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Sydney and Melbourne's Housing Affordability Crisis

Report Two: No End in Sight

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Executive Summary

The purpose of this report is to document the seriousness of the housing affordability crisis in Sydney and Melbourne and to show that the assumptions undergirding Commonwealth and State Government policies to deal with it are not working and cannot work.

The urgency of a rethink on these policies was revealed during the debate in late February 2016 on the Labor opposition's proposals to abolish negative gearing concessions on established residential property from 2017. The Prime Minister, Malcolm Turnbull, declared, to a chorus from the property industry, that this would *reduce* the value of housing.

The PM's stance reveals a monumental insensitivity to the social catastrophe flowing from record high housing prices for the next generation of home seekers in Sydney and Melbourne. Prices have to drop if the consequences are to be dealt with. They include a leap in the proportion of young households who have to rent, with Sydney leading the way. By 2011, 42 per cent of partnered persons aged 30-34 in Sydney were renting as were 36 per cent of those in Melbourne.

Two sets of policies are at issue. The first set is the macro-economic settings of the post 2013 Coalition Government and second set is the assumptions guiding the NSW and Victorian government planners responsible for their respective metropolitan housing policies.

When the Coalition came to power in 2013 it faced, in its words, an 'extraordinary period of transition with investment in resources projects shifting from being the key driver of growth towards becoming a significant detractor from growth'.[1] Its interim solution was to promote the housing construction industry. The May 2014 budget projected dwelling investment would increase by 7.5 per cent in 2014-15 and 5.5 per cent in 2015-16.[2]

The strategy to achieve this boost was to leave intact the pre-existing incentives to housing purchases for owner occupiers and investors. These included the longstanding negative gearing and capital gains concessions. The Government also, in effect, provided a guarantee of continued growth in housing demand. It did so by stating that it would maintain net overseas migration (NOM) at around 240,000 a year. This was in a context where it was well known in the property industry that about half of all new migrants were locating in Sydney and Melbourne.

Our projections show that, on these demographic assumptions, new migrants will add about 64 per cent to the need for extra dwellings in Sydney over the decade 2012 to 2022 and 54 per cent in Melbourne.

For its part, the Reserve Bank, which has likewise fretted over the downturn in resource investment, sharply lowered interest rates.

These policy settings meant that the Commonwealth Government was making the gigantic assumption that it could solve the already serious housing price situation in Sydney and Melbourne at the same time as adding a very large extra source of housing demand from migration.

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[1] Commonwealth Government, Budget 2014-15, *Budget Statement 2, Outlook for the Domestic Economy*, p. 1
[2] Ibid., p. 3

The results are the opposite of what was promised. Over the last few years there has been a speculative boom in housing prices in Sydney and Melbourne that has worsened the affordability crisis. Most of the huge increase in investor purchases has been in established houses. Investors are in effect transforming potential owner occupiers into renters.

To the extent the Commonwealth Government's policies have promoted dwelling construction it has mainly been in the form of high-rise apartments.

The blame for this latter outcome is partly attributable to the NSW and Victorian planners and the housing commentators that have promoted their strategies. The two governments and their planners suffer from the same hubris as the Commonwealth Government. They have claimed that their policies will fill the backlog in the supply of dwellings already obvious by 2013 and, in addition, provide for the needs of the extra migrant households.

Their strategy has been to open up opportunities for urban renewal in inner city areas and for infill (low rise apartments and units) in established suburbia. To this end the planners have rezoned vast areas of the inner cities of Sydney and Melbourne for high-rise apartments and diminished the opportunities for municipal councils and resident action groups to oppose infill development.

These planning policies are based on the assumption that most of the demand for new housing in Sydney and Melbourne will come from one- and two-person households who will welcome the new opportunities to locate in inner city apartments or infill in established suburbia.

These assumptions are wrong. Most of the growth in the need for extra dwellings in Sydney and Melbourne will come from young resident households entering the family formation phase of their lives and from new migrant households who for the most part will also be entering the same phase. Their priority is family friendly two or three bedroom dwellings with some protected external space.

There will be an increase in one- and two-person households. But the planners have not understood that this is largely a consequence of population ageing in Sydney and Melbourne as the householders born after 1950 replace the much smaller numbers born before 1950. The householders aged over 50 currently occupy around half the existing detached housing in Sydney and Melbourne. Though not new households, there will be many more of them because of the ageing effect. This means that the existing shortage of such housing will get worse.

Our projections show that 100,000 of the extra 142,060 separate houses needed in Sydney over the decade 2012-2022, and 135,000 of the extra 231,340 needed in Melbourne, will be attributable to this ageing effect.

By 2016 housing prices in Sydney and Melbourne were amongst the most expensive in the developed world. Prospective home buyers have been forced to search ever further outwards for affordable housing. They are not finding it anywhere in Sydney, even on new fringe estates. They can find such housing on the fringe of Melbourne, but have to move 30 to 50 kilometres from the CBD to procure it. The consequence is a sharp spike in the number of renters.

There are increasing numbers of high-rise apartments available in both cities. But these are totally unsuitable for those looking for family friendly housing.

The great hope of the planners was that infill would provide the solution. It has not happened. This is not because of municipal council or resident group obstruction. The main reason, particularly in Sydney, is that the housing price bubble has pushed up the price of detached housing sites such that developers cannot produce affordable family friendly units. Much of infill being built is large and expensive. It is aimed at trophy hunting owner occupiers and overseas investors. Nor is it suitable for older households considering downsizing.

The legacy

A time of reckoning approaches. The extent of mortgage debt in Australia is enormous. It has reached $1.4 trillion and is growing by $100 billion a year.

The average level of debt per Australian household (most of which is mortgage debt) is equivalent to 160 per cent of the mean annual income of each household. This is higher than almost all other developed countries. It is unlikely to be sustainable. A recession or a rise in interest rates would undermine the capacity of mortgagees to service their debt, with profound wider economic implications.

But, more likely, the impending glut of high-rise apartments will disrupt the housing market. The main casualties will be the tens of thousands of investors who have purchased apartments off-the-plan. This is how it could happen.

The high-rise apartment boom is being driven by overseas developers who are marketing their product off-the-plan to local and overseas investors. Most of the product is small, around 50 square metres. They are this size because the smaller the apartment the more that can be put on to each site. There are no requirements in Sydney or Melbourne for developers to provide a mix of apartment sizes or prices.

It is the investors who are bearing the risk. They prefer small apartments because most don't want to pay more than $500,000. A family friendly apartment of 80 square metres will cost at least $700,000 to $800,000. As a result, few are being constructed.

There is only a limited market for tiny apartments. It is primarily amongst residents who are either singles or young couples and amongst migrants on temporary visas. Both groups are a revolving clientele who, when they move on, are vacating premises that others can occupy.

Yet there is an enormous pipeline of apartments about to hit the Sydney and Melbourne marketplace. There were 13,000 to 14,000 apartment completions in Sydney and Melbourne in 2014 and 2015. This number will increase to around 22,000 in both cities in 2016 and in 2017.

The off-the-plan investors are among the most financially vulnerable of recent dwelling investors. They are likely to find that the value of their apartment at settlement is worth considerably less than at the time of their purchase. The banks will only provide finance equivalent to their assessment of the value of the property. Faced with paper losses, some buyers may forego their deposit. Some Chinese investors may also face difficulty transferring the required Australian dollars to meet their obligation. In both cases this will add to the stock of apartments on the market, putting further downward pressure on their price.

The resulting financial turmoil will deliver a wake-up shock to housing purchasers. It will tell them that the underlying assumption driving their investment, that dwelling prices can only go up is incorrect. They will learn that negative gearing when prices fall is likely to generate significant capital losses.

Some commentators are projecting a bust in detached housing prices as well. We do not think this is likely given the continuing shortage of such housing stock our study projects over the next few years.

However, the damage to the apartment market could be severe and the fallout is likely to reduce demand for separate houses from investors and owner occupiers who have assumed that capital gains for dwellings were never ending.

Implications

Australia's financial authorities have much to answer for. They have allowed, indeed facilitated, the housing bubble by letting it rip without constraints on investor engagement.

The Australian Prudential Regulation Authority has belatedly introduced restrictions on the rate of growth of investor purchases in residential property and acknowledged the seriousness of the mortgage debt overhang. For its part, the Reserve Bank has admitted that its low interest rate regime has facilitated the bubble.

But this action and recognition is too late. The boom has occurred and the flood of high-rise apartments is in the pipeline.

There is an obvious need for a thorough review of the demographic assumptions and policies undergirding urban development in Sydney and Melbourne. Yet none of the state governments, or their planning bodies, shows any willingness to confront their failures or revisit their strategies to deal with the housing crisis.

They are reluctant to admit that their policies have not increased the stock of family friendly housing to anywhere near the level required given the high levels of immigration occurring in both cities. Nor have they faced the fact that the boom in high-rise apartments is producing housing that is largely irrelevant to resolving the housing affordability crisis in both Sydney and Melbourne.

For its part, the Coalition Government has its head in the sand. The abolition of negative gearing incentives for established dwellings has to be part of the solution. When removed, this will take some of the heat out of the housing market. The Government's strategies to promote housing are part of the problem rather than the solution. This includes its migration policies. To add ever more households searching for family friendly housing in a context where there is already a serious shortage may be good for the housing rich but it is a disaster for the housing poor.

Report authors

This work was commenced in 2014. It was conducted by Dr Bob Birrell (mobile 0413 021 126), the Founding Director of the Centre for Population and Urban Research at Monash University (CPUR); David McCloskey (mobile 0419 899 768), then concurrently a partner in Deloitte Analytics and an Adjunct Senior Research Fellow in the CPUR, now Founding Director, Sensing Value Pty Ltd; and Virginia Rapson, the data analyst on the project. The work has since been completed under the auspices of The Australian Population Research Institute (TAPRI), an independent, non-profit research organisation of which Bob Birrell is the head. Report No. 1 on the housing affordability crisis is available at <tapri.org.au>.

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The Housing Affordability Crisis in Sydney and Melbourne

No End in Sight

Introduction

Report No. 1 showed that the prevailing thinking amongst planners and commentators about housing needs in Sydney and Melbourne is incorrect. There is too much emphasis on the alleged growth in demand from one- and two-person households (who are assumed to be happy to occupy units or apartments) and not enough on the need for dwellings suitable for raising a family. The latter family friendly dwellings, we define as detached houses or units with at least two bedrooms, 80 square metres of floor space and access to protected outdoor space.

There are two sources of scarcity likely for family friendly housing. The first is from young resident and migrant households, most of whom will be looking for family suitable housing because they will be entering the family formation ages. The second is the projected increase in the number of older households in Sydney and Melbourne, due to the phenomenon of population ageing. Though not new households, the projections detailed in Report No. 1 showed that there will many more of these older households and that they will be predominantly occupying detached housing. This growth will add significantly to the need for additional family friendly housing. This comment should not be taken to imply that we think these households have a social duty to vacate their homes. Far from it, the point is simply to emphasise the importance of this demographic reality for housing policy.

Report No. 1 predicted that if the supply of family friendly housing is not increased there will be further increases in the price of detached housing in both Sydney and Melbourne. On the other hand, it also showed that the growth in demand for apartments will be relatively limited.

The central hypothesis in the current report is that the housing affordability crisis is going to get worse because the planning authorities in NSW and Victoria are ignoring the need for family friendly housing. Instead, through their zoning and planning guidelines they have facilitated a massive increase in the stock of high-rise apartments. For their part, the development and building industries are actively pursuing the opportunities provided for constructing such apartments.

This report documents the thinking and policy rulings of the NSW and Victorian planning authorities. As to the developers, it explores the puzzling question of why they are rushing like lemmings towards the cliff by piling up ever more apartments despite the likelihood (so we argue) that they are creating a glut.

This is happening despite the almost universal agreement amongst planners and most housing commentators that infill should be the first priority in expanding Sydney and Melbourne's housing stock. In fact, as shown later, the growth in the supply of infill housing is currently far less than that of high-rise apartments.

