Planning, housing supply, and affordability in Australia: Research and Policy Brief

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Introduction

This Research and Policy Brief outlines recent policy debate and empirical evidence on housing demand, supply, and affordability in Australia, focusing specifically on the most populous Australian state of New South Wales (NSW). It draws on a series of research papers by Nicole Gurran and Peter Phibbs, but particularly the paper entitled “‘Boulevard of Broken Dreams’: Planning, housing supply, and affordability in Australia” (Gurran and Phibbs 2016).

Background

After more than two decades of house price inflation, Australia’s national dream of home ownership seems increasingly inaccessible for younger generations. Despite a buoyant market, rates of new housing production appeared to stall in the years of the new millennium, raising concern about undersupply (National Housing Supply Council 2009). In this context and consistent with policy concerns in other nations, there has been much emphasis on potential planning system constraints affecting land and housing supply, and implications for affordability pressures.

A series of planning system reforms have been undertaken in several jurisdictions (notably NSW, Queensland, Western Australia (WA) and Victoria), in part, to reduce perceived barriers to housing development (Ruming et al. 2014). Whether or not as a consequence of these efforts, Australia’s housing output increased markedly in the years following the Global Financial Crisis (GFC), resulting in a 25 year high of 188,800 dwellings between June 2014 and June 2015 (ABS 2015).

Urban planning and housing supply – existing research

A wealth of research, primarily from the United States (US) and United Kingdom (UK) has examined how planning intervention may influence the housing market (for reviews see Bramley 2013, White and Allmendinger 2003). It is important to note that very few empirical studies have examined these questions in Australia.

Planning regulation and supply constraints

A key focus is whether urban policies, such as the shift towards containing urban growth (called “consolidation” in Australia), constrain land supply for new housing development. Restrictive land use zoning techniques might also have the effect of artificially constraining land and, therefore, housing supply, inflating prices. Overall, the international literature shows that planning regulations can constrain housing development opportunities, but much depends on whether local plans are designed to restrict or accommodate growth (Pendall 2006, Landis 2006, Bramley and Watkins 2014).

It is also thought that administrative or regulatory burdens – the complexity and stringency of planning requirements, the time needed for approval, and uncertainty or the risks of refusal – slow and even discourage new supply, again inflating prices (Ball 2010, Gurran, Ruming, and Randolph 2009).

In both the US and UK, local resistance to development has been shown to influence the restrictiveness of local plans (limiting the type and density of housing permitted) (Gyourko, Saiz, and Summers 2008, Pendall 2006) and or the stance of local planning authorities (Bramley and Watkins 2014).
By contrast, the capacity for local communities to influence development control processes in Australia is somewhat curtailed by legislation which assigns land allocation ("zoning") decisions to the State government. In the state of NSW there are also specific provisions to override local restrictions that might otherwise prevent diverse housing forms in residential areas (as outlined below). Further, unlike the US, there is arguably less motivation for local residents to oppose growth on the basis of impacts on local services or government budgets, since major infrastructure and services — such as schools, police, and health facilities — are provided by state governments.

**Why housing is different to other goods**

When considering the potential impact of planning regulation on the housing market, it is important to recognise that housing is different to other goods. For instance, housing takes time to produce so supply is inherently "sticky". Similarly, planning regulation is only one of a number of factors potentially influencing development decision by private actors. Other considerations relate to geographic constraints and the availability of existing infrastructure, as well as market factors relating to housing demand (whether prices are rising or falling) and the availability of development finance. While the need to satisfy regulatory requirements imposed by the planning system can impact on the timing of development, research in the UK shows also that developers manage the pace and level of housing output to maximise profits (Adams, Leishman, and Moore 2009).

Another way in which housing is different to other kinds of goods is that homes are immobile and relatively unique. A detached four bedroom home in an outer suburban locality is not a ready substitute for a one bedroom unit in the inner city. Different and changing housing preferences mean that abundant development opportunities in one location might not satisfy demand in contexts which are inherently constrained, such as (in Australia) inner city locations advantaged by public transport and high amenity.

