LF Economics

The Great Australian Household Debt Trap

Why Housing Prices Have Increased

House of Representatives

Standing Committee on Economics

2015 Inquiry into Home Ownership

Lindsay David and Philip Soos*

20th May 2015

www.lfeconomics.com

Section 1: Introduction

Over the last decade, Australians have debated the causes of the rapid housing price inflation and perceived lack of affordability. Since 1996, prices have outpaced inflation, incomes, rents and GDP, making it difficult for potential first home buyers (FHBs) to enter the market while lower income households and marginal groups struggle to afford decent shelter. The Australian housing market shares similarities with countries that experienced real estate bubbles, such as the United States, Spain, Denmark, the Netherlands and Ireland.

Government, the FIRE sector (finance, insurance and real estate) and the mainstream economics profession predictably deny the existence of a housing bubble, but Australia's economic history demonstrates they occurred during the 1830s, 1880s, 1920s, mid-1970s and late 1980s. The bursting of these bubbles invariably caused economic recessions and depressions. Contrary to the analyses of the vested interests, the data clearly establishes Australia is in the midst of the largest housing bubble on record. Policymakers are caught between a rock and a hard place, as implementing needed reforms will likely burst the bubble, causing severe financial and economic fallout as residential land prices revert to mean. The FIRE sector will surely blame policymakers for the bust and deflect attention away from debt-financed speculation.

Previous inquiries into the housing sector in 2004, 2008 and 2015 identified both supply and demand-side variables as contributing to high housing prices: availability of finance, lower nominal interest rates and inflation, preferential taxation treatment for all land owners, developer charges and levies, the composition and rate of employment, demographic change (population growth, household size and age structure), cash grants to FHBs, rezoning policies and the returns from other investments.[1] Current housing prices cannot be explained by these fundamental factors, however, as both the nominal rent to inflation and rent to income ratios have remained steady over the course of the housing price boom. It is argued there are two primary causes for the housing bubble: a rapid acceleration in mortgage debt and perverse taxation policies encouraging speculation.

---

[1] PC (2004); Senate (2008; 2015).

Section 2: Defining a Housing Bubble

One of the faults of real estate analysis is the failure to distinctly define an asset bubble, so debate on the matter is kept necessarily vague. If specific criteria are not carefully delineated, then no one can say with certainty if a bubble exists or not. This plays nicely into the hands of those making a living from the manipulation of asset prices, including neoclassical economists who like to think the neoliberal program of deregulation, liberalisation and privatisation of the banking and financial sector has resulted in a more efficient market economy where asset bubbles do not form.

To this day, housing bubbles are still poorly defined, if at all, on the basis of 'irrational exuberance' or 'chasing capital gain'.[2] The definition articulated by the economist Hyman Minsky decades ago has been routinely ignored. Minsky defined an asset bubble on the basis of Ponzi finance, when the income flows from an asset are unable to cover both expenses and debt payments.[3] If investors cannot profit from net rental income, they become reliant on realising future capital growth to profit. As will be shown, all three conditions of Minsky's definition have been explicitly met: an increase in real housing prices, a rising mortgage debt to GDP ratio and net rental income losses.

Only a couple of housing market metrics is needed to identify a bubble, and are now considered commonplace when investigating the housing market: nominal price to inflation, price to income and price to rent.[4] The following analysis provides an additional array of metrics to confirm the housing bubble: the mortgage debt to GDP ratio, net rental income flows, Kavanagh-Putland Index, total land values to GDP ratio, housing stock value to GDP ratio, housing debt to cash flow ratio and the Speculative Index. If economists are serious about considering the possibility of a housing bubble, the research of the few economists who identified the US housing bubble and predicted the GFC should be of interest.[5]

---

[2] For example, Shiller (2005); Stiglitz (1990).

[3] Minsky (1992).

[4] For example, Baker (2002); Cox and Pavletich (2014); Shiller (2005).

[5] Bezemer (2009; 2010); Foldvary (1997); Hartcher (2005); Ratajczak (2006); Talbott (2003; 2006).

Section 3: The Metrics

When adjusted for inflation and quality, housing prices have boomed nationwide since 1996, hitting a peak in 2010, before undergoing a slight fall and rise. On current trends, a new, higher peak is likely to be set in 2015.
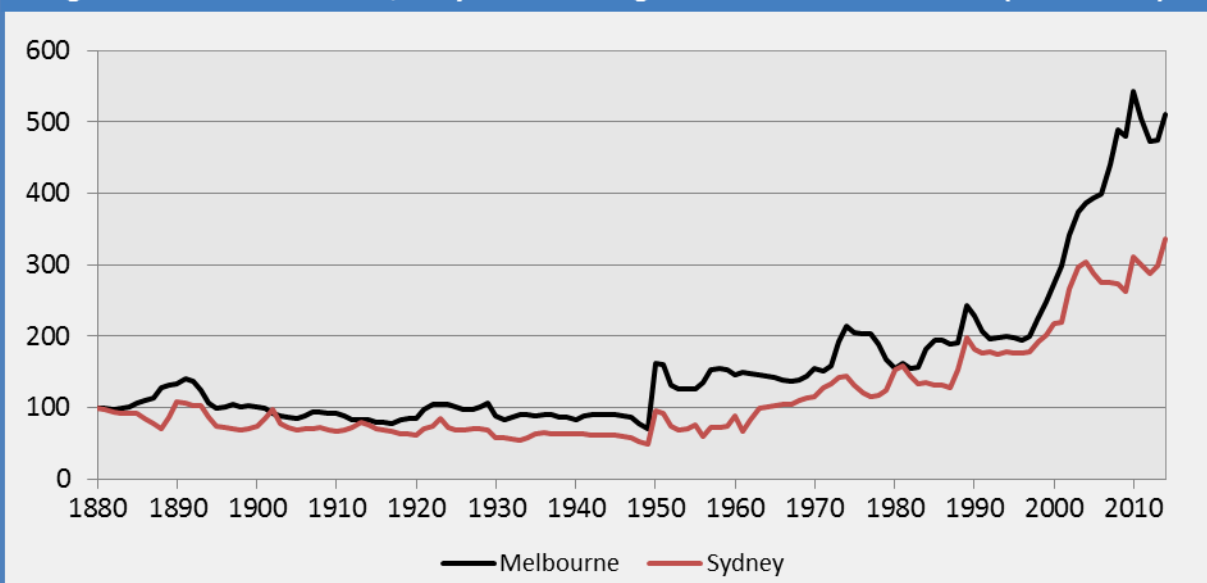
Figure 1: Australian Constant Quality Real Housing Price Index 1880 - 2014 (1880 = 100)
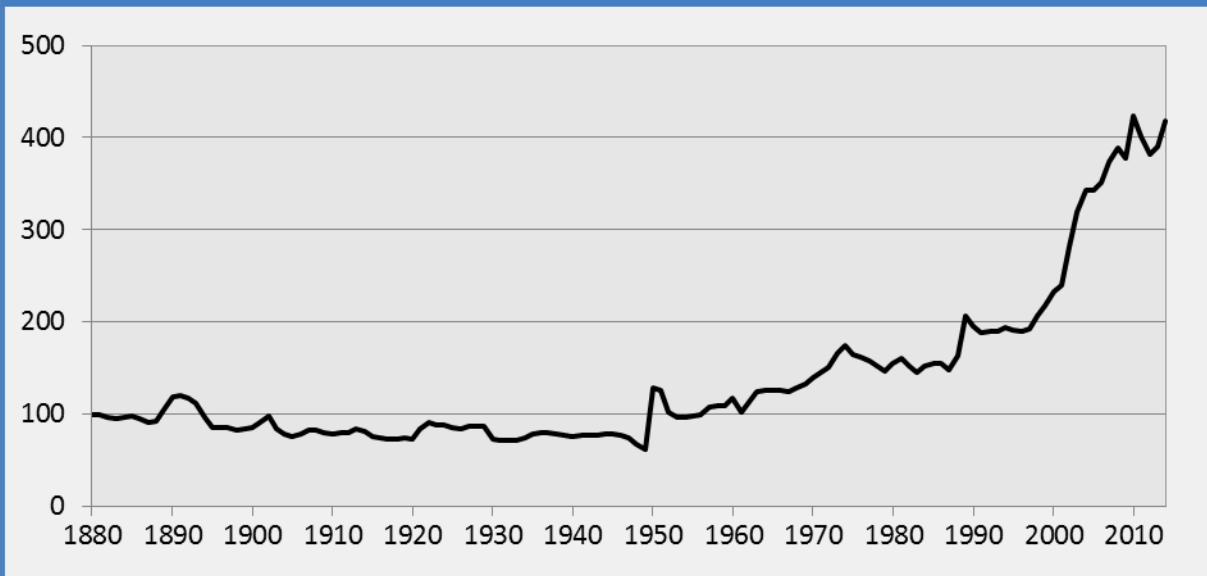
Source: ABS, Stapledon   LF Economics
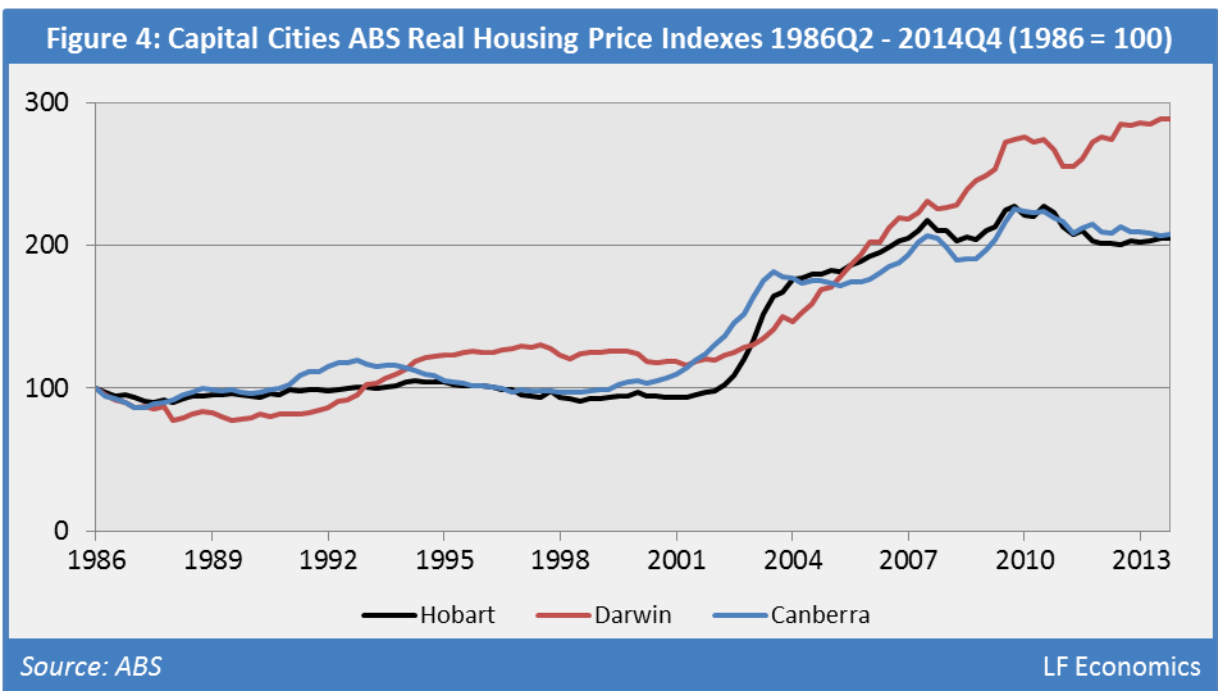
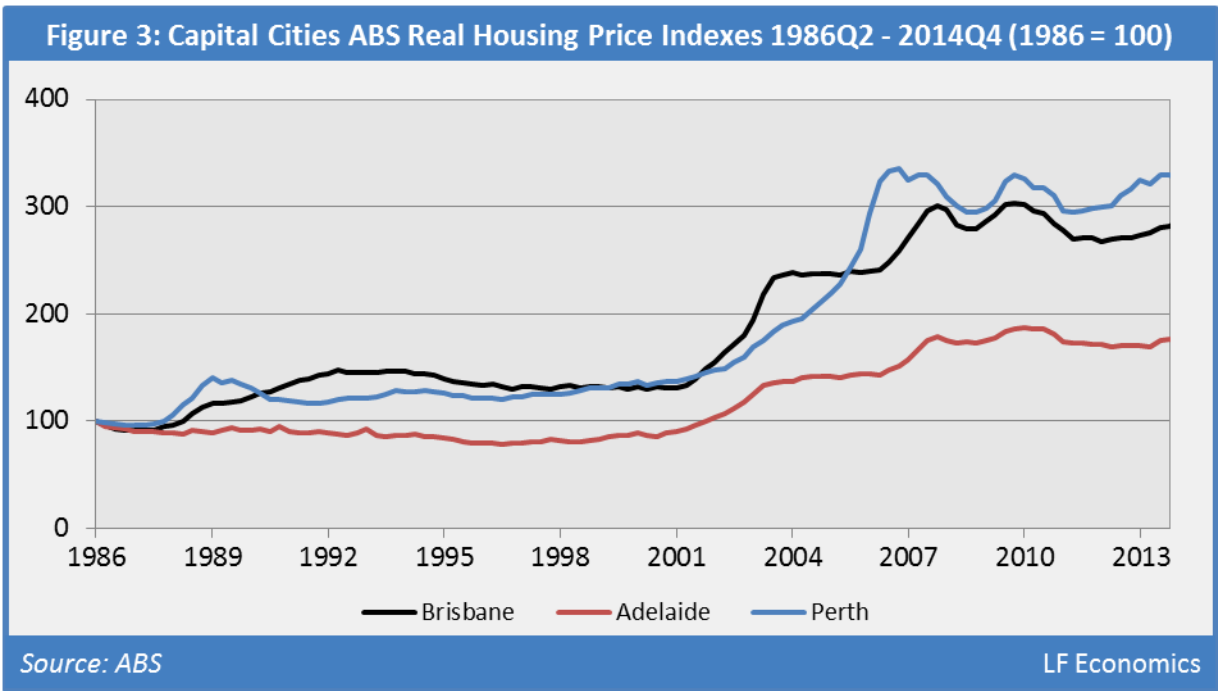**Figure 2: Cities Constant Quality Real Housing Price Indexes 1880 - 2014 (1880 = 100)**

Melbourne   Sydney

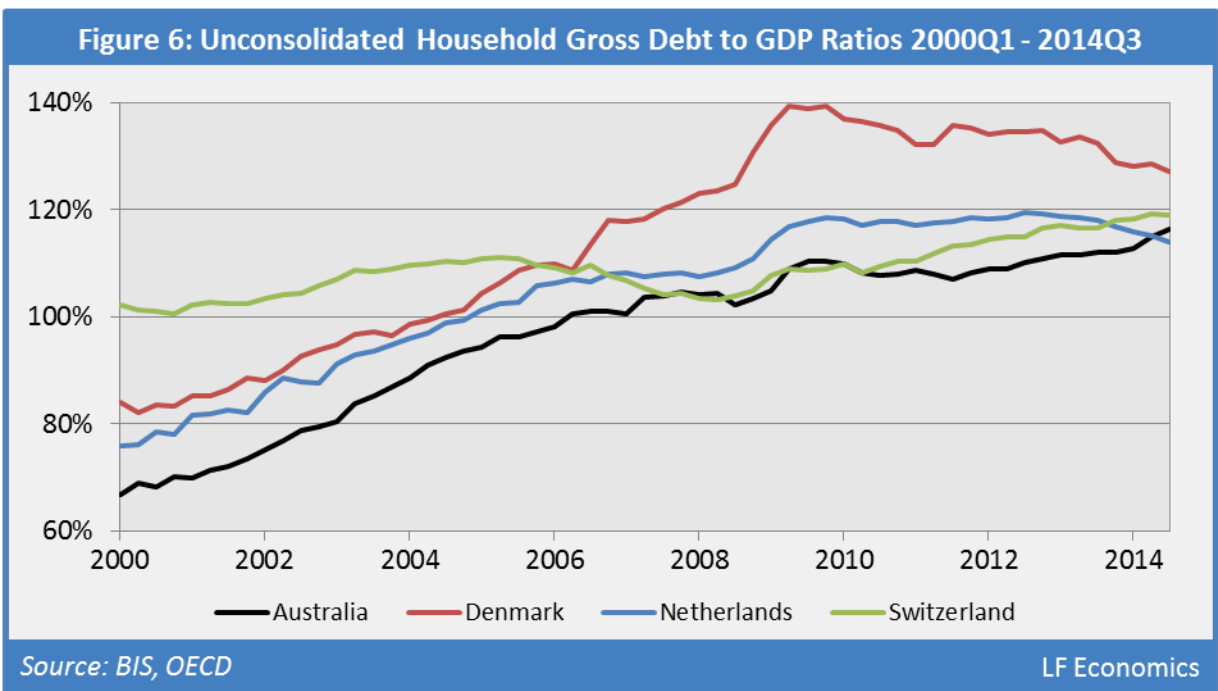*Source: ABS, Stapledon*   LF Economics

The other capital cities have not followed the trend in real housing prices of Sydney and Melbourne in the post-GFC era; for instance, Perth has yet to regain the peak reached in 2007Q1. It should be noted that, while the ABS estimate of housing prices is stratified, it is not quality-adjusted, so the indexes overstate the trend.

Figure 3: Capital Cities ABS Real Housing Price Indexes 1986Q2 - 2014Q4 (1986 = 100)

Source: ABS

LF Economics

Figure 4: Capital Cities ABS Real Housing Price Indexes 1986Q2 - 2014Q4 (1986 = 100)

Source: ABS

LF Economics

The household and mortgage debt to GDP ratios have boomed exponentially over the last two decades, driving the largest housing and residential land market bubble in post-WW2 history. A new peak was set in 2014 for the mortgage debt ratio.

Figure 5: Australian Consolidated Private Gross Debt to GDP Ratios 1861 - 2014

Source: Battellino, RBA

Figure 6: Unconsolidated Household Gross Debt to GDP Ratios 2000Q1 - 2014Q3
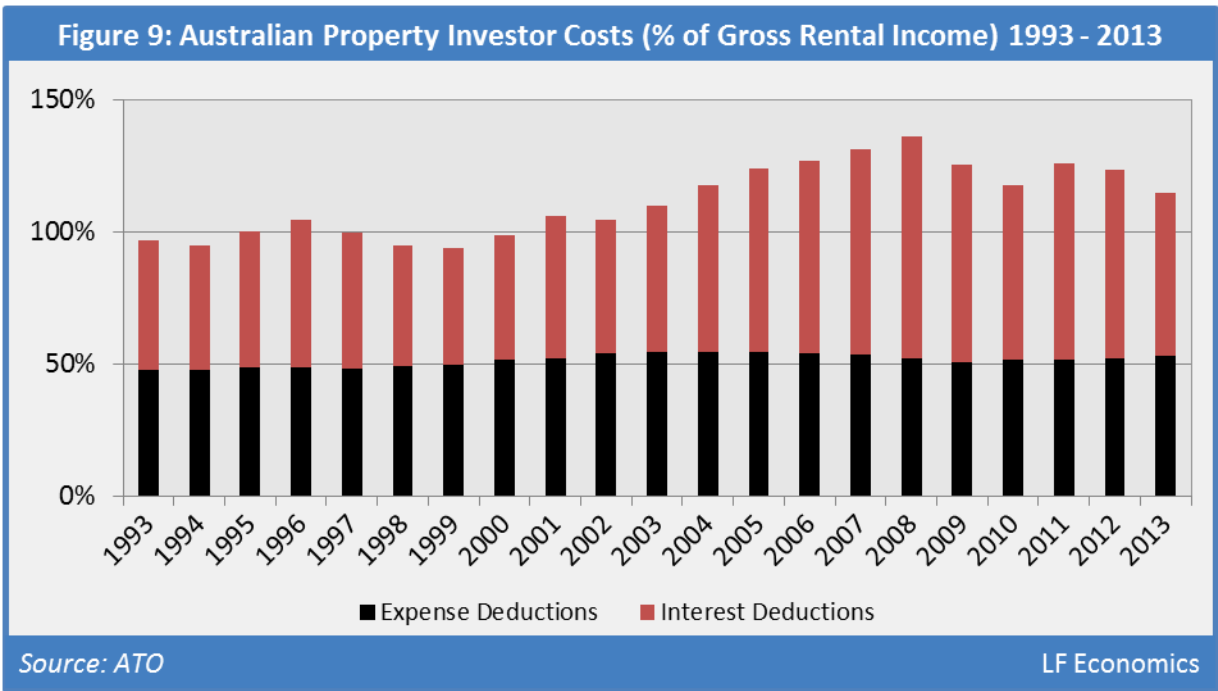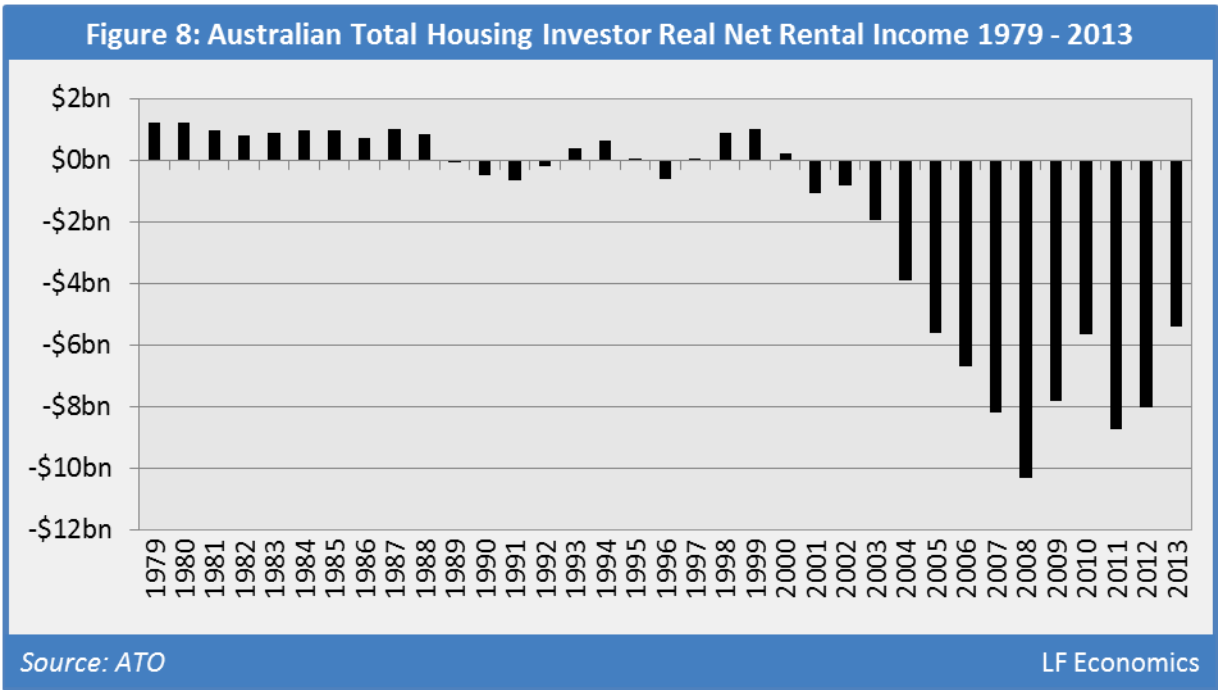
Source: BIS, OECD
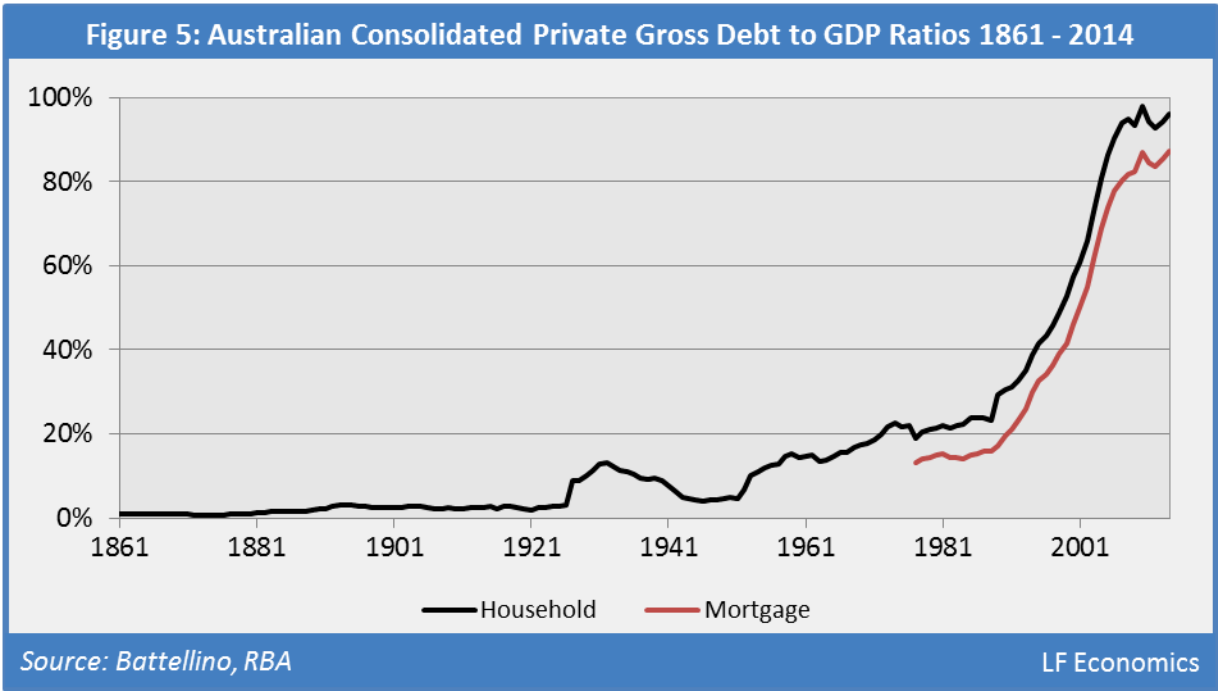
Globally, Australia's household sector has accumulated significant and rising debt. Indeed, as of 2014Q3, Australia has the world's third most indebted household sector relative to GDP, edging closer to Denmark (1st) and Switzerland (2nd), having recently surpassed the Netherlands in that quarter. Given the current boom in Sydney and Melbourne, it is possible Australia will soon exceed Switzerland to become 2nd, and with enough time, perhaps 1st. As of 2014Q4, Australia's unconsolidated household debt to GDP ratio is 118%.

As private debts have risen, so too has the debt to disposable income ratios. All the ratios reached a new peak as of 2014Q4, as household debt continues to relentlessly increase while nominal wage growth slows as the mining sector downturn gathers pace.

Figure 7: Australian Debt to Disposable Income Ratios 1977Q2 - 2014Q4

Source: RBA
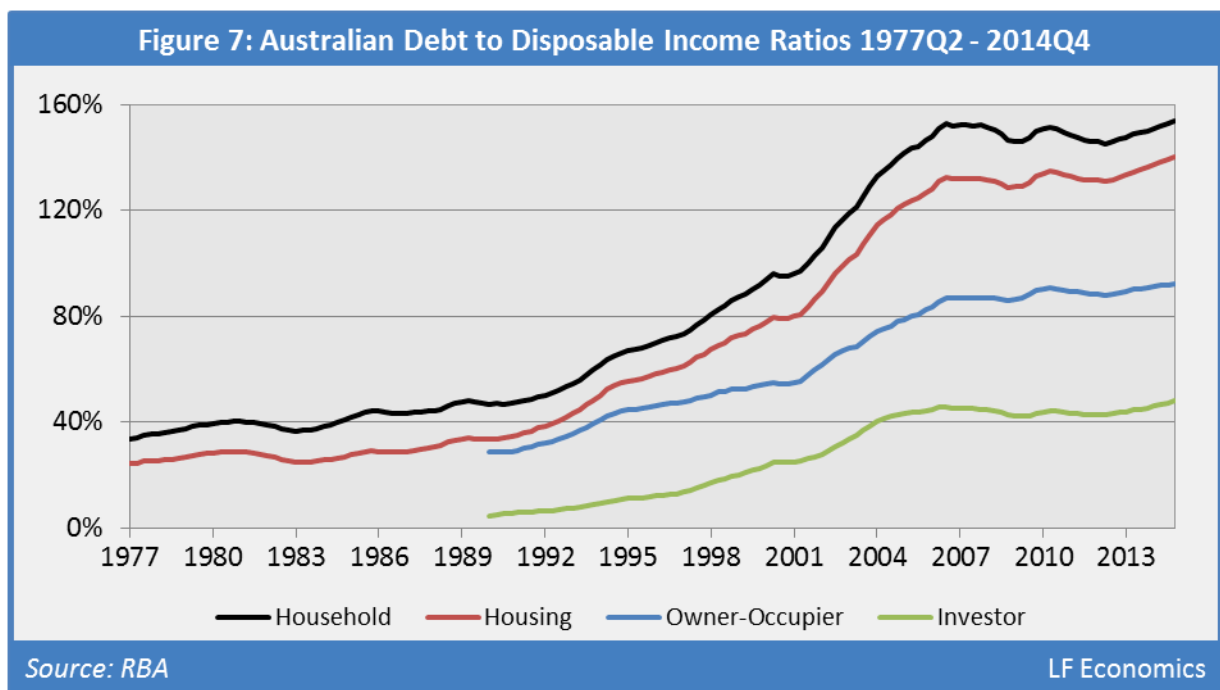
Net rental income losses have mounted for residential investors, as rental prices have generally tracked the rate of inflation while housing prices and mortgage debt have simultaneously boomed. The losses are larger than indicated because the ATO does not record data on principal payments, as it is not a legal tax deduction. Two-thirds of investors were negatively-geared in 2013, a significant rise from the 1990s when only half were in the same position. The fall in interest rates since 2008 has reduced the debt payment burden but perversely provides incentive to increase leverage.

Figure 8: Australian Total Housing Investor Real Net Rental Income 1979 - 2013

Source: ATO

LF Economics

Figure 9: Australian Property Investor Costs (% of Gross Rental Income) 1993 - 2013

■ Expense Deductions ■ Interest Deductions

Source: ATO

LF Economics

All three conditions of Minsky's bubble definition have been met for the housing market: the rise in real housing prices, the mortgage debt to GDP ratio and net rental income losses. This is the necessary proof Australia developed a housing bubble from 2001 onwards.
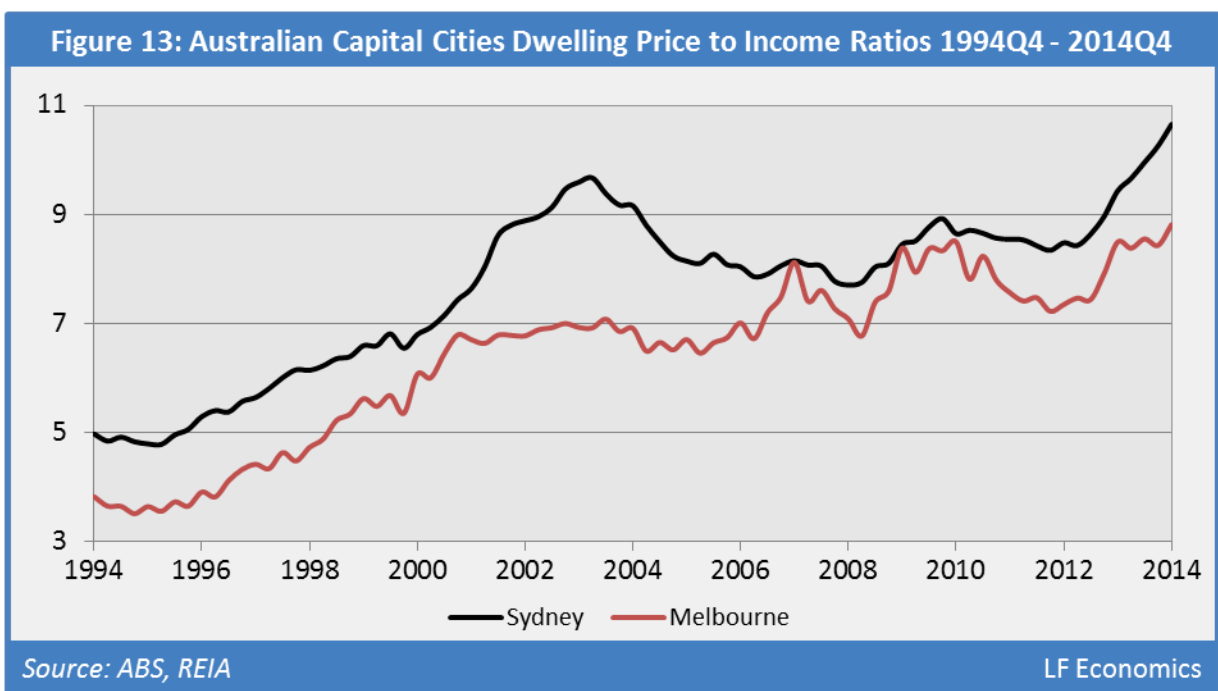
The single best indicator of a bubble is the divergence between prices and rents (price to earnings), which cannot be explained by any fundamental factor. Every asset bubble is evidenced by a rising P/E ratio. Gross yields have plunged dramatically nationwide since 1996. Expenses for investment properties constitute approximately 50 per cent of gross rental income, meaning net yields are around half that of gross yields.

Figure 10: Australian Residential Property Price to Rent Ratios 1901 - 2014

Source: ABS, Stapledon

LF Economics

Figure 11: Australian Housing Gross Price to Rent Ratio 1982Q2 - 2014Q4

Source: REIA

LF Economics
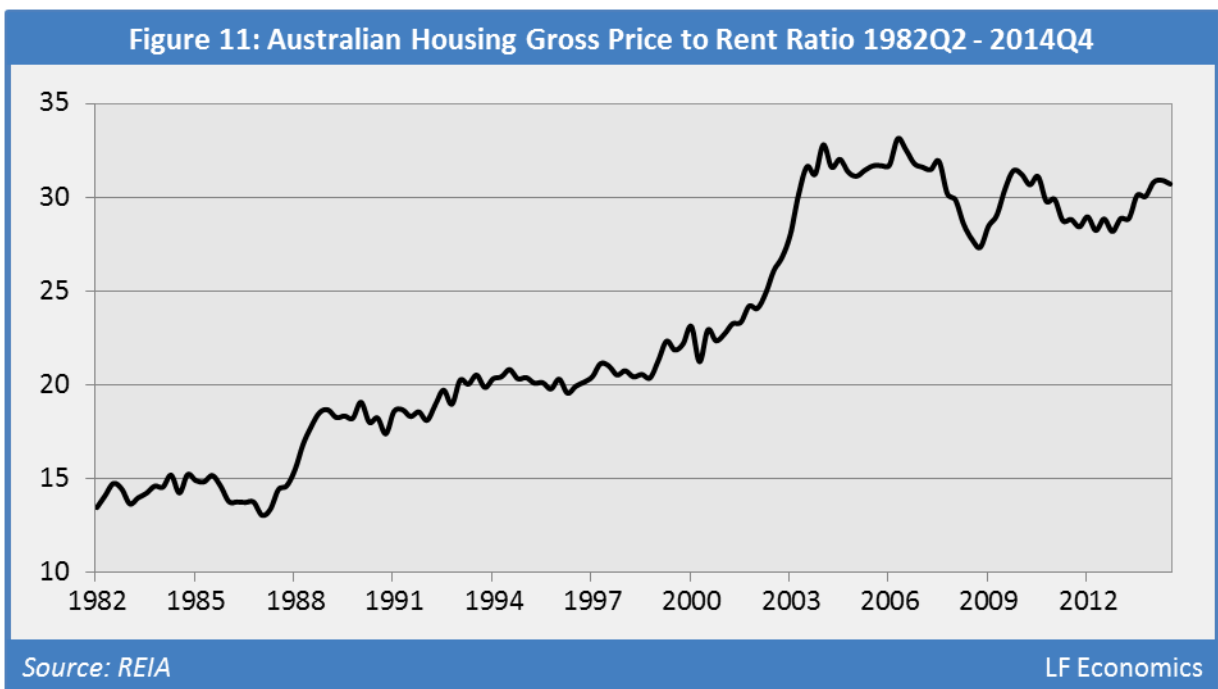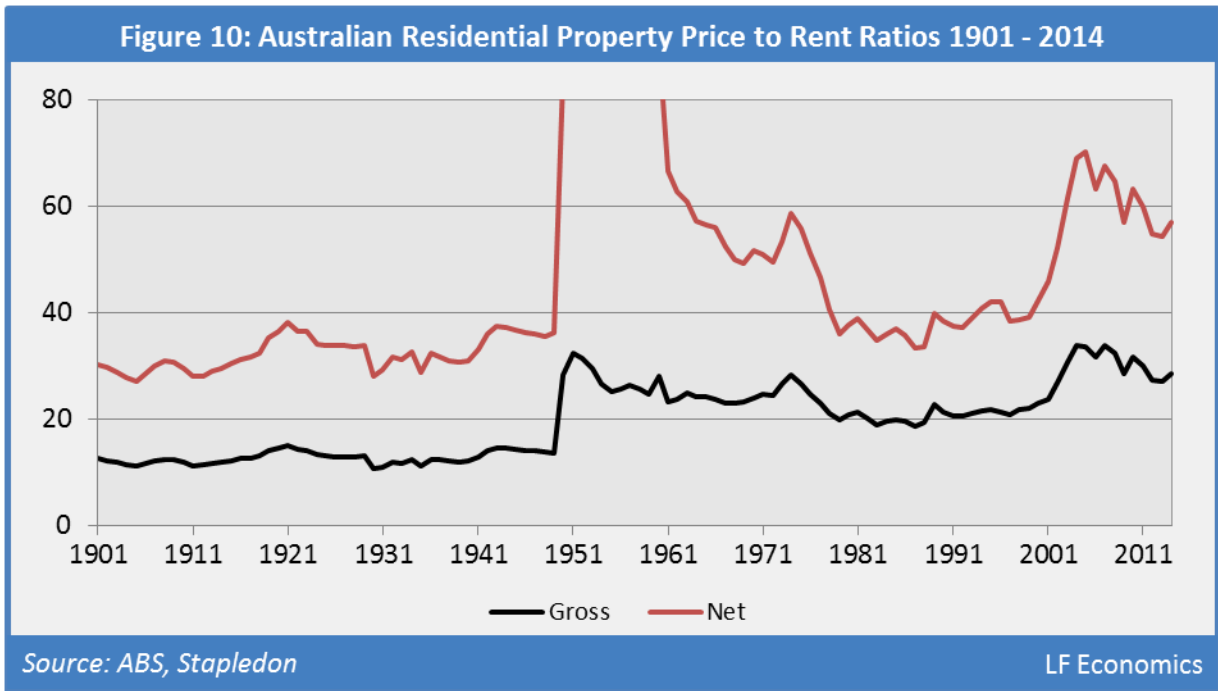
The price to income ratio is a popular measure of housing affordability, despite the marked absence of mainstream and heterodox research to support its validity. Nevertheless, as real housing prices have surged since 1996, the nationwide ratio has almost doubled. In Sydney and Melbourne, the ratio has more than doubled.

Figure 12: Australian Dwelling Price to Income Ratio 1997Q4 - 2014Q4

Source: ABS, REIA
LF Economics

Figure 13: Australian Capital Cities Dwelling Price to Income Ratios 1994Q4 - 2014Q4

Source: ABS, REIA
LF Economics
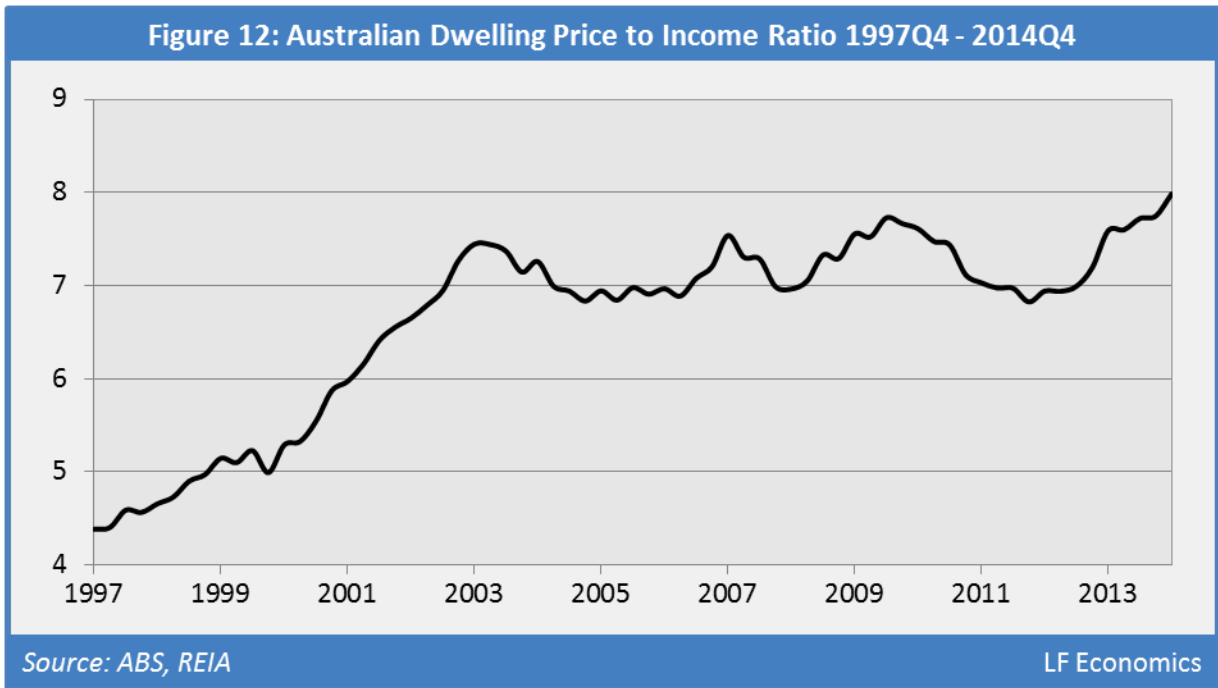
The housing price boom is driven by escalating land prices rather than dwelling values, reaching a peak in 2010 at 298 per cent of GDP. Previous land market bubbles peaking in 1974, 1989 and today are clearly demonstrated in the figure below. The peak in 1931 is more a case of collapsing nominal GDP rather than falling nominal aggregate land prices.

Figure 14: Australian Total Land Prices to GDP Ratio 1910 - 2014

Source: ABS, Butlin, Coleman, Dwyer, Herps, Scott — LF Economics

Figure 15: Australian Various Total Land Prices to GDP Ratios 1984 - 2014

Source: ABS, Coleman — LF Economics
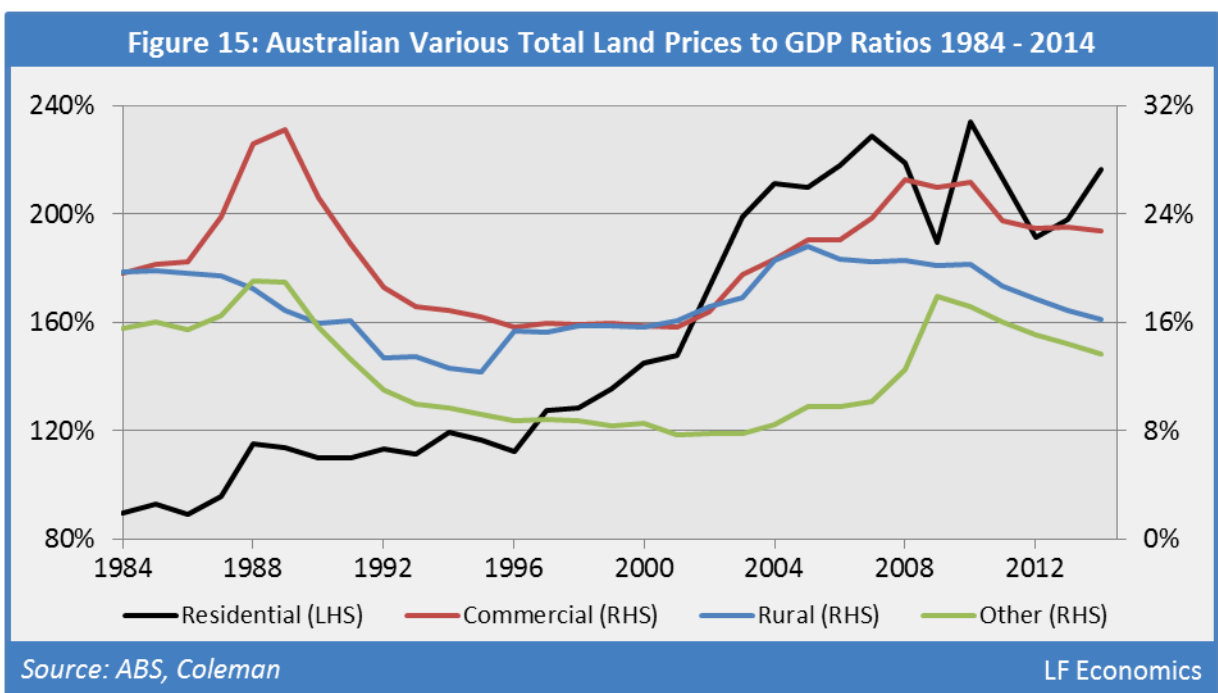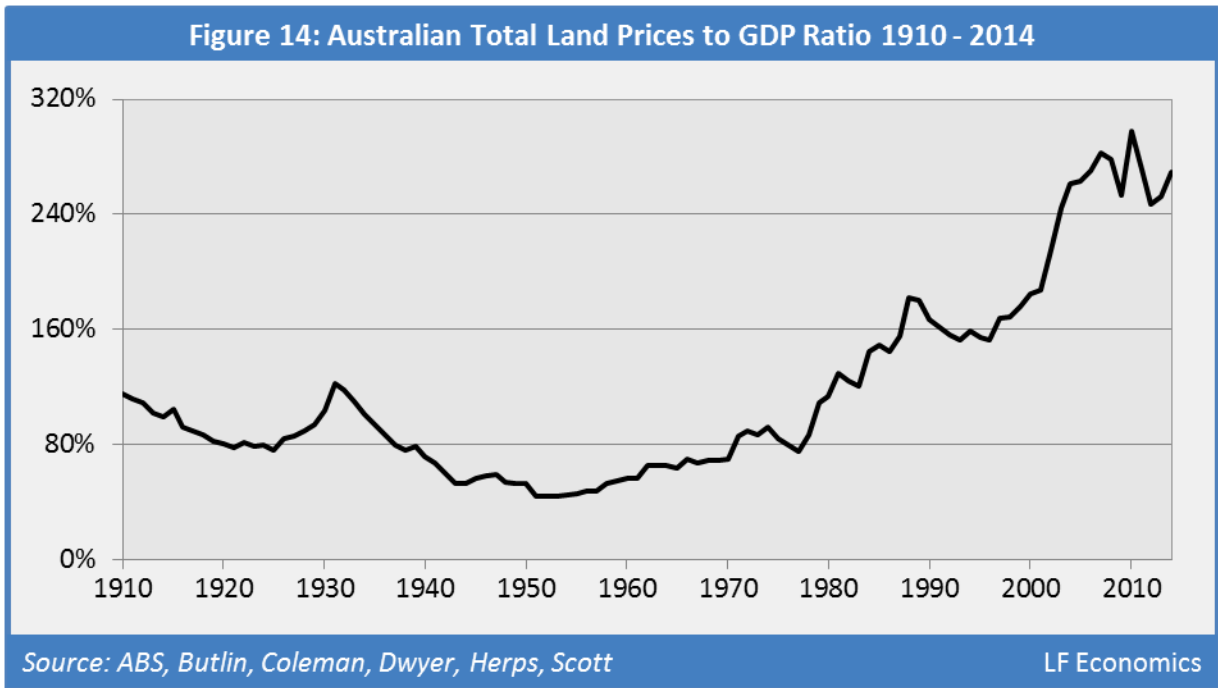
As land prices have boomed, so too has the value of the total housing stock relative to GDP, peaking in 2010 at 330%.

Figure 16: Australian Residential Stock Value to GDP Ratio 1901 - 2014

Source: ABS, RBA, Stapledon   LF Economics

Figure 17: Australian Residential Stock Value to GDP Ratio 1988Q3 - 2014Q4

Source: OECD, RBA   LF Economics
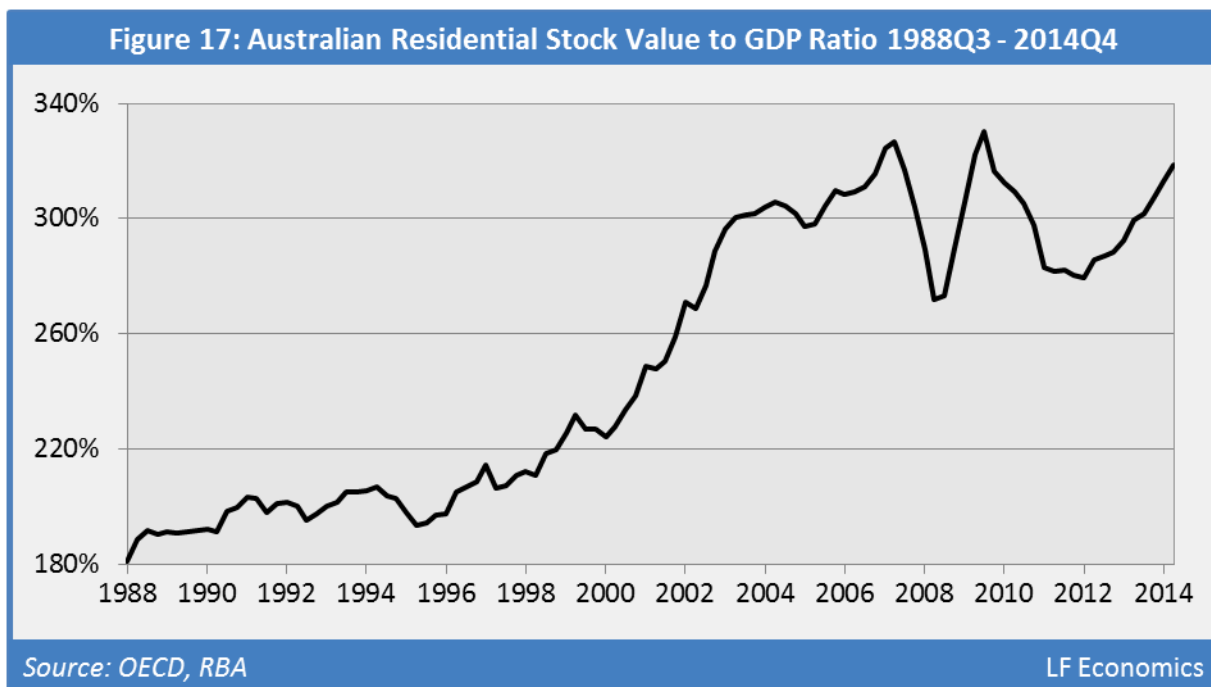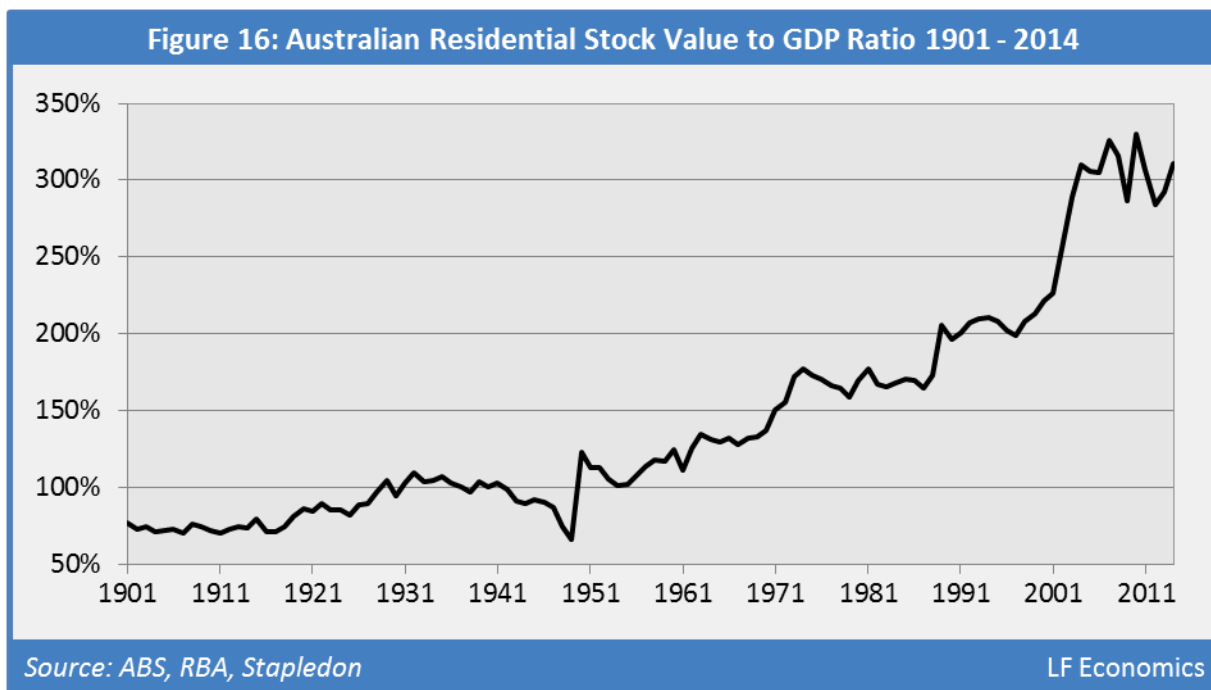
The cost of construction has remained steady for the last quarter century; the entire housing price boom has been in the land component.

Figure 18: Australian Residential Land and Dwelling Prices to GDP Ratios 1984 - 2014

Source: ABS, Coleman

LF Economics
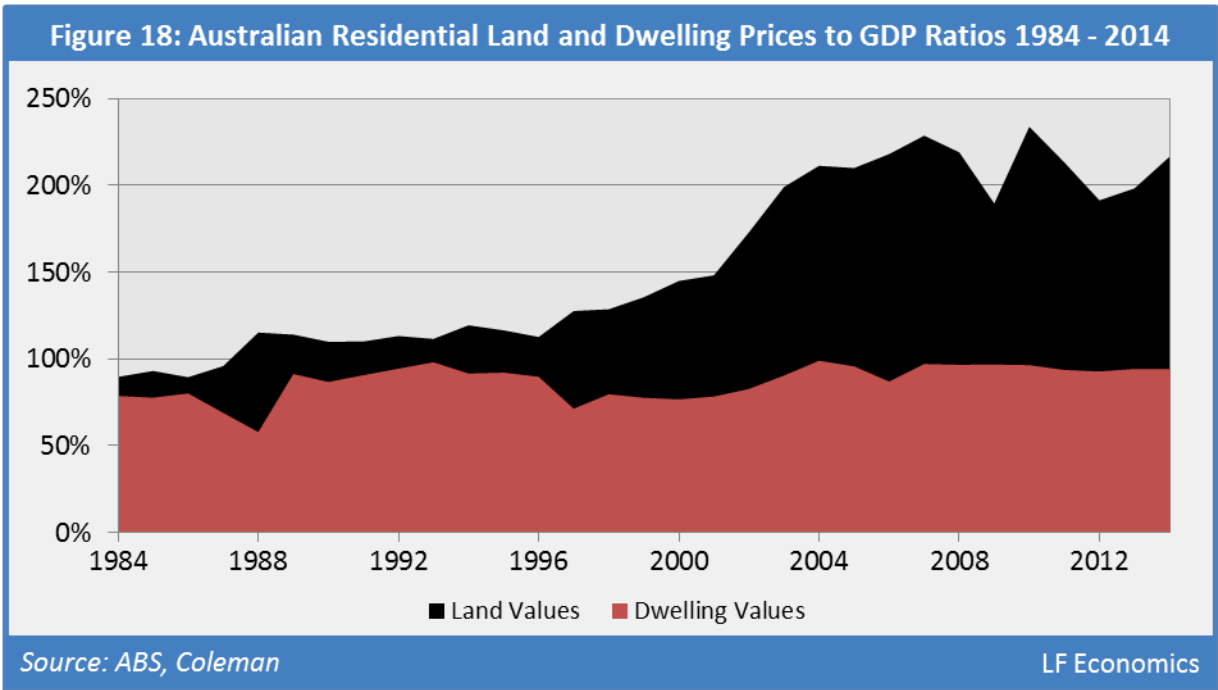
The Kavanagh-Putland Index compares the ratio of the total value of property sales to GDP, experiencing an exceptional rise since 1996. The fall in turnover after the GFC has caused the KPI to trend downwards, though the latest boom has led to a recent uptick.

Figure 19: Australian Kavanagh-Putland Index 1972 - 2014

Source: LVRG

LF Economics
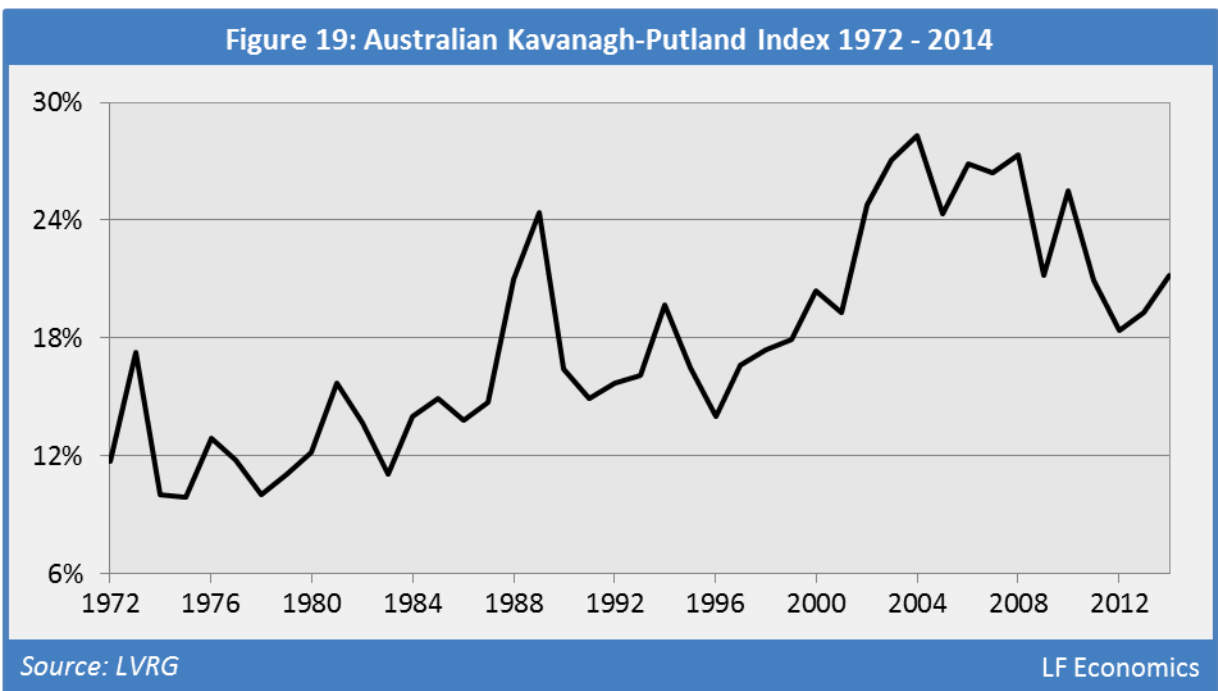
The debt to cash flow ratio indicates how many dollars of debt an investor holds relative to net earnings. The ratios suggest the total housing and property investment stocks are dangerously overleveraged.

Figure 20: Australian Residential Debt to Net Cash Flow Ratios 1990 - 2014

Source: ABS, ATO, RBA

LF Economics
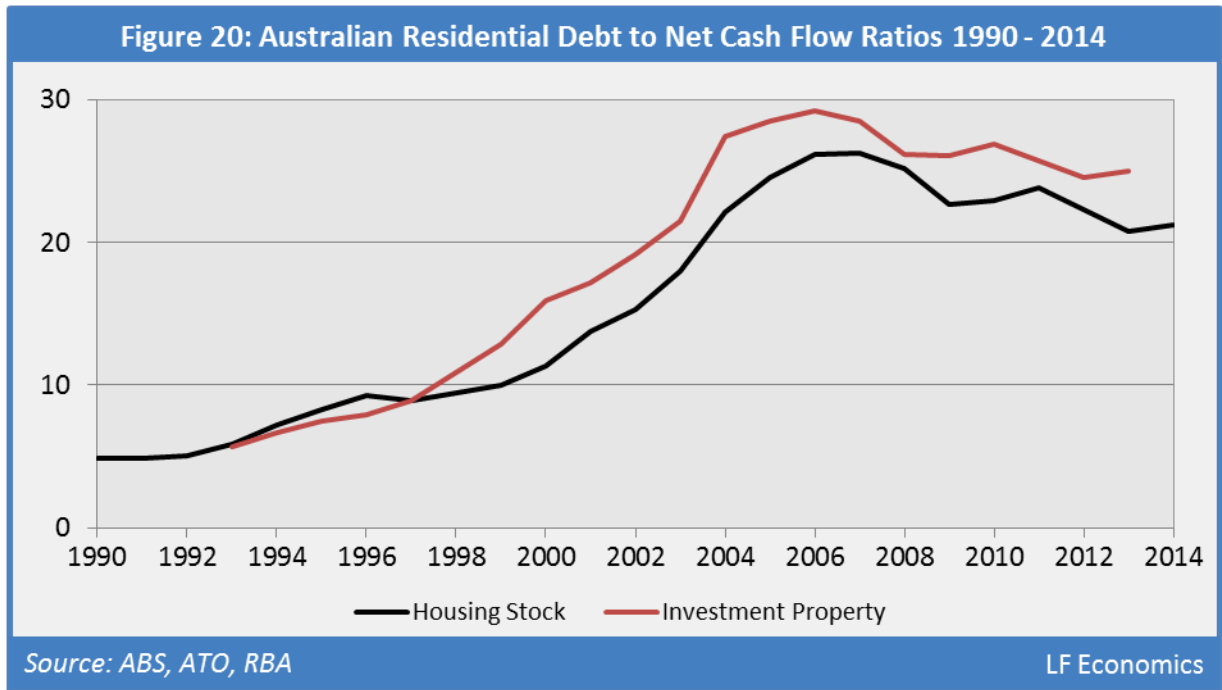
Interest-only loans have reached new heights for owner-occupiers in 2014.

Figure 21: Australian Interest-Only Loans (% of Total Loan Approvals) 2008Q1 - 2014Q4

Source: APRA, RBA

LF Economics
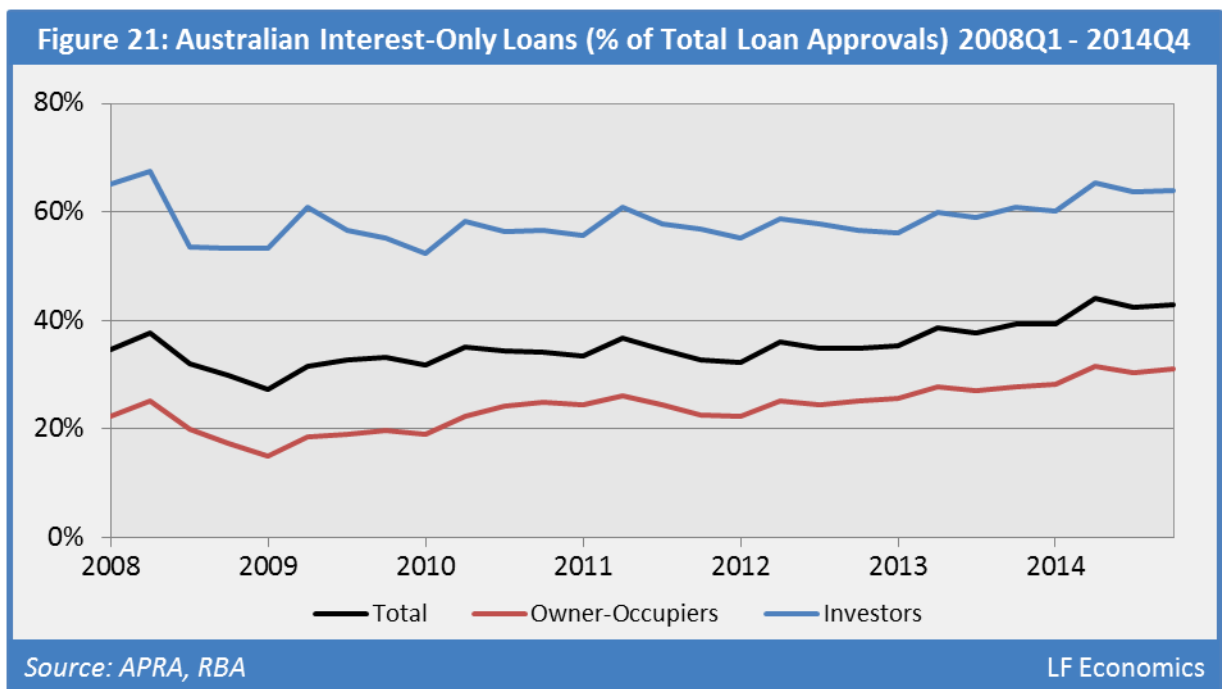
Housing prices should rise further given the mortgage interest rate has fallen significantly since 2008. To measure the degree to which prices reflect expectations of capital gains, the ratio of the mortgage interest rate to the residential gross yield is a useful indicator. When the ratio is relatively high, prices are mostly reflecting expectations of capital gains; conversely, when the ratio is low, prices mostly reflect rental yields.

Figure 22: Australian Speculative Index 1901 - 2014

Source: ABS, RBA, Stapledon, Vamplew

LF Economics

Figure 23: Australian Speculative Index 1982Q2 - 2014Q4

Source: RBA, REIA

LF Economics
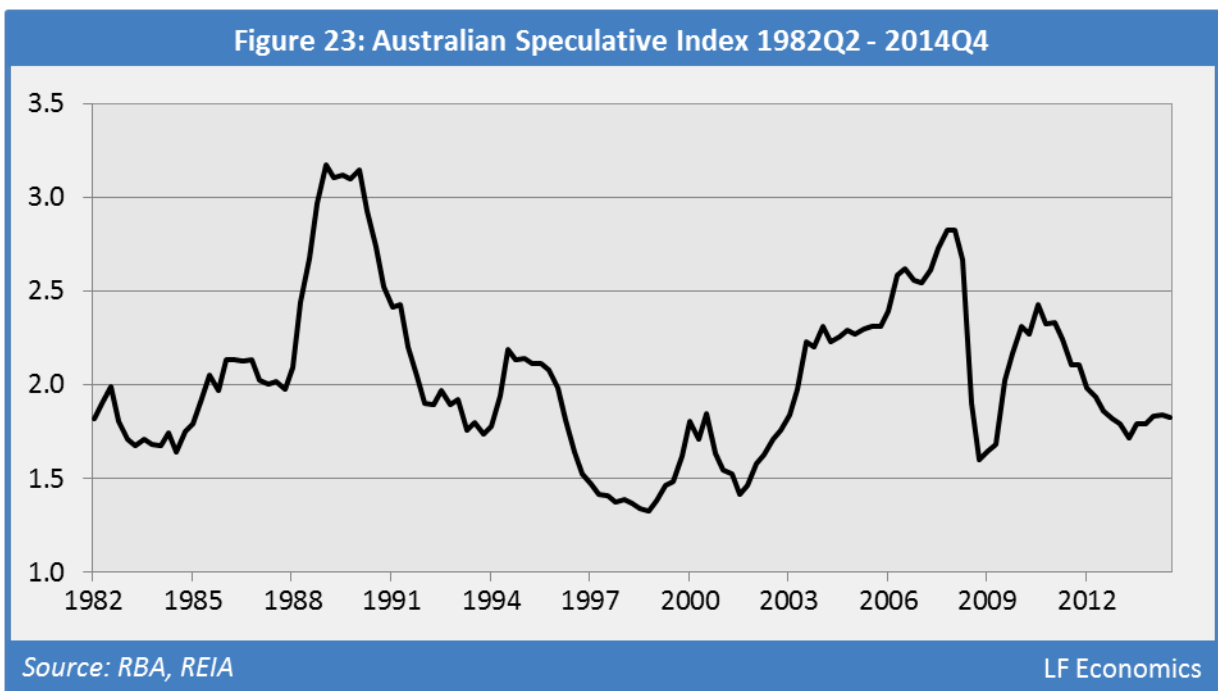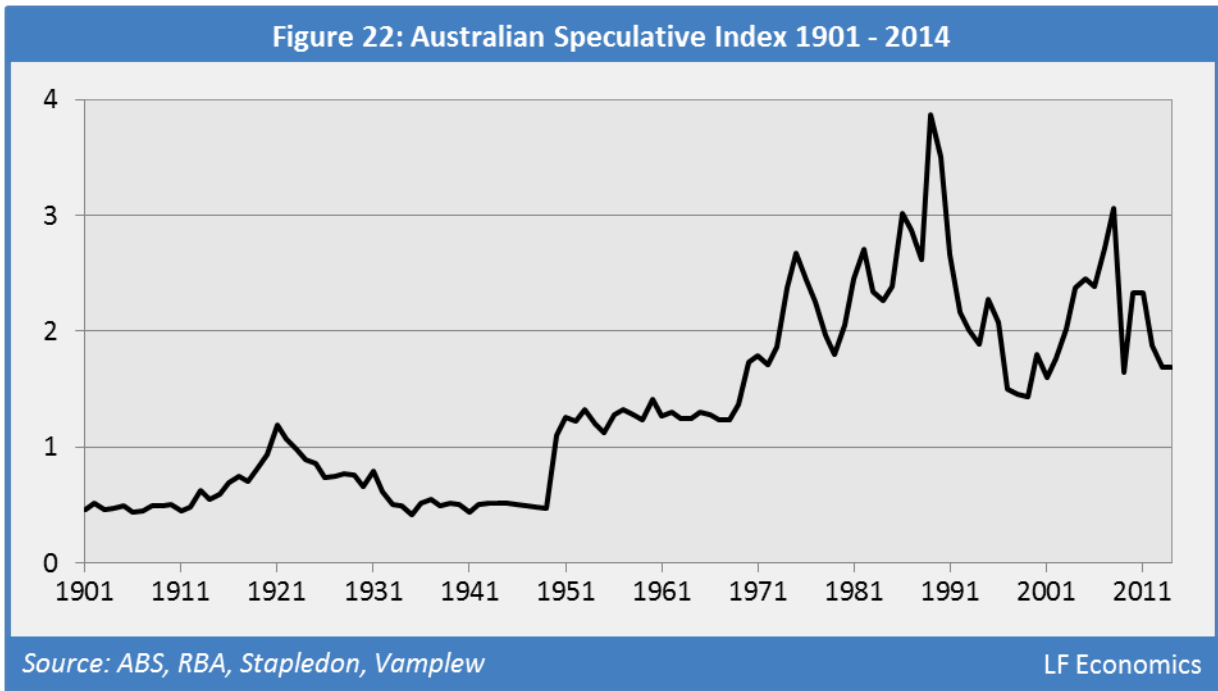
It is unrealistic to expect real housing prices to revert precisely to mean following the surge in real rents between 2007 and 2010. This rise, however, was not large enough to offset inflated housing prices, demonstrated by the elevated P/R ratio. Given the recent boom in dwelling construction post-GFC, real rents will remain steady or fall, compounded by weakening wage and household income growth as the mining sector downturn continues.

Australian economic history and recent international events illustrate collapsing housing bubbles can quickly increase the number of unsold properties (stale stock), shattering the pervasive myth of a deleterious dwelling shortage. Should this occur alongside rising unemployment and underemployment, reduced aggregate demand and falling net overseas migration, the combination of declining population growth and an oversupply of investment properties would place further downwards pressure on rental prices. Falling housing and rental prices, including sales, would be a doomsday trifecta for investors as they suffer losses in both capital prices and net rental incomes.

This calamitous outcome is especially likely in Melbourne where rents have not increased in real terms since 2010. Melbourne is primed to become the epicentre of a legendary housing market crash due to the combination of a staggering boom in real housing prices (178 per cent). Perth is also in a serious predicament following price stagnation and substantial net income losses since the market peaked in 2007Q1. On average, investors purchasing after the peak have lost in terms of both prices and rental income. Other capital cities will experience a downturn, though not as large in percentage terms as Melbourne or Perth.

These metrics point to the beginning of the housing boom in 1996 and peaking in 2010, though the latest booms in Sydney and Melbourne could result in posting new peaks in terms of the P/R ratio. Housing prices across all capital cities remain grossly inflated relative to rents, income, inflation and GDP. What event or set of events triggers the beginning of the end of the housing bubble is not yet known. A bloodbath in the housing market, however, appears a near certainty due to the magnitude of falls required for housing prices to again reflect economic fundamentals. The largest residential land market bubble on record is truly incomparable and dwarfs earlier speculative episodes in the commercial and industrial land market.

Section 4: Housing Taxation

The generous scope of tax expenditures has served to further increase housing prices. Tax expenditures are defined as a deviation from the commonly accepted tax structure, whether it is a tax exemption, concession, deduction, preferential rate, allowance, rebate, offset, credit or deferral.[6] Australia has the highest rate of tax expenditures among the OECD nations, at more than 8 per cent of GDP.[7] Tax expenditures are vulnerable to lobbying, and often compromise the fairness and efficiency of the tax system. Existing home owners capture the most benefit, ahead of FHBs, investors and tenants.[8]

Table 1: Estimates of Housing Tax Expenditures ($Billions)[9]			
Tax Expenditure	2005-06	2007-08	2011-12
Capital gains tax exemption for owner-occupied housing	29.8	20	14
Discounted capital gains tax for investor housing	4.2	6	4.4
Land tax exemption for owner-occupied housing	3.5	10	5
Negative gearing for investment property	1.2	2	2.4
Non-taxation of imputed rent for owner-occupied housing	11.7	15	9.6
Home exemption from pension assets test	-	-	7
Total	50.4	53	42.4

These tax expenditures provide a strong incentive to speculate on housing prices, and are reinforced by already low property taxes. Investors perceive net yields as secondary to expected rises in capital prices, while FHBs over-leverage themselves to enter a bubble-inflated market. Tax expenditures, combined with the ongoing deregulation of the banking and financial system, has transformed the housing market into a casino. Residential property is commonly viewed as a speculative asset to flip, rather than shelter to raise a family in.

---

[6] Yates (2009: 8-9).

[7] Tyson (2014: 3 - Figure 1).

[8] Yates (2009).

[9] Kelly (2013: 22-23, 25); Senate (2008: 61); Yates (2009: 1), cited in Egan and Soos (2014: 601 – Table 3.4.1). Nominal dollars.

The scale of benefits for investors is proportionately lower because they are not exempt from taxation on rental income and capital gains, and also incur the state-based land tax. Despite the public backlash against negative gearing, at a few billion dollars per year, it pales in comparison with the exemption and discount on capital gains tax for owner-occupiers and investors, suggesting the taxation treatment of capital gains is a priority for future reform.[10]

The committee of the recent inquiry into housing affordability claimed that taxing capital gains on owner-occupied property was inconsistent with the community view that the home should not be treated like an investment asset; yet, this is exactly what occurs when owners are allowed to capture the unearned increments in capital and rental prices.[11] As the above metrics indicate, owner-occupier debt has risen significantly, and 31 per cent of all new owner-occupier loans are interest-only as of 2014Q4, indicating the intent to speculate.

Government and industry have designed an intricate public relations propaganda campaign to convince the common person that their only interest is in their capacity as a landowner. Concerns about their capacity as an employee or small business owner is carefully removed from the frame, given the pathologically insane 419 tax and tax-like fees the state stifles the public under to allow the rent extractors of Australia a free ride from economic rents, which overwhelmingly benefits the wealthy.[12]

There is evidence to suggest the wealthy pay no tax at all because, several years into an economic boom, they can recoup decades of so-called progressive taxes through the capture of unearned uplifts in the capital and rental prices of their real estate assets the tax system strongly benefits, let alone the multitude of other sources of economic rents.[13]

---

[10] Brown et al. (2011); PC (2004: Chapter 5).

[11] Senate (2015: 145).

[12] TAI (2015).

[13] Fitzgerald (2013); Harrison (2006). See Riley (2001) for an example of this.

Section 5: Australia's Fictitious Housing Shortage Chimera

Government, industry and academia have claimed the housing price boom is based upon fundamental factors, for instance, high population growth, demographic change, falling nominal interest rates, a low rate of inflation, restrictive land supply regulation, foreign investment, and last, but not least, a dire shortage of dwellings. For those familiar with the numerous global housing cycles in recent years, these factors were considered by policymakers and mainstream property commentators as providing a floor under the housing market which prices could not fall below.

Central to this argument is that a continual deficit of dwellings across Australia's capital cities has been a major cause of the structural rise in real housing prices. Government and the FIRE sector are adamant that a housing shortage is responsible. Given the importance of the housing market to the economy, it is surprising that no economist has constructed a model of dwelling supply to determine whether a net surplus or deficit exists within a specified time period, or to calculate the cumulative net surpluses or deficits across a specified time span. Oddly enough, this has not prevented the housing lobby from strongly proclaiming the existence of a shortage. Without a model of housing supply that can concretely determine whether a cumulative net surplus or deficit exists, it is difficult to claim an oversupply or shortage of dwellings exists, let alone determining the impact upon housing prices.

Australia is not the only country where assertions of dwelling shortages surfaced. The US is a classic example whereby its largest housing bubble on record was blamed on a phantom shortage, allegedly caused by government regulation of the housing market. Mainstream organisations - the Federal Reserve, National Association of Realtors, California Building Industry Association and Harvard University's Joint Center for Housing Studies - produced sophisticated studies to show this to be the case. These studies were authored by the most credentialed and experienced housing economists in the country. That the US had a major oversupply of dwellings was obvious only after the bubble had burst, dashing the reliability of housing economists.

Another obvious case example is Ireland. This country experienced a tremendous real estate bubble which peaked in 2007 and then burst, throwing the economy into a severe economic downturn. The housing price inflation, however, was blamed on a fabled dwelling shortage by the luminaries of the Irish economics profession. The shortage argument, however, is not new. Every country that has suffered through a housing cycle in recent years had so-called experts claiming capital prices were based upon fundamental factors of supply and demand. Unfortunately, economists considered these housing price booms to be efficiently based, so there was no need to actually test for a shortage – they are considered to exist by definition.

What these housing markets experienced was artificial demand generated by their banking and financial systems, having lent colossal sums of private debt to speculators to bid up housing prices which led to the entry of ever-more buyers. It is during this period these institutions claim a dwelling shortage is the cause of record high housing prices. The failure of the RBA and government to identify the oversupply of mortgage debt in the household sector as the real culprit has now left the housing market and economy exposed to financial instability and a severe downturn.

Considering the blatant failures of housing economists and the legion of analysts and researchers on the government and corporate payrolls to test for dwelling shortages in international jurisdictions, it is a sound course of action to not fall into the same trap. Given the oft-repeated assertion that Australia's high housing prices stem, in part, from a dwelling shortage, the chosen baseline for the analysis is 1996Q2, when real housing prices began to rise. The latest data point available is 2014Q3.

The best method to determine whether a surplus or deficit exists is to compare the flow of new net dwellings to new net households, once appropriate adjustments have been made.[14] To err on the side of caution, the estimates are based on extremely conservative (restrictive) assumptions, whereby:

---

[14] Belsky (2009); Hargreaves (2008); Stapledon (2012: 304, n. 34).

- Only private dwellings are included (the small proportion of public dwellings are excluded).

- Dwelling completions, not approvals or commencements, are used.

- Completions are adjusted for estimated replacements/demolitions.

- Completions are further adjusted for secondary dwellings (vacant and/or holiday homes).

- Renovations, alterations and additions are excluded (making dwellings larger and/or adding new bedrooms).

- Dwellings that are created through non-residential construction activity are excluded.

- Births are included in new household formation, even though they don't result in demand for new supply (perhaps causing some families to transition to larger, existing dwellings).

Given the conservative nature of the estimates, the data likely understates the supply of dwellings available for occupancy across Australia's housing markets. More liberal (relaxed) assumptions would show a larger number of dwellings relative to new household formation. Between 1996 and 2014, Australia was required to build a new dwelling for approximately every 2.6 new residents to sufficiently accommodate its growing population.

The LF Economics Dwelling Supply Index is interpreted as following: a value of 1 indicates a balanced market, a value less than one indicates a surplus, while a value greater than one indicates a deficit. A 4-period moving average has been used to smooth the volatility of the data series. It demonstrates that, for the majority of the housing price boom, the national housing market was in surplus. Between 1996 and 2014, Australian housing prices, adjusted for inflation and quality, surged by 121 per cent. Yet, 86 per cent, or almost three-quarters, of that boom occurred over a ten-year period between 1996 and 2006 when the housing market was in persistent surplus.

Figure 24: LF Economics Dwelling Supply Index 1996Q2 - 2014Q3 (4PMA)

Source: ABS   LF Economics
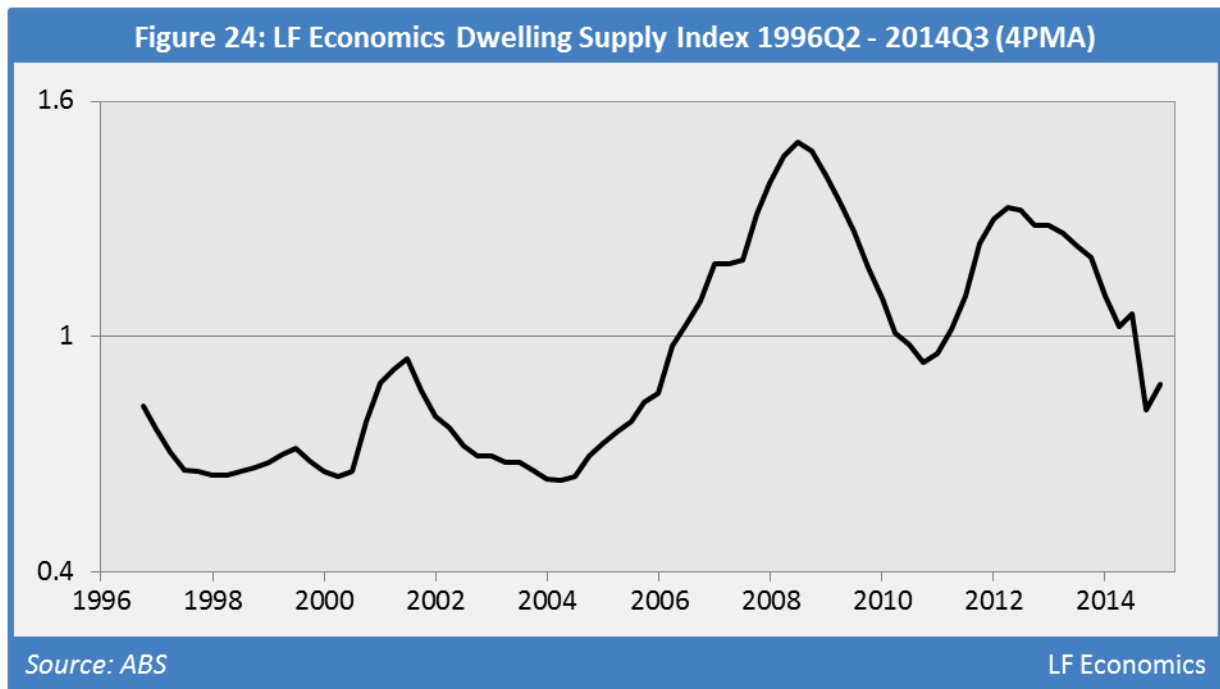
The LF Economics Dwelling Supply Index indicates the surplus switched to a deficit during the GFC (2007-2009) when construction moderated and population growth surged via rising net overseas migration.[15] As construction picked up and population growth slowed thereafter in 2010, a short-lived surplus emerged. A deficit occurred between 2011 and 2013, and then shifted into surplus as population growth has again slowed and another boom in dwelling construction has taken hold, especially in the capital city apartment markets. Given the uptick in dwelling completions and residential projects in the pipeline, a surplus appears likely for the next several quarters.

Figure 25 transposes the results from Figure 24 to illustrate the trend in net supply on a quarterly basis. As the LF Economics Dwelling Supply Index demonstrated a persistent value of <1 between 1996 and 2006, the results shows the surpluses in absolute values (green). After 2006, the housing market has experienced mostly deficits (red).

---

[15] Stapledon (2012: 312).

Figure 25: Australian Quarterly Net Dwelling Supply 1996Q2 - 2014Q3

Source: ABS   LF Economics
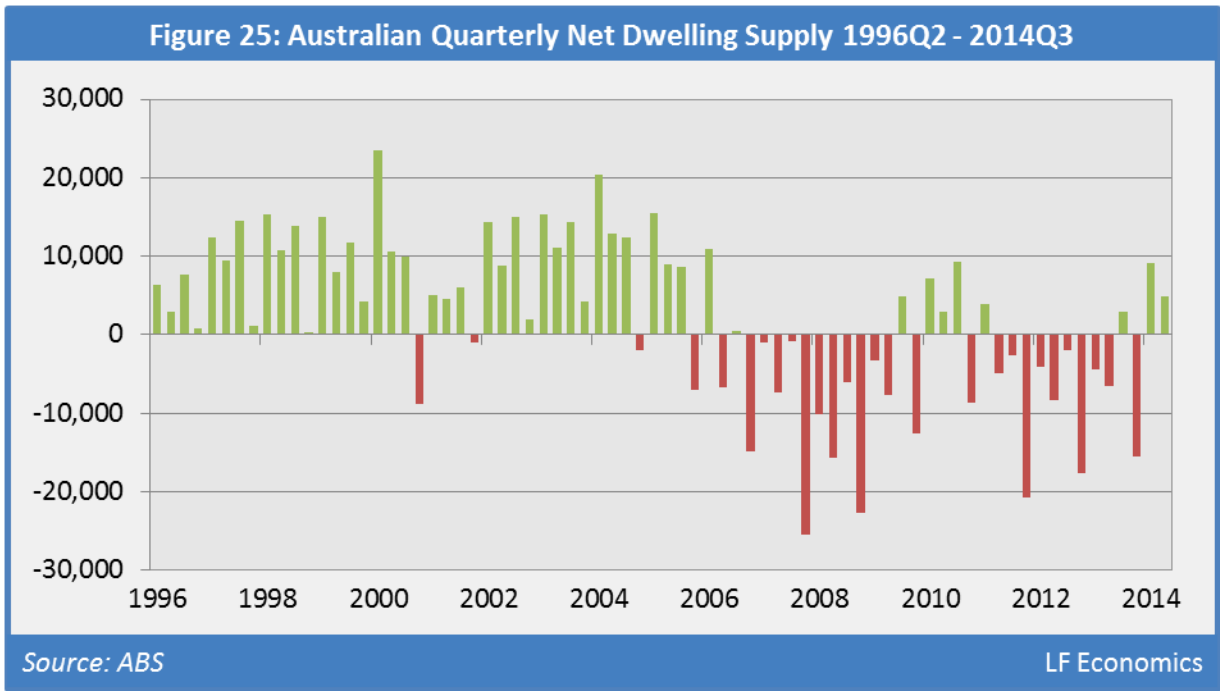
Figure 26 charts the cumulative running total of surpluses and deficits from Figure 25. The oversupply of housing reached a peak of 349,000 dwellings in 2006Q2. As deficits emerged post-2006, the cumulative total has fallen to 165,000 as of 2014Q3. Given current population growth rates and household occupancy rates, this considerable surplus amounts to just over a years' worth of extra supply.

Figure 26: Australian Cumulative Dwelling Supply 1996Q2 - 2014Q3

Source: ABS   LF Economics

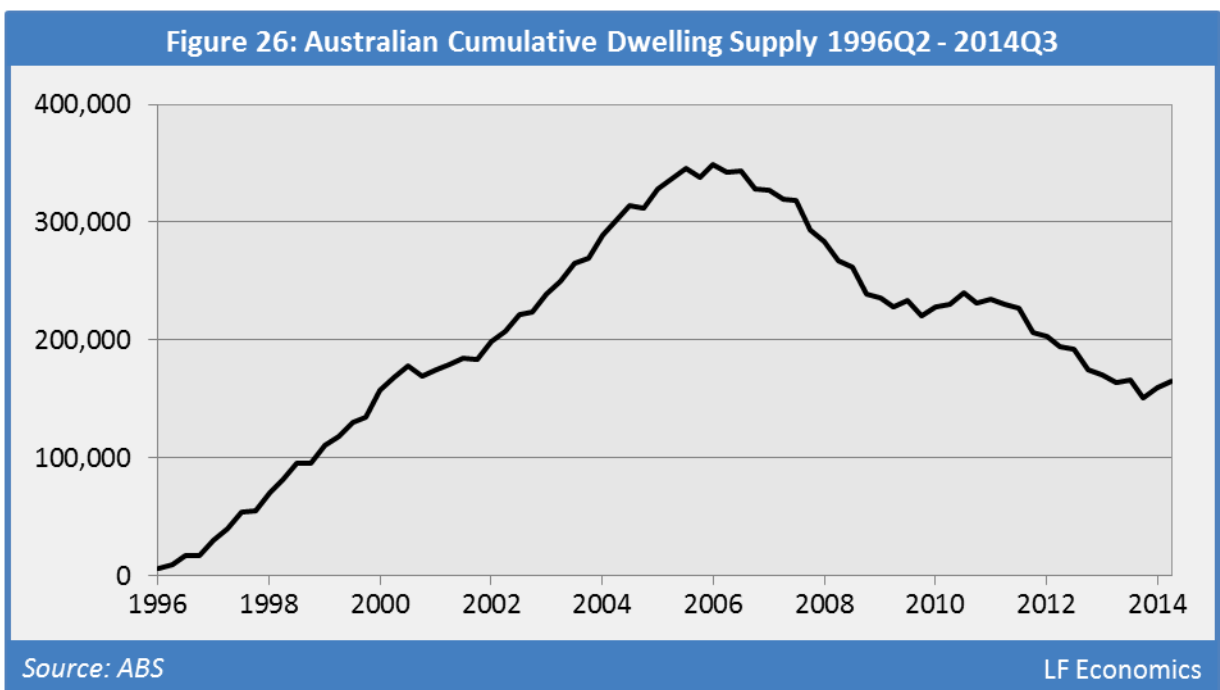| Table 2: The State of Supply in Australia by Region (2014Q3)			
Region	Supply Index	Surplus/Deficit	Cumulative Over/Undersupply
NSW	0.97	285	40,537
VIC	0.82	2,151	123,242
QLD	0.77	2,107	-3,126
SA	0.64	697	28,302
WA	1.15	-797	-44,509
TAS	0.23	309	17,317
NT	0.90	49	-7,244
ACT	0.76	133	14,443
Australia	0.88	4,865	165,032
Source: ABS			LF Economics

The same oversupply of dwellings has surfaced in all the states and territories except for WA, QLD and NT, where the influx of population growth to service the mining boom has resulted in a relative shortage of dwellings. These shortages have been evidenced by the strong growth in rental prices, which are now falling as the mining boom unwinds in the face of commodity oversupply. Of particular concern is Victoria, which has experienced the biggest housing price boom of all the states and territories, but yet has the largest cumulative oversupply of dwellings at 123,000. This is equivalent to approximately three years' worth of extra supply.

Despite these conservative estimates that demonstrate an oversupply of dwellings over the period of the real housing price boom, government, industry and academia have yet to acknowledge the obvious discrepancy between economic theory and reality. Between 1996 and 2006, the housing market produced persistent dwelling surpluses, even as real housing prices boomed. Rental prices, in contrast, tracked the rate of inflation and occasionally fell in real terms. If a dwelling shortage did occur, the effect would be demonstrated by rising rental prices as tenants competed to secure scarce shelter via increasingly greater proportions of their incomes. This would be evidenced by significant increases in the nominal rent to inflation and rent to income ratios.[16]

---

[16] This occurred in the capital cities during the GFC and for regional towns during the mining boom.

The problem is that economists assume housing markets operate in a static state of equilibrium, where aggregate supply equals aggregate demand. In this model, inefficiencies are only caused by exogenous or external interventions, for instance, government regulations.[17] It is assumed the housing market cannot transition from an equilibrium state to a disequilibrium state without an external shock. By assuming static equilibrium models are valid representations of the real world, mainstream economists use a spurious chain of logic to arrive at the conclusion that housing prices must be high because government regulations are limiting the supply of dwellings relative to demand. This is usually demonstrated by means of the popular supply and demand model.

It has been known for decades, however, that static equilibrium models (including dynamic stochastic general equilibrium models) do not accurately reflect the operation of any known market, let alone one as complex as the housing market, especially in its interactions with the banking and financial system.[18] For a housing market to operate in equilibrium, a host of patently absurd assumptions have to be made, with the resulting unrealism and simplification ensuring limited comprehension of how housing and land markets actually function in the real world:

1. The existence of equilibrium prices and quantities;
2. The market will always return to a deterministic equilibrium state;[19]
3. Banks, money and debt do not exist;
4. All housing is bartered (exchanged) without the use of debt;
5. All transactions are made at time = 0, as time does not exist;
6. There is no uncertainty, only probabilistic risk;
7. There is no asymmetry of information;
8. The acceleration and deceleration of mortgage debt does not affect housing prices;

---

[17] Notwithstanding that the allocation of private property rights is a government intervention, probably the largest and most significant one of all.

[18] Bergmann (2009); Blaug (1998); Colander et al. (2009); Keen (2011); McCauley (2006; 2009); Ormerod (1994).

[19] Wayne (2015).

9. Decision-making is rational;

10. There is only one actor in the model, the representative consumer;

11. Preferences are static, irrespective of the change in income;

12. Utility is always maximised;

13. The rational agent knows the exact and entire future into infinity;

14. An almost infinite number of calculations are made by the rational agent to sort through all possible combinations to maximise utility – the curse of dimensionality;[20]

15. The rational agent always spends the same proportion of their income on housing and transportation costs, assuming there is always a fixed trade-off;

16. Land is modelled as capital or a commodity;

17. Land is modelled as if it were produced by a capitalist firm, rather than acquired from nature;[21]

18. Land depreciates like capital, as if it were not a durable goods monopoly lacking a supply curve;[22]

19. The returns to land are defined as earned as if it were a competitive market for capital, rather than unearned economic rents;

20. The dwelling stock is perfectly malleable, which means that when a marginal change is made, the entire dwelling stock is wiped out, then rebuilt incorporating that marginal change;[23]

21. Land is continually utilised within urban boundaries and boundaries are continuously expanded in line with income and population growth, which means leap-frog sprawl and other irregular developments cannot be explained;[24]

22. Every plot of land is put to its highest use (never vacant) so no development opportunities can exist;[25]

---

[20] Keen (2003).

[21] Gaffney and Harrison (2006).

[22] Bagnoli et al. (1989).

[23] Pines (1989).

[24] Pines (1989).

[25] Titman (1985).

23. There is never surplus inventory – if housing inventory does exist, the supply curve can never meet the demand curve.[26]

The result of these unrealistic assumptions is a model which says nothing about any known housing market, so the conclusions that follow cannot be correct, unless by coincidence. Yet, because mainstream economists have not been taught any different, equilibrium models comprise the conventional method for analysing housing markets. It is little wonder the economics profession and industry has a profound attachment to these models, as it is easy to show that high housing prices stem from government regulations that purport to restrict dwelling and land supply.[27]

Equilibrium models should be discarding in favour of disequilibrium price dynamic models, preferably supplemented with real options theory, as a more realistic approach to analysing the dynamics of housing and land markets. Dynamic disequilibrium urban economic models can advance the understanding of the fundamental drivers of the real estate cycle, particularly when usury and land rent are incorporated. Economists must begin heeding factors they have intentionally ignored for well over a century and which do not feature in modern economics textbooks or university curriculums.

Another method by which the mainstream economics profession has twisted the housing market debate is by asserting the affordability crisis is the result of supply-side rigidities caused by regulations, assuming that many cannot afford shelter because of the resulting high housing prices. Concerns over affordability are primarily centred on low income households, as wealthier cohorts have the choice to delay purchase and rent instead. The poor have little option but to rent, given few have the sustained income to purchase.

---

[26] Wayne (2015).

[27] Lithuania presents a falsification of this. Since independence, it has recorded a persistent outflow of net population, resulting in significant effective increases in supply (as dwellings don't disappear when people leave). Yet, real housing prices ballooned by 700 per cent between 2001 and 2007 and then collapsed - possibly the largest housing bubble in recorded history (Scatigna et al. 2014: 71 – Graph 1).

As the data shows, the fundamental value of land (rental income) has generally kept in line with inflation and household incomes.[28] Yet, there will always be some persons and households who are too poor to even rent modest dwellings. That this occurs is not the fault of any perceived faults in the supply of dwellings, but is actually the result of the market's filtering process (ability to pay) which allocates the best accommodation to those with high incomes and the worst dwellings to those who are poorest (or none at all).[29] Property developers and builders are not charities; they are capitalists who must make a profit or go out of business. They can only respond to effective demand, not underlying demand (need). If many secondary homes are built for the wealthy, and perhaps a holiday home for some in the middle class while the poor reside in marginal housing or are rendered homeless, this is neither caused by dwelling shortages nor supply-side rigidities but by the lack of effective demand from low income persons and households.

The situation is similar to the market for food: the wealthy can purchase the highest-quality and most expensive food, the broad middle class is likewise able to satisfy preferences, but there will always be some who either go hungry or starve, not because of faults in the supply of food, let alone enormous food wastage, but because they lack the ability to transform their needs into effective demand on the market. Moreover, comparing the market for dwellings to food is a poor analogy, given food prices should generally fall as an economy becomes more productive and competition equates prices to marginal costs. Land is not capital or a commodity, however; its value is instead determined by owners and tenants competing to secure scarce sites. As nominal wage and household incomes almost always grows in a capitalist economy, so do site values. The greater the productivity of an economy, the more site values increase.

This is the same reasoning for dwellings that are vacant or derelict – that they are not in current use and thus unsuitable for a potential household is not a reason for excluding them from the supply estimates. Whether a dwelling is vacant or derelict is not the fault of the

---

[28] Kearns (2012: Graph 5); Kent (2013: Graph 14).

[29] Yates (2013: 121-122).

market to supply housing, but government policy that allows owners to let them remain empty while collecting the unearned increments of future capital and rental prices (hence the argument for the land value tax).

What is often crouched in terms of supply-side rigidities is actually an argument for reducing inequality to ensure the poor can afford secure shelter. Unfortunately, there will always be a significant proportion of people with insufficient incomes, often due to complex long-term physical and/or mental issues, or are caring for others (the elderly or children) and have little time to spare for wage labour. To translate their needs into effective demand, their incomes can be boosted through social welfare transfers and have rents set at a sustainable proportion of income (social and public housing).

Section 6: Recommendations

All levels of government must engage in significant policy reform regarding the FIRE sector and taxation system to supress debt-financed speculation. A return to housing affordability in Australia requires directly targeting the impulse of the banking system to lend out too much credit and landowners' capture of economic rent. Policymakers can begin by heeding the many credible recommendations found in previous inquiries.[30]

Housing Market Recommendations

Recommendation #1: More efficient use of the State Land Tax (SLT).

The SLT is an ideal tool to moderate both land price bubbles and their subsequent devastating busts, and is already in the toolkit of state and territory governments. Unfortunately, this tax has been rendered comatose by a host of exemptions and concessional treatments. The SLT requires broadening to include owner-occupied housing and agricultural land, calculated on a per-square-metre value basis. The narrow existing base and progressivity of the SLT incurs only a small deadweight loss; the complete removal of exemptions and concessions would reduce this deadweight loss to zero.

On the other hand, the federal government could take charge by imposing a comprehensive Land Value Tax (LVT) on all land. An increasing marginal rate schedule taxes the least valuable land at 0 per cent, with rising rates calculated on a per-square-metre value basis. Land taxes apply per land holding, but not on an entity's total holdings, to encourage development.[31]

Recommendation #2: Changes to municipal rates calculations.

---

[30] Including those detailed in Egan and Soos (2014: 686-702).

[31] Treasury (2009). Recommendations 51-54.

Municipal rates should be levied using site value (SV) rating, taxing the underlying land only. Under the capital improved value (CIV) or net annual value (NAV) system, construction is taxed, suppressing building activity and imposing widespread deadweight losses.[32] Use of Minimum Rates provides a direct subsidy to those owning more valuable sites. Ratepayers should oppose this wealth transfer - an impost on their capital values as well as annual charges. Rates should not be capped to the rate of inflation given residential land prices have far outstripped inflation.

Recommendation #3: Reform stamp duty tax.

Unlike most recommendations regarding stamp duty, it is a tax worth keeping. Theoretical studies on the deadweight losses of taxation will indicate stamp duty is an inefficient transactions tax, but this only holds on the unrealistic assumption that the housing market is efficient. As Australia is at the peak of its largest housing bubble on record (revealing the housing market is not efficient), stamp duty instead acts similarly to a Tobin tax: it reduces both prices and volatility. Evidence demonstrates stamp duty in Australia reduces housing prices equal to or greater than the value of the stamp duty, rather than increasing prices as is commonly believed.[33] This is precisely why the housing lobby seeks to reduce and eliminate this tax.

Given the inefficiencies currently wrought in the housing market, stamp duty is likely to be welfare-enhancing, and thus should be retained. A reformist approach would be to increase stamp duty on the more speculative transactions, for instance, owner-occupier and investment property purchases with a loan to value (LVR) ratio above 80%, rising further if interest-only loans are used, while reducing stamp duty for transactions with lower LVRs and amortizing principal and interest mortgages. If a sufficiently large, broad-based LVT proved it could quell an inefficient housing market, stamp duty could be gradually reduced. It should also be noted that the incidence of stamp duty results in a portion falling on the

---

[32] Harrison (1983).

[33] Davidoff and Leigh (2013).

dwelling structure, which results in inefficiency as with council rates based on the CIV or NAV system.

Recommendation #4: Reform housing tax expenditures.

The capital gains and land value tax exemptions for owner-occupiers and the capital gains tax discount for investors should be removed.[34] Owner-occupier mortgage interest deductibility is ruled out because it is the equivalent of the negative gearing benefit for investors, and therefore likely to encourage larger private debt burdens.

SMSF tax concessions should be modified by bringing them into line with the benchmark treatment for property investment.[35] Provisions allowing SMSFs to borrow for investment purposes are removed to limit risk and losses during future real estate corrections.

Recommendation #5: Quarantine negative gearing.

Negative gearing is a Ponzi-amplification mechanism that provides incentive to increase mortgage debt to speculate on the movements of future capital prices. The ability of property investors to write off net rental income losses against labour income tax should be disallowed. The ability of investors to claim depreciation on buildings should be reviewed, as it allows income that otherwise would have been taxed at the full rate to be converted into capital gains that are only taxed at 50 per cent of the nominal rate.

Recommendation #6: Removal of all first home buyer subsidies.

The FHB grant and boost, including the first home savers accounts, should be removed. These housing subsidies act as a demand-side stimulus that further erodes affordability. When combined with highly-leveraged mortgages, the result is rapid housing price inflation

---

[34] Kelly (2013); Senate (2008); Yates (2009).

[35] Before retirement, capital gains and income tax rates are 15 per cent, falling to 10 per cent if held for more than one year. After retirement, there is no tax liability on either (ATO 2013).

that substantially outstrips the size of the grant. These grants are a gift to vendors, not FHBs.

Recommendation #7: Prevent superannuation lump-sum withdrawals.

Disallow the use of lump-sum withdrawals from superannuation accounts to finance purchases of owner-occupied property or to prevent foreclosure (while allowing SMSF purchases as noted above). The former acts like a FHB grant, while the latter is another gift to bankers.

Recommendation #8: Increase the Commonwealth Rent Assistance (CRA) scheme.

The CRA should be increased to assist low and moderate income tenants, and index it to nominal rental price growth. The CRA is better targeted than NG and the NRAS because it provides direct cash assistance to tenants. The program may place upwards pressure on rental prices as it increases eligible tenants' purchasing power.

Recommendation #9: Greater investment in public housing.

A substantial increase in funding for public housing would assist long-term, low-income individuals and families reliant on social welfare to exit the private rental market, ameliorating their financial stress. We have an obligation to look after those who have difficulty managing their affairs.

Recommendation #10: Tenancy law reform.

Australian tenancy laws should adopt the higher standards enjoyed by other Western nations. Tenants' limited rights include less stability and security in tenure due to shorter lease terms (6 to 12 months on average), lower rental vacancy rates favouring landlords

during contractual negotiations, termination of leases for no reason, and requisite landlord permission for minor alterations and pet ownership.[36]

Recommendation #11: The adoption of 'right to build' laws.

This policy encourages timely development of residential property. Planning delays and uncertainties may raise land costs, thus, this effect is negated by a right (positive presumption) for developers and home builders to undertake activity, within specified local and state government guidelines. If a development is opposed, then the onus is upon the aggrieved party to take the developer to the civil tribunal to modify or prevent construction.

Recommendation #12: Elimination of state/local government infrastructure charges and levies.

Governments should reverse its preference for imposing direct charges on developers, instead financing local infrastructure directly. Governments can either adopt the Texan Municipal Utility District (MUD) model or return to the original system of issuing municipal bonds to finance local infrastructure and paying down debts through council rates.

It should be noted that developer levies and charges do not feed through into higher housing prices as is commonly believed; rather, developers subsume the levies and charges through lower profit margins which explains why they oppose them. Regardless, those who benefit from local infrastructure should finance its provision through the benefits-pays system: landowners through council rates and SLT/LVT.

Recommendation #13: Streamlining of zoning processes.

Land subdivision and zoning vacant land for residential use in capital cities takes too long, generating considerable costs, uncertainty and reducing developer competition.

---

[36] Kelly (2013).

Comprehensive betterment taxes should be applied to agricultural land that is rezoned for commercial and residential purposes.

Recommendation #14: Removal of most urban growth boundaries (UGBs).

Except for ecologically or culturally sensitive regions of land, there is no sound rationale for UGBs, as only a tiny fraction of Australia's land mass is urbanised. Building further out on the fringe may lower housing costs, but this will likely be more than offset by the rise in transportation costs.[37]

Recommendation #15: Establish the 'Right to Rent' program.

The Right to Rent program allows any household in danger of foreclosure to remain in their home for a period of 5 to 10 years (or longer), paying the market rate of rent to the new owner (the bank). This policy helps protect owner-occupiers from the injurious effects of lenders' control frauds. The plan does not bailout the banks or home owners, can be implemented straight away, does not create more bureaucracy and protects property from theft, squatting and vandalism. It also gives owner-occupiers more power in working through mortgage modifications, potentially reducing the number of delinquencies, insolvencies and foreclosures.[38]

Banking Recommendations

Recommendation #1: Prepare legislation for the implementation of a future Chicago Plan-style reform in the event of a severe banking crisis. This includes a progression to 100 per cent reserve lending and backing for deposits, and public control of the money supply via issuance of government money (equity) when banks want to lend, unless they wish to pay an increased premium for private debt liabilities. Forcing the requirement that banks issue debt instruments to the government, rather than the private sector, is a blueprint for

---

[37] See CNT (2015) and USHUD (2015) for the evidence from US housing markets.

[38] Baker (2011).

removing the noxious impact of usurious fees and interest charges, and rapid inflation in the money supply that causes asset bubbles and financial instability.[39]

Recommendation #2: A range of macro-prudential tools should be implemented to moderate housing price inflation and subdue credit growth in a pro-cyclical financial system, particularly those affecting the loan to value (LVR), debt servicing (DSR) and debt servicing to income (DSTI) ratios.[40] Quantitative restrictions are placed on the share of new mortgages with moderately high LVRs (60 to 79 per cent), and significantly strengthened for mortgages with an LVR of 80 to 89 per cent. Mortgages with an LVR of 90 per cent and above, interest-only loans and those backed by parental guarantee are disallowed. Mortgage debt is capped at a multiple of ten times the imputed or actual annual rental income of the property being purchased to prevent a positive feedback loop forming between rising housing prices and debt.[41] The '30-10-30 Plan' should be a future policy consideration following a severe downturn in the housing market.[42]

Recommendation #3: To reduce systemic risk, a large rise in capital and liquidity ratios (buffers) is implemented so banks can withstand a future economic downturn, bank run, credit market freeze or large fall in the value of collateral. Research suggests the probability of a banking crisis can be reduced to a 1 in 100 year event by raising core equity (Tier 1) capital ratios to 11 per cent in isolation or raising core equity to 10 per cent with an additional rise in liquid assets of 12.5 per cent (the rise in liquid assets over total assets).[43] For the Big Four banks, this represents a rise of around 3 per cent in core equity. Liquidity and capital buffers (and general debt provisioning) must rise during the expansionary phase of the credit cycle, taming the size and duration of a debt-financed asset price boom.

---

[39] Benes and Kumhof (2012).

[40] Rogers (2013: 16-17).

[41] Keen (2011: 398-400).

[42] David (2015).

[43] BIS (2010: 4-5); IMF (2012: 22).

Recommendation #4: APRA enforces a transparent and prudent risk-weighting methodology for determining capital ratios. APRA rescinds banks' authority to calculate their own risk-weights with advanced internal methods (APS 113) and enforces all new bank lending under APS 112, applying more conservative criteria and risk weights for residential mortgages. Requisite modifications to APS 112 include higher risk-weights when asset prices significantly diverge from the long-term mean (25-30 year minimum), and re-calculation of potential super-sized LGD, PD and EAD during a large housing correction.

Recommendation #5: Significant capital allocations arising from conservative risk-weights imposed on financial derivatives, with prudential regulations requiring derivatives to be placed on-balance sheet in SPVs.

Recommendation #6: Development of a new RBA risk assessment framework including a range of macroeconomic, banking, market-priced and qualitative indicators:

- Macroeconomic metrics include the stock and flow of credit to all sectors of the economy (household, non-banking financial, non-financial business, and government sectors), sectoral leverage, associated DSRs and estimations of credit quality.
- Banking sector metrics include capital adequacy as a proportion of total asset value (not RWAs), liquidity ratios, non-performing loan rate, asset quality in high-risk sectors (e.g. residential housing), proportion of high-LVR and interest-only lending, asset concentration on bank balance sheets, and the level of specific provisions for bad debts.
- Market-priced metrics include the divergence of asset prices from long-term averages (e.g. P/I and P/R ratios), credit spread between market/deposit and lending rates, proportion of securitised, offshore and short-term wholesale funding, degree of foreign investment, loan to deposit ratios, and the average maturity profile of debt.
- Qualitative measures include lending standards and risk appetite, ratio of prime to non-prime/subprime lending, trends in loan control frauds, rapid bank network growth and the intensity of financial sector competition.[44]

---

[44] Rogers (2013: 17 - Table 2).

Recommendation #7: Strict limits are placed on the Big Four banks to prevent any further mergers or acquisitions due to the high concentration of Australian financial system assets under management and the already non-competitive operating environment. A maximum threshold is established for the proportion of credit aggregates directed towards any single asset class.

Recommendation #8: APRA enforces less reliance on wholesale borrowing, particularly short-term foreign debt, via existing regulatory powers. The average maturity of wholesale funding is lengthened by adopting suitable benchmarks for short and long-term wholesale borrowing, and imposing restrictions on off-shore bond issuance. A minimum level is also set for 'stickier' funding sources like domestic deposits.

Recommendation #9: Covered bonds are phased out, as this dual recourse funding arrangement poses significant over-collateralisation risks. The numerous funding advantages of the Big Four banks over second-tier lenders indicate they are not disadvantaged by this reform. Legislative amendments to the *Banking Act 1959* subordinating depositors in the creditor hierarchy are unwound.

Recommendation #10: RMBS funding arrangements are reviewed and a maximum 10 per cent limit set for total RMBS financing in any asset class. The AOFM explicitly rules out any future support for RMBS.

Recommendation #11: Establishment of a Royal Commission to conduct an exhaustive investigation of the financial system and regulatory bodies. The Terms of Reference are broad and explore accusations of extensive subprime mortgage fraud, predatory lending, and regulatory agency culpability and negligence in addressing systemic risk and unconscionable financier conduct.

Recommendation #12: External dispute resolution (EDR) organisation regulations are reformed to better assist victims of predatory lending. Arbitrary caps on mortgages are removed, allowing EDRs to write-off the entirety of loans in the worst cases of fraud. The powers of EDRs are significantly expanded to deal with recalcitrant lenders.

Recommendation #13: The Financial Claims Scheme (FCS) is broadened to include significant ex-ante funding from banks to provide depositor and general policy insurance. A financial contribution from banks discourages moral hazard and guarantees they bear a greater loss for subsequent failures.

Recommendation #14: Economists in senior and executive public roles are subject to a suitable incentive structure to ensure appropriate management of the economy and commentary. A range of key performance indicators can be adopted and benchmarked against the performance of the economy. Economists are held accountable for the quality of their work, with a number of penalties being introduced for poor performance: fines, loss of employment and even imprisonment in the worst cases of financial and economic collapse.

Recommendation #15: The development of a more transparent and empirically-validated stress-testing framework. Primary variables that predict future instability include the size of the credit-to-GDP gap (breaching 6 per cent), DSRs greater than 20 per cent (related to more severe recessions), a large proportion of credit aggregates directed towards real estate (42 per cent of all Australian banking assets are housing loans), large deviations of asset prices from the long-term mean, and low equity to deposit ratios (a greater number of creditors have a claim on banking assets). APRA ceases to use 'soft stress-testing assumptions' for liquidity as noted in the 2012 IMF Financial Stability Report.

Recommendation #16: The APRA stress-testing framework includes the following secondary variables: large ToT shocks precipitating a significant fall in national income, persistent tepid or negative economic growth, steep rises in unemployment stressing high DSR households, and significant Australian bank exposure to the New Zealand market.[45] A mining sector downturn would increase the likelihood of rising personal and commercial defaults, declining credit quality, and rising bank funding costs as credit ratings agencies lose confidence in credit quality. New Zealand's housing bubble is also heavily dependent on

---

[45] The NZ market represents 40 per cent of banks' cross-border exposure, and 90 per cent of NZ banking assets are controlled by Australian banks.

capital inflows for funding, suggesting a simultaneous property downturn could amplify difficulties for the Australian parent companies, despite legal ring-fencing.[46]

Recommendation #17: The decision to implement a CLF is reviewed, alongside the conditions of access and possible taxpayer risk. At a minimum, the cost of accessing CLF liquidity should be substantially increased, as there is a spread of well over 100bps between the wholesale funding and cash rates. Banks may otherwise try to access the CLF for cheaper funding, instead of as a last resort measure. The RBA could also threaten to convert debt into equity following a large fall in the value of collateral pledged to access liquidity. Abolishing the CLF is the most prudent measure as it is a thinly-disguised, taxpayer-funded bailout mechanism. If financial institutions require capitalisation at taxpayer expense, they should be nationalised rather than bailed out.

Recommendation #18: Bail-in provisions overseen by the FSB and endorsed by APRA are repealed, despite Australia's implementation of the new global liquidity framework (Basel III International Framework for Liquidity Risk Measurement, Standards and Monitoring). An independent panel of experts considers a range of alternative policy measures that contribute to financial stability, outside of the costly bailout/bail-in paradigm.

Recommendation #19: A 'true cost of service provision' regulation is implemented regarding the pricing of essential bank services. The banking and financial sector is regulated like utilities, rather than viewed as profit centres yielding infinitely rising returns for management and shareholders.

Recommendation #20: A levy is imposed on the financial sector for the government deposit guarantee, and calculated to be the approximate size of the derived market benefit. The Big

---

[46] IMF (2012: 33, Appendix 1). Australia has the highest global percentage of real estate assets on bank balance sheets.

Four's heavy concentration and majority control over financial system assets means they already reap significant cost savings due to economies of scale.[47]

Recommendation #21: The alleged benefits and costs of high frequency trading are reviewed. Algorithm-based trading has led to heightened volatility in many of the world's markets and innumerable cases of market manipulation, such as front-running of orders by large institutional players with computerised infrastructure advantages.

Recommendation #22: Lender's mortgage insurance (LMI) is disallowed. The shifting of risk to mortgage insurers is a form of private moral hazard providing banks with an incentive to lend without considering the capacity to repay. LMI does not afford lenders any real protection in a major crisis as these companies are often severely under-capitalised for the sizeable real estate risks they are insuring.

Recommendation #23: The RBA raises the interest rate. The current speculative housing price booms in Sydney and Melbourne are amplified by the cuts to the cash rate in recent times and thus should be reversed in an attempt to dampen speculation. This may provide an incentive to many highly-leveraged and negatively-geared investors to offload their properties and dissuade new entrants into the market. The knock-on effects of record low interest rates also negate the ability of retirees, dependant on their cash savings, to spend within the domestic economy. By sustaining housing price growth through lower interest rates, the RBA has reduced incomes which will inevitably push more retirees onto the pension as their bank accounts yield increasingly fewer returns.

---

[47] IMF (2012: 12). Interestingly, economies of scale have not translated into lower financial intermediation costs for consumers.

Section 7: Conclusion

Governments have worsened market inefficiencies by cynically enacting and maintaining policies to inflate housing prices. The inertia regarding housing and tax reform is due to the recognition from the first Rudd government onwards that the nation is in the midst of its largest housing bubble on record. The tolerance of housing policies that maintain bubble-inflated prices, ignore objective evidence, contradict the recommendations of earlier inquiries and erode housing affordability are entirely predictable. Property ownership and speculation has been elevated to the status of religion in Australia, compounded by a perverse culture of homeowner entitlement driven by a degenerate taxation system that penalises work and effort while rewarding unearned wealth and income.

This latest housing inquiry is a transparent political ploy to avert implementing a raft of genuine policies that would impinge upon the government-supported ability of the FIRE sector to siphon record-breaking profits from the economy and labour through the extraction of economic rents, primarily usury and land rent. Given that very few, if any, recommendations from previous inquiries have been implemented, there was little need to hold the recent inquiry into the housing sector. There is no need, therefore, for this inquiry to take place at all, especially considering it has been known since 1879 with the publication of the world's most popular economics book, Henry George's *Progress and Poverty*, what the most effective approach is in terms of efficiency and equity in dealing with the issues that afflict Australia's real estate market.

The Australian public would be far better served if an alternate inquiry were to be held that investigated ways to democratise the clearly malfunctioning political system which regressively only assists Australia's army of private monopolists, usurers, speculators, rent seekers, free riders, financial robber barons, control frauds, inheritors and indolent rich. It is high time the nation's politicians, political parties, public executives, top-level public economists, regulators and bureaucrats have their power over policymaking significantly restricted by and for the benefit of the public and common good. It is this self-interest that has helped to perpetuate the largest debt-financed real estate bubble in Australia's history.

Section 8: References

ATO. (2013). "Self-managed super funds", *Australian Tax Office*, Canberra.

Bagnoli, Mark, Stephen W. Salant and Joseph E. Swierzbinski. (1989). "Durable-Goods Monopoly with Discrete Demand", *The Journal of Political Economy*, 97(6): 1459-1478.

Baker, Dean. (2002). "The Run-Up in Home Prices: Is it Real or Is it Another Bubble?", *Center For Economic and Policy Research*, Washington D.C.

Baker, Dean. (2011). "The Right to Rent Plan", *Center for Economic and Policy Research*, Washington D.C.

Belsky, Eric S. (2009). "Demographics, Markets, and the Future of Housing Demand", *Journal of Housing Research*, 18(2): 99-119.

Benes, Jaromir and Michael Kumhof. (2012). "The Chicago Plan Revisited," IMF Working Paper 12/202, *International Monetary Fund*, Washington D.C.

Bergmann, Barbara R. (2009). "The Economy and the Economics Profession: Both Need Work", *Eastern Economic Journal*, 35(1): 2-9.

Bezemer, Dirk J. (2009). "No One Saw This Coming: Understanding Financial Crisis Through Accounting Models", *Munich Personal RePEc Archive*, 16th June.

Bezemer, Dirk J. (2010). "Understanding financial crisis through accounting models", *Accounting, Organizations and Society*, 35(7): 676-688.

BIS. (2010). "An assessment of the long-term economic impact of stronger capital and liquidity ratios", *Bank for International Settlements*, Switzerland.

Blaug, Mark. (1998). "Disturbing Currents in Modern Economics", *Challenge*, 41(3): 11-34.

Brown, Rayna, Rob Brown, Ian O'Connor, Gregory Schwann and Callum Scott. (2011). "The Other Side of Housing Affordability: The User Cost of Housing in Australia", *The Economic Record*, 87(279): 558-574.

CNT. (2015). "H+T Affordability Index", *Center for Neighborhood Technology*, United States.

Colander, David, Michael Goldberg, Armin Haas, Katarina Juselius, Alan Kirman, Thomas Lux and Brigitte Sloth. (2009). "The Financial Crisis and the Systemic Failure of the Economics Profession", *Critical Review*, 21(2-3): 249-267.

Cox, Wendell and Hugh Pavletich. (2014). "10th Annual Demographia International Housing Affordability Survey: 2014", *Demographia*, Illinois.

David, Lindsay. (2015). *Print: The Central Bankers Bubble*. United States: CreateSpace Independent Publishing Platform.

Davidoff, Ian and Andrew Leigh. (2013). "How Do Stamp Duties Affect the Housing Market?", *Economic Record*, 89(286): 396-410.

Egan, Paul D. and Philip Soos. (2014). *Bubble Economics: Australian Land Speculation 1830 - 2013.* UK: World Economics Association.

Fitzgerald, Karl. (2013). "Total Resource Rents of Australia", *Prosper Australia*, Melbourne.

Foldvary, Fred. E. (1997). "The Business Cycle: A Georgist-Austrian Synthesis", *American Journal of Economics and Sociology*, 56(4): 521-541.

Gaffney, Mason and Fred Harrison. (2006). *The Corruption of Economics*. London: Shephead-Walwyn.

Hargreaves, Bob. (2008). "What do rents tell us about house prices?", *International Journal of Housing Markets and Analysis*, 1(1): 7-18.

Harrison, Fred. (1983). *The Power in the Land: Unemployment, the Profits Crisis and the Land Speculator*. New York: Universe Books.

Harrison, Fred. (2006). *Ricardo's Law: House Prices and the Great Tax Clawback Scam*. London: Shepheard-Walwyn Publishers.

Hartcher, Peter. (2005). *Bubble Man: Alan Greenspan & The Missing 7 Trillion Dollars*. Melbourne, Victoria: Black Inc.

IMF. (2012). "Australia: Financial system stability report", *International Monetary Fund*, Washington D.C.

Kearns, Jonathan. (2012). "The Outlook for Dwelling Investment", Address to the Australian Business Economists' Lunchtime Briefing, *Reserve Bank of Australia*, Sydney.

Keen, Steve. (2003). "Standing on the toes of pygmies: Why econophysics must be careful of the economic foundations on which it builds", *Physica A*, 324(1-2): 108-116.

Keen, Steve. (2011). *Debunking Economics: The Naked Emperor Dethroned?*, 2nd edition. London: Zed Books.

Kelly, Jane-Frances. (2013). "Renovating housing policy", *Grattan Institute*, Melbourne.

Kent, Christopher. (2013). "Recent Developments in the Australian Housing Market", Address to the Australian Institute of Building, *Reserve Bank of Australia*, Sydney.

McCauley, Joseph L. (2006). "Response to 'Worrying Trends in Econophysics'", *Physica A*, 371(2): 601-609.

McCauley, Joseph L. (2009). *Dynamics of Markets: The New Financial Economics*, 2nd edition. New York: Cambridge University Press.

Minsky, Hyman. (1992). "The Financial Instability Hypothesis", Working Paper No. 74, *Jerome Levy Economics Institute*, Bard College, New York.

PC. (2004). "First Home Ownership", *Productivity Commission*, Melbourne.

Pines, David. (1989). "Review on: E. S. Mills (Ed.), Handbook of Regional and Urban Economics, Volume II: Urban Economics", *Regional Science and Urban Economics*, 19(4): 646-658.

Ratajczak, Donald. (2006). "Is There a Housing Bubble?", *Journal of Financial Service Professionals*, 60(1): 39-44.

Riley, Don. (2001). *Taken for a Ride*. London: Centre for Land Policy Studies.

Rogers, Lamorna. (2013). "A new approach to macro-prudential policy for New Zealand", *Reserve Bank of New Zealand Bulletin*, 76(3): 12-22.

Scatigna, Michela, Robert Szemere and Kostas Tsatsaronis. (2014). "Residential property price statistics across the globe", *BIS Quarterly Review*, September: 61-76.

Senate. (2008). "A good house is hard to find: Housing affordability in Australia", *Select Committee on Housing Affordability in Australia*, Canberra.

Senate. (2015). "Out of reach? The Australian housing affordability challenge", *Senate Economics References Committee*, Canberra.

Shiller, Robert J. (2005). *Irrational Exuberance*, 2nd edition. New York: Broadway Books.

Stapledon, Nigel. (2012). "Trends and Cycles in Sydney and Melbourne House Prices From 1880 to 2011", *Australian Economic History Review*, 52(3): 293-317.

Stiglitz, Joseph E. (1990). "Symposium on Bubbles", *The Journal of Economic Perspectives*, 4(2): 13-18.

TAI. (2015). "Top Gears: How negative gearing and the capital gains tax discount benefit the top 10 per cent and drive up house prices", *The Australia Institute*, Canberra.

Talbott, John R. (2003). *The Coming Crash in the Housing Market*. United States: McGraw-Hill.

Talbott, John R. (2006). *Sell Now! The End of the Housing Bubble*. New York: St. Martin's Press.

Titman, Sheridan. (1985). "Urban Land Prices Under Uncertainty", *The American Economic Review*, 75(3): 505-514.

Treasury. (2009). "Australia's future tax system: Report to the Treasurer", Part One Overview, *Australian Treasury*, Canberra.

Tyson, Justin. (2014). "Reforming Tax Expenditures in Italy: What, Why, and How?", Working Paper 14/07, *International Monetary Fund*, Washington D.C.

USHUD. (2015). "Location Affordability Portal", *U.S. Department of Housing and Urban Development*, Washington D.C.

Wayne, James J. (2015). "Predicting Major Economic Events with Accuracy: A New Framework for Scientific Macroeconomic Models", *American Journal of Economics and Sociology*, 74(2): 419-456.

Yates, Judith. (2009). "Tax expenditures and housing," *Australian Housing and Urban Research Institute*, Melbourne.

Yates, Judith. (2013). "Evaluating social and affordable housing reform in Australia: lessons to be learned from history", *International Journal of Housing Policy*, 13(2): 111-133.