We begin by reminding readers about the seriousness of the economic and social costs of the housing affordability crisis in Sydney and Melbourne.

Part One: The seriousness of the housing affordability crisis

Housing in Sydney and Melbourne is amongst the most expensive in the world

The *International Demographia International Housing Affordability Survey* frames the affordability crisis in Sydney and Melbourne in a global context. It provides a regularly updated index of the ratio of median detached house prices in major cities in the developed world to the median household income in each of these cities.

Sydney and Melbourne are right at the top of the most unaffordable locations in the world. By the third quarter of 2015, Sydney's multiple was an extraordinary 12.2, up from 9.0 in 2013: thus the median price for a house in Sydney was 12.2 times the median household income. This gave Sydney the dubious distinction of being the second least affordable location of all of the 86 major markets surveyed. Melbourne's multiple was 9.7, up from 8.3 in 2013, making it the fourth least affordable location in the survey.[1]

Why is it so? It is a speculative asset boom

Though housing prices in Sydney and Melbourne have long been high by international standards, they have spiked over the last two years. This is a consequence of increased owner occupier and investor purchases of established homes. This has resulted in an asset price bubble. This bubble was facilitated by the Reserve Bank's drop in interest rates from over four per cent in 2013 to just two per cent at the end of 2015. It was also helped along by the Coalition Government's decision to maintain its generous treatment of capital gains on housing both for owner occupiers and investors, and its negative gearing arrangements for investment property.

Low interest rates have made investors desperate to find alternative higher yielding assets. In this context the prospect of capital gains from the purchase of housing has been irresistible. The banks have competed amongst each other to deliver the required mortgage-based loans. Finally the Commonwealth Government has provided an implied guarantee that demand for housing will continue strongly by promising to maintain net overseas migration near the record high level attained during the resources investment boom from 2003 to 2012.

The Victorian and NSW Governments have provided further reassurance with their latest population projections. These assume that high net overseas migration (NOM) of 240,000 will continue for decades and, as a consequence, that Melbourne and Sydney will both reach between six and seven million by 2050. The Australian Bureau of Statistics provides the same reassurance, with its middle scenario adopting the same assumption. All projections assume that Sydney and Melbourne will receive about 50 per cent of NOM.

Home buyers in Sydney and Melbourne looking for capital gains have responded to this context with a vengeance. As Table 1 shows, the total Australian bank exposure to residential property loans has increased by $202 billion in the two years from September 2013 to September 2015. These are the Australian banks' net exposure figures; that is, they represent the net of new loans minus repayments from borrowers. Most of this growth is attributable to investors.[2] The total exposure as of September 2015 was $1.4 trillion.

Nearly 60 per cent of all the increase in this lending for residential property occurred in NSW and Victoria, which means mostly Sydney and Melbourne.[3]

It is notable that by November 2015, the proportion of the loans issued to first home buyers had fallen to 14.9 per cent (compared with 20 per cent in November 2011).[4] This is for Australia as a whole. This share would undoubtedly have been lower in Sydney.

Table 1: Australian deposit-taking institutions residential property exposures,* as at September each year 2013, 2014 and 1015, $million

	Sep 2013	Sep 2014	Sep 2015	Increase Sep 2013 - Sep 2015
Owner occupiers	751,684	772,078	840,577	88,893
Investors	400,796	471,190	514,222	113,426
Total	1,152,479	1,243,268	1,354,799	202,320

* excludes 'Other ADIs' that are not banks, building societies or credit unions.
Source: APRA, Quarterly Authorised Depositing-taking Institution Property Exposures, issued November 2015

But rather than financing new housing, these loans were primarily spent on existing housing. The purchasers have been responsible for turbocharging housing price levels in Sydney and Melbourne over the past two years. For Australia as a whole, over 80 per cent of the loans to owner occupiers and around 90 per cent to investors were for the purchase of established dwellings. (Neither the ABS nor APRA provides housing finance data by city.)

To the extent that the surge in housing finance has led to increased dwelling construction, as we detail below it has mostly been in the form of high-rise apartments.

The economy wide implications of mortgage debt

Our focus is on the consequences of the housing bubble for Sydney and Melbourne. However, the economy wide implications of the bubble are significant and could in turn have consequences for its sustainability. To understand these implications requires an evaluation of the scale of residential mortgage debt relative to the size of Australia's economy.

The addition of $100 billion a year to the net borrowings for residential property is huge. It represents over six per cent of Australia's $1.5 trillion Gross Domestic Product (GDP). This is a massive boost to the wider economy.

The funds delivered to borrowers will be paid to the vendors of the property being purchased. While there are no statistics available on what these vendors will do with the money, there can be little doubt that much of it will be spent on consumption. The rest will be invested or deposited in one or other of the Australian banks. When this occurs it helps boost the affected stocks, bonds or other financial instruments. If banked, it will then be lent to other borrowers, thus further boosting consumption and investment.

This mortgage loan boost to the Australian economy is way above that being provided by the Commonwealth Government's recent resort to borrowing in order to finance its growing cash deficit. This was $40 billion in 2014-15 or 2.5 per cent of GDP. As a consequence, the Commonwealth's net debt increased to $244 billion during 2014-15.[5] Commentators and analysts have been having a field day criticising this increase in debt. By contrast there has been little comment on the mortgage debt figures. These, at $1.4 trillion, are far above the Commonwealth's net debt.

Obviously, if the appetite for mortgage debt wanes, it will remove a crucial prop to the economy, one that helps explain how Australian economic growth has continued at above two per cent per annum despite the massive decline in resource investment since 2012.

Our focus, however, is on the sustainability of the huge level of mortgage debt in place. This can best be appreciated by comparing it to household income. Currently, the ratio of median household debt (the vast majority being in the form of residential mortgages) to median annual disposable household income in Australia is around 160 per cent.[6]

The 160 per cent figure is well above the level reached in the USA and the UK at the time of the GFC. According to a recent Global McKinsey Institute study, Australia has the dubious distinction of joining seven countries that the Institute believes have reached a level of debt that may not be sustainable. These are the Netherlands, South Korea, Canada, Sweden, Australia, Malaysia and Thailand.[7]

It is important to note here that the 160 per cent figure significantly understates the debt obligations of Australian residents attributable to dwellings. The APRA data on which it is based does not include the obligations that residents have incurred with their purchase of off-the-plan apartments, obligations which will have to be met when their apartments are complete.

To state what may be obvious, but may carry extra weight since the words come from the leading financial analyst, Lord Adair Turner:

> Only when credit is used to finance useful new capital investment does it generate the additional income flows required to generate the additional income flows required to make the debt certainly sustainable.[8]

This means that no extra 'housing services' are produced where the value of existing dwellings is inflated by housing purchases. Turner goes on to argue that asset booms built on real estate mortgages are highly vulnerable to implosion, since their foundation is the expectation of a never-ending rise in dwelling prices. This, too, should be obvious given the role that housing debt played in triggering the Global Financial Crisis. Nevertheless, as we will see, it is a lesson that has largely been forgotten in Australia.

There are a range of factors that could precipitate the end of Australia's housing property bubble. One is an economic recession that undermines the capacity of borrowers to pay their interest bill and thus prompts the sale of their housing assets. Another is a change in the demographic underpinnings of the housing market, which is considered later. A third is sudden changes in the tax treatment of property like those mooted by both major political parties in February 2016. If negative gearing on established housing was removed, as Labor has proposed, it would remove a major source of demand for such housing.

In our view the most likely trigger of a downswing in the residential property is the financial turmoil resulting from the impending oversupply of high-rise apartments. When this happens it will remove a crucial prop to the housing bubble, that is, the belief that housing prices can only go up in value.

Meanwhile, the housing asset boom has made home owners happy. However, it has been a disaster for those who have not got a foot on the property ladder.

The spatial outcomes of housing price escalation in Sydney and Melbourne

It is no surprise that inner city housing prices in Sydney and Melbourne have escalated to the point that few new home owners can afford to live in such localities. This is true in most big affluent cities, as high net worth households bid up the prices of such dwellings in order to enjoy the amenity of housing close to key knowledge industry jobs and inner city cultural amenity.

But that is not the end of the matter. By 2015 the surge in housing prices had extended far beyond the inner city suburbs. Those in the market for homes who have been disenfranchised by price increases in these inner suburbs have had to move further and further from the CBD to find an affordable dwelling. The resulting knock-on effect has impacted on housing prices far from the inner suburbs.

In Sydney by 2015, most new households entering the housing market could not afford a detached house across the length and breadth of the established suburbs. At least $600,000 was required, even in the city's outer suburbs. For example, in remote Blacktown, the median price of a detached house in the 12 months to May 2015 was $563,000. At this time there were only a few nooks where cheaper housing could be found. One of these was in the suburb of Mount Druitt (in the western part of Blacktown), where the median price of a separate house over this period was $463,000.

Prices have rocketed up right across Sydney's outer suburbs over the last couple of years. This is the result of competition from upgrading owner occupiers, investors, and from new resident and migrant households. The latter households have had no choice but to look for affordable housing in these suburbs.

Nor is there any safety valve in new estates on the fringe of Sydney's established suburbs. There are so few new blocks being developed that recent releases rarely last beyond day one. In any case, as is detailed later, the price of a house and land on these estates is way beyond the means of most first home buyers. They are being sold to upgraders and to investors.

In Melbourne, as in Sydney, detached houses cost at least one million dollars in the city's inner and middle suburbs. The price escalation in recent years in suburbs on the edge of this zone is startling. For example, in the suburbs of Mount Waverley and Glen Waverley in the City of Monash, the median price of houses sold increased from $820,000 and $830,000 respectively in 2013 to $1,270,000 and $1,200,000 respectively in the June quarter of 2015.[9] However, unlike Sydney, by 2015, it was still possible to buy a separate house in outer suburbs like Frankston, Casey, Brimbank and Hume for between $350,000 and $400,000.

Even cheaper options are available in fringe estates. Vast areas of land on the periphery of existing suburbia in Melbourne have been zoned for residential subdivision since 2008. However, this good news needs to be qualified because the size of the blocks being sold has shrunk. The median size of the lots sold on Melbourne's fringe in the September quarter of 2015 was just 428 square metres.[10] This is tiny, equivalent to block dimensions of just 13 metres by 33 metres. Those taking up this option also have to locate some 50 kilometres from the CBD if settling in the south eastern corridor and 20 to 30 kilometres from the CBD if locating to the north and west.

Social consequences of the affordability crisis

There is a growing gulf between those owning dwellings and those who do not in Sydney and Melbourne. By letting the housing boom run, the Commonwealth Government and its financial authorities (the Reserve Bank, APRA and ASIC) have rewarded owners with a huge increase in their wealth. On the other hand, the boom has severely disadvantaged the next generation of home seekers.

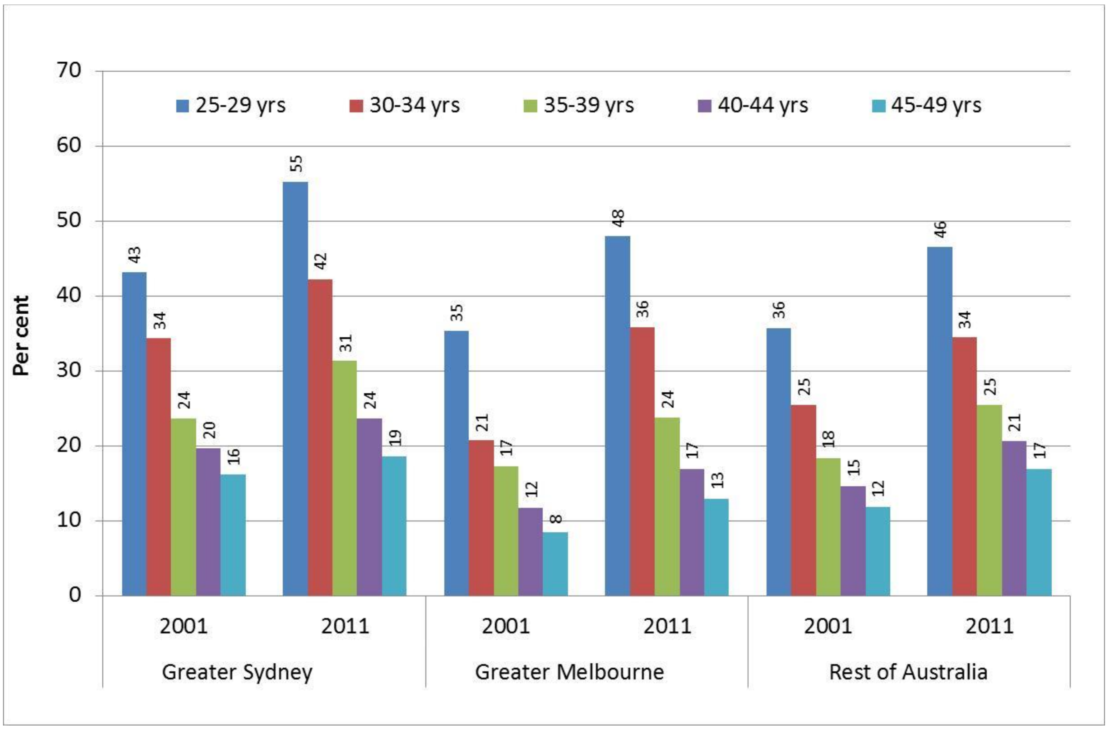
This gulf is manifesting in various forms. The most obvious is the increased spatial concentration of rich and poor in Sydney and Melbourne as the dwelling-rich consolidate in high amenity inner and middle suburbs while other households gravitate towards outer suburbia. This is taking the form of an overlay of ethnicity together with the lower amenity of outer suburban areas in both cities. In Melbourne this is most notable in the Preston/Broadmeadows locations to the north and Greater Dandenong in the south-east. In Sydney it is showing up in high ethnic concentrations in the outer western suburbs of the city, including Blacktown.

A further alarming split is opening between those who can afford to purchase housing and those who cannot. As follows from Sydney's star status in the unaffordability stakes, it is leading the way on this metric.

In order to provide statistical precision on this gulf, we need data for Sydney and Melbourne by age group, partner status and housing tenure. For this purpose, by far the best source is census data. It provides the necessary detail as well as comparative data over an extended period. We have used data from the 2001 and 2011 censuses.

Figure 1 shows the share of cohabiting partnered persons, by age group, who resided in rental accommodation in Sydney, Melbourne and the Rest of Australia in 2001 and 2011. The focus is on persons in partnered relationships because it has long been the norm in Australia that when people form such relationships, it is a prelude to the purchase of a dwelling. If people in such relationships have to rent, it is a powerful indicator that this expectation is becoming a fading dream.

Figure 1: Partnered persons aged 25-49 years by five-year age groups: percentage living in rental accommodation, Sydney, Melbourne and Rest of Australia, 2001 and 2011



Source: ABS: Censuses, 2001 and 2011, one per cent sample files

The figure shows that there was sharp increase in the share of each age group living in rental accommodation in Sydney and Melbourne over the decade to 2011. By 2011 in Sydney, a huge 42 per cent of partnered persons aged 30-34 and 31 per cent of those aged 35-39 were renting. In 2001 the parallel figure for each age group was 34 per cent and 24 per cent. In Melbourne the increases were just as striking, though from lower bases. By 2011, 36 per cent of partnered persons aged 30-34 were living in rental accommodation as were 24 per cent of those aged 35-39 (compared with 21 and 17 per cent in 2001 respectively).

'Generation rent', as the plight of the increasing share of those unable to purchase a home is commonly referred to, is already a fact of life in Sydney and moving in this direction in Melbourne. The implications are profound. (We comment on the situation in the Rest of Australia below.)

As Luci Ellis, of the Reserve Bank has put it acutely:

> Outright home ownership is widely regarded as key to avoiding poverty in old age. Before that life stage, home ownership is also regarded as a way to obtain the security of tenure that is so important to the wellbeing of many households, especially families with dependent children. Security of tenure can allow households to enjoy stable arrangements for education, child care and community engagement; it avoids the cost and disruptions involved in frequent moves, which many renters experience.[11]

Another consequence is that the gulf in wealth between the property rich and the property poor in Sydney and Melbourne is growing. We estimate that if the rate of home ownership by age group that applied in 2001 had continued over the decade to 2011 there would have been at least 300,000 more households owning or purchasing their homes by 2011.

These households have all missed out on the increases in the value of dwellings that occurred in Sydney and Melbourne during the decade. To judge from the low proportion of housing loans currently being issued to first home buyers (noted earlier) most of these people are probably still excluded from home ownership. They have, as a result, missed out on the stellar gains accruing to property owners in Sydney and Melbourne since 2011. Housing investors have reaped additional benefits via rental income, most of which is tax free because of negative gearing tax concessions in place for rental income.

In addition, as many observers have pointed out, within this growing 'generation rent', the less affluent, the physically disadvantaged and those dependent on state welfare support are particularly severely affected. They, too, are being pushed further out into the suburbs in search of affordable rental accommodation. This is happening at a time when governments at all levels are reluctant to accept any obligation to increase the provision of housing for the disadvantaged.[12]

We note in passing that it may surprise that Figure 1 shows that the share of partnered persons in rental accommodation in the Rest of Australia tracks that of Melbourne fairly closely over the decade to 2011. The reason is that by 2001 house prices in Sydney were well above those in Melbourne and in the Rest of Australia. At that time (early 2000s) house prices in Melbourne and the Rest of Australia were fairly close. During the decade to 2011, house prices increased strongly in both Melbourne and Rest of Australia, particularly in the urban areas such as Brisbane. This is the main reason why the share in rental accommodation increased in tandem in both locations.

It was only around 2009 and 2010 that house prices in Melbourne took off relative to the Rest of Australia.[13] Since then Melbourne has had more in common with the housing bubble in Sydney than it has with the more modest increases in house prices elsewhere in Australia.

This is not to argue that the rise in dwelling prices is the only factor involved in the increase in the share of the young adult population in partnered relationships who are renting. In particular, young people now take longer to establish their careers because of the need for additional credentials, and thus take more time to raise the funds for the purchase of a house.

However, the causal link between rent levels and dwelling prices is strongly implied by the much greater share of those renting in Sydney relative to Melbourne and the Rest of Australia both in 2001 and 2011. As indicated, house prices were much higher in Sydney than elsewhere in 2001. This was still the case by 2011.

Part Two: The recent increase in dwelling approvals in Sydney and Melbourne

As is evident from Table 2, there has been a surge in dwelling approvals in both Sydney and Melbourne since 2012-13. Is this a sign that the incentives for housing investment are generating a boost to the supply of family friendly housing? It is not. Most of the recent growth in approvals is attributable to an increase in approvals for 'other dwellings'. This category includes infill (that is town houses, units and apartment blocks up to three storeys) and apartments of four storeys or more. As is detailed later, the 'other dwelling' category has recently been dominated by the four-storey-plus apartment group rather than by infill (Table 4).

Table 2: Dwelling Approvals for houses and other dwellings,# Sydney and Melbourne 2007-08 to 2014-15

	Sydney			Melbourne		
	Houses	Other dwellings	Total	Houses	Other dwellings	Total
2007-08	6,955	11,841	18,796	22,569	10,333	32,902
2008-09	6,238	8,132	14,370	21,962	10,486	32,448
2009-10	8,596	11,793	20,389	27,492	16,723	44,215
2010-11	8,614	14,952	23,566	25,203	24,011	49,214
2011-12	8,793	16,474	25,267	20,098	19,772	39,870
2012-13	10,123	20,356	30,479	18,229	20,471	38,700
2013-14	12,167	26,917	39,084	20,709	23,878	44,587
2014-15	14,907	28,261	43,167	23,132	33,059	56,191

Other dwellings include semi-detached, row and terrace houses, townhouses, flats, units and apartments

Source: ABS, Building Approvals, Australia, cat. no. 8731.0, Table 10: Number of Dwelling Units Approved, By Greater Capital City Statistical Area – Original

As a result there is a huge pipeline of apartments under construction or for which dwelling approval has been obtained. There is also frenzied competition among developers for additional apartment block sites, implying a further surge in applications for building approvals.

This continued surge is a puzzle because it is inconsistent with our projections of the needs for such dwellings in both cities over the decade to 2022. These projections indicate that there is a far greater need for detached housing and other forms of family friendly housing than for high-rise apartments in Sydney and Melbourne. A summary of the projections are provided in Appendix 1.

What is going on here? If our assessment of dwelling needs is correct, how is it that the development industry is prepared to invest further billions of dollars in high-rise apartments? Why are the state governments of NSW and Victoria both facilitating this investment? Could it be that the planning authorities intend to take action to ensure that high-rise developers provide for a wide mix of apartment types or that developers are themselves moving in this direction? Or perhaps both planning authorities and developers are banking on a cultural revolution in which a wider spectrum of households seek out higher density inner city living? If so, what is the evidence for this change?

We start with the high-rise apartment industry, and then move to the puzzle of why there has been much less infill in Sydney and Melbourne than might have been expected given the crisis of affordability for detached housing. Finally, the prospects for fringe expansion serving as a safety valve are explored.

Part Three: High-rise apartments

First we make some preliminary comments. The apartments that are being approved are almost entirely the consequence of development applications from the private sector. This is in contrast to the early post-war years when the states were big players in building social housing. Now they have largely vacated this space. Nor are there any requirements that developers provide for a mix of social and private housing.

There are also few regulations determining apartment mix and design. It is being left to developers to determine what is built. In NSW the minimum size for one and two bedroom apartments is 50 and 75 square metres respectively. There are no such rules in Victoria. Some local governments in Sydney have required minimum sizes larger than the State requirements, on the grounds that high-rise developments should provide for more family friendly apartments. Their fate is a sorry story.

The City of Botany Bay in Sydney has for several years required developers to build apartments significantly larger than the minimum standards noted above. Under the City's code, two bedroom apartments have to be 100 square metres rather than the 75 square metre minimum. The City has also required a mix of apartment types in large developments. These are not permitted to include more than 25 per cent of studio or one-bedroom apartments.

The outer north-western Baulkham Hills Shire introduced similar regulations in mid-2014. The Mayor, Dr Michelle Byrne, declared at the time that there had been a race to the bottom in the Shire, with developers providing the smallest apartments possible in the name of housing affordability. In response, the Shire specified a new set of controls requiring a diversity of apartment sizes and mixes. [14]

The City of Botany Bay is a serious player in the high-rise market. It has approved over 4,500 apartments over the past five years, the majority being 'family friendly' in size. According to the Mayor, Ben Keneally, It has pursued this policy because there is already a 'good supply of small apartments…so large family friendly apartments are the best option to house the families of the future'. [15]

However, the City's rules were challenged successfully in the NSW Land and Environment Court by a developer in July 2015. Shortly afterwards the Baird Government amended the State planning laws. These now specify that councils can no longer require apartment sizes greater than the 50 square metre minimum for one-bedroom and the 75 square metre minimum for two-bedroom apartments. Botany Bay's policy on the required mix of apartment types is still in place. However, City officials expect developers to appeal against this provision to the NSW Land and Environment Court.

Zoning rules

The planning authorities in Sydney and Melbourne have a potentially influential role in what is built through their zoning rules. Both cities have zoned extensive areas for high-rise apartment developments (detailed shortly). However, as indicated, they do not specify targets for apartment types. The consequence, detailed shortly, is a predominance of tiny apartments.

It is well known that in Melbourne, developers have been largely free of any constraints over the type and location of apartments for which they apply to get approval. Large precincts have been rezoned for urban renewal with minimal preplanning and no provision for the state government or the municipality affected to gain any of the increase in value of the sites as a result of the rezoning.

The foolishness of this policy was highlighted when, in July 2012, the Victorian Coalition Government effectively doubled the size of the Melbourne CBD by rezoning a 250 hectare site at Fishermans Bend (in the city of Port Philip) for urban renewal. This has subsequently excited some controversy when it was revealed that amongst the major windfall beneficiaries were a number of Liberal Party activists and members.[16]

At first glance the NSW Government appeared to far better organised. The government is currently encouraging a massive increase in high-density apartments. But, unlike in Melbourne, before any rezoning, the government first designates the location of the proposed high-density precincts and then requires the Department of Planning to do the preliminary planning for these sites. This phase includes opportunities for public input. These plans indicate the preferred location and type of dwellings (high-rise, infill and detached housing) as well as sites for public infrastructure and recreation.

After this preliminary planning is complete, the site is rezoned according to the plan's proposed mix of development. To our astonishment, the state government is allowing the existing owners to reap all the increase in the value of the land resulting from the rezoning. Nor has it used the lever of rezoning to require a mix of social and private housing or of apartment types.

The Carter Street project which is one of the 10 Priority Precincts identified by the NSW Government for accelerated development illustrates the point. This is located near Sydney Olympic Park in Auburn, some 17 km from the Sydney CBD. It is a 52 hectare site for which the Department of Planning has done the preliminary planning. It will include some 5,500 homes, built in the form of apartment blocks of four to six, six to eight and up to 20 storey configurations.

The owner of most of this land, the huge Goodman property group, has been salivating over the return it expects when it sells this and other parcels of land it owns in these urban renewal precincts after they have been rezoned for residential purposes.[17] This windfall is already being reaped. Goodman sold around 25 per cent of the Carter Street land to Meriton, the development vehicle owned by Harry Triguboff, during 2015 for $250 million. Two Chinese-backed firms appear to have purchased the rest of the site, one buying a parcel for $200 million and the other for $660 million. [18]

Comment on this appalling situation is conspicuous by its absence. Yet, as we detail below, by allowing site owners to sell for whatever the market will bear, the costs of building apartments in Sydney, and to a lesser extent in Melbourne, have escalated. This has narrowed the range of apartments developers can put onto the market at a profit.

Some municipal councils have sought to change the situation. The City of Botany Bay, as well as the Cities of Sydney, Penrith, Gosford and Hornsby are all making moves to capture some of the betterment or uplift from rezoning in order to help pay for public open space and other public services. But like so many other aspects of the high-rise apartment boom, the horse has bolted. Councils cannot retrospectively claim chunks of the betterment windfall reaped by land owners.

What are the state governments and their planning agencies thinking?

For the state governments, an overarching priority is the attraction of investment to their respective states. High-rise apartment projects currently offer this in abundance as global developers flock to Sydney and Melbourne. Neither the NSW nor the Victorian government is prepared to jeopardise this influx.

Another motive has been to relieve some of the pressure from their suburban constituencies who are unhappy about the imposition of high-density development in their own vicinity. Both governments appear to believe that by concentrating high-rise apartments in urban renewal zones this will provide much of the new housing required, thus limiting the need for intrusion into existing suburbs.

But what prompts these governments to think that the proposed high-density developments will deliver the kind of housing people will need in their respective cities? The standard line among insiders is that developers will not build apartments unless they think there is a market for them.

For public consumption, however, the main justification for zoning large areas for high-rise apartments is that there is a sea change in housing needs in Melbourne and Sydney. This, so it is claimed, is because of the changing demography of both cities, together with an alleged increased preference for inner-city living. These views are front and centre of the most recent city plans for the two cities. We begin with that for Melbourne.

PlanMelbourne

Melbourne's current planning blueprint, *PlanMelbourne*, was released by the then Coalition Government in May 2014. Its stated objective was to increase the role of high-rise apartments in filling Melbourne's housing needs. The plan builds on the extensive additional rights for higher density development included in the Labor Government's *Melbourne 2030* plan, legislated in 2002. Since that time the 2010 to 2014 Coalition Government rezoned additional large areas adjoining the CBD for urban renewal. In July 2012, as noted, it added the 250 hectare Fishermans Bend site. In addition there are proposals for urban renewal precincts adjoining railway stations, including Richmond, as well as intensive development of certain railway transit corridors.

PlanMelbourne foresees a requirement of some 1.5 million extra dwellings over the forty years to 2051, of which just 530,000 are detached dwellings. Of the rest, 480,000 are apartments and 560,000 are townhouses and units.

These estimates reflect planners' prevailing views about Melbourne's demographic outlook and what they imply for housing needs. *PlanMelbourne* argues that the city must cater for a wider variety of dwellings than is currently in place, which is predominantly detached housing. This argument is based on household projections prepared by the state planning department. These show that most of the growth in households over the next two decades will be amongst one-and two-person households. This is correct. However, as noted earlier, our projections for the decade 2012-22, show that most of this growth in one- and two-person households will be headed by persons aged 55 years or older (Report No 1, Table 1). They are not new households. Rather they are a product of population ageing as the baby boomer cohorts replace the much smaller cohorts born in earlier years.

PlanMelbourne goes on to assert that many of these households will want 'to downsize and age in place'. [19] This statement reflects the planners' views about what ought to be rather than any serious evaluation of the preferences of older householders. There is no acknowledgement of the evidence documented in Report No. 1 that these older households have a very low propensity to downsize and that it is not until households reach their eighties that there is any significant net movement out of their detached homes (Report No. 1, Figures 3 and 4).

Ignoring this evidence, *PlanMelbourne* asserts that there is a mismatch between Melbournians' needs for housing suitable for smaller households and what is being offered in the marketplace.[20] This conclusion serves to justify the planners focus on facilitating urban renewal whether in the form of high-rise apartments or infill. The shortage of family friendly housing does not get a mention.

A Plan for Growing Sydney

The NSW Planning and Environment's latest blueprint for Sydney, which was released in December 2014, is entitled *A Plan for Growing Sydney*. The context at the time was an alarming rise in house prices accompanied by a surge in population growth that implied that prices would continue to rise.

As with *PlanMelbourne* the focus was on urban renewal. To this end the *Plan* designated vast areas along traffic corridors and in underutilised brownfields as potential sites for intensive development. It identified a number of projects where the Government would initiate the redevelopment process, including 10 Priority Precincts.

The rationale for the focus on urban renewal was that Sydney must cater for a greater variety of households. *A Plan for Growing Sydney* states that the fastest growing category of households is single persons. It reports that in 2011 only 36.6 per cent of households in Sydney were couples with children yet 57.3 per cent of Sydney's housing stock is in the form of detached houses. It cites projections that over the next 20 years couples with children will grow at a slower rate than both couple only and single person households.

A Plan for Growing Sydney also repeats *PlanMelbourne*'s claim that, as the Sydney's population ages, many older households will choose to downsize from their family homes and will want to do so in their existing locations. [21]

The Plan states that its proposals will 'deliver the housing that Sydney needs', and that this will reduce 'the pressure on rising house prices'.[22]

Both plans' demographic assumptions are incorrect

Our projections of dwelling need in Sydney and Melbourne show that there are large cohorts of residents and migrants who will be entering the housing market over the decade to 2022, most of whom will be starting a family. There will also be a very large increase in the number of older households who will be occupying detached housing by 2022. This increase is a consequence of population ageing as the large baby boomer cohort born in the 1950s and 1960s replaces the much smaller cohorts born in the 1930s and 1940s.

As indicated, these additional older households will not be new households. Nevertheless, they will be occupying an increased share of the detached housing stock by 2022. The scale of this ageing effect will be enormous. This can be seen in Appendix 2, which details our projections for housing needs over the decade 2012-2022 in Sydney and Melbourne. These are based on the assumption that households by age group will occupy the same type of dwelling in 2022 as they did in 2012 in each city. The projections indicate that Sydney will need another 142,060 separate houses and that, of these, 100,090 will be attributable to the effect of population ageing.[23] In Melbourne, another 231,340 separate houses will be needed, of which 114,570 will be due to population ageing.

Already, by 2011, around 50 per cent of the separate houses in the established suburbs of Sydney and Melbourne were occupied by households headed by persons aged 50 plus (Report No. 1, Table 10). That share will increase unless there is a cultural revolution in the dwelling preferences of older households and/or if the policies being pursued by the planners to provide more family friendly housing in the form of infill are successful. As shown below, neither is likely. The implication is that competition for such housing will increase in both cities.

On the other hand, our projections indicate that far too many high-rise apartments are being approved (see Appendix One). The market for these apartments is mainly limited to temporary migrants (especially students) and young singles and couples, almost all of whom move to family friendly dwellings when they begin raising a family. This is a revolving client base, with tenants moving on, to be replaced by younger residents and temporary migrants.

Given the financial risks of producing a product that is unlikely to be in high demand, perhaps developers will be more sensitive to the need for family friendly housing than the planners? Surely developers will not construct dwellings there is a limited market for? Don't be so sure.

The high-rise development industry

The high-rise apartment surge is very recent. It took off in Melbourne in 2010, when 17,875 apartments in projects of 10 units or more were released (meaning that the apartments had been legally approved and marketing for off-the-plan sales had begun). The number of releases dropped to 11,810 in 2012. Nevertheless, by 2013 the property consultants Charter.Keck Cramer estimated that over the three years 2013 to 2015, some 39,155 completed apartments would be added to the Melbourne's stock. By comparison, in 2011 there were only 51,193 occupied apartments in buildings of four storeys or more for all of Melbourne.[24]

The apartment boom took off at this time because of the combination of sharp decreases in interest rates, investors' search for alternative high yielding assets and the creation of vast new opportunities for high-rise developments in Melbourne as noted above. Developers were able to offer an appealing product to investors in the form of apartments bought off-the-plan. These were packaged and marketed by an army of financial intermediaries. The investor only had to provide a deposit (usually ten per cent), pending completion of the development. The expectation at the time was that capital gains were all but guaranteed because in both cities housing prices had only gone one way, that is up, since the early 1990s.

At this initial stage, there was relatively little parallel action in Sydney because there were fewer potential sites for inner-city apartments and those that were available cost far more than was the case in Melbourne. This was a serious constraint because developers had to consider the financial limitations of the overseas and local investors interested in buying off-the-plan. Most of these purchasers wanted an apartment investment of $500,000 or less, a condition that was hard to meet in Sydney. Even in Melbourne at this time, two or three bedroom apartments of 80 square metres or more could not be profitably marketed for much less than $700,000.

It is investors rather than developers who are taking on most of the risk, since it is the investors who will have to test the market to see whether there are enough owner occupiers or other buyers around on whom to offload their investment at a profit. This does not happen until several years after the initial off-the-plan purchase. As long as investors believe that real estate prices can only go up, they are likely to keep buying and developers will have an incentive to market new projects.

For developers, maximum profits are achieved by putting as many apartments on each site as is feasible. In Melbourne, the result in this initial phase of the boom was a flood of tiny apartments averaging around 50 square metres.

When we reviewed the Melbourne apartment scene in early 2013 it seemed that this initial boom would soon abate. Some of the smartest property people whom we interviewed thought that a glut of small apartments was imminent and that it would soon undermine investors' confidence in the apartment market.[25]

It was not to be. There has been an extraordinary second surge of apartment approvals which is reflected in the approvals data for 'other dwellings' shown in Table 2 above. This time it has affected Sydney as well as Melbourne. Again, it will take several years for the full impact on the apartment market to show up in completions. Table 3 indicates that this impact is already occurring in Sydney. By 2014 and 2015 there were more apartment completions in Sydney than in Melbourne.

An apartment surge is about to hit the market

In 2016 and 2017 the consequences of the recent surge in apartment approvals will become apparent. Some approved projects take considerable time before marketing and construction begins. Others never go ahead. The best indication of what is about to hit market is the number of apartments in projects where marketing off-the-plan has begun and of course those projects where construction has actually begun. The data compiled by Charter.Keck Cramer and shown in Table 3 is limited to these two categories of approvals. As noted, these are for all projects of 10 apartments or more. However, as elaborated on in the discussion around Table 4 below, most of these projects are for high-rise apartments.

Table 3: Apartment completions in Sydney and Melbourne, 2009 to 2015, and pipeline of apartments under construction and being marketed as of January 2016

	Completions							Pipeline as of Jan. 2016	
	2009	2010	2011	2012	2013	2014	2015	Under construction	Marketed
Sydney	4,388	4,173	4,858	5,740	10,694	14,208	14,805	28,063	22,770
Melbourne	3,990	5,093	7,809	10,130	13,086	12,262	13,101	31,141	29,763

Source: Charter.Keck Cramer, unpublished

As Table 3 shows, the pipeline of apartments under construction and being marketed as of January 2016 in both cities was huge. It was just over 60,000 in Melbourne and near 51,000 in Sydney. Charter.Keck Cramer estimate that around 21,790 of this pipeline in Melbourne will be completed in both 2016 and 2017 and around 22,455 in both 2016 and 2017 in Sydney. This represents a huge lead of around 70 per cent in the annual number of new apartment completions in both cities in 2014 and 2015.

As is argued in Part Seven of this report below, a glut of high-rise apartments is inevitable. Yet developers are still searching for new apartments sites and, as Table 2 indicates, approvals for 'other dwelling' approvals continued to grow through 2014-2015.

Overseas developers have driven this second surge. Until 2012 the industry was dominated by local developers. The recent entrants are predominantly overseas-based companies from East and South-East Asia. Seven of the top Chinese developers are now active in Australia and others are searching for entry points.[26] The overseas competition has pushed local developers to focus on approvals on the fringes of the CBDs and in suburban centres.

The high-rise boom continues because the investment decisions of these international developers reflect the state of the global real estate industry. This is prompting big players to look for new markets (as opportunities in China and Singapore, for example, dry up). Like Toronto and Vancouver, Melbourne and Sydney are seen as secure global cities by both developers and their homeland investor customers. As with local developers, they can make money by selling apartments off-the-plan to both overseas and local investors.

With their off-shore sources of finance and the decline in the Australia dollar, overseas developers are outbidding most local developers for inner-city apartment sites. In the process, they are pushing up the value of these sites. According to property consultants Knight Frank, by August 2015, the average cost of sites (expressed in terms of the site cost per apartment that can be built on the site) in Melbourne was around $102,500. This was some 20 per cent higher than the price in August 2014.[27] In Sydney at this time, sites averaged around $177,000 per apartment, up an extraordinary 35 per cent over the previous year.[28] As Knight Frank show, site costs vary according to the location with those in inner city areas being much higher than the averages cited.

This means that during the second phase of the apartment boom there will be even tighter financial constraints on the type of apartments that can be built at a profit and that are within the price range of investors. According to Knight Frank, the minimum price of apartment construction is now around $9,000 per square metre in Sydney[29] and $6,500 in Melbourne.[30] As a result, even a tiny 50 square metre apartment built in Sydney will have to be priced at around $450,000 if the developer is to make a profit. In consequence any prospect of a surge in the production of family friendly apartments has receded further. Only those households capable of competing in luxury markets will have any interest in purchasing such a dwelling, or have the necessary funds to do so.

Industry structure and implications for the product being built

The repeated statements within the NSW Government planning documents that the government's urban renewal program will provide a diversity of housing are pipe-dreams.

For example, according to the NSW Department of Planning Finalisation Report for the Wentworth Point urban renewal precinct: 'It is a policy of the draft Metro Strategy to provide a mix of affordable housing for very low, low and moderate income earners across Sydney'.[31] In response to a few submissions from the public on the draft plan asking how affordable housing would be provided within the precinct, the bureaucrats write: 'Increasing the supply of housing will apply downward pressure on housing prices. The mechanism to deliver affordable housing will be considered through the preparation of Subregional delivery Plans'.[32]

How this will be accomplished given the price structure of sites is not explained. In the case of the Carter Street project referred to above, the site sold to Meriton for $250 million is capable of realising some 1,300 apartments.[33] This implies a site cost of $192,000 per apartment.

In Sydney, as in Melbourne, the massive augmentation of Sydney's housing stock should all these apartments be built, will contribute very little to the city's main housing need. This, as indicated, is for family friendly dwellings suitable for young families. Nor will it attract more than a tiny fraction of older households who the planners like to think will be prompted to downsize into their new high density communities.

The small and expensive apartments delivered via the urban renewal programs of both cities are unlikely to tempt these older households to move.

This judgement was affirmed by the feedback we received from older households on the publication of the first report. It was vociferous and prolific. Much of it stemmed from the implication in media reports that we had accused oldies occupying detached houses of selfishness in continuing to do so while there was a shortage of detached housing. We actually criticised those who make such accusations. Be that as it may, what is of interest in the present context is the hostility older households expressed towards the high-rise apartments now on offer. These apartments were condemned as being blind to the needs of older households. Typical of these responses was the following.

Maureen McInroy wrote that what stops the elderly from moving from their homes was:

> …basically the ignorance of developers and maybe their greed too. I have looked a few times at units including in high rise buildings. They seem to think that because I am old I have no need of a decent wardrobe with drawers and hanging space; no need for storage for bed linen and towels; no need for storage for an ironing board, a vacuum cleaner …. And that's without addressing the body-corporate issues of lift maintenance and garbage arrangements… especially where many units are not owner-occupied but investment properties where the owner wants minimum expenditure.

Maureen concludes ominously that: 'These are the slums of the future.'[34]

Part Four: Is infill the solution?

Most of the commentators who are influential in shaping housing policies in Sydney and Melbourne want to see future population growth consolidated within the existing boundaries of the two cities. For these commentators, more infill is a priority objective.

In principle, infill could provide a cheaper cut-down version of the detached housing that most young Australians believe is desirable when raising children. It also might offer an option for older empty nest households to downsize from their family homes. For the Grattan Institute, infill offers an attractive trade-off in which households choose low rise units or town houses instead of expensive detached housing in return for locations closer to inner city jobs and public transport.[35]

In both Sydney and Melbourne the metropolitan planners expect infill to provide for 50 to 60 per cent of their respective city's additional housing needs.[36]

In Sydney, successive NSW state governments have instructed councils to facilitate the redevelopment process. This includes the issuance of infill targets for each municipality.[37] Similar strategies were pursued in Melbourne by the Labor Government when John Brumby was Premier.

The volume of infill in Sydney and Melbourne is less than the planners expected

Yet the level of infill, especially in Sydney, has been low in recent years. Table 4 documents the point. It is based on ABS building approval statistics. For the purposes of the analysis of these statistics we have defined infill as semi-detached dwellings and flats in buildings of up to three storeys. For Sydney, this infill made up just 16 per cent of all dwelling approvals over the years 2011-12 to 2014-15. This share was dwarfed by the 49 per cent of approvals for flats and apartments in buildings of four storeys or higher. In Melbourne, too, the 23 per cent share of infill was well below the 30 per cent share for flats and apartments in buildings of four storeys or higher.

Table 4: Approvals for new dwellings by dwelling type, Sydney and Melbourne, 2011-12 to 2014-15

	Dwelling type						
		Infill					
	Houses	1 storey semi-detached	2+ storey semi-detached	1-2 storey flats	3 storey flats	4+ storey flats	All dwellings
Sydney							
Approvals	95,758	10,344	18,858	9,900	6,970	137,146	278,976
Percentage	34.3	3.7	6.8	3.5	2.5	49.2	100.0
Melbourne							
Approvals	138,414	10,812	36,494	9,538	11,762	88,808	295,828
Percentage	46.8	3.7	12.3	3.2	4.0	30.0	100.0

Source: ABS, Building Approvals

It may be objected that, if the four storey and higher apartment category is weighted towards apartments at the lower end of the spectrum, this could underestimate the infill component. This does not seem to be the case. The NSW Department of Planning provides statistics on completions which differentiates them on the basis of development size. These are shown in Table 5. Big developments, defined as those with 51-100 or 100+ dwellings, dominate the multi-unit component. They made up over 40 per cent of completions in the quarters Apr-Jun 2014 and Jan-Mar 2015 compared with around 20 to 25 per cent for all other multi-unit developments. This latter share is likely to fall further given the predominance of dwellings in four storey and higher apartment buildings in Sydney, as shown in the approvals in Table 4.

Table 5: Sydney region, proportion of net dwelling completions by development size, Apr-Jun 2014 to Jan-Mar 2015

Development type/size	Apr-Jun 2014	Jul-Sep 2014	Oct-Dec 2014	Jan-Mar 2015
		Percentage		
Detached house	33	31	31	35
Multi-unit development				
1 additional	2	2	1	0
2-10	5	6	5	7
11-50	9	15	20	18
51-100	10	18	18	11
100+	41	28	25	29
Total	100	100	100	100
Number	8,494	8,808	11,491	11,437

Source: NSW Government, Planning and Environment, Metropolitan Development Program, March 2015 Quarterly Monitor

Why is the infill share so low?

How is it that infill has fallen so far short of expectations? For consolidators the answer is usually that restrictive planning regulations and bureaucratic obstruction are to blame. Thus the Grattan Institute continues to insist that governments curb the capacity of local governments and resident groups to impede infill.[38] Politicians have taken up the cry. The latest, from the new federal Treasurer, Scott Morrison, is that the housing price problem can fixed by removing constraints over the planning, development and regulatory process.[39]

The argument that regulations are the problem is not plausible. Councils have fewer powers to restrict infill than was the case in the past. In Sydney, it has been the policy of the NSW government to limit Council powers to restrict infill for some time. This is reflected in the relatively large number of low rise flats and units built in Sydney until recently.

In Melbourne councils have to grant permits, as of right, for proposals to put two dwellings on a detached housing site. Melbourne's zoning code, Rescode, implemented more than a decade ago, requires councils to approve infill proposals unless there is a change to 'neighbourhood character'. A change in a locality's housing density is not regarded as changing neighbourhood character unless a developer proposes to put a large number of units on what were formerly sites for detached housing. [40]

In Melbourne this 'as of right' provision for infill has been hedged somewhat as a result of the Victorian Coalition Government's attempt to placate its constituents in established suburbia. Councils were given the task of classifying their residential areas into three alternative zones: a Neighbourhood Residential zone (NRZ), a General Residential Zone (GRZ) or a Residential Growth Zone (RGZ). The NRZ is restricted to dual occupancy. The GRZ allows more intensive infill and the RGZ permits medium to high-density development.

Some councils, including Glen Eira and Bayside, succeeded in getting the Coalition Government to sign off on plans which classified most of their residential area in the NRZ. Some others, notably the City of Monash, have proposed planning amendments which not only classify large areas of the City within the NRZ, but also include regulations on minimum lot sizes for dual occupancy that would limit its extent across much of the NRZ.

On the other hand, the current Labor Government has weakened controls on what is possible in the NRZ in some areas. In the case of Moreland, the Council proposed minimum lot sizes and open space provisions that would have restricted the infill in its NRZ to dual occupancy. The incoming Labor government struck out these provisions and prescribed a limit of four dwellings per lot in the NRZ, regardless of the size of the lot.

According to the Victorian Labor Government, with the implementation phase of establishing the new zones almost complete, only about 20 per cent of all of Melbourne's suburban residential area has been classified within the NRZ. Some 79 per cent of the rest is included in the GRZ, which leaves ample opportunities for low rise infill.[41] This seems too high and perhaps does not reflect the inclusion of data from councils that have not completed the process. Even so, there appears to be ample provision for infill, as the following study attests.

A recent study by Michael Buxton provides estimates of the potential for infill given the spread of the new zones. It is based on a count of all suburban lots in the NRZ and GRZ. The study computes the amount of infill that could be built given the current rules governing each zone and the number of lots occupied by detached houses. Some areas are excluded, including those with heritage overlays. Buxton concludes that if around a third to a half of the potential is taken up, infill could provide all of the dwellings Melbourne needs over the period to 2051. [42] The study concludes that:

> The scenario demonstrates that the new residential zones do not adversely restrict land for redevelopment in the middle ring suburbs, or constrain the supply of new dwellings to meet overall metropolitan housing demand.[43]

Why then so little infill? There are two interrelated reasons. The first is that few of the existing holders of detached houses want to move. As a result, the number of properties currently available for infill is limited. The second is that the relative scarcity of properties available for sale has contributed to the escalation of detached housing prices. Many of the young households priced out of the detached housing markets of Sydney and Melbourne might well be prepared to accept an infill alternative. However, their options for doing so are limited by the price of the detached housing sites on which infill must be built.

The importance of site costs

Property experts indicate that there are two rules of thumb governing developers' decisions on whether to proceed with infill projects.

The first is that developers, whether big or small, will not proceed unless town houses or units can be put on to the market for a price well below nearby detached houses. If not, home buyers will choose the detached house option.

The second is that infill has to be priced at a level that home buyers can afford. For most first home buyers this means a cap of around $400,000. When detached housing prices exceed $1 million the site cost for each of two town houses on a suburban block will be at least $500,000. With building and other costs the result is that town houses or units cannot be marketed for less than $800,000 in such locations. They are therefore not an affordable proposition for most young families in the inner and middle suburbs of Sydney and Melbourne.

Infill only makes commercial sense in these suburbs when the developer replaces an existing dwelling with up-market town houses and sells them to upgraders or investors. Chinese investors have recently been a source of such buyers. They are permitted to buy a new dwelling.

But why so little infill in outer suburban Sydney where detached housing can be bought for $500,000 to $600,000? Apart from the unwillingness of owners to sell, a significant factor is the relatively high level of infrastructure levies in Sydney. The major developer Australand (now part of the Malaysian owned Frazer Property group) provided documentation of these costs for several of its suburban projects in Sydney. Though construction costs are half the level per square metre of those applying to high-rise apartments, infrastructure levies for infill vary from between $30,000 and $130,000 per unit.[44]

There are still significant opportunities for infill in Melbourne's outer suburbs and in some middle suburbs. The latter include the Preston, Glenroy and Coburg suburbs of the City of Moreland. Detached houses on spacious blocks of 600 square metres or more can still be bought in these suburbs for around $600,000. Infrastructure charges, where they exist, are much lower than in Sydney. Over the four years to 2014-15 there were 3,528 approvals for semi-detached dwellings of two or more storeys in Moreland. This is far more than in any other Local Government Area, and equivalent to about 10 per cent of the 36,494 total of such approvals in Melbourne during these years (Table 4).

This helps explains why in Sydney there were barely half this number of approvals for semi-detached dwellings of two or more storeys, or just 18,858 over the same period (Table 4).

These findings imply that if competition for detached housing continues to be strong in both cities and as a consequence site costs increase, the potential for infill will diminish.

Part Five: Fringe housing development

This leaves one last alternative for aspiring home owners (other than leaving Sydney or Melbourne if a resident or settling elsewhere if a migrant). This is a new house and land package on the fringe. Such housing kept a lid on housing prices in Sydney and Melbourne for much of the post-World War II era.

This safety valve no longer exists for Sydney. Since the late 1980s successive NSW state governments have curtailed urban expansion on the fringe. This is partly because of the geographical constraints on the outward spread of the city. However, it also reflects the high priority the NSW planning authorities have placed on consolidating the city within the existing built-up area.

The result is that very little land is being released for subdivision in Sydney. When blocks are put on the market they sell out within days. Just 602 blocks were sold on average each month in the September quarter of 2015. The median price of a blocks sold in this quarter was $484,000. The price trend is sharply upwards. In the September quarter of 2014 the median price of blocks sold in fringe projects was $344,000 and in the September quarter of 2013 it had been $329,900. [45] These blocks are being sold to upgraders and investors rather than first home buyers. Homes built on these blocks sell for even more than established detached houses in nearby outer suburbs.

The NSW government has changed its tune on fringe development. It is now proclaiming its intention to release large chunks of land for subdivision. On 22 September 2015, it announced 'the biggest release of land in 10 years.' This covers some 7,700 hectares, sufficient for 35,000 homes, in an area south of Campbelltown in western Sydney.[46] The Planning Minister, Rob Stokes, claimed that this action would put downward pressure on prices.[47]

This is a pipedream. It will take years before the infrastructure has been installed and the land is actually released.

In Melbourne, the situation is quite different. There is a huge amount of land ready for subdivision. As of July 2014 there were some 158,700 lots across Melbourne's growth areas with an approved precinct structure plan and many more hectares zoned for future subdivision once the precinct planning process is completed.[48] The demand for new lots has increased sharply over the last couple of years, no doubt reflecting the increased price of established detached homes in suburban Melbourne.

In the September quarter of 2015, 1,892 lots were sold each month on average, three times as many as in Sydney. The mean price was $211,000, which is only marginally above that in the previous two years.[49] For the time being, developers have plenty of product in the pipeline, implying prices are unlikely to escalate in the immediate future. This will help curb price increases for detached housing in Melbourne's established outer suburbs.

Nevertheless, some influential consolidators favour curtailing the safety valve. This is the view of the Ministerial Advisory Committee (MAC) commissioned by the current Labor Minister for Planning, Richard Wynne, to advise on the revision of *PlanMelbourne*. The MAC recommended that a fixed boundary be placed on the fringe frontier. It argues on the basis of experience in Portland Oregon and Vancouver Canada, that the establishment of such a boundary 'triggered a redirection of investment in housing to the infill and renewal opportunities within that boundary.'[50] MAC and other consolidation advocates, including Michael Buxton, recommend that the density of fringe projects be increased well beyond the current minimum guideline of 15 lots per hectare.

It is doubtful that the Victorian government will embrace such recommendations.[51] Successive Victorian governments have promoted population growth. They know it is crucial to the state's aggregate economic growth, because one of the city's major comparative advantages in attracting people is the relatively cheapness of housing on the fringe. However, the Labor Government has indicated its support for a possible lower share for fringe housing of 30 per cent in providing for Melbourne's total housing needs, compared with the 39 per cent level indicated in *PlanMelbourne*.[52]

As to the proposal to require densities above 15 lots per hectare, this is not sensible. Developers are already struggling to find space for 15 lots per hectare because so much of the land is used for roads and other infrastructure. This is why the average size of lots sold has fallen to 450 square metres.

If the urban boundary were curtailed in favour of more infill it would harm the interests of the people the consolidators are concerned about. These are the households driven towards the city fringe because of the high cost of established detached housing. Any curbing of the fringe safety valve would increase competition for detached housing in the outer suburbs, thus limiting their affordability and adding to the site costs for possible infill in these suburbs.

Part Six: The outcome—the affordability crisis will get worse

As matters stand, the affordability crisis will get worse. Competition for housing suitable for families will intensify in both cities. This is because of the increasing demand from new resident households and new migrants in the face of limited growth in supply and the increasing share of established detached houses that will be occupied by households aged 50 or older. The surge in the supply of high-rise apartments will not address this shortage.

The standard view found consistently among economists at the Reserve Bank of Australia as well as among most private sector housing economists is that the residents of Sydney and Melbourne will adjust to higher housing prices as they have done for the past couple of decades. The main argument is that increased household income and lower mortgage costs have allowed households to pay a larger share of their income on mortgage costs.

In these circumstances, the expectation is that households in Sydney and Melbourne will continue to adapt to higher housing prices as household incomes increase. However, as we have seen, an increasing share of younger households have had to make do with rental accommodation.

But is it that simple? Will younger households, let alone migrants, simply accept this fate? Perhaps some residents will vote with their feet and depart to cheaper locations. Another possibility is that some migrants will bypass Melbourne and particularly Sydney because of the cost of housing relative to other Australian locations.

Or perhaps they won't have to move because the housing bubble is on the verge of deflating. Plenty of commentators in Australia have prophesised (incorrectly) that a housing price bust in Australia is inevitable, including outspoken economist, Steve Keen, and renowned econocrat, Ross Garnaut. Keen had to walk up Mount Kosciusko after losing a bet with another economist on the issue.[53]

Undaunted, over the last few months various commentators have hit the headlines by asserting that the collapse of the bubble is imminent. One is Lindsay David, whose book *Australia: Boom to Bust* leaves no doubt where he stands. He thinks a huge collapse is on the cards largely because of the extraordinarily high level of mortgage indebtedness in Australia.[54] Another is financial analyst, Jonathon Tepper, who predicts falls in the housing market in Sydney and Melbourne of up to 50 per cent. Tepper made this claim on February 2016 following a field investigation in Western Sydney that showed that banks were lending to purchasers with poor financial records.[55]

We consider such claims later. However, as would be gathered from our analysis, such is the likely continuing shortage of family friendly housing in Sydney and Melbourne that it is hard to see a bust on the scale that David and Tepper predict. However, there are some potential circuit breakers or game-changers that could affect the detached housing market that we now consider. Foremost among these is a possible downturn in the high-rise apartment market.

True, some property industry people argue that the apartment market will continue to be propped up by overseas buyers, particularly the Chinese. Many of these investors regard their investment in a Sydney and Melbourne as a means of extracting their wealth from China. Some of these investors may be happy to hang on to their apartments even if there is a drop in their value and even leave them empty during any downturn. In so doing this would mute any possible downturn in the apartment market.

We mention this possibility in order to forestall criticism that this scenario has been ignored. In reality, as is indicated below, overseas investors have the same concerns as locals. They want capital gains. If these are threatened they are unlikely to continue investing. As well, the Chinese face serious issues in extracting their money (explored below).

Part Seven: Potential game-changers

Residents vote with their feet

A significant exit of resident households from Sydney and perhaps Melbourne could relieve some of the pressure from the housing market. The Nobel Laureate economist, Robert Shiller argues that housing bubbles which flourish where buyers believe housing prices can only go up, and where all other possible influences on price are ignored, inevitably deflate. His view is that: 'When home prices rise to the point that mortgage payments take up a large share of family income, there is a powerful incentive to move to a lower-cost area.' This safety valve, he thinks, tends to 'burst bubbles that have inflated foo far'. This is so even in 'glamorous' cities, among which he includes Sydney.[56]

There are many cities in Australia offering far lower housing costs than is the case in Sydney, including those located on the north coast of NSW, the Gold Coast and the Sunshine Coast. There have been high net movements of residents from Sydney to these locations in the past. It could happen again. Indeed a new ABS dataset called the Regional Internal Migration Estimates indicates it is already happening. This data has been analysed by the demographics firm .id. According to .id, Sydney lost a net of 15,000 people through internal migration elsewhere in Australia during 2013-14.[57]

In Sydney, where there is no safety valve on the fringe for affordable family friendly housing, a continuation of this apparent exodus has to be a possibility.

There has been no parallel loss from Melbourne, even though housing prices are far lower in regional Victoria than in the inner and middle suburbs of Melbourne. For example, in 2014, detached houses in Bendigo sold for around $330,000 and in Ballarat for around $294,000. These regional cities are rich in civic, educational, health and sporting services, by comparison with fringe estates on the edge of Greater Melbourne.

One reason few young households in Melbourne are leaving is the existence of relatively cheap housing on the fringe. Another is that the Shiller thesis ignores the job implications of leaving Sydney or Melbourne. While some tree changers are leaving both cities, young people continue to be attracted the other way because of the better employment situation and other big city attractions.

Both cities dominate their respective state's economies. Employment opportunities tend to be much better in Sydney and Melbourne than in regional locations. As a result, competition for housing with access to these jobs is high. If there were a greater variety of urban centres in Australia, as is the case in Germany, it might reduce this competition. One of the strongest findings in the literature on this issue is that countries or locations where there are a wide variety of urban centres (like Germany) exhibit relatively low housing prices.[58]

A slowdown in migration

A much more serious possibility is that the migrant influx, especially to Sydney will diminish. If it does the implications could be significant. Our research, detailed in Report No. 1, showed that over half the growth in the need for dwellings in Sydney and Melbourne over the decade 2012 to 2022 will be attributable to migration, if net overseas migration continues at 240,000 per annum (see Appendix 2) and Sydney and Melbourne continue to receive near half of these migrants. On these assumptions migration will comprise 64 per cent of the total growth in households and thus of the need for additional dwellings in Sydney and 54 per cent in Melbourne over the decade to 2022.

Neither the NSW nor Victorian governments have shown any interest in seeking a reduction in the migration intake, despite the obvious strains in providing housing, as well as health, transport and other services in Sydney and Melbourne. Nor has the Coalition Government. Its migration policy settings remain at the same level as during the latter part of the resource boom. For their part, none of the prominent housing commentators who profess to be concerned about the housing affordability crisis have called for a reduction in the migration intake. Most, like the Grattan Institute, think that it is possible to have it both ways – high migration and affordable housing – as long as their proposals for consolidation are followed.

Nevertheless, there has been a recent drop in NOM, well below the 240,000 assumed in our projections and by the planners in Sydney and Melbourne. In the year to March 2015, the ABS estimates that NOM fell to 173,000, from 206,100 in the year to March 2014.[59] The Department of Immigration and Border Protection has recently revised down its forecasts for NOM to reflect this reality.[60]

It has been forced to do so because the net flow to and from New Zealand has dropped dramatically. According to the New Zealand Government the flow of New Zealand residents and former overseas visitors to Australia minus the arrival of New Zealand residents and overseas visitors from Australia to New Zealand, which peaked at 39,112 in the year to February 2012 has since fallen to 14,998 in the year to February 2014 and 2,552 in the year to February 2015.[61] There has also been a fall in the net influx of some temporary visa holders, including those on 457 and Working Holiday visas. Like the New Zealanders, this decline appears to reflect the weaker job market in Australia relative to the days of the resources boom.

Most of the recent decline in NOM has occurred in Western Australia. Recent ABS population reports estimate that NSW and Victoria (which in practice means Sydney and Melbourne) are receiving a much higher share of a diminishing national total.

But for how long? Understanding of this issue is being clouded by the conspicuous purchases of trophy houses in inner Sydney and Melbourne by wealthy Asian investors. They do not reflect the situation of most migrants. There are two distinctive streams. Most are young (Report No. 1, Figure 1) but split between large numbers of young persons on temporary visas and those who have arrived as young families (which is the case for most permanent migrants).

The former make up a high share of those occupying the cheaper end of the high-rise apartment stock in Sydney and particularly Melbourne.

The latter stream, like new resident households, mostly prefers family friendly housing. However this is proving an elusive goal, especially in Sydney. An examination of the 2011 Census, detailed in Report No. 1 showed that only 30 per cent of the migrants resident in Sydney and who arrived between 2006-2011, lived in a separate house (owned or rented). This compared with 52 per cent of the 2006-2011 arrivals living in Melbourne as of 2011 and 63 per cent of those living in the rest of Australia (Report No. 1, Table 6).

The prospects of living in a detached home have further receded since 2011, given the surge in housing prices. True, there are compensating attractions in Sydney and Melbourne because that is where the major co-ethnic communities are concentrated and where the best opportunities for employment are to be found. But it is doubtful whether Sydney will retain its attraction for migrant families needing family friendly accommodation if the price of such housing continues to rise.

It is another story with young temporary entrants, at least in Melbourne. The ready availability of tiny apartments offering lower priced rental accommodation than available in the pricey inner suburbs is an attraction. Our previous work on Melbourne indicated that overseas students and other temporaries were the main occupants of high-rise apartments at the cheaper end of the price range.[62] The situation is different in Sydney, where the price of new high-rise apartments is much higher than in Melbourne.

These observations imply that Sydney is at distinct risk of experiencing a downturn in both the temporary and skilled migration streams. This is not the case for Melbourne.

The implications of an oversupply of apartments

The high-rise apartment boom reflects developers' capacity to make money by selling off-the-plan apartments to investors. It has accelerated with the entry of Asian developers into Sydney and Melbourne markets since 2013.

Developers don't have to worry about any careful diagnosis of dwelling needs while they can sell to these investors. To the extent that they do look for such advice, they can draw on the planning authorities in Sydney and Melbourne who, as we have seen, insist that a sea change in dwelling preferences for inner city apartments is in process. The result is an impending glut of apartments.

The significance of this glut, even though it will represent only a small part of the two cities' housing markets is that it represents a late, or perhaps the last phase of the housing boom. In such booms it usually the investors who enter near the end who have the least financial resources.

There is evidence that this is occurring in Sydney and Melbourne. The recent entrants include young people who cannot afford to buy a detached house in Sydney or Melbourne. It has been estimated that 35 per cent of first home buyers are buying investment properties, up from around five per cent in 2012.[63] It is likely that many have purchased apartments off-the-plan because they can enter this market with a lower initial capital outlay than is required for a detached houses. All they have to do is find the money for the 10 per cent deposit. Also the vendor developers are usually much less zealous than the banks in investigating the financial capacity of purchasers to meet their settlement obligations.

First home buyers are being encouraged by the financial planning industry to take this route to home ownership. For example, Mal James, an executive in a buyer advocacy business in Melbourne offers the following advice in the inner suburban Melbourne property magazine, *The Weekly Review:* 'I've never seen anyone better their buying position by waiting out the market'. He tells first home buyers to become investors and take advantage of negative gearing, because this is the only way to compete against overseas buyers. He reassures his audience that prices will continue to rise and that overseas buying won't stop, 'because all political parties want population growth, particularly from rich internationals.'[64]

The Australian Securities and Investment Commission has identified another group of potentially vulnerable investors. It has noted that an increasing share of home loans are being issued in the form of interest only loans. According to ASIC, these made up 42 per cent of all loans in the March 2015 quarter, the majority of which were issued to investors.[65] These people are trading off lower short-term repayments against much larger repayments in the long term in order to take out a larger loan. Their motive appears to be to extend their leverage in order to maximise the gains they can make through negative gearing against other taxable income. As ASIC notes, unless this practice is arrested it leaves open the risk of 'excessive or unnecessary defaults.' [66]

In the case of the investors who ASIC investigated, they had at least obtained a secure loan from their lender. Those buying apartments off-the-plan do not have this security. When they approach their bank to finance their settlement obligations, they will learn that their bank does not recognize any obligation to lend the full amount due on settlement.

The banks will do their own valuation of the property before deciding how much to lend. If it is worth less than the original contract they will lend accordingly. As the chief economist at Westpac, Bill Evans, recently stated: 'the issues of pre-sales is a real worry… Someone commits to a presale and in two years they go to the bank and say, "Can I have my money now?" and the bank has no obligation to give them the money.'[67] In these circumstances, the investors will have to find some other source to cover the difference between what their bank offers and their settlement obligation.

The *Reserve Bank* has belatedly acknowledged the problem. It stated in its September 2015 *Financial Stability Report* that particularly in Melbourne and Brisbane: 'while investor demand appears strong at present, including from foreign investors, apartment markets in these areas already look soft, and future tenant demand, including from international students, is uncertain'. The Bank goes on to conclude that:

> Any downturn in apartment market conditions would weigh directly on the developers' equity in projects underway, and would increase the risk of off-the-plan sales falling through.[68]

Local investors, faced with having to find substantial funds additional to those the banks are willing to lend, may decide to forego their deposits. Why risk more money if the apartment market looks to be in the doldrums? Developers have no recourse on their assets.

The situation regarding offshore purchasers is particularly problematic. Around half of recent off-the-plan sales by Australian developers, and most of those sold by overseas developers, have been sold to off-shore investors. Some may forgo their deposits. Others, especially those located in China, may have little choice in the matter given that the Chinese financial authorities are clamping down on the outflow of yuan (exchanged for foreign currency). This derives from recent Chinese government concerns about the rapid rundown of China's foreign currency reserves. There is a rule already in place, though hitherto easily evaded, that limits the annual outflow of funds per Chinese resident to the equivalent of US$50,000. It may well be more rigorously enforced by the Chinese authorities in the current circumstances.

A downturn in the apartment market implies that developers and their Australian bankers face trouble. It may be no surprise to learn that Harry Triguboff, who has many times acknowledged his company, Meriton, is heavily reliant on offshore sales, has sounded the alarm. He told *The Australian* journalist, Robert Gottliebsen that: 'our banks are lending huge sums to developers who can only repay the banks if other banks fund their investors but there is no firm bank commitment to fund those investors.'[69]

The busting of the apartment bubble is imminent

The property industry continues to assert that the market for apartments is secure. However, outsiders are not so confident. A significant case in point comes from the international financial broking firm CLSA, headquartered in Hong Kong. Its spokesman stated in *The Australian*:

> We see significant risk of a downward spiral of falling prices, slowing sales, rising borrowing costs and declining-loan-to-value ratio costs, constraints on foreign capital (from China and Australia) and settlement defaults.[70]

As is usually the case, leading Australian property interests were quick to dismiss CLSA's comments as 'scaremongering'.[71]

While we don't want to put a date on it, the fact is that thousands of off-the-plan investors will soon be confronted with a market replete with surplus apartments. This will first become obvious in Melbourne. When it does, it will create a wave of uncertainty that will ripple across the residential property industry. As we have argued, the investor housing bubble has been driven by the expectation of endless increases in the capital value of dwellings. A downturn in the high-rise apartment market will undermine this assumption and in so doing is likely to take some of the heat out of the detached housing market.

How can we be sure? Our projections leave little doubt about the forthcoming surfeit in apartments, especially in Melbourne. As detailed in Appendix One, where the output of other dwellings (mainly apartments) is compared with dwelling needs, the comparison shows a massive surplus of other dwellings in 2022 of 123,000 in Melbourne and 59,000 in Sydney. Moreover, the output side of these projections is conservative. It was based on the average number of approvals for 'other dwellings' over the years 2010-11 to 2014-15. However, approvals for such dwellings (mainly in the form of high-rise apartments) have surged in Sydney and Melbourne since 2013, (see Table 2).

We will not have to wait until 2022 before a glut of apartments becomes obvious. It is already looming over Sydney and Melbourne. As noted in Table 3, completions are about to jump to around 21,000 to 22,000 in both 2016 and 2017 in Sydney and Melbourne, from 13,000 to 14,000 in both cities in 2014 and 2015.

For those wary about projections, let us summarise the argument. The current huge production of apartments is occurring at a time when the need is limited. This is because there will be little growth in the number of young adult Australian residents over the next decade. They are the main source of demand for apartment rentals while singles and couples. Their stay in apartments is temporary because the vast majority move to family friendly housing when starting a family. When they leave they vacate space for the next cohort. Most of the projected expansion in the need for apartments will come from of overseas migrants, especially those on temporary visas. However, as noted, the stock of these migrants is not expanding nearly as fast as was the case in the past decade.

This is not all that apartment investors will have to contend with. In Sydney, apartments are becoming more expensive because of the escalation in site costs described above. In Melbourne, price is not such an issue. But the transformation of the cheaper apartment precincts into dense enclaves of mobile tenants, large numbers of whom will be Asian temporaries, most certainly is. So too is the physical oppressiveness of these precincts as new developments create wall to wall blocks sheer to the footpath. In addition these precincts are largely devoid of community facilities and open space. This makes it all the more likely that Maureen McInroy's prediction that they will be regarded as slums will come to pass. Who will want to buy such apartments?

Last ditch action from Australia's financial authorities – too little, too late

There has been some belated action on the part of the regulatory authorities. The *Australian Prudential Regulation Authority* is becoming vocal on the matter.[72] Its concerns include Australia's very high levels of household debt to household income by international standards and competition amongst Australian banks to maximise their share of mortgage business while the boom lasts.[73]

APRA has told the banks that if credit growth to investors exceeds 10 per cent a year they will be monitored carefully. This benchmark, according to APRA: 'is not intended as a hard limit, but Australian Deposit Institutions should be mindful that investor loan growth materially above this rate will likely result in a supervisory response.'[74] This is feather duster treatment. A ten per cent lid on investor housing loans will, at best, just slow down the rate of growth in investor activity. On the other hand, APRA's jawboning does seem to have led to a tightening of the banks' lending standards.

At the government level, the Victorian Labor Government announced in September 2015 that it would restrict the amount of space that could be built on a site for a year, pending an inquiry into apartment design rules. Since that time there has been a remarkable decline in approvals for other dwellings in Melbourne, from 3,641 in October 2015 to 1,485 in November.[75]

But it is all too late. The existing pipeline will deliver far more apartments over the next few years than the market is likely to be able to absorb at a profit for investors.

Part Eight: There is no solution in sight

For two decades policy makers and housing commentators have promised that the best way forward for Sydney and Melbourne is consolidation. For the best of motives, including locating people near jobs, avoiding the detrimental costs of sprawl and better use of expensive infrastructure, the consolidators have succeeded in shaping the metropolitan strategies of the two cities.

For their part, the state politicians have legislated to put in place the planning structures consistent with the consolidators' views. And, they have followed the advice of the Treasury, the Reserve Bank and most private sector economists and left it to the market to deliver the required housing.

The result has been a disaster. In both cities it has produced a housing price boom and a legacy of enormous mortgage debt. It has disenfranchised the younger generation from home ownership and consigned the less affluent to remote outer suburbia and to a lifetime of rental bondage. These strategies have also facilitated a belated building boom, but of small high-rise apartments that will do little to alleviate the situation.

The only realistic prospect of some relief is a decline in detached housing values fuelled in part by an exodus of residents and, in the case of Sydney, a reduced inflow of migrants. A likely downturn in the high-rise apartment market, could, for the reasons explored above, prompt some softening in the markets for detached houses.

The boom in credit for real estate purchases goes to the heart of the financial stability of the economy. A sudden drop in dwelling prices could be catastrophic for the Australian economy. It would lead to a sharp cessation in the construction industry especially in Sydney and Melbourne. It would also remove much of the $100 billion a year boost to the economy that has recently come from the annual net growth in residential property mortgage debt.

Achieving a soft landing will require actions that take the heat out of the market, but not actions that will precipitate a collapse of the sector. This will require policy makers to have a better understanding of the systemic drivers of housing demand by housing type for each city.

Unfortunately, there are few signs among the consolidators or economic elites of any recognition that their policy priorities and underlying assumptions need to be reassessed. Both groups are encased in ideologies which leave no room for alternative thinking.

The consolidators

The consolidators' convictions about the need for denser inner-city living, mainly provided by increased infill, is backed by an elite disdain for suburban lifestyles. They feel justified in leaving young families with few other options because they believe that medium density living will enable them to share the pleasures of the vibrancy, diversity, community life, access to public transport and cultural amenities the inner city allegedly provides.

The same beliefs fortify their confidence that older households will jump at the possibility of downsizing should the required medium density housing be provided.

There is no willingness to confront reality, which is that their proposals have not worked and that the assumptions on which they are based might be wrong. These include their belief that the most rapid growth in households will be amongst one- and two-person households and thus that priority should be given to apartments or units rather than detached houses.

There has been no acknowledgement that, in the light of the obvious shortage of family friendly housing, the best way to deal with this shortage would be to reduce immigration. Rather there is a stubborn insistence that we can have it both ways, huge population increases in Sydney and Melbourne and affordable infill housing.

The advice from consolidators is to get tougher about infill by removing the remaining obstacles to its advance. Paul Donegan, one of the authors of the Grattan Institute's volume *City Limits*, asserts that: 'the planning system needs to prioritise new housing as a goal for all suburbs'. It should be simplified to remove restrictions on infill. The present situation, according to Donegan, 'gives councils in established suburbs many tools with which to restrict local population growth'.[76] The advice from the architect of the City of Melbourne's high-density strategies, Rob Adams, like many other consolidators, is that infill quotas should be imposed on suburban municipal Councils.[77] The fact that such policies will mean trampling the rights of suburban residents to protect their amenity apparently does not matter.

Consolidators are also calling for tighter urban growth boundaries in order to curb suburban expansion and force aspiring home owners to compete for housing within the existing urban boundary. Yet it is the safety value of fringe housing in Melbourne (though not Sydney) that has allowed some aspiring home owners to realise their dream of family friendly home ownership.

Consolidators seem unable to face the reality that the main constraint on the production of affordable family friendly infill is the escalation of site costs for such infill.

The ideology of market economists

The mainstream economic policy makers also have much to answer for. They have provided the crucial professional support for the Commonwealth Government's economic policies linked to housing. Since the sharp drop off in mineral investment expenditure post 2012 there has been a desperate search for alternative activities. The main choice has been the housing industry.

The mainstream economist view is that if there is an increased availability of capital and labour and an obvious shortage of houses as in Sydney and Melbourne then business will respond by taking up opportunities to fill the gap. As to what sort of housing should be built it, it is an article of faith within the economic policy elite that such decisions must be left to the marketplace.

The market has not delivered. Instead, the outcome was a price boom centred on established detached houses. The financial authorities then stood by and watched while the resulting explosion in bank loans for housing has seen household debt to annual household income in Australia reach levels way above those in the USA and the UK prior to the GFC.

A small share of the investor borrowing has gone into dwelling construction. But it has largely been in the form of high-rise apartments that will do little to solve the shortage of family friendly housing in both cities.

If the high-rise surge is to make a significant contribution to dwellings needs in the two cities, there will have to be greater diversity in apartment types and prices. At present, such requirements are minimal in both cities.

Nor has either state government taken any action to control the costs of apartment sites. Rather, both have allowed existing land owners to reap the benefits of the rezoning of land for high-rise developments. The competition for these sites is making landowners wealthy but in the process is diminishing any possibility of the market delivering anything other than small and expensive apartments.

Final thoughts

It seems that it will take a crash in high-rise apartment prices before there is any rethink in urban strategy.

This is despite the experience leading up to the GFC and the many warnings since from reputable financial authorities that it could happen again. Martin Wolf, leading financial journalist with the *Financial Times* is a significant example. In a world awash with money, low interest rates, few alternative profitable locations for investors and banks desperate to expand their mortgage loan assets, he writes that a speculative boom in real estate is inevitable. The sequence, he wrote in 2014, is:

> In the short run, then, a lower real interest rate raises asset prices; in the medium run, it generates credit booms and increased construction; and, in the long run, it leads to house-price collapses and financial stress.[78]

As we have seen, there has only been some belated acknowledgement from Australia's financial authorities that the housing bubble in Sydney and Melbourne may be approaching the 'long run' outcome foreseen by Wolf. When it comes, it is likely to be catalysed by the financial turmoil flowing from the impending glut of apartments. Australia's financial authorities did not see this coming until the last moment because they believed the consolidator and planner assertions that a sea change in dwelling preferences for inner city high density living was underway.

There is an obvious need for new thinking about the crisis. For this to occur, governments will have to get into the marketplace and play a greater role in what can be developed and where. They will also have to find ways to control the price of sites for infill and high-rise developments.

Our hope that this and our previous report on the demographic foundations of the housing affordability crisis will contribute to this rethink

Appendix One

Comparison of projected needs for new dwellings to 2022 under NOM 240,000 and recent building approval numbers, Greater Sydney and Greater Melbourne

		Greater Sydney			Greater Melbourne		
		Houses	Other	Total	Houses	Other	Total
Projected need 2012-2022							
A	Additional dwellings needed over decade to 2022 (240,000 NOM)	142,060	166,300	308,360	231,340	123,750	355,090
Recent supply pattern							
B	Average annual approval numbers over five years 2010-11 to 2014-15	10,920	21,399	32,319	21,474	24,238	45,712
C	Dwellings already approved over the three years 2012-13 to 2014-2015	37,191	75,570	112,760	62,071	77,407	139,478
Remaining seven year projected need (2015-16 to 2021-22)							
D	Outstanding approvals needed for remaining seven years to 2022 to meet projected needs (A minus C)	104,869	90,730	195,600	169,269	46,343	215,612
E	Average annual approvals required over the next seven years (D divided by 7)	14,981	12,961	27,943	24,181	6,620	30,802
Disparity between supply and projected demand							
F	Difference between average approval numbers for the five years to 2014-15 and annual number required over next seven years (B minus E)	-4,062	8,438	4,376	-2,707	17,618	14,911
G	Expected surplus/deficit by housing type in 2022 if approvals continue at last five year average rate (negative indicates undersupply) (F multiplied by 7)	-28,432	59,064	30,630	-18,948	123,323	104,375

Source: Report 1, Table 9

Appendix Two

Estimate of additional dwelling needs under NIL NOM, 240,000 NOM and total, 2012-2022, Greater Sydney and Greater Melbourne

Age band (years)	Sydney				Melbourne			
	Separate house	Semi-detached, row or terrace house, town house	Flat, unit or apartment	Total	Separate house	Semi-detached, row or terrace house, town house	Flat, unit or apartment	Total
Additional dwellings 2012-2022 projected under Nil NOM								
18-24	-4,120	-1,320	-4,160	-9,600	-6,350	-1,240	-3,430	-11,150
25 -34	-19,270	-6,000	-15,570	-41,100	-12,420	-2,900	-4,920	-20,350
35 – 44	-50	-10	-20	-80	13,490	1,750	1,930	17,250
45 – 54	8,780	1,340	2,020	12,220	20,090	2,290	2,200	24,690
55 – 64	24,080	4,190	6,160	34,690	33,770	4,020	3,800	41,810
65 – 74	40,840	6,510	11,230	58,980	43,090	6,110	6,440	55,860
75+	35,170	7,170	11,800	54,460	37,710	6,860	9,120	53,880
Total	***85,430***	***11,880***	***11,460***	***109,570***	***129,380***	***16,890***	***15,140***	***161,990***
Additional dwellings 2012-2022 projected due to increasing the NOM to 240,000 – migration component								
18-24	2,670	1,320	9,770	13,820	4,320	2,250	8,130	15,160
25 -34	15,380	10,330	60,270	86,970	33,720	9,940	31,500	75,600
35 – 44	19,680	9,930	25,610	55,730	32,360	9,230	14,090	55,870
45 – 54	11,650	3,360	9,390	24,400	18,170	3,580	4,450	26,400
55 – 64	5,020	1,680	4,550	11,250	8,890	630	2,580	12,100
65 – 74	1,830	1,450	2,080	5,360	3,180	990	1,780	5,950
75+	410	170	700	1,280	1,330	220	510	2,060
Total	***56,640***	***28,240***	***112,370***	***198,810***	***101,970***	***26,840***	***63,040***	***193,140***
Total additional dwellings 2012-2022								
18-24	-1,450	-10	5,610	4,210	-2,030	1,010	4,690	4,000
25 -34	-3,900	4,330	44,700	45,860	21,300	7,030	26,580	55,240
35 – 44	19,630	9,920	25,590	55,650	45,840	10,980	16,020	73,110
45 – 54	20,430	4,700	11,410	36,620	38,260	5,860	6,650	51,080
55 – 64	29,100	5,880	10,710	45,950	42,660	4,650	6,380	53,910
65 – 74	42,670	7,960	13,310	64,340	46,270	7,100	8,220	61,810
75+	35,580	7,340	12,490	55,730	39,040	7,080	9,630	55,940
Total	***142,060***	***40,120***	***123,820***	***308,360***	***231,340***	***43,710***	***78,170***	***355,090***

Notes: The totals by age group in each panel have been rounded. Totals include a small number of other and not stated dwelling types not shown separately. The age group for each household is that of the reference person in each household. The propensities used to calculate the data in the table were drawn from the 2011 Census. The migrant status was determined by the birthplace and year of arrival information for Persons 1 and 2 in each household and weighted to take account of mixed households where a recent migrant lived with a pre-2001 migrant or Australia-born person.
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