**Good planning, and housing demand**

Finally, when evaluating the extent to which the planning system might influence the housing market it is important to recognise potential effects on demand. For instance, 'good planning' (which ensures that neighbourhoods are well designed, and benefit from good quality infrastructure and services) typically commands a price premium (Mathur, Waddel, and Blanco 2004, Ihlanfeldt 2009, Talen 2010). Some researchers have suggested that this implies a need to ensure that 'good planning' and areas well served by infrastructure and facilities, are not in short supply (Mathur, Waddel, and Blanco 2004). When innovative planning and design enables diverse homes and cost effective forms of production, there is usually a need to set aside some of the supply for those on low and moderate incomes if affordability goals are to be achieved (Talen 2010).

**Housing supply and affordability in Australia**

Australia has long been a nation of home owners, with nearly 70% of households owning or purchasing their homes and the balance predominantly in the private rental sector (Figure 1). However, ownership rates have been gradually dropping across younger age cohorts due to affordability pressures (Yates 2011).
Around 40% of the Australian population resides in the largest cities of Sydney and Melbourne alone (Major Cities Unit 2013), and over 60% of Australians reside in cities of more than 100,000 people (Ellis 2014). This urban concentration inherently constrains housing choices (which are bound to a limited number of employment centres), in turn, reducing options for new housing supply and contributing to very high house prices across the major cities, particularly in Sydney.

National level concern emerged in the early years of the new millennium (Yates 2011), on the back of a sustained real increase in prices from the mid 1990s (Productivity Commission 2004). The initial focus of concern about affordability pressures during this time was on barriers to first home ownership. A national Productivity Commission (2004) inquiry found that house price inflation reflected demand side pressures (lower interest rates, increased household incomes resulting from increased female workforce participation and financial incentives for home ownership). Of these, a new first home buyers’ grant (introduced in the year 2000 to soften the impact of the GST on the housing market), as well as discounting the capital gains tax, appeared to have particularly inflationary effects, according to the Commission. Figure 2 shows price inflation in the four largest cities, from 2002. As shown, prices continued to rise until 2003 in Sydney, at which point they plateaued before rising sharply from 2012 onwards. By contrast, prices continued to rise in the other state capitals until the 2007/08 Global Financial Crisis (GFC).
Figure 2: House price trends, Sydney, Melbourne, Brisbane, Perth

Source: 6416.0 Residential Property Price Indexes: Eight Capital Cities (Table 4, Original series)

Table 1: Australian inquiries and policy processes relating to housing affordability 2004-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Inquiry / Policy initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003/04</td>
<td>Productivity Commission Inquiry into the Costs of Home Ownership</td>
</tr>
<tr>
<td>2007</td>
<td>Establishment of National Housing Supply Council</td>
</tr>
<tr>
<td>2008</td>
<td>Senate Select Inquiry on Housing Affordability in Australia</td>
</tr>
<tr>
<td>2008</td>
<td>National Rental Affordability Scheme commences</td>
</tr>
<tr>
<td>2009-2012</td>
<td>Housing Supply and Affordability Reform inquiry</td>
</tr>
<tr>
<td>2009-2012</td>
<td>Nation Building Economic Stimulus Plan, Social Housing Initiative</td>
</tr>
<tr>
<td>2013</td>
<td>National Housing Supply Council abolished</td>
</tr>
<tr>
<td>2013</td>
<td>National Rental Affordability Scheme terminated</td>
</tr>
<tr>
<td>2013-15</td>
<td>Economics Reference Committee Inquiry into Affordable Housing</td>
</tr>
<tr>
<td>2015</td>
<td>Economics Committee Inquiry into Home Ownership</td>
</tr>
</tbody>
</table>

Source: Authors

In addition to a range of government inquiries on housing problems (summarised in Table 1), the National Housing Supply Council (NHSC) was established by the Rudd (Labor) Government in late 2007. The NHSC produced a series of reports on housing supply and demand trends, drawing particular attention to a notional underlying ‘gap’ in new housing production. Using measures of the number of homeless people and the amount of new stock required to increase residential vacancy rates in the private sector to 3%, this gap was estimated to be 85,000
dwellings in 2008 (National Housing Supply Council 2009). By 2012, the NHSC estimated that the cumulative gap between housing production and need had risen to 228,000 dwellings. This concept of absolute shortage (rather than a lack of homes affordable to low income groups) became increasingly influential, resonating with a series of industry publications which sought to draw attention to inadequate land and housing supply across the states and territories (Property Council of Australia 2007, Urban Development Institute of Australia 2006). However, the NHSC reports pointed to a much larger shortage of homes available and affordable to lower income renters (i.e. 539,000 properties) (NHSC 2012).

In this climate, the Council of Australian Governments (COAG) (an intergovernmental body led by the Prime Minister, and comprising State Premiers / Territorial ministers, and the national Local Government Association), formed a working party to progress “Housing Supply and Affordability Reform” (COAG Reform Council 2009). Its final report issued in 2012 drew attention to “regulatory impediments”, such as uncertainty, delays, and costs in securing planning approval. (COAG Reform Council 2012: 2). The group concluded that “reforms that remove impediments to housing supply will remove unwarranted pressure on house prices” (ibid.).

To examine the extent to which the planning system may in fact impede the flow of new homes, we examined data from NSW. It is NSW which has experienced the sharpest house price inflation (Figure 2), and also the state which, in 2012, was thought to have the largest 'undersupply' of dwellings (89,000 according to the NHSC in 2012).

**NSW dwelling supply: examining the link between planning reform, new supply, and house prices in Sydney**

Our starting point was the expectation that a well-functioning planning system would see dwelling approvals rise substantially as prices increased. To analyse this, we sought to measure planning approval elasticities i.e. the percentage change of planning approvals divided by the percentage change of dwelling prices. We also measured the correlation between dwelling prices and planning approvals.

The data for this analysis is assembled in Table 2. Price data are taken from the NSW Rent and Sales Report (which gives reliable quarterly updates on rent and sale price trends for the whole state. Planning data (dwelling approval trends) are from the Australian Bureau of Statistics (ABS). In order to highlight the role of interest rates (for home loans) in creating price pressure, the interest rates set by the Australian Reserve Bank are also included in the table (when interest rates fall, the total amount able to be borrowed by households increases, so interest rates act like wage growth to increase price pressures or housing demand).

In our view, the focus on dwelling approvals provides the most accurate indicator of the relationship between the planning system and housing supply. The decision to undertake a housing development is now primarily undertaken by the private sector (around 98% of dwellings), so one of the first indicators of an increase in housing development activity, is applications for development approval. Although the planning system does not govern the number of overall applications (nor the number of approved dwellings that will move through to construction), planning does regulate the flow of approvals. If the planning system was operating as a constraint, increases in demand (i.e. house prices) would not translate to increases in approvals, or would result in a much smaller flow of approvals relative to the scale of demand.
Whilst the ABS dwelling approval series begins in 1997, the period before 2002 is affected by the introduction of a comprehensive 10% Goods and Sales Tax (GST) in 2001, which extended to new dwellings. The GST brought forward demand for housing (with builders and buyers trying to beat the tax) and thus generated a slowdown in building after it was introduced. Hence, for this analysis, the approval elasticities are first estimated in 2002. They are calculated for subsequent years when there is a greater than 5% increase in dwelling prices. Note, however, that the years of the GFC are excluded because the housing market was substantially affected by the aforementioned economic stimulus package for social housing construction.

The table shows two very interesting trends. Despite much concern about the planning system overall and supply constraints in NSW in particular, as described in the previous section, the data suggests that the planning system does not appear to operate as a constraint to new housing supply. Responding to the boom in house prices in recent years associated with historic low interest rates, by 2014-2015 approvals reached 44,258 dwellings, considerably above the Sydney Metropolitan Plan target of 35,000 dwelling per year (NSW Department of Planning, 2014). Dwelling approvals reached 5,159 in July 2015, the highest monthly number since the data series commenced in 1991.

Table 2: The Sydney housing market and dwelling approvals 1996-2015

<table>
<thead>
<tr>
<th>Median dwelling price Greater Sydney ($'000)</th>
<th>Percentage increase in dwelling prices over the 12 months before the Dec date</th>
<th>Number of dwelling approvals in the financial year for Greater Sydney</th>
<th>Reserve Bank/Interest rate</th>
<th>Net dwelling completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-97: 237</td>
<td>11%</td>
<td>35,847</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Dec-98: 250</td>
<td>5%</td>
<td>35,788</td>
<td>4.75</td>
<td></td>
</tr>
<tr>
<td>Dec-99: 280</td>
<td>12%</td>
<td>33,651</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Dec-00: 294</td>
<td>5%</td>
<td>22,441</td>
<td>6.25</td>
<td></td>
</tr>
<tr>
<td>Dec-01: 338</td>
<td>15%</td>
<td>32,292</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Dec-02: 400</td>
<td>18%</td>
<td>31,527</td>
<td>-0.13</td>
<td>4.75</td>
</tr>
<tr>
<td>Dec-03: 443</td>
<td>11%</td>
<td>29,673</td>
<td>-0.55</td>
<td>5.25</td>
</tr>
<tr>
<td>Dec-04: 449</td>
<td>1%</td>
<td>22,324</td>
<td>5.25</td>
<td>19,143</td>
</tr>
<tr>
<td>Dec-05: 433</td>
<td>4%</td>
<td>18,135</td>
<td>5.5</td>
<td>17,488</td>
</tr>
<tr>
<td>Dec-06: 442</td>
<td>2%</td>
<td>18,045</td>
<td>6.25</td>
<td>14,715</td>
</tr>
<tr>
<td>Dec-07: 465</td>
<td>5%</td>
<td>18,796</td>
<td>0.80</td>
<td>6.75</td>
</tr>
<tr>
<td>Dec-08: 411</td>
<td>-12%</td>
<td>14,370</td>
<td>4.25</td>
<td>13,041</td>
</tr>
<tr>
<td>Dec-09: 500</td>
<td>22%</td>
<td>20,389</td>
<td>3.75</td>
<td>13,292</td>
</tr>
<tr>
<td>Dec-10: 535</td>
<td>7%</td>
<td>23,566</td>
<td>4.75</td>
<td>14,722</td>
</tr>
<tr>
<td>Dec-11: 490</td>
<td>-8%</td>
<td>25,267</td>
<td>4.25</td>
<td>15,104</td>
</tr>
<tr>
<td>Dec-12: 560</td>
<td>14%</td>
<td>30,479</td>
<td>1.44</td>
<td>3</td>
</tr>
<tr>
<td>Dec-13: 632</td>
<td>13%</td>
<td>39,084</td>
<td>2.20</td>
<td>2.5</td>
</tr>
<tr>
<td>Dec-14: 710</td>
<td>12%</td>
<td>44,258</td>
<td>1.07</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Notes: Pearson correlation between the first and last data columns is 0.75
Data Sources: *NSW Department of Family and Community Services 2015, **ABS 2015b, ***Authors, ****Reserve Bank of Australia, *****NSW Department of Planning and Environment 2015.

Table 2 shows somewhat different elasticity results for the 2002-2003 period when there was no substantial increase in approvals in comparison to the most recent boom - 2013-2015. In this later period, the elasticity scores are greater than 1.
In other words, by 2013, a 10 percent increase in price had generated more than a 10 percent increase in dwelling approvals. The reasons for the change in elasticity are difficult to precisely gauge. One plausible explanation would include the substantial period of planning reforms described in the previous section. Other potential explanations include a rising interest rate climate in 2002-03 (Table 2) in contrast to the second period over which interest rates were both much lower and were also falling. Rising interest rates preceded the easing of the first boom (which began in 1996), a slowdown which might also have been foreseen by housing producers.

A particularly important lens when examining the Sydney housing market is to analyse the relationship between housing prices and new supply. If new supply improves affordability, we should be able to measure a negative correlation between supply increases and housing prices. However, an analysis of the Sydney housing market over the last 12 years shows that the Pearson correlation between net new dwelling completions and the median price is positive (Pearson correlation of 0.75) (Table 2). That is, larger increases in new supply are associated with larger price increases.

Whilst this may seem counter-intuitive, the explanation is reasonably straightforward. For housing markets where demand and supply are intertwined in the way we have described above, significant increases in supply will only occur when there is strong demand and this strong demand translates into price increases. These price increases further encourage new supply as the risks to developers and financiers of increasing output are reduced by price growth.

**Figure 3: Relationship between housing supply and prices, Sydney**

![Figure 3: Relationship between housing supply and prices, Sydney](image)

Source: Completions. NSW Department of Planning; Prices: Department of Family and Community Services, Rent and Sales Report.
Investor demand for housing

What has exacerbated this trend is the increase in investors in the market. The increasing ‘financialisation’ of housing has seen a rise in international investors in domestic markets, including Australia (Rolnik 2013, Rogers, Lee, and Yan forthcoming). However, in Australia, the vast majority of these investors are small, domestic, individual investors. Indeed the role of small (domestic) individual investor activity on the price of homes across the market is a particular characteristic of Australia’s housing system, which depends on private investors for rental housing supply. This supply is drawn from the entire dwelling stock (as opposed to dedicated new rental housing development as is the case in the US, for instance), further intensifying price pