the UK. We discuss the cause of this a little later.

Figure 26

Now, of the major countries, the UK stands out as being significantly more indebted than Australia, the US and Canada, and very significantly more than Germany and France. This is shown in Figure 26, which shows the ratio of total household debt to total household disposable income leading into the GFC²³:



There were several forces driving higher levels of housing debts in recent decades, which we will now consider.

Declining inflation and interest rates

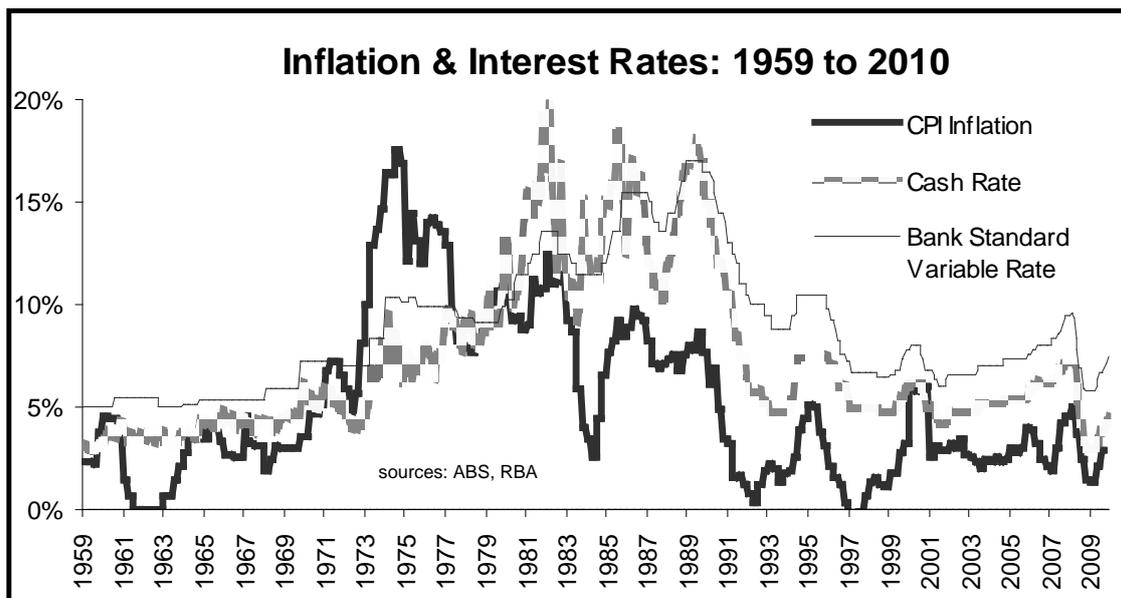
[Conclusion: Major contributor to rising prices – path not sustainable – level may be sustainable, but may reverse partially in future]

One of the major contributors to rising house prices over the past three decades has been the dramatic fall in global inflation and interest rates. This trend started in the early 1980s and was driven by reforms led by Margaret Thatcher, Ronald Reagan and Federal Reserve Chairman Paul Volcker, and followed in Australia by the Hawke-Keating government.

This major structural shift involved several factors, including: deregulation of many key industries, a return to small government, privatisations, central bank independence, the rise of low cost manufacturing in developing countries, gluts in oil and agricultural commodities, the fall of communism and the savings surpluses from developing economies.

The following chart shows inflation and interest rates in Australia since 1959²⁴:

Figure 27



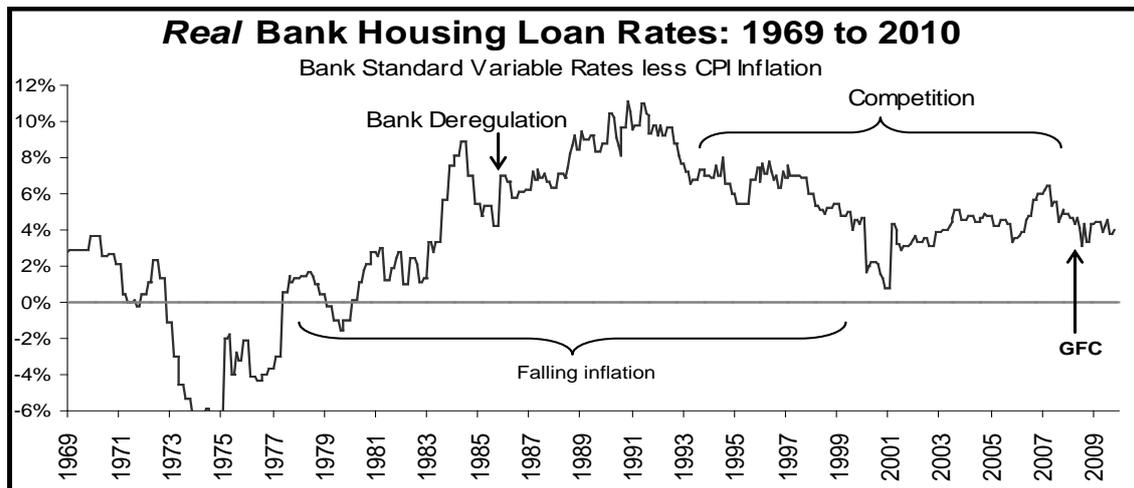
As interest rates fell, home loan interest rates also fell, and this enabled people to borrow more money with the same level of repayments. Standard bank home loan rates were 17% in 1989 and are now just 7%²⁵.

For a borrower with say \$2,000 per month to spend on repayments on a 20 year mortgage, a loan interest rate of 17% would support a mortgage of \$136,000. But if the interest rate is just 7%, the same monthly repayments of \$2,000 can service a mortgage of \$258,000, which is 90% more money to spend on a house. As mortgage sizes rose with falling interest rates, this extra money fed straight into higher house prices.

On paper, lower interest rates make house prices look higher, household gearing ratios look higher and debt levels look higher, but in reality the borrower has the same level of net equity in the house and the same mortgage repayments.

Not only did nominal interest rates fall in Australia over this period, but real interest rates (ie after inflation) also fell steadily since the late 1980s²⁶.

Figure 28



Uniqueness to Australia:

Australia rode the global trend to lower inflation and interest rates between the mid 1970s and 2010. The effect was similar in other developed economies, but the change in Australia was more dramatic because we started with much higher rates than the US, and we also started later.

Inflation started to fall in the US from the early 1980s recession, but Australia only started to bring inflation down in the early 1990s recession, thanks largely to the raft of structural reforms carried out during the 1980s – including reforms to industry policy, wages policy, fiscal policy, protection, competition, deregulation and floating the currency.

Outlook:

The path of lower inflation and interest rates since the mid-late 1970s to today is not sustainable at the same pace in the same direction. In the GFC Australian interest rates were lower than they have been since the 1960s and interest rates in most other developed economies are at or near zero, which have not been seen since the end of the Second World War.

The current Global de-leveraging phase in the highly indebted “developed” world countries is likely to take several years to play out – and inflation will probably remain very low for some time yet. However, following this de-leveraging phase, the developed world may enter a phase of higher inflation and higher base interest rates – driven by factors such as: high monetary base growth, higher taxes, bigger governments, direct government ownership and involvement in industries, re-regulation of the financial system, a shift away from central bank independence, deliberate inflation targeting, and competitive devaluations of currencies. In essence this is the unwinding of most of the Thatcher, Reagan and Volcker reforms that brought down inflation over the past 30 years.

While it is not clear when or even whether the next phase will lead to higher inflation, it is likely that the big structural shift over the past two decades toward lower inflation and interest rates is now over. This source will not be a contributor to house price rises in the future, and may reverse partially in the medium term if and when inflation rates increase.

In addition, in the decades leading up to the 1990s most lenders in Australia charged higher interest rates to investors than the rate charged to owner-occupiers. This interest rate premium was usually around 1% extra. In the 2000s lending boom all lenders competed away this extra margin. This too was a one-off adjustment (and a one-off contributor to house price rises over the past decade) and will not contribute to further price rises in the future.

Declining lending margins in de-regulated market

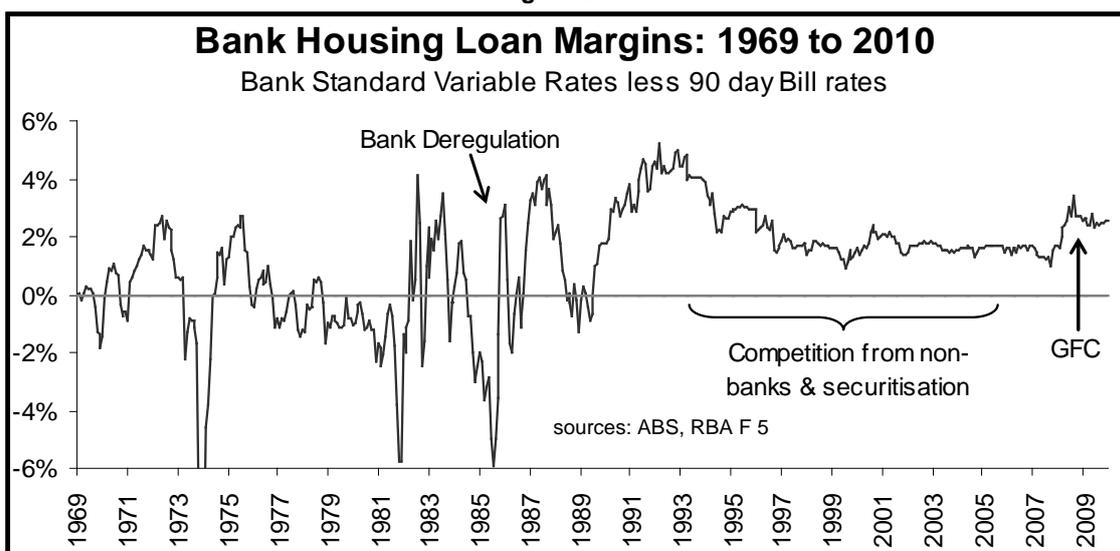
[Conclusion: Major contributor to rising prices during the 1990s and 2000s – path not sustainable, but current level is sustainable]

Contrary to popular myth, the de-regulation of the banking system in Australia led to higher, not lower, lending margins on home loans. In the regulated market prior to deregulation in the mid 1980s, the strict regulation of home loan interest rate ceilings resulted in very low and often negative bank lending margins, which led to tight rationing of credit, and this constrained home prices.

For example, when bank bill funding costs soared to near 20% during 1982 and early 1983 prior to de-regulation, the regulated cap on home loan interest rates remained at 13.5%. With negative margins like these, banks were very reluctant to lend.

The following chart shows bank lending margins since 1969²⁷. The other side of total bank margins is the funding (liability) margin, which is the difference between the total costs of raising deposits and other forms of funding, and the wholesale rate. Prior to deregulation, banks paid very low or nil interest rates on deposits, but this was offset by the extremely high costs of running the extensive and expensive branch networks.

Figure 29



Following deregulation, branch networks were cut significantly. The branch networks' former role in selling mortgages was largely replaced by 3rd party mortgage brokers, and we discuss this a little later. The branch networks' former role as deposit gatherers was largely replaced by overseas borrowing to fund the dramatic growth in housing lending.

Lending margins changed dramatically when the banking industry was deregulated in the mid 1980s. As part of a wide-ranging package of reforms to the banking industry, the strict ceiling on bank home loan interest rates was lifted in April 1986, and foreign banks were allowed to operate in the local retail market. The new banks and non-bank lenders started to focus on the home loan market in earnest in the 1990s. The four big banks fought back in the late 1990s and 2000s by buying up virtually all the non-bank and small bank competitors. Lending margins rose again in the GFC with the drying up of the global securitized debt market, which was the non-banks' main source of funding.

Uniqueness to Australia:

Unlike in the US, UK and most of western Europe, deregulation in Australia led to unusually high lending margins particularly in the 1990s before competition from non-banks and foreign banks started to have a major impact. The significant reduction in lending margins from the early 1990s to the late 2000s was more pronounced in Australia than in most other countries, and the resultant increase in loan sizes was a significant contributor to house price growth here.

Deregulation of the housing market in the US started much earlier than in Australia. Interest rate ceilings on Savings & Loans (which are the major home lenders in the US) were removed in 1980, and in 1982 S&Ls were allowed to invest directly in property developments. The ensuing orgy of bad home lending resulted in the disastrous S&L collapse in the late 1980s. The US sub-prime crisis is proof that Americans learned nothing from the S&L disaster, and there are destined to be many more US housing finance disasters in the future.

Deregulation of Australia's home lending industry occurred later than in the US, and its domestic policy settings and structural conditions kept inflation, interest rates and lending margins higher, and for longer during the 1980s and early 1990s.

As a result, the dramatic rise of housing debt and house prices since the early 1990s relative to other countries is mostly a result of the fact that inflation, interest rates and lending margins started higher, fell further and fell later than in other countries.

Outlook:

The competition that eroded home loan lending margins in the 1990s and 2000s – and the consequent effect on raising house prices - was a one-off shift and will not recur. Lending margins may continue to fall with increased competition, but not at anywhere near the same pace as in the last two decades.

As the industry develops further in the future there will always be competitive pressures to keep margins low. The post-GFC shift to tighter global bank regulations and capital requirements will also impact lending margins, although home mortgage lending is likely to retain its favourable treatment under bank capital rules. Australian banks will be subject to the same, or similar, rules as banks in other countries.

Mortgage brokers, mortgage managers and securitisation

[Conclusion: was a significant contributor to past price rises since the early 1990s – current level sustainable]

The widespread use of mortgage brokers did not arise in Australia until well into the 1990s. Following banking deregulation in the mid 1980s, the four big banks cut their cost structures dramatically by closing hundreds of branches and turned to mortgage brokers to generate much of their lending growth. The smaller banks also used mortgage brokers extensively to expand outside their home states.

With the rise of mortgage brokers in the 1990s, mortgage lending became a commoditised business sold primarily on price. Brand loyalty and customer relationships made little difference. Borrowers could shop around via a mortgage broker or website and pick the cheapest deal with the best features or lowest price. The brokers could sell mortgages for the banks, or for a new breed of mortgage managers that by-passed the banks and packaged up bundles of loans and sold them via investment banks to investors all over the world, following the US "securitization" model.

Uniqueness to Australia:

Mortgage brokers and securitized mortgage funding is common in most other countries (but nowhere near as large as in the US). What was unique to Australia was the speed of take-up. The timing was different here because the industry was only deregulated in the mid 1980s and only took off after early 1990s recession. This relatively late start of mortgage broking and securitization in Australia, and the boom in lending it produced makes housing prices here look like they rose rapidly over a shorter period than in most countries. This is true, but it was a one-off impact which is now over.

Outlook:

Mortgage brokers are here to stay. Paying sales commissions to mortgage brokers is still cheaper than running fixed bank branch structures. When the market for securitized mortgage products returns as the world emerges from the GFC, the market for securitized mortgage products will return to Australia. But the one-off impact of the emergence of mortgage brokers and securities funding of mortgages is over. They will not be a major contributor to house price growth as it was in the 1990s and 2000s.

Longer housing loan terms

[Conclusion: was a significant contributor to past price rises since the 1980s – current level sustainable]

Prior to deregulation, housing loans in Australia were generally for a maximum of 15 or 20 years. Often the facility was split into two loans – one over 15 years or 20 years, topped up by a shorter loan of say 5 years at a higher interest rate. During the 1990s, 25 year terms became more popular, and 30 year terms became the norm in the 2000s.

The longer the loan term, the lower the monthly repayments, and therefore the more the borrower can borrow on a given level of income. For example, if a borrower can afford to devote \$2,000 per

month on mortgage repayments, this will support a 20 year loan of \$258,000 at a 7% interest rate. If the loan term is pushed out to 25 years the same \$2,000 per month can service a loan of \$283,000, or 10% more. If the term is pushed out to 30 years the same \$2,000 per month repayments can service a loan of \$301,000, which is an additional 6% more again. As loan terms were extended, loan sizes grew and this fed straight into house prices.

During the last housing boom some lenders introduced loans for 40 year terms (and some even talked about introducing the Japanese “generational” loans whereby 50 year loans or even 100 years loans are passed down to the next generation).

The ultimate long term loan is an interest-only loan. Two decades ago interest-only loans were reserved for very specific short term circumstances, but during the 2000s housing boom they became commonplace for ordinary families buying a house. The same \$2,000 monthly repayment can support an interest-only loan of \$343,000, which is 33% more than the loan amount for an original 20 year loan.

In the 1980s the usual practice was to limit the term of the loan to coincide with the expected retirement age of the borrower, so that the loan would be fully paid off by the time the borrower retired. Loans were also not generally made to people approaching retirement or already past retirement age.

Over the past decade of this changed. It is now commonplace to see 30 year loans made to borrowers of any age. Lenders routinely now include superannuation retirement funds as an “asset” in loan applications (which was not the case before the 1990s), and up to half of all retirees in Australia now use their superannuation payout on retirement to pay off their mortgage.

Uniqueness to Australia:

This trend is not unique to Australia and has been present in many other countries as well, although the process was probably more accelerated in Australia given the relatively short time over which the shift to deregulated lending markets took place.

However, in Australia we did not see the market degenerate into the mass marketing of “0% down and 0% financing” step-up mortgages that characterized the US sub-prime boom. These were loans that required no initial cash deposit and very low or zero initial repayments, and where repayments stepped up after the first 12 of 24 months into the loan. All across the US, millions of “NINJA” borrowers (“No Income, No Job or Assets) were able to borrow hundreds of thousands of dollars with no deposit and no hope of ever repaying the loan. That was the essence of the US sub-prime crisis – and it was a uniquely US phenomenon.

Outlook:

The trend toward longer loan terms is likely to continue – albeit at a slower pace than over the past two decades. Longer life spans, longer working lives, the continued practice of using superannuation (retirement fund) payouts to pay off the mortgage, and the continued development of longer term funding structures - are all likely to continue the trend toward longer loan terms in the future.

Higher loan-to-value ratios

[Conclusion: was a significant contributor to past price rises since the 1980s – current level sustainable]

In the 1980s, home loan borrowers in Australia were required to demonstrate “genuine” savings of at least 20% of the purchase price of a property. Gifts and contributions from family were not considered “genuine” savings and did not demonstrate sufficient discipline to commit to twenty years of paying off a mortgage. In addition, most banks and building societies insisted that this deposit was saved up with “their” bank or building society. This was all part of the strict rationing of credit under the regulated home loan market.

All this changed with de-regulation. Now it is possible to make a few phone calls or spend a few minutes on the internet and get dozens of offers of loans from a variety of lenders all offering 90%, 95% or even 100% finance. It no longer matters where the balance comes from.

Whereas in the 1980s a deposit of \$50,000 could only support a mortgage of \$200,000 and a house purchase of \$250,000, now with 90% loan-to-value ratios as standard practice, the same \$50,000 deposit can support a loan of \$450,000 and a house purchase of \$500,000. This extra money available fed straight into house prices. More people with less deposit money but bigger mortgages pushed prices up.

This phenomenon was a significant contributor to the growth in house prices. This was also an area where the market got to insane levels at the height of the housing boom – with many lenders offering 100% and even 105% financing (100% of the purchase price plus financing of the stamp duty and legal costs).

Another factor in the equation was the emergence of mortgage insurance and deposit bonds over the past 20 years. Mortgage insurance was a way for banks to offload the credit risk of the amount of the loan that was above 80% LVR to insurance companies – with the extra premium cost passed on to borrowers – but usually just added to the loan. This was in response to global bank capital rules that gave preferential capital requirements to housing debt if LVR was kept at 80%.

Another so-called “innovation” was the deposit bond, which enabled buyers to buy a deposit bond for the house deposit for a few hundred dollars instead of forking out the full 10% deposit on a house purchase. These too were abused and people with few assets were able to put down deposits on properties. Deposit bonds are genuinely useful in isolated circumstances but were abused in the housing boom.

Uniqueness to Australia:

This process was not unique to Australia. But in Australia it did not get to the extreme silly levels that were experienced at the height of the sub-prime housing finance boom in the US

In Australia there were a few isolated sub-prime (or “non-conforming”) lenders that emerged but quickly vanished in the bust. In stark contrast, in hundreds of cities all across the US there are vast wastelands of empty houses once occupied but now mostly deserted by NINJA borrowers who were lured into mortgages they never had any hope of repaying. In Australia there only small isolated pockets.

Outlook:

The extra money available due to the shift from 80% LVRs to 90% and 95% fed directly into the growth in house prices in Australia over the past two decades. This was a permanent shift but will not continue on the same path at the same rate, so is unlikely to contribute to further rises in property prices in the future.

Government policies encouraging home ownership

[Conclusion: Not a major contributor to past house price rises – current level sustainable]

Federal and state governments in Australia have offered a number of encouragements to home ownership, including the following:

- Post-war service loans to more than 100,000 returned serviced personnel
- Exemption on taxes on capital gains on the family home
- Negative gearing allowed for investment properties
- Rent Assistance – paid by the Commonwealth to renters in private rental market. There are only 2 million households who rent in Australia²⁸ and nearly 1 million renting households receive taxpayer funded rental assistance subsidies – on top of other welfare payments²⁹. This extraordinarily widespread subsidisation is passed straight on to the landlords and artificially boosts rental yields, which in turn artificially raises rental property prices.
- Government grants and subsidies – for example the Commonwealth First Home Owner Grant of which was introduced in July 2000 (and was temporarily doubled for existing homes and tripled for new homes during the GFC to stimulate activity); and various State government stamp duty concessions to first home buyers. Putting extra cash into the hands of buyers simply pushes up the prices first homes, but has little effect on the overall market, as first home buyers generally constitute only about 15% of home purchases.
- Capital gains tax discount for introduced for assets held for more than one year in 1999 – although this applies to all investment assets, since Australians regard property as their main form of investment, it did more to boost property values than it did to other types of investment, although it did also help fuel the last frenzied stages of the dot-com boom in 1999-2000.

Uniqueness to Australia:

Other countries also have similar policies:

- The UK and most European countries offered housing incentives in their post-war reconstructions
- Most OECD countries exempt the family home from capital gains tax
- Most OECD countries (except UK) allow negative gearing
- Western and Northern European countries generally have much more generous welfare programs than those in Australia
- In addition several other countries allow tax deductibility of mortgage interest on the family home, which is not allowed in Australia - the US, UK (up until 2000), France, Germany, Italy and Sweden

Outlook:

The introduction of the First Home Buyers Grant in 2000 was certainly a factor which helped kick-start the housing boom in 2000 in Australia, and the temporarily doubling and tripling of the grant caused an artificial rush of blood to the heads of first home buyers who were lured into mortgages at artificially low rates during the GFC hand-out frenzy. Thankfully this artificial boom at the bottom end of the market is now over.

In the future, there is unlikely to be a major shift in policies designed to support house purchases. Young families are a declining segment of the voting power and are not likely to get more attention from politicians in the future.

Population growth

[Conclusion: Major contributor to past price growth – path sustainable]

Rapid population growth is one of the key factors that have driven rising demand for housing in Australia, and it has been one of the main reasons why housing price growth has been higher in Australia than in other countries.

Australia, Canada and NZ stand out as having the fastest growing populations in the developed world. Since the 1960s Australia pulled ahead of Canada in population growth rate, and since the 1980s it pulled ahead of New Zealand³⁰.

Figure 30

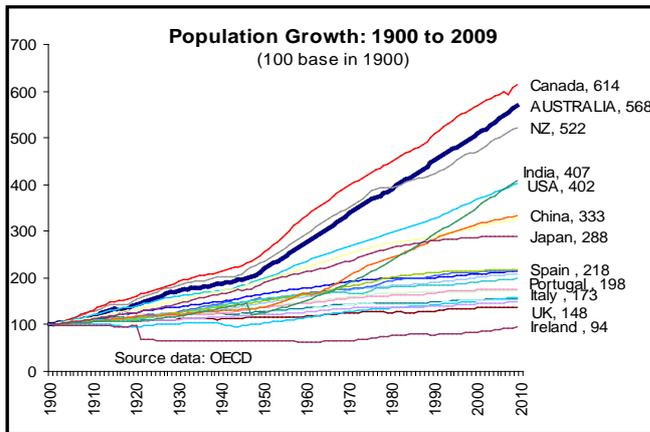
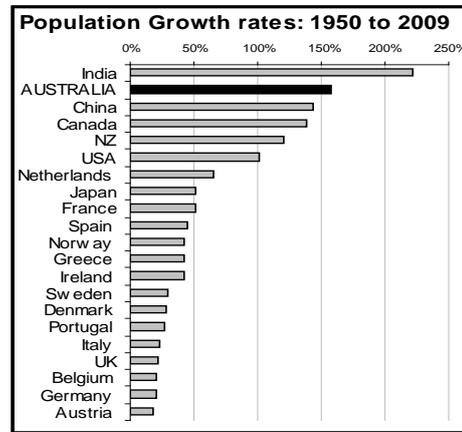


Figure 31



At the other end of the scale, countries like Spain, Portugal, UK and Ireland – all of which experienced rapid property booms in the 2000s and are now facing severe collapses – have all had very slow population growth rates. Their property booms were not supported by demand from underlying population growth.

Although net immigration has been the dominant force in Australia's population growth since European settlement in 1788, immigration levels tend to oscillate widely, and this cyclical pattern of immigration levels causes housing booms and busts to be more pronounced.

Net immigration levels fall in recessions as migrants are put off by high unemployment, and unions pressure government to protect local jobs by cutting immigration. The decline in migrant numbers

exacerbates the housing over-supply built during booms, and this further depresses prices in recessions.

As the economy recovers from recessions and unemployment levels fall, immigration numbers are increased and this, along with low interest rates following recessions, fuels the next housing boom. More about housing booms and busts a little later.

Outlook:

Australia's relatively high population growth rate shows no sign of slowing. There is no reason to suspect that the current population growth trend will not continue, and it will continue to support steady rising demand for housing.

Population concentration

[Conclusion: Major contributor to past price growth – path not necessarily sustainable – level sustainable]

Sparseness

Despite having the fastest population growth of any developed country, Australia is still the most sparsely populated country in the world. It houses just 0.3% of the world's population (about 1/300th) but it occupies 5.5% (1/18th) of the earth's land surface. It is true that much of Australia is uninhabitable - only 6% of the land area is arable. However this is similar to many other countries. For example, only 3% of Norway is arable, only 5% of Canada, 6% of NZ, 7% of Russia, Sweden and Brazil, 11% of China, 12% of Japan and 19% of the US³¹. So Australia is certainly not alone in having the vast majority of its land area unsuitable for habitation.

The following tables show population density measured as total population divided by the total land area (left chart) and also divided by the amount of arable land in each country (right chart). Australia has the lowest population density on both measures, so the sparseness of our population is not explained by the fact that we have large areas of desert and uninhabitable scrublands³².

Figure 32

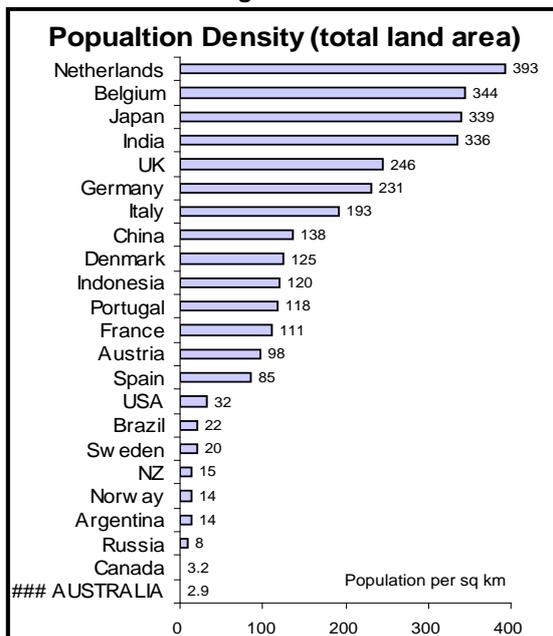
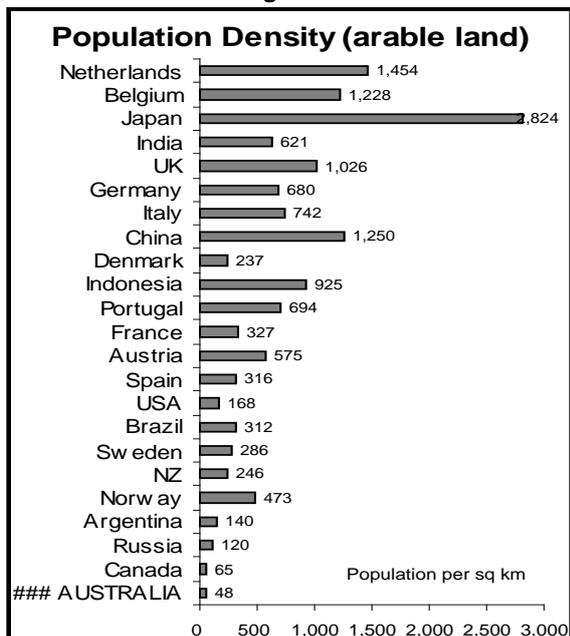


Figure 33



Urbanisation

Being so far from Europe, Australia was the last great territory to be conquered and colonized by Europeans. Its relatively small population is huddled into a small number of cities around the edges, making it the one of the most urbanized populations in the world³³. The degree of urbanization has been rising steadily over the past 150 years³⁴.

This process of urbanisation in Australia has not come about by people moving from rural areas to the cities (as is the case for example with China over the past 30 years). In Australia the cities have grown at a cracking pace while the rural population has remained virtually static. Since Federation, the total population of Australia has grown six-fold, but the rural population has remained almost the same. Virtually all of the growth has been in the coastal cities.

Figure 34

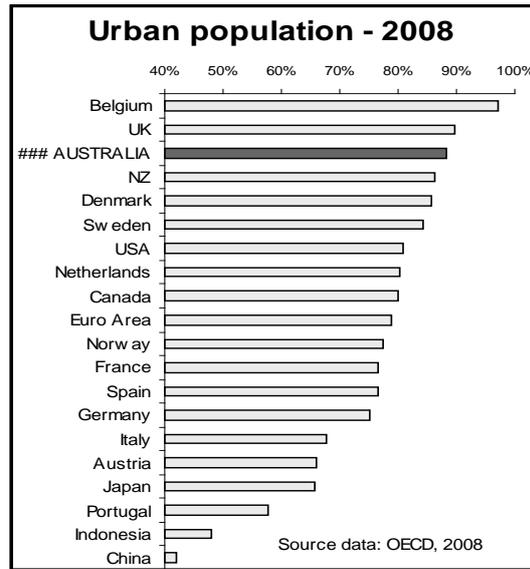
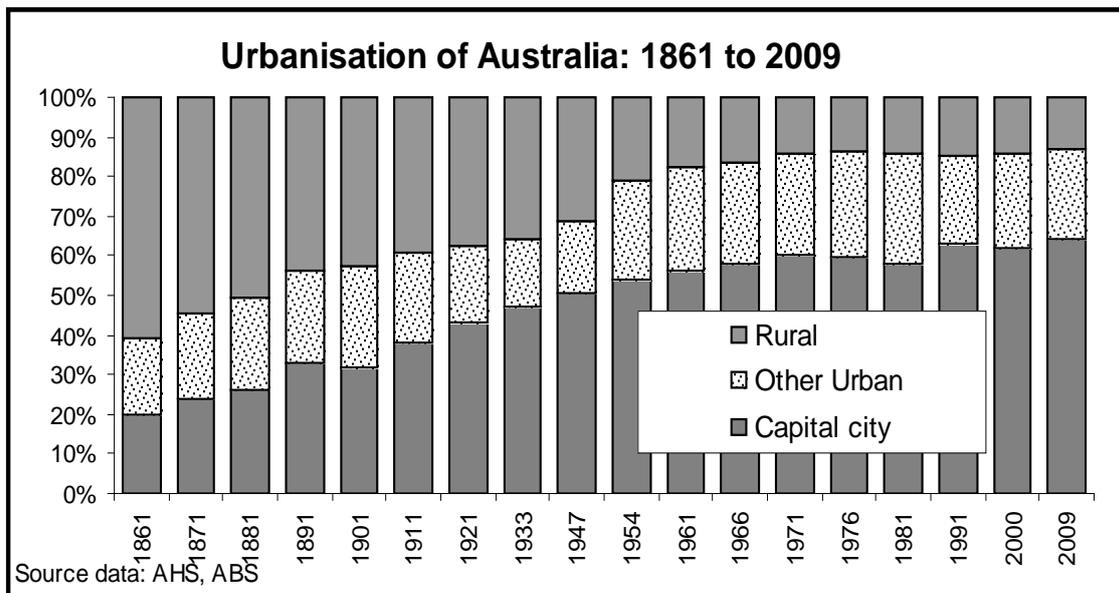


Figure 35



Concentration

Not only is Australia one of the most urbanised populations in the world, it is also the most concentrated. Most other developed countries are also highly urbanised, but the populations of other countries are spread across numerous cities.

In Australia, 39% of the population lives in just the 2 largest cities, 52% live in the 3 largest cities, and 72% live in the 10 largest cities, with the rest spread out across vast open spaces. No other country has this pattern of extreme concentration in a small number of isolated cities, and this is one of the key differentiating factors driving land prices in Australian cities compared to other countries.

Canada comes close to the Australian pattern. It is nearly as sparsely populated as Australia, it is nearly as highly urbanised, it has a population growth rate nearly as high as in Australia, but the Canadians are spread over more cities than in Australia. 26% of Canadians live in the largest 2 cities (Toronto and Montreal), compared to 39% in Australia. 32% of Canadians live in the 3 largest cities (Toronto, Montreal and Vancouver), compared to 52% in Australia, and 49% live in the largest 10 cities, compared to 72% in Australia.

Also adding to the dispersion of population of Canada is the fact that most of the provinces have their political and economic power split between two or more cities (Alberta, Saskatchewan, Nova Scotia, British Columbia, New Brunswick, and Quebec), whereas in Australia the political and economic capital of each State is concentrated in the one dominant city per state. (The US has a similar pattern of economic and political centres being split in many states).

New Zealand comes next after Australia and Canada in its degree of population concentration in isolated cities, followed Norway, Sweden and Russia, but the Australian pattern is the most extreme.

In contrast, countries that appear to have their populations concentrated in a single large city are in fact not nearly as highly concentrated as in Australia. For example, Britain has one large city - London. The Greater London Urban Area houses 8.3 million people, but this is only 14% of the total national population of 60 million (in contrast, Sydney houses 21% of Australians). In the UK the largest three urban areas - London, West Midlands (which includes Birmingham, Wolverhampton, Dudley and Walsall), and Greater Manchester (including Salford, Bolton, Stockport, Oldham, Rochdale, Bury and Wilmslow) - together house only 29% of the national total, compared to 52% in Australia. And the largest 10 urban areas in Britain house only 32% of the total, compared to 72% in Australia.

France is similar. Paris is the single largest city, with a total greater Paris urban population of 11.8 million, but this is only 19% of the national total. The largest three urban areas - Paris, Lyon and Marseille - together house only 25% of the total, and the largest 10 urban areas house just 35%.

The rest of Europe is much more spread out than even Britain and France, with the landscape resembling a dense patchwork of large, medium and small urban areas all relatively short distances from each other.

The US follows this European pattern. The greater New York-Lower New Jersey-Long Island urban area has 22 million people (just 7% of the US total), and the largest 3 urban areas - New York-Lower New Jersey-Long Island, greater Los Angeles (17 million) and Chicago-Gary-Kenosha (9 million) - together house only 16% of the total US population.

The US has 50 urban areas with more than 1 million people³⁵, but the great bulk of the total US population is spread out in 209 cities with between 100,000 and 1 million (that's 209 Wollongong's) and 1,007 towns with populations of between 25,000 and 100,000 (that's 1,007 Wagga Wagga's). All of that plus the big cities still only accounts for 70% of the population, with the other 30% spread even more thinly in thousands of smaller towns scattered all across the US.³⁶

The Australian pattern of population concentration in a small number of very isolated, relatively large and growing cities is the most extreme in the world, and this has been a major factor in driving the seemingly high growth rate in housing prices in Australia. How did this pattern develop in Australia and how has it affected house prices?

In the 222 years since European colonization began, Australia has been (and still is) a relatively young nation with a tiny population heavily reliant on foreign capital for investment in infrastructure & industry. Given the limited available capital and vast distances between population centres, the capital investment in infrastructure and industry has been concentrated almost entirely within the original “old” cities, where capital could be used more efficiently. Infrastructure requires scale and that has driven the concentration of growth in the existing cities.

The following charts illustrate the relative inefficiency of infrastructure in Australia – using road³⁷ and rail networks³⁸ as examples.

Figure 36

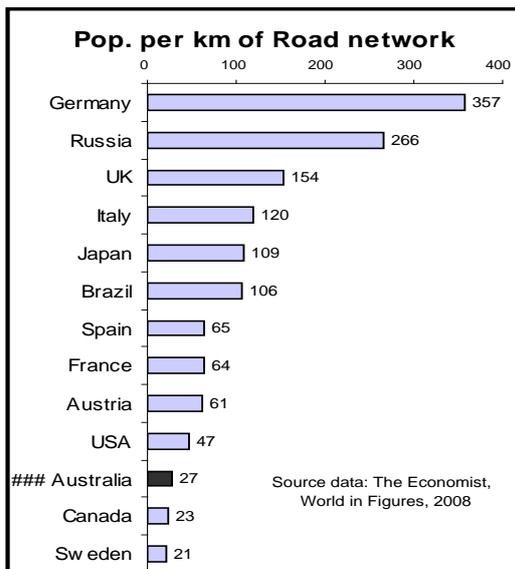
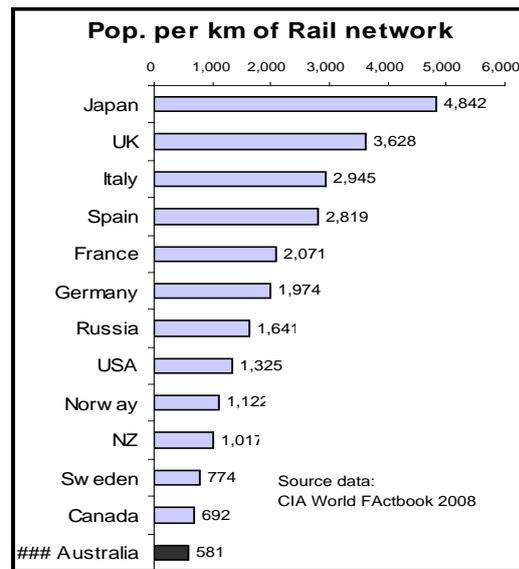


Figure 37



Anybody who has traveled around other countries and compares that experience with traveling around Australia sees instantly that virtually all of Australia’s transport infrastructure is concentrated in the cities. The links between our big cities are little more than dusty goat tracks, despite billions of dollars spent over several decades. The distances are vast and the capital is limited, so the money is much better spent in the cities where it is more efficiently utilized.

With the vast bulk of Australia’s population growth coming from immigration, mostly work-ready immigrants with families, migrants head straight for the main cities because that is where the infrastructure and the work has been. Over the years, various state and federal governments have made several attempts to artificially support regional centres with government departments being moved arbitrarily to lower cost towns outside the main cities, but these efforts have had limited success. The existing cities continue to grow and the degree of concentration continues to increase.

Impact on “Median” prices

In countries other than Australia (and apart from small city-states like Singapore and Hong Kong), the “median” house is not in one of the two or three biggest cities, it is in one of the numerous small cities and towns dotted across the country. This is one reason why median house prices in the US, UK, Germany, France, Italy, etc, appear low compared to those in Australia. The highest values are in the big cities and the median house in Australia is in the big cities, unlike in any other country. Because of Australia’s extreme concentration of population into the big capital cities, the “median” house

effectively means a house in Sydney, Melbourne or Brisbane, because more than half the population lives there.

For this reason, comparing the median house price in Australia to a median house price in say the US is meaningless. In the US, the “median” house would be in a town with a population of just 80,000 people, because 50% of the population lives in towns larger than this and 50% live in towns smaller³⁹. So, the price of a “median” house in the US would be like a median house in say Ballarat, Bendigo, Bernie-Devonport or Mackay. Comparing that to a median house price in Australia’s biggest cities is like comparing apples and oranges.

The US median price of an existing single family home in metropolitan areas across the US at the end of 2009 was \$172k (USD)⁴⁰. This sounds extremely low by Australian standards, but this is mainly because this was the median across 160 metropolitan areas. A better comparison would be the median house price in the greater urban area of New York-Lower New Jersey-Long Island (population: 22 million, the same as the whole of Australia). The median house prices across this huge urban area was USD \$381k, which is very similar to the median price in Sydney-Melbourne-Brisbane of AUD \$456k for the same period⁴¹. At the current AUD:USD exchange rate of around 0.83 cents, the prices are actually the same. At a relative purchase price parity exchange rate, Australian prices are 15-20% lower than US prices.

The key difference is that in the US the median house is out in the patchwork of hundreds of urban areas dotted across the country, whereas in Australia the median house is in Sydney, Melbourne or Brisbane. Similarly, in the UK the “median” house would be in a town with a population of around 250,000 people, about the size of Wollongong. The same is true for most other developed countries.

Comparing city house prices

Since Australian house prices are really Australian big *city* house prices, they should be compared to other big city house prices. Australia’s most expensive city, Sydney, never makes it anywhere the top of the list of the world’s most expensive cities. Although various indexes use different measures and methods, the most expensive cities are generally Tokyo, Osaka, Moscow, Beijing, Manhattan, Geneva, Hong Kong, Mumbai, Chennai, and the like.⁴² For example in the Numbeo 2010 ranking of house prices measured on the basis of the ratio of average prices to average incomes,⁴³ some highlights are:

- Sydney ranks as the 76th most expensive city, with average prices at 6.7 times average income
- Melbourne comes in at 89th most expensive city, with average prices at 5.3 times average incomes
- The most expensive measured by average prices to average incomes is Chennai, where house prices are an incredible 61 times average incomes
- there are 12 cities where house prices are more than 20 times average incomes (including Beijing, Shanghai, Moscow, Kiev, Minsk, Hyderabad, Bucharest and others),
- and another 43 cities where house price are more than 10 times average incomes (including Delhi, Mumbai, Warsaw, Madrid, Barcelona, Lisbon, Athens, Bangkok, Prague, Singapore, Milan, Mexico City, Buenos Aires, Paris, London and dozens of others)

Outlook:

The extreme concentration of the Australian population in a small number of large, isolated, diversified cities is likely to continue for the foreseeable future. The overall population is set to continue to grow, driven by high levels of immigration. Agriculture and mining are likely to continue to benefit from growing global demand and urbanization of China, India and other emerging markets, but most of the employment growth is still likely to be in the in service-based industries in the existing large cities.

One change that will probably occur is a continued shift to from free-standing houses on blocks of land to smaller blocks of land and more flats. While this will bring the published median price of dwellings down, it will increase the price per metre of existing land close to the centre of the cities and close to centres of employment, beaches, etc.

Mobility

One of the defining characteristics of land is its permanence – it is fixed, it is un-movable. This lack of portability can be a positive or a negative, depending on the supply and demand for land in that particular location at that particular time.

Since Australia's population is the sparsest in the world, if it had an even population distribution pattern, supply would be virtually unlimited, and land prices would be very low. But, because of the unique Australian population pattern, the lack of portability of land has come to be seen as a desirable attribute that makes land valuable. In most other cities and towns in the world, and throughout most of human history, the lack of portability of land has often been more of a liability than an asset.

Take the case of Detroit. In the depths of the sub-prime crisis in March 2009, US BusinessWeek magazine announced:

“The median home in Detroit fell 39% to \$7,000 in January compared to a year earlier. Yes, it's cheaper now to buy a house in the Motor City than it is to buy a car.”⁴⁴

This was the median for the central city area, but houses in the suburbs were a more reasonable \$30,000. These were extraordinary falls from the median price for established single family homes in Detroit of \$140,000 in 2007⁴⁵. There was clearly something going on here over and above the sub-prime crises. Houses across the US were down an average of 23% since 2007, but the catastrophic house price falls in Detroit indicated something else may be the cause.

In its heyday in the 1950s and 1960s, Detroit was the epicenter of two great world-leading industries, car manufacturing and the Motown music industry, and it was a thriving, energetic city of 2 million people. Within 20 years the Motown music industry had moved to Los Angeles and within another 20 years Detroit's leadership in car manufacturing had been lost to German, Japanese and then South Korean car-makers. American-owned car and parts factories in the rust-belt states like Michigan, Illinois, Ohio and Wisconsin were closed down and new Japanese-owned factories opened up in the southern sun-belt states. Now the population of Detroit is just 900,000 and the unemployment rate is 20%.

There is nothing unusual about a city with declining populations and jobs. Cities rise and cities fall when things change – technological innovation changes industries, competition from better or cheaper producers steal markets, weather patterns change agriculture, rivers change course.

Figure 38

Although in aggregate the total US population and total economy have been growing at a healthy pace (although neither growth rate is as high as in Australia), the US population has been very mobile internally. The populations of numerous once great cities (including those on the list in Figure 38), and countless smaller cities and towns have declined as industry patterns change and people simply move on to find jobs elsewhere.

Big US cities shrinking	Population decline 1950-2000⁴⁶
St Louis	- 60%
Cleveland	- 48%
Detroit	- 49%
Baltimore	- 31%
Washington DC	- 29%
Minneapolis	- 27%
Philadelphia	- 27%
Boston	- 26%
Chicago	- 26%
New Orleans (even before Hurricane Katrina)	- 15%

There is no lifetime dole in the US as there effectively is in Australia, and in US labour law there is no general requirement to show cause for dismissal - employers can simply put off workers when they are no longer required by the business. In most US states, mortgages are “non-recourse”, meaning borrowers can simply hand the house keys back to the lender and walk away from their loans if the house is worth less than the mortgage balance, with no personal liability for any shortfall. As a result of these policies, the population in the US is much more mobile than it is in Australia. ⁴⁷

The non-portability of the land under their houses means that land is not an asset with a lasting value of any certainty. Declining populations mean lower house prices. People take whatever price they can get for the house, take the loss on the chin, and move on, leaving the mortgage lender with the loss.

The lender doesn't mind – the local bank and mortgage broker got their sales commissions when the loan was originally sold to the borrower, and the loan itself has long since been packaged up and sold (AAA rated of course!) by a Wall Street investment bank to some unsuspecting investor in some retirement fund probably on the other side of the world. That's the American way, and it's why they have banking crises regularly.

This pattern of migration of industries and populations is as old as humanity itself. For thousands of years industries have emerged and then declined as circumstances changed. Towns, cities and even whole civilizations emerge and then drift away as circumstances and conditions change.

When the industry and employment moves on, people pick up their belongings and leave their houses behind. They can't take the land with them. It may be permanent but it is not portable and so it is not an “asset” with any lasting value to the “owner”. The land only has a real value for as long as the local economy can support enough people to want to exchange the land for other items of perceived value.

The first great cities were in Mesopotamia when the rich soils around the banks of the Tigris and Euphrates supported vast farmlands of domesticated crops and livestock. Cities sprang up as the centres of commerce and trade around the new agricultural industries. But weather patterns changed and cities were abandoned. The once “fertile crescent” is now a desert dust-bowl.

This endless pattern of wave after wave of human migration has been going on since humans were hunter-gatherers, and has remained the case through the agrarian, industrial and now post-industrial eras.

Virtually every part of the inhabited world has been occupied by wave after wave of human migration, each displacing the last (and probably this has also occurred in pre-European Aboriginal societies as well). Sometimes the cities and towns were abandoned when weather patterns changed, or when new competitors took the markets for their wares, and other times it was due to famine, disease or through invasion by foreigners. In each case, when the cities were abandoned the inhabitants couldn't take their land with them. Lack of portability was a liability. It certainly wasn't an asset with any lasting value to the “owner”.

The US is not alone or unusual in seeing many of its major cities decline in population over just a generation. It is normal. It is inevitable.

The population of Greater London has fallen 13% from its peak in 1939⁴⁸, Paris is down 27% from its peak in 1921⁴⁹, and this has been the pattern for major cities throughout the developed world in the post-industrial era⁵⁰. It is in the developing world where the growth in big cities has been in the past 50 years.

Japan is an interesting case. Due to the extreme population density across the whole country. Very little value is placed on the buildings themselves in Japan because the first thing almost all Japanese purchasers of existing houses do is bulldoze the house and build a new one. It's a cultural factor which, when combined with the extremely high population density over very limited habitable land in Japan, has contributed to very high land prices in the past. This drove the property price boom in the 1980s, and prices have been falling in Japan ever since the bubble burst in 1990.

Australia's growth pattern

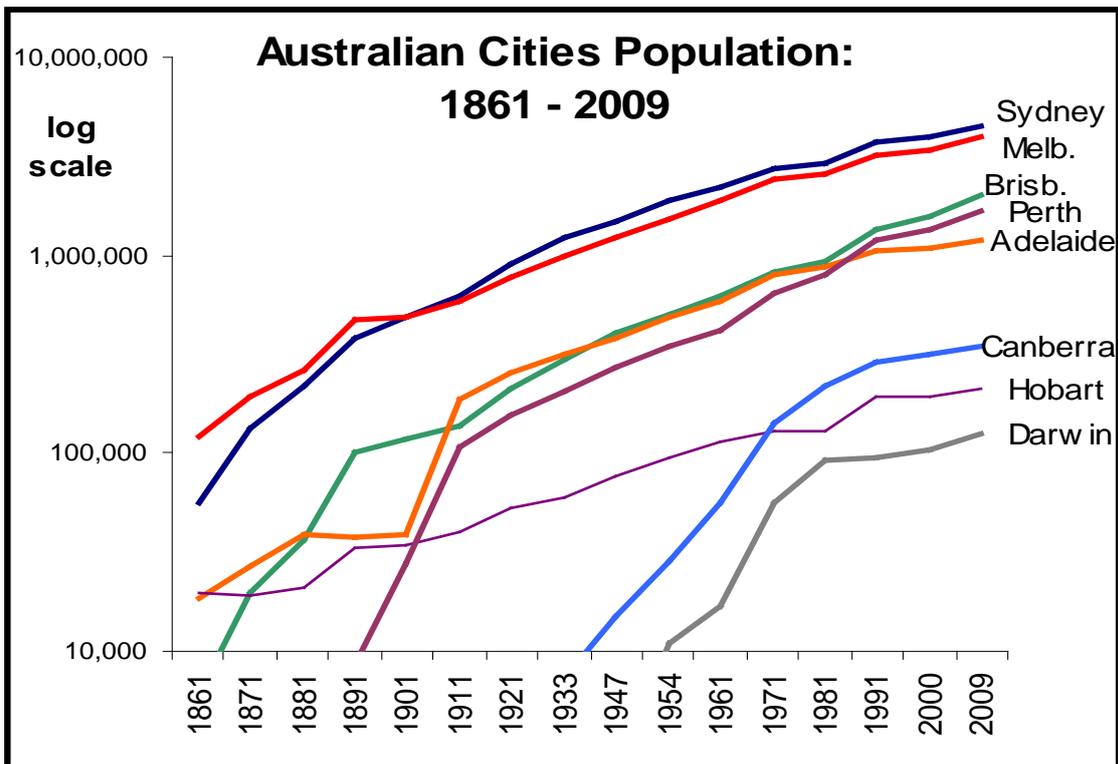
Due to the unique way that Australia has grown over the past couple of centuries, we have had no Detroit, St Louis, Cleveland or Baltimore. Australia developed primarily as a loose collection of concentrated but very isolated cities – isolated not only from each other but from the rest of the world. Due to their isolation and the need for self-sufficiency, these cities developed into relatively self-contained economies, each having a very broad economic and industrial base of its own. While agriculture and mining continue to prosper in Australia, both are now largely mechanised and require very little labour, compared to a century ago. Most of Australia's employment growth over the past century has been in manufacturing and now in services.

Manufacturing was centered in the large cities and thrived, shielded from competition behind high protection barriers until the 1980s. Since the Second World War, service industries took over as the main engine of growth and employment – once again centred in the capital cities, because that's where the customers are. As a result, Australia has no cities dependent on just one or two industries. There are no big “oil cities”, no “auto cities”, no “shipping cities”, etc that have decayed and declined

because of adverse forces like the weather, low cost manufacturing, or changes in technology or energy sources, etc.

There are only a handful of cities in Australia and they have only known continuous growth, despite the tremendous changes in technology, communications, industry, society, over their relatively short histories⁵¹:

Figure 39



Structural shifts:

Despite the overall rise in population of the large cities and of the overall national total, there have been several major changes in industry and employment structure in Australia. For example:

- In the 1850s there was a rush to the new inland goldfields, and there have since been regular mining booms that have spawned whole new towns all over the country. However, mining remains a very small part of the Australian economy – even in the current mining “boom”, mining contributes just 7% of national income and just 1.6% of total employment⁵².
- Structural industry changes caused dramatic changes in the former “steel cities” of Newcastle and Wollongong but, due to their close proximity to Sydney, they have become popular university, residential, recreational and retirement areas for a growing Sydney, and they have also benefited from the recent boom in the coal market. They have escaped becoming Detroit.
- In most rural areas there is a continuing long term shift from small towns to major regional centres – like Dubbo and Bathurst in NSW, Ballarat and Bendigo in Victoria, Townsville and Toowoomba in Queensland, Mount Gambia in SA and Kalgoorlie/Boulder in WA. The major regional towns are drawing people away from the smaller towns surrounding them. Prices suffer

in the small towns and rise in the growing regional centres. But the impact is miniscule on national house price indexes because of the dominance of the big cities in the overall numbers.

- There also is a continuing shift of retired and semi-retired people to coastal areas, but mostly this merely extends the capital city urban areas up and down the coast and into the hills, rather than building new cities.

All of these shifts are very minor relative to the big theme and that is the continuing growth of Australia's big cities – primarily due to immigration.

Being new to this land, modern Australians have come to know only one thing – a linear path of continuous growth and stability. It runs against the tide of human history but we have come to view it as “normal”, inevitable, unstoppable.

It is ironic that many immigrants who came to Australia know first hand that land has little lasting value, because they came here fleeing wars in Europe, the Middle East and Asia, leaving their land and homes behind, confiscated, invaded, destroyed or simply abandoned. They know that the value of land is fleeting, but they have made their new home in Australia – far from their war-torn past. They have now bought into the Australian dream of constant, inevitable and unstoppable growth forever.

Housing as an “asset class”

This unique aspect of Australia's economic and demographic landscape may help explain Australians' unique view of property as being “safe as houses”. What they really mean is “safe as land”, since the building component is clearly not an asset, because it always depreciates in value and needs costly and regular repairs and replacement. But the land is seen as an asset worth value.

Only in Australia is property (land) considered one of the main “asset classes” for investment. Most textbooks on finance and portfolio management are written in the US or UK and they generally establish three main asset classes for investment:– equities (company shares), bonds (fixed interest), and cash. If property gets a mention at all, it is generally included as an “Alternative asset” alongside assets like gold, hedge funds and private equity. Where property is included the focus is often on forestry or farmlands – ie land that produces useful commodities.

Property is not considered a major investment asset by the rest of the world because the weight of human history has demonstrated countless times that land has only fleeting and transient value, always depending on the hope that the local economy can support the inhabitants for the time being.

On the other hand, shares in a company are considered investment “assets” and are not hampered by the immobility of land. Companies can shift their operations across the country or across the world as opportunities arise and change, renting their premises where needed for as long as it suits them.

It is also the reason why in most countries the land value in a typical residential house is generally not a major component of the total value of the property. A number of US studies and house price indexes link house prices to construction costs, and there are also indexes of house prices per square foot of the house, not the land.

Both of these approaches ascribe no special value to the land. The “value” primarily is in the building, and buildings always depreciate in value unless the owners continually spend money maintaining, improving and re-building them. Land is useful only to build a house on, but it has no lasting value.

Land is difficult to hide so it is easy to tax. In the very long run, land is primarily just a “consumption good” (ie a “lifestyle” expense) – as is the building component, and not a long term investment asset.

In Australia, because of the peculiar and almost unique pattern of population concentration in large isolated self-contained diversified cities, the great majority of houses are in the capital cities (and more than half are in the big three), and most of the perceived value of the properties are in the land value.

Every weekend all across Australia there are properties sold as vacant building blocks lots (or blocks with derelict shacks on them) at similar prices to identical blocks of land nearby with a house on it. Australians have come to believe that the real value is in the land, not on the building. This happens of course in other highly concentrated areas like the centre of great cities like London, Paris, New York, etc but that is not the national norm for those countries, they are the exceptions. In Australia’s large cities it is the norm simply because most of the population live in the big cities and the concentration of demand gives value to the land in the big cities.

In most other countries, investing in property is a very risky business – you have to be very careful to study the long term potential for the supply and demand outlooks for the particular city you are considering, and it is very easy to get it wrong, because long term growth can never be assumed. But in Australia the pattern has been that all cities have grown in pretty much a straight line for a century, which is very unusual for most countries, so property has become regarded as a “sure thing” regardless of what city you invest in.

Australians in all cities have come to view housing (land) as a great investment because it has been a great investment so far in its short history to date, and in particular, land close to the centre of the cities where demand is greatest.

Outlook:

Land has value as long as the local economy stays where it is. The forces that gave rise to the relative immobility of Australian industry and society are slowly unwinding. Home ownership rates are slowly declining with changing demographics, noted above. Labour laws are being made more flexible, careers are much more fluid, and industries are less protected. When tariff barriers were reduced in the 1980s and 1990s they were largely replaced by more subtle and less visible forms of subsidies and hand-outs. These too are becoming unsustainable.

Manufacturing jobs will continue to be lost to the lower cost manufacturing economies of China, followed by Vietnam and Indonesia, and others. Service jobs will also continue to be lost to the lower cost service economies of India, followed by the Philippines and others.

Australia has several small one-industry towns that sprang up around mines or ports. They die just as quickly when the particular mine or natural resource is depleted. Often investors are lured into buying houses in these towns by high rental yields, and are then shocked when values collapse when the economic activity and people move on and leave their homes behind. These instances are very minor in the scheme of things and do not affect national or even state-based median values, as they do in the US and other countries.

Among the bigger cities, the only two potential Detroits on the horizon for Australia are possibly Adelaide, Hobart and Canberra. Their diversification of industries and employment is not as broad as in the big three cities (Sydney, Melbourne and Brisbane-Gold Coast), and they don’t have the growth

industries that Perth and Darwin are currently enjoying. (I have lived in Adelaide and Hobart for four years each and in Canberra for three years. Adelaide and Hobart are fascinating places. Canberra is, well – just Canberra).

So far the approach has been for governments in Australia to subsidize existing industries and their workers and ex-workers, and hope that another new industry comes along to replace old ones without people having to move. This is fighting against the tide of human history and eventually tax-payers will run out of either money or patience. People have to go out and seek new opportunities. Opportunities don't go searching for people who are sitting waiting for them.

Boom and bust cycles

The above analysis looks at some of the longer term or structural themes shaping housing prices. We are now in the middle of one of the regular short term housing cycles, so we need to assess where we are in the current cycle.

There will always be housing boom and bust cycles, as there are with most other types of assets that are bought and sold. What makes property booms and busts more pronounced is the element of debt.

Property booms are usually fuelled by low interest rates, lack of supply and/or excess demand from immigration or due to other policy initiatives designed to stimulate economic activity, often in the wake of stock market collapses or general recessions. The booms are usually brought to an end by high interest rates or other forms of credit restrictions, along with excess supply and/or declining demand.

The rising and falling phases are generally exacerbated by human psychological factors – on the part of buyers and lenders alike. Buyers rush in when they see that money is cheap and prices are rising, which pushes prices up further. When interest rates start to rise to slow the boom, lenders make larger and larger loans to borrowers of increasingly dubious credit risk for fear of losing market share. Buyers and lenders get locked into a buying frenzy, pushing the boom higher until interest rates

Finally, interest rise so far that prices start falling when people start defaulting on loans they could never afford.

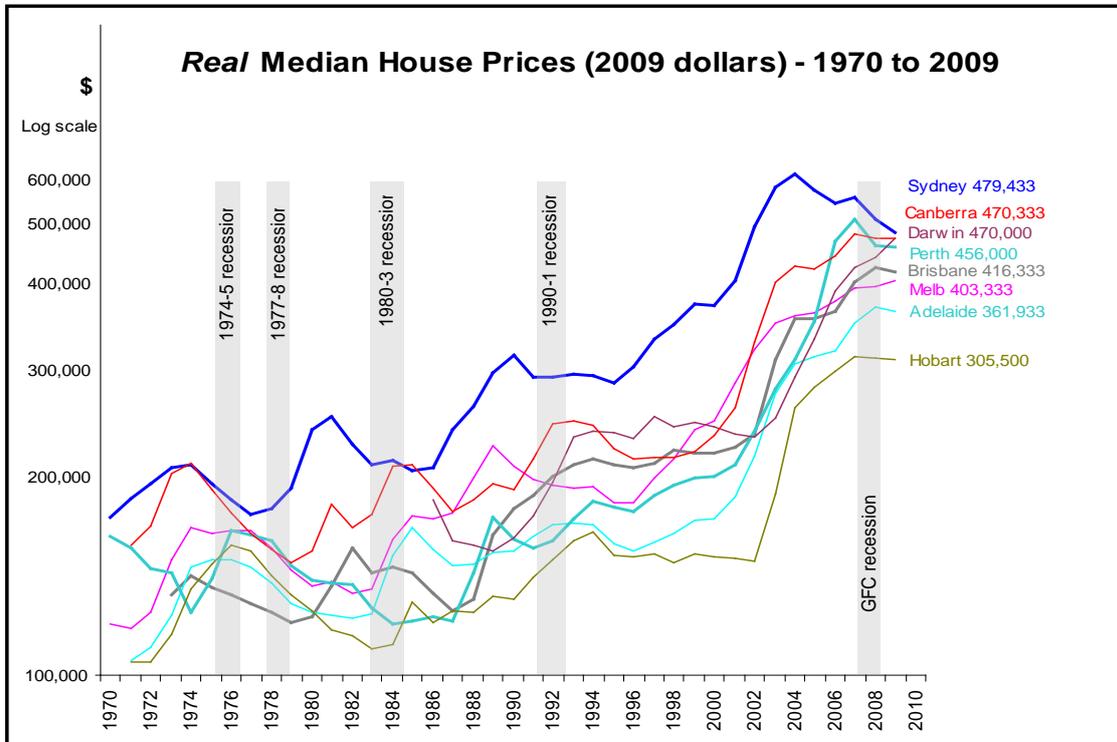
When bankers see prices falling and bad debts mounting up they start to restrict credit. They go from lending like drunken sailors in the boom to hardly lending at all – even to good credit risks. As access to credit contracts, prices fall further, which in turn triggers more breaches of loan-to-value ratios, and the resultant forced sales pushes prices down further in a downward spiral. Finally there comes a point when prices become so cheap and interest rates get so low that bargain hunters emerge, which starts the whole process again in the next cycle.

This process of boom and bust is inevitable because it is based on natural human instincts.

It is very similar to the pattern with stock market booms and busts, except with property it is almost all done with borrowed money and the sizes of the home loans are many times larger than the average margin loan with shares, and the gearing ratios are much higher. People are gambling with their homes and so the pain is more wide-spread and the impacts on the wider economy are deeper.

Over the past 40 years there have been several residential property boom and bust cycles in Australia. The following chart shows the capital city median sale prices for established houses in real (after inflation) 2009 dollars:

Figure 40



Here is how each of the housing cycles played out:

A property boom between 1971 and 1973 was kicked off by interest rate cuts in the wake of the collapse of the mining boom which peaked at the start of 1970. The property boom primarily involved office and residential flat construction but also affected residential housing as well. The boom collapsed in 1974 as interest rates were raised from below 4% at the end of 1972 up to 9.5% by August 1974. The severe credit contraction claimed several major property developers, finance companies and even one of the licensed banks (The Bank of Adelaide – the last non state-owned bank in Australia to fold). The collapse caused a severe general recession in Australia, the worst since the 1930s depression. The boom and bust mirrored similar cycles in many other countries at the same time.

The next property boom occurred in the late 1970s, again mainly in office and residential construction, which also had flow-on effects in the housing market. High interest rates finally ended the boom. Rates went from below 8% in late 1978 right up to nearly 14% by June 1980. This caused a long and deep double-dip recession lasting until mid 1983, again coinciding with a global recession. Unemployment across Australia rose to 11%, the highest since the 1930s depression.

A property boom in late 1980s was fuelled by low interest rates following the 1987 stock market crash, and by a lack of supply caused by the temporary removal of negative gearing, and the subsequent burst of activity when it was reinstated in September 1987.

Up until this late 1980s boom, previous property booms in Australia in the 20th century were primarily focused on commercial property development, because residential lending was highly regulated⁵³. However, following deregulation of the Australian banking industry in the mid 1980s, housing also got into the act directly in the late 1980s property boom, but most of the new post-deregulation lending competition in the late 1980s was in the commercial lending, not residential lending market.

The brief but explosive late 1980s housing boom was fuelled by a burst of new buyers into the market. There was an immigration boom in the late 1980s, with net immigration running at more than 160,000 per year between 1985 and 1990, compared to just 65,000 per year between 1982 and 1985. This boom also saw the first of the baby boomers' children entering the housing market for the first time.

This property boom collapsed in 1990 due to high interest rates as the Reserve Bank raised interest rates from a "low" of 10.25% at the start of 1988 up to 18% by the end of 1989. This not only killed the housing boom, it also tipped the broad economy into another deep recession – the most recent deep recession Australia has experienced, with unemployment once again above 10%. House prices fell around 10% in real terms – mainly in Sydney and Melbourne, where most of the lending boom took place.

This collapse claimed the State Banks of every state (except Qld which wisely didn't have a state bank), all of which failed under the weight of bad debts from bad lending in the boom.

Another property boom started in 2000-1, kicked off by the introduction of the Commonwealth First Home Owner's Grant scheme, and fuelled by low interest rates in the wake of the stock market ("dot-com") collapse in 2000. The housing boom came to an end in 2004 when interest rates rose from a low of 4.25% at the end of 2001 up to 5.25% by the end of 2003, and when credit contracted with the collapse of several major finance companies and mortgage funds. This time interest rates did not get up to anywhere near the previous high levels preceding previous recessions, and the economy did not fall into recession. A soft landing, finally!

The housing boom resumed in 2005-8 in all cities except Sydney (where median prices have remained flat ever since), fuelled by a chronic shortage of supply and continued high levels of immigration, with interest rates still relatively low by historical standards for Australia. The boom came to a rapid halt when great US sub-prime crisis caused the global credit markets to contract – this time severely. Still, the RBA kept raising interest rates all the way through the early stages of the sub-prime crisis until March 2008.

When the GFC struck, banking systems across the world were bailed out by governments in order to keep them functioning – including in Australia, where the government effectively guaranteed the debts of all banks operating in Australia, including foreign banks. In many other countries, governments had to buy up (nationalize) numerous banks, partially or fully.

The following chart shows the median prices in the 8 capital cities since 2002. Prices are quarterly nominal (actual) median prices:⁵⁴

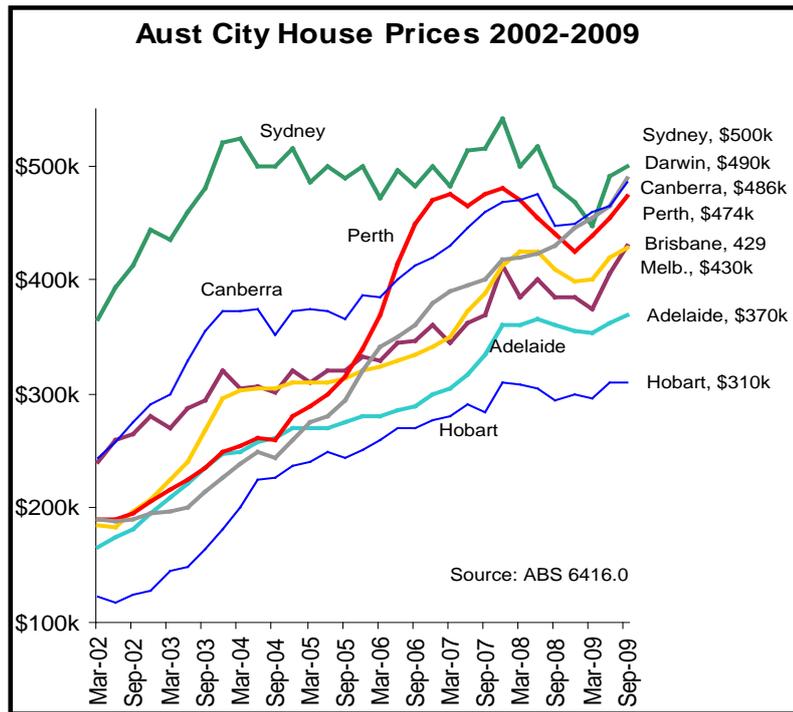
Figure 41

The big movers have been Perth and Darwin which have seen most of the income gains from the recent boom in mining and energy.

Credit rationing is still going on in Australia as banks hoard capital in preparation of global tightening of global bank capital rules, and as the securitization market has still not recovered. The credit rationing in Australia is less severe than in most other developed economies because the banking

system here is essentially sound, and in any event is guaranteed by the Australian government, which is blessed with very low levels of debt.

Unlike previous bad debt crises where banks were quick to sell borrowers up and take a quick loss, this time they have the patience and the capital backing to wait it out. Even in the depths of the GFC there were very few foreclosures. We didn't have the US experience of vast wastelands of foreclosed houses on the outskirts of countless US cities.



Conclusions

Australia is a warm, isolated, largely uninhabited rock in the middle of nowhere, surrounded by thousands of kilometers of pristine, mostly deserted beaches and, beyond that, endless oceans. People have been flocking here for more than two centuries, seeking a new home far from wars, famine, persecution, depressed economies, or just cold climates on their own rocks. Having limited human and capital resources to develop and exploit its vast natural resources, it is a nation populated by people from foreign lands and built with capital from foreign lands.

Australian house prices have risen strongly and are now sitting atop a mountain of debt – and it is mostly foreign debt. The debt is real – it is real money owed to real lenders. The “value” of houses that lenders have relied upon to support and justify that level of debt, is not real – it is based on two fictions.

Part of the “value” of housing is in the buildings, but that is not an “asset” at all but a lifestyle expense. Buildings always depreciate in value as they need constant and costly repairs, maintenance and replacement.

The land component of the housing “asset” ultimately has no lasting long term value to the “owner”. Throughout human history, land has proven to be worth little or nothing to its “owners” in the long run. Nobody really “owns” land – it was here billions of years before humans arrived and it will be here billions of years after humans have disappeared. Humans only inhabit little patches of land temporarily, before moving on, leaving the land behind.

Where conditions are favourable, people stop to settle down and form villages which often grow into towns and cities. When circumstances and conditions change, the people move on. Sometimes this is by choice, sometimes by necessity, sometimes by force. The causes are many - changing weather patterns, changing course of rivers, changes in technology, depletion of energy sources and natural resources, competition for markets from new sources, civil war, disease, invasion by foreigners.

When people move on or are forced to move on they can't take the land with them, so they leave it behind and it is worth nothing to them any more. Sometimes this process takes centuries (11 million Africans were taken from Africa and sold as slaves in North and South America between the start of the 16th century and the end of the 19th century); sometimes it takes decades (as in Detroit); sometimes it takes just a few years (like the destruction and displacement of great portions of Europe and Asia in the two World Wars); sometimes it takes a few months (9 million Sikhs and Hindus fled from Pakistan to India, and 6 million Muslims fled the other way from India to Pakistan in the months leading up to independence in August 1947); and sometimes it takes just a few minutes (like in Hiroshima and Nagasaki).

This reality of the fickle and fleeting value of land is embedded deep within the psyches of the people of many nations, but Australia has been different so far. Australia was populated largely by people who were fleeing wars, famine, persecution and other strife in their own countries, and many of them abandoned their land in order to start a new life here. This is simply another phase in the inevitable and never-ending pattern of continuous human migration.

But in their new home, far from the rest of the world, modern Australians have come to know only one thing – a linear path of continuous growth and stability. It runs against the tide of human history but we have come to view growth as normal, inevitable, unstoppable.

As we are a young growing nation far from the troubles of the world, a fiction has arisen that somehow there is some value in the land we have come to live on. This fiction will continue for as long as local conditions remain favourable.

THE CURRENT POSITION

The tremendous house price growth in Australia over the 1990s and 2000s will not continue on the same upward path at the same rate in future. The rapid price growth over the past couple of decades has been due primarily to a number of one-off effects that will not be repeated – including: declining inflation, de-regulation of banking and home lending markets, freeing up of credit rationing, declining lending margins, longer loan terms and higher loan-to-value ratios - which have resulted in lower home loan interest rates and even lower mortgage payments, enabling higher levels of housing debts per dollar of household disposable income devoted to housing.

These were one-off changes that will not continue in the same direction and so will not continue to be forces driving house prices higher in the future although, as long as they remain in place, will support house prices at their current levels.

So, if the recent dramatic price rises are not going to continue on the same upward path at the same rate, are house prices sustainable at current levels?

Of the forces listed above, lower inflation is one that may reverse partially in future, flowing on into higher interest rates. Once the developed world de-leverages, which will probably take several years yet, we are then likely to face a period of structurally higher inflation and higher base interest rates. To the extent that these translate into higher home loan interest rates, this is likely to mean lower real house prices. The inflation problem has not been solved. But it is extremely unlikely that inflation will return to 15% and interest rates return to 18% as they were at various times during the 1970s and 1980s.

In addition to the one-off, non-repeatable effects of changes in inflation, deregulation, interest rates, etc, there have also been several underlying forces that are sustainable and are likely to continue to counter the impact of higher interest rates and drive higher housing prices in the future, including the following:

- Population growth – the highest in the developed world – and likely to remain that way
- Immigration – the highest levels in the developed world – which is especially potent because the majority of immigrants are work-ready adults with children. This is keeping Australia's rate of aging population and dependency rates lower than every other developed country except the US⁵⁵
- Growth in real incomes per capita – which have been the highest in the developed world over the past decade – and likely to continue growing, but not necessarily at rates higher than other developed countries

- High concentration of population in relatively few large, isolated, self-contained cities with diversified industries – the concentration is the highest in the developed world – and likely to continue in the same pattern
- Low levels of economic mobility and population mobility – due to the way the economy has developed in large isolated cities with diversified industries, and likely to continue in the same pattern. However, workforce and career structures are becoming more flexible and mobile over time and home ownership levels are likely to fall slowly, leading to higher labour mobility in future.
- High levels of foreign direct investment into housing – particularly from long term owners from Asia, which is likely to continue at perhaps an even quicker pace in the future, with the rapidly rising middle classes in several large Asian markets seeking second homes or safe havens here.

These are key differentiating factors that set Australia apart from other developed economies in driving house prices not only in recent years, but are also likely to continue to sustain high levels of price growth in the foreseeable future.

As the number of people per household continues to decline, this is likely to result in smaller physical dwelling sizes, smaller blocks of land per dwelling and a higher proportion of flats rather than free-standing houses. This is likely to reduce the published figures for “median” prices, but will actually be good for land values per metre, which is primarily what investors are interested in – especially near the centre of the existing major cities.

THE CURRENT CYCLE

The above comments relate to some of the long term structural forces affecting housing prices. We must also consider cyclical forces relating to short term impacts of the GFC. As it is today, Australian house prices are very similar or even lower than those in other major countries when compared on a like-for-like basis, even after house prices in other countries have fallen by 20-30% in the GFC.

Regardless of the level of over-pricing or under-pricing at any point in time, prices will always suffer if large numbers of borrowers can no longer make their mortgage payments. There are two things that are most relevant here: interest rates and unemployment.

Interest rates

Home loan interest rates have already risen due to the Reserve Bank’s six interest rate hikes that began in October 2009, and due to banks lifting of lending margins after competition effectively disappeared in the GFC.

On the surface this looks like a dramatic rise in mortgage payments, but in fact for most home borrowers it means little change. While interest rates were being more than halved between September 2008 and April 2009, it is usual bank practice in Australia for borrowers to leave their monthly repayments at the same level, so the recent rate rises in most cases didn’t translate into higher monthly repayments. Interest rates are still well below their peak levels in 2008 and most borrowers are still making payments at levels set when interest rates were at their peak. This means they are paying off principal faster than they had originally planned, and there is still leeway for interest rates to rise further before the actual dollar amount of repayments need to rise.

The interest rate rises since October 2009 did, however, affect new borrowers. The rate rises, together with the reduction of fiscal stimulus payments, have stopped the artificial boom in first home buyer house purchases at the bottom end of the market. This is a good thing. But first home buyers constitute a very small minority of transactions and have little impact on the rest of the market.

It is likely that interest rate rises have paused for the time being while the European debt problems are sorted out. This will take many years and the solution will not be simple or painless.

Unemployment

Unemployment levels are very low by historical standards in Australia and are on the way down further as the local economy remains relatively strong compared to the rest of the developed world.

China will slow and Europe will probably slow much further before recovering. However, exports to Europe only constitute 11% of total Australian exports (and nearly half of that is to the UK)⁵⁶ and only constitute 2% of national income.

The whole of the mining industry (which is our main export to China) employs a tiny 1.6% of the Australian workforce, and mining is the smallest employer group of the 19 main categories of industry⁵⁷. Despite the so-called mining “boom” here, employment in the entire mining industry as a share of total employment has actually been falling consistently for the past 25 years. Mining is a nice bonus from time to time for Australia but it is a miniscule employer.

Australia is less dependent on exports than almost any other country in the world – developed or developing. The value of exports as a proportion of national income is lower in Australia than any other country except the US, Japan, Pakistan, Brazil and Colombia⁵⁸. But, because our exports are predominantly raw materials (mostly rocks) that employ so few people, the reliance of our economy on exports is probably the lowest in the world, except perhaps North Korea, which is completely closed off from the world.

Even when growth in China slows it will probably not affect Australia much. Japan was the great emerging market of the 1950s, 1960s and 1970s – similar to the Chinese boom over the past decade – and since 1967 Japan has been our biggest export customer. Japan’s tremendous growth path stopped dead in its tracks when its property and share bubbles burst in 1990. The Japanese economy has been stagnant for the past 20 years, but Japan still remains our biggest coal export customer.

Even if China’s growth stopped dead at zero growth for the next 20 years, it would probably have no more affect on Australian exports than what happened with Japan in the 1990s and 2000s. China will still need to import raw materials from Australia (and has huge surpluses to pay for them), just as Japan has kept buying our coal, even though Japan stopped growing 20 years ago and its population is actually declining.

In light of all these forces, the rapid growth in Australian house prices over the past 30 years will not continue on the same rapid upward direction, but nor are they about to suddenly fall 30% or 40%, as many commentators are predicting. However real prices will fall as and when interest rates rise with rising inflation in the coming years.

Why high house prices are bad

Even if higher house prices may be sustainable in the future, this is not necessarily a desirable outcome for Australia. There are a number of disadvantages in carrying high levels of housing debt, including the following:

- Australian housing loans are primarily financed by floating rate loans, and high levels of housing debts makes householders vulnerable to changes in short term interest rates, in particular to unexpected outbreaks of inflation. It is likely that the structural decline in inflation and interest rates over the 1980s, 1990s and 2000s will soon be over and the world is likely soon to enter into a structural phase of higher inflation and interest rates once the global deleveraging process is over. However, interest rates can rise by another 2% or 3% before mortgage repayments need to rise, because most borrowers are still making payments based on the high 2008 levels and kept up repayments at those levels while interest rates were cut in the GFC. But over the long term, borrowers remain vulnerable to any structural shift to higher interest rates.
- Because Australia has always relied heavily on foreign capital, high levels of housing debts mean households are highly vulnerable to events affecting global debt markets – this is what drew Australia into the GFC, despite our relatively strong fundamentals.
- All of the four big Australian banks are highly reliant on foreign medium term debt markets and remain vulnerable to further upheavals in global credit markets. They are all now desperately shifting their focus back to collecting retail deposits in Australia. When (not if) further crises in global debt markets occur, the Australian government has shown its willingness to guarantee the banks' debts with its strong national balance sheet.
- Since the high levels of house prices are being supported by, and reliant upon, continued access to debt, house price are subject to any impacts on credit growth as result of re-regulation of banks and tightening of bank capital rules. However, whatever the changes to the rules in the coming years, housing debt is still likely to receive preferential treatment (because bankers and bank regulators still seem to believe that “house prices never fall!”)
- As household spending constitutes two thirds of national spending in Australia, high levels of housing debt and high sensitivity to interest rates have the effect of entrenching and exacerbating business cycles. Business cycles are always going to be with us, and high household debt levels make them more pronounced.
- Housing is a relatively non-productive “asset”. True, it provides employment for builders and trades-people for a few weeks at a time, but housing for most Australians has moved way beyond essential shelter, and is now largely an unnecessarily frivolous lifestyle expense. It doesn't generate export revenues or foreign exchange we need to buy all the items we import to continue our current lifestyles.
- High levels of housing debt make the workforce less mobile. We don't have the US system of walking away from non-recourse housing loans and simply handing back the keys on the way out of town. People tend to hang on grimly and stay put, which slows them from moving on to find work elsewhere.

The following table sets out the major drivers contributing to the reason why house prices are where they are now and where they are likely to be driven in the foreseeable future. These look beyond the regular business cycle impacts.

In each dimension each factor has been assessed as being either positive, neutral or negative for housing prices – in the past and in the future. Where a factor has been unique or significantly different in Australia relative to other major countries, this is shown in the shaded boxes,

Figure 42

		Likely contributions to <u>Future</u> housing prices		
		Negative ie past <i>path</i> is not sustainable and likely to reverse in future	Neutral ie past <i>path</i> is not sustainable but likely to remain at current <i>level</i>	Positive ie past <i>path</i> is sustainable and likely to continue in same direction
Contribution to <u>past</u> housing prices in recent decades	Positive	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Physical dwelling sizes</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Level of Inflation</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Bank capital rules</div> <p>Contributed to past price rises, but likely to reverse in future</p>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Bank de-regulation – looser credit stds</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Demand for investment property</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Rising real incomes per capita</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Restrictive NIMBY development rules</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Changes in lending margins</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Change in household savings rates</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Lower Loan-to-value ratios</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Growth of mortgage brokers, securitization</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Fewer people per household</div> <p>Contributed to past price rises, but neutral impact in future</p>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Population growth</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Population concentration</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Rising real incomes per capita</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Foreign investors</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Limited supply of land around the big cities</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Longer term loans</div> <p>Contributed to past price rises, and expected to continue in future</p>
	Neutral	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Preference for houses over flats</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Home ownership rates</div> <p>Neutral impact on past prices, but expected to be negative impact in future</p>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Rise of super-annuation savings</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Government support & policies</div> <p>Neutral impact in past and future</p>	<p>Didn't contribute to past price rises, but expected to drive higher prices in future</p>
	Negative	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Land size per property</div> <p>Negative impact on past prices, and expected to remain negative in future</p>	<p>Negative impact on past prices, but expected to be neutral in future</p>	<p>Negative impact on past prices, but expected to drive higher prices in future</p>

The following pages sets out summaries of the main drivers of housing prices in Australia over the past couple of decades and outlooks for the next decade:

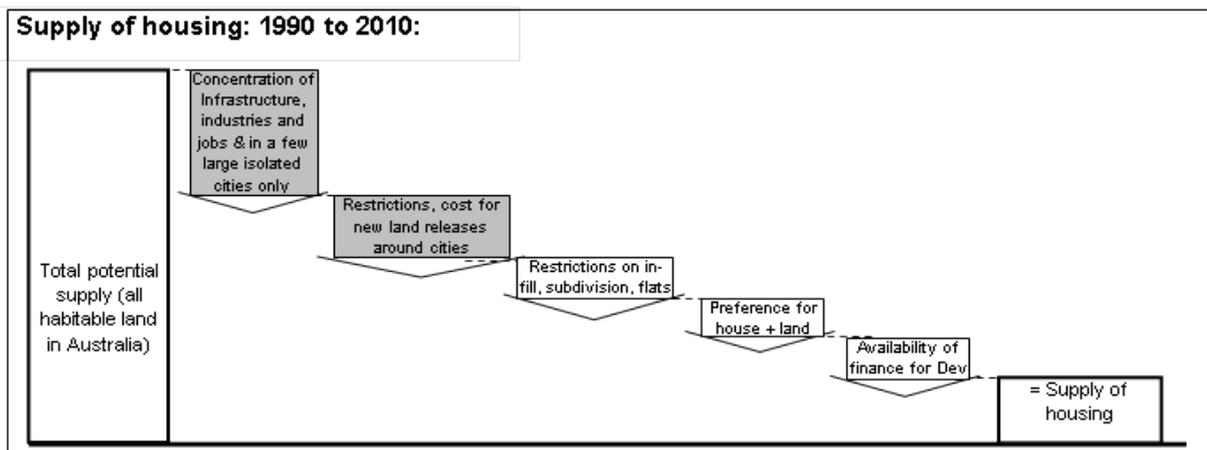
Summary and outlook for house prices

Supply of Housing

Although Australia is the most sparsely populated country in the world, it has developed into the most concentrated, with the vast majority of people living in a small number of relatively large, diversified, largely self-contained, isolated cities.

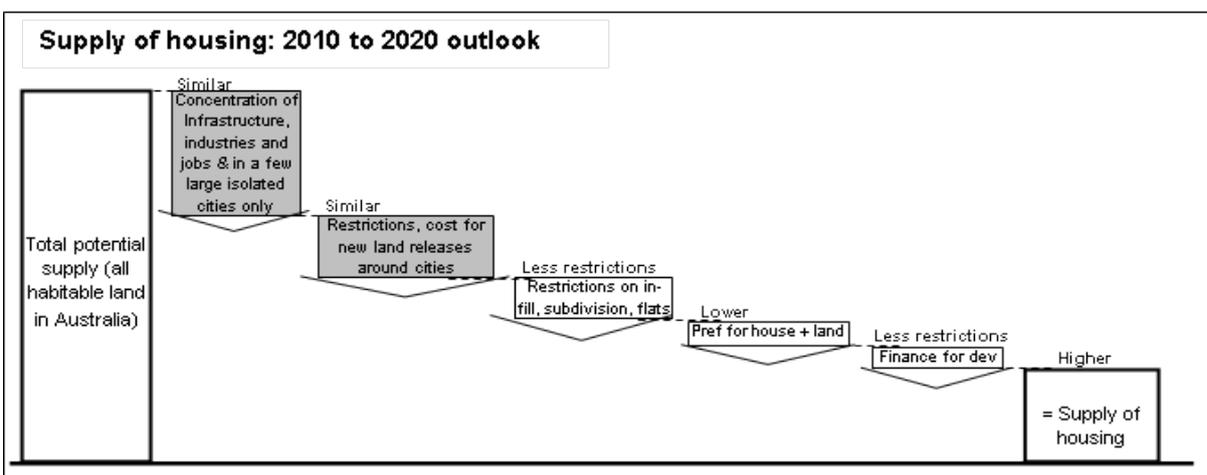
The supply of housing has been significantly below demand for many years, contributing to dramatic price rises. The main contributing factors have been:

- Restrictions and costs relating to new land releases on the outskirts of the cities have made housing very expensive even for first home buyers.
- Also adding to the pressure was a collapse in financing of property development in the middle of the decade, which never recovered before being hit again by the severe credit contraction brought on by the GFC.
- Within the metropolitan areas there are restrictions limiting sub-division, in-fill development and blocks of flats
- Australians' preference for free-standing houses on separate blocks of land



Over the coming decade, supply is likely to remain well below demand, resulting in continued up-ward pressure on prices, especially closer to the centre of the larger cities with fast-growing populations.

Our preference for free-standing houses on blocks of land will continue to give way to smaller blocks of land and more blocks of flats in inner areas, rather than vast new developments in outlying areas far from transport, employment and services.



If demand continues to rise, albeit at a slower rate, and supply increases with easing restrictions on development over time, this should ease upward pressure on prices. But price increases should still be strongest close to the centre of the big growing cities.

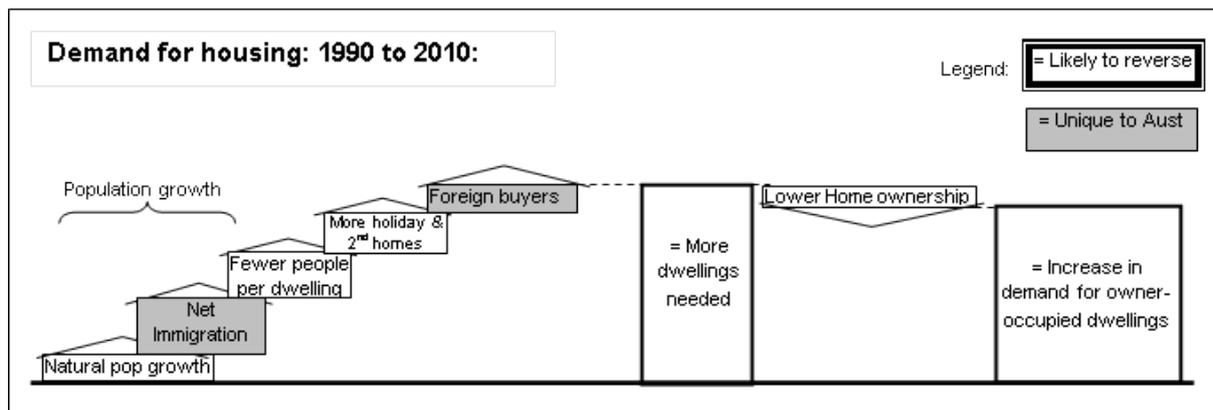
Demand for housing

The overall demand for housing has been driven primarily by Australia's high population growth rate, which has been the highest in the developed world since the Second World War. The main contributor has been immigration, with Australia having the world's highest proportion of foreign-born residents of any country (apart from Luxemburg).

The trend to fewer people per dwelling has been common to all developed countries and is not unique to Australia. Home ownership rates in Australia have traditionally been amongst the highest in the world and have remained relatively flat for the past five decades.

Demand from foreign buyers has also increased demand in recent years.

The following diagram sets out the main contributors to rising demand for housing (access to debt is covered separately on the next page):

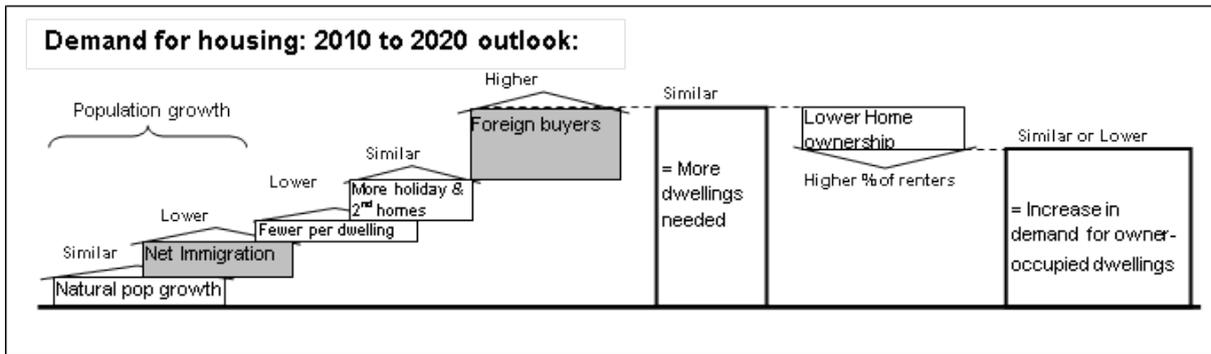


Over the coming decade Australia's high population growth rate is expected to remain strong, driven by continued high levels of net immigration, although perhaps at lower rates than in recent decades.

The average number of people per household should remain low, but may not remain on its century-old downward path. Our pattern of immigration (which is predominantly work-ready adults with children) is expected to keep both the overall median age and the number of people per household higher than in almost all other developed countries, and birth rates are on the rise.

Home ownership rates are expected to fall in future as rising demand and restricted supply push house prices beyond the reach of a greater proportion of households. Also the trends toward increased labour flexibility, career mobility, later marriage, fewer children, more single parents, more childless households, are expected to make renting an attractive option for a greater proportion of households, leading to greater demand for rental accommodation.

Demand from foreign buyers is expected to increase over time as Australia is an attractive site for second homes and safe havens for the burgeoning middle classes in several rapidly developing Asian economies.

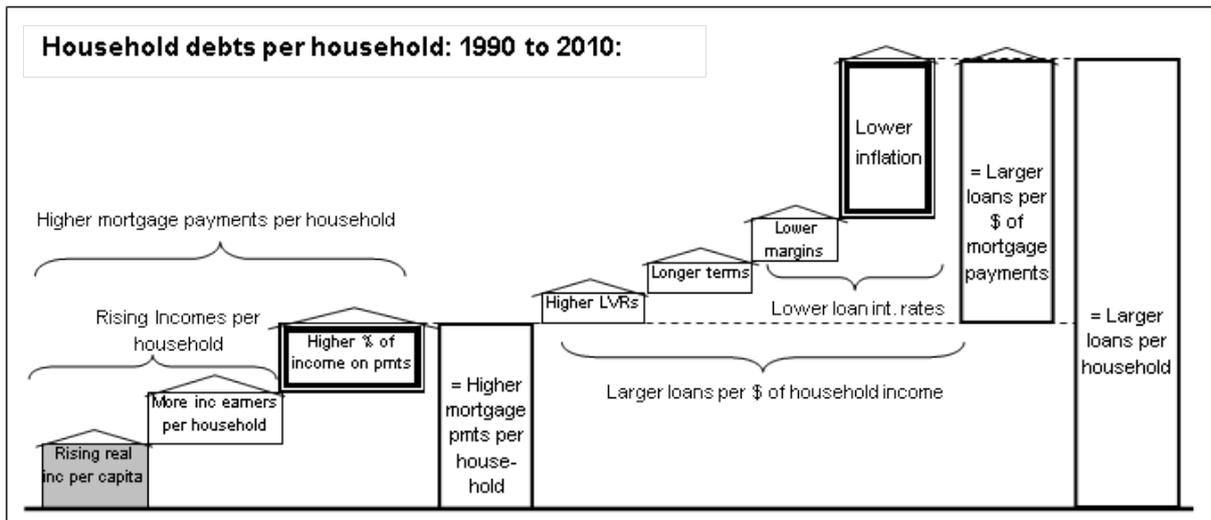


Household debt levels

One of the main drivers of demand is access to Debt. Over the past 20 years the size of housing loans per household has increased dramatically, which has been the primary driver of rising house prices.

Higher mortgage payments per household were made possible by rising real incomes per capita, more income earners per household, and a greater proportion of household disposable income spent on mortgage payments (at the expense of savings rates which fell significantly to very low/zero levels).

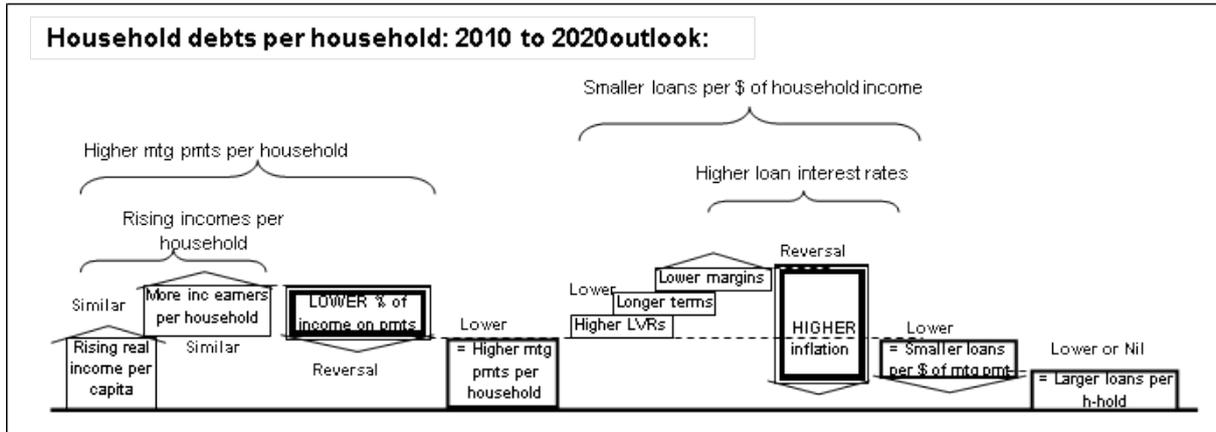
Also, the size of mortgages per dollar of mortgage payments was driven by lower inflation, lower lending margins, higher LVRs and longer loan terms in the newly deregulated home loan market.



Over the next 10 years, two of the factors that drove the shift to higher household debt levels are likely to partially reverse.

Australia’s extremely low household savings rates may rise in future – brought about by voluntary austerity (which is unlikely) or involuntarily spending reductions imposed by lenders. Higher savings is likely to come at the expense of lower consumption spending as well as lower proportions of disposable income spent on mortgage payments.

If inflation rises in the future, the resultant increases in base interest rates are unlikely to outweigh any addition gains from lower margins, higher LVRs and longer loan terms. Loan interest rates would rise, leading to lower loan amounts and lower prices being able to be paid for house purchases.



Average loan sizes per household are unlikely to rise in the future (or even fall in real terms if inflation rises), but prices are still likely to keep rising due to demand exceeding supply, especially closer to the centres of the large growing cities. This will be driven by capital from investors and foreigners, and by the increasing disparity of incomes and wealth between different segments in society

Summary of drivers of prices

The next table takes each of the factors driving prices and summarises the likely future direction and the impact on housing affordability and investment returns.

Figure 43

Factor	Driver	Unique to Australia?	Likely future trend			Comments	Affordability	Investment
			Continue same path?	Sustain current level?	Reverse recent trend?			
Demand								
More dwellings required	High population growth rates	Yes – closely followed by Canada, NZ, US	yes			Population growth rates likely to continue at similar levels	↘	↗
	Rising number of households per population (declining people per dwelling)	No – all developed countries have aging populations & smaller families	yes			levels in western & northern Europe are even lower	↘	↗
Rise of foreign buyers / investors	Globalization of markets, work, travel, investment	No, but Australia has attracted foreign investment from Asia	yes			favourable proximity to growing markets in Asia	↘	↗
Larger dwellings + higher quality	Higher expectations, more possessions,	No	yes		Yes, for lower income earners	Not for all segments – lower income earners will need to settle for smaller houses, more flats, but will raise prices of existing land per metre	↗	↗
Rising income per household	Rising real incomes per worker	No	yes			Continuing productivity gains will increase real incomes per worker	→	↗
	More income earners per household	No	yes			More women in workforce (fewer children, better childcare) – delayed retirement	→	↗
Larger home loans per dollar of repayments	Falling inflation & base interest rates	No, global shift since early 1980s		yes	Cyclical + perhaps structural	Global shift since 1980 to low inflation is over – next shift may be to higher structural inflation, but probably not to 1970s levels	↘	↘
	Declining lending margins	Yes - margin contraction since de-regulation here was major		yes		Margins will remain at low but unlikely to fall further. Home loans favoured by bank capital rules	→	→
	Longer loan terms	No	yes			Loan terms can lengthen – people living/working longer, inter-generational loans. Will primarily make first homes more expensive + can push up rest of market	↗	↗
	Higher Loan-to-value ratios	No			partial	The cyclical sub-prime will disappear. Higher LVRs are here to stay, but will not rise further	↘	→
People spending more, saving less of disposable income	Lower household savings rates as people have spent more on housing costs	No, but worse than most countries		yes		Falling savings rate trend since mid 1970s cannot continue on same path. Safety nets make saving less necessary	→	→

Factor	Driver	Unique to Australia?	Likely future trend			Comments	Affordability	Investment
			Continue same path?	Sustain current level?	Reverse recent trend?			
Demand								
Greater proportion of population borrowing	Looser credit standards	Yes relative to most – deregulation loosened artificial constraints		yes		Sub-prime lending boom is over, but competition and innovation is still luring in more people into borrowing for home purchase	→	→
Government encouragement of housing	Political stability, votes	No – some countries have more incentives		Yes		Govt may introduce broad CGT and/or broad property taxes	↗	↘

Figure 44

Factor	Driver	Unique to Australia?	Likely future trend			Comments	Affordability	Investment
			Continue same path?	Sustain current level?	Reverse recent trend?			
Supply factors								
Concentration of population in large isolated cities	Sparseness, historical, geography	Yes – concentration in large isolated cities is almost unique	yes			Will remain sparse population with limited capital to develop infrastructure	↘	↗
Economic and labour immobility	Large isolated diversified cities, social safety nets slow the need to move	yes			yes	Slow structural shift to lower home ownership levels, and toward more labour mobility. A couple of cities vulnerable to declines in major industries	↗	↘
Preference for houses on own land	Perception of Australia as a vacant new country with plenty of space to spread out	Yes – relative to most European & Asian markets			yes	Any shift in attitude will take a generation - will reduce median price but will raise price of existing land per metre	↗	↗
Restrictions in subdivision of inner areas	NIMBY attitude of incumbent house owners, councils	Yes – relative to most European & Asian markets			yes	If subdivision & infill are allowed to accelerate, it will reduce median price, but raise prices of existing land per metre	↗	↗
Restrictions on new land releases around the big cities	Limited availability of habitable land, with oceans, rivers, national parks preventing expansion	Unusual in that all major cities are on the coast with limited available land around them	yes			The need for new land will be tempered by the shift to smaller blocks. Most population growth will go into existing areas, not new out-lying areas. Most land value is closer to the centre of cities, not in outlying areas	↘	↗

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 Philo Capital Advisers
 June 2010



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End Notes

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- ¹ Australia has one of the lowest levels of exports to national income in the developed world. Even with the recent mining boom, exports are only just climbing to 23% of GDP. Only the US is lower at 12% of its GDP, Japan at 17%.
- ² The Economist House Price Index - http://www.economist.com/businessfinance/displaystory.cfm?story_id=14438245
- ³ See: <http://www.standardandpoors.com/indices/sp-case-shiller-home-price-indices/en/us/?indexId=spusa-cashpidff--p-us---->
- ⁴ See: <http://www.fhfa.gov/Default.aspx?Page=14>
- ⁵ The Economist House Price Index series. The Economist 15 April 2010. Data for March 2010. Price growth is for 1997 to March 2010.
- ⁶ RBA Table B20 – Private Assets & Liabilities
- ⁷ RBA Table B20 – Private Assets & Liabilities
- ⁸ ABS 6416.0 - House Price Indexes: Eight Capital Cities
- ⁹ IMF – statistical database - <http://www.imf.org/external/data.htm>
- ¹⁰ IMF, OECD, The Economist
- ¹¹ RBA – Table D2 – Lending & Credit
- ¹² Conefrey, T., & Fitz Gerald, J., OECD.
- ¹³ AHS Table HS 1-18,p.349, Table HS 124-141 p.353, Year Book Australia 2008 Table 10.5 "All Occupied Private Dwellings" p.313
- ¹⁴ OECD - Tiffin & Gittins, Table 15.1, p.204
- ¹⁵ OECD - <http://stats.oecd.org/Index.aspx?&QueryId=11353&QueryType=View>
- ¹⁶ Official Census data – for 1861 to 1981: AHS pp 30-39. For post 1981: ABS 3201.0 - Pop by age & sex
- ¹⁷ The Economist World in Figures 2008
- ¹⁸ For data to 1960: AHS pp 139, 141, 143. For data since 1981: ABS 5204.0 Table 2
- ¹⁹ OECD Factbook 2009: Economic, Environmental and Social Statistics - ISBN 92-64-05604-1
- ²⁰ RBA – Table B21 - Household Finance ratios
- ²¹ ABS – 5206.0 Table 14- March 2010
- ²² ABS – 4130.0 Housing occupancy costs 2007-8 Table 3
- ²³ OECD Factbook , Aust Household Debt: RBA Table D2, Aust Household Disposable Income: ABS 5204.0 Table 37
- ²⁴ Cash rates: F1 - Interest Rates & Yields - Money Market. CPI: RBA - G01
- ²⁵ RBA F5 – Lending Interest rates, Cash rates: F1 - Interest Rates & Yields - Money Market
- ²⁶ Bank loan rates: RBA F5 Lending rates. CPI: RBA - G01
- ²⁷ Bank loan rates: RBA F5 Lending rates. Cash rates: F1 - Interest Rates & Yields - Money Market.
- ²⁸ Year Book Australia 2008 Table 10.5 "All Occupied Private Dwellings" p.313
- ²⁹ there were 943,000 recipients of Commonwealth rental assistance as at June 2007 - ABS 2008 Year Book Australia, Table 10.25 p.327
- ³⁰ Maddison - <http://www.ggdnc.net/maddison/>
- ³¹ The Economist, World in Figures, 2008
- ³² The Economist, World in Figures, 2008
- ³³ The Economist - World in Figures 2008, p.23
- ³⁴ Census data: 1961 to 1981: AHS Table: POP 286-194, p.41. Data since 1971: ABS 3101.0 Table 4
- ³⁵ New York Times 2010 Almanac, p. 272
- ³⁶ New York Times 2010 Almanac, p. 259
- ³⁷ The Economist Pocket World in Figures 2008, p.70
- ³⁸ <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2121rank.html>

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- ³⁹ New York Times 2010 Almanac, p. 259
- ⁴⁰ US National Association of Realtors - <http://www.realtor.org/research/research/metroprice>
- ⁴¹ ABS 6416.0 - House Prices Table 10
- ⁴² See for example: <http://www.mercer.com/costofliving>
- ⁴³ <http://www.numbeo.com/property-investment/rankings.jsp>
- ⁴⁴ http://www.businessweek.com/the_thread/hotproperty/archives/2009/03/the_median_home.html
- ⁴⁵ US National Association of Realtors – quarterly report - <http://www.realtor.org/research/research/metroprice>
- ⁴⁶ US Census 2000, U.S Census Bureau, New York Times 2010 Almanac, p.256
- ⁴⁷ When I was going to high school two US states, I noticed that it was the usual pattern to for students to travel across the state or interstate to go to college. In Australia the normal pattern is for uni students to stay at home with their parents until well after they finish uni and are well into their careers. They don't even make their own beds or wash their own socks until their late 20s, let alone move across the country to forge a new life for themselves at age 18!
- ⁴⁸ For the population of Greater London (the 21 boroughs plus the City of London) see London online fact-file - <http://www.londononline.co.uk/factfile/historical/>
- ⁴⁹ See for example: <http://www.demographia.com/dm-par90.htm>
- ⁵⁰ <http://www.demographia.com/db-paris-history.htm>
- ⁵¹ Official census figures, reported in: AHS Table: POP 286-194, p.41, and ABS 3101.0 Table 4
- ⁵² ABS 6291.0.55.003
- ⁵³ The mother of all property booms in Australia was in the 1880s in Melbourne, but is outside the scope of this paper
- ⁵⁴ Source: ABS 6416.0 - House Prices Table 10 - 8 City Median Prices
- ⁵⁵ The median age of Australians is 37.5, which is lower than all other developed countries except the US, where it is 36.7. Japan and Germany have the oldest populations in the world. The Economist World in Figures 2010 p. 20
- ⁵⁶ ABS 5368.0
- ⁵⁷ ABS 6291.0.55.003
- ⁵⁸ ABS 5302.0 "Balance of Payments and International Investment Position" , 5368.0 "*International Trade in Goods and Services*"

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$$\sigma_p = \sqrt{(w_A^2 \sigma_A^2 + w_B^2 \sigma_B^2 + w_C^2 \sigma_C^2 + 2w_A w_B \text{Cov}_{AB} + 2w_A w_C \text{Cov}_{AC} + 2w_B w_C \text{Cov}_{BC})}$$
$$(E(r_M) - r_f) \beta_i = \rho_{i,M} \frac{\sigma_i}{\sigma_M}$$
$$f(x_i) = \frac{1}{\sigma} \frac{1}{\sqrt{2\pi}} e^{-\frac{(x_i - \mu)^2}{2\sigma^2}}$$
$$\text{CAPM: } E(r_i) = r_f + \beta_i (E(r_M) - r_f)$$
$$\sigma_p = \sqrt{(w_A^2 \sigma_A^2 + w_B^2 \sigma_B^2 + w_C^2 \sigma_C^2 + 2w_A w_B \text{Cov}_{AB} + 2w_A w_C \text{Cov}_{AC} + 2w_B w_C \text{Cov}_{BC})}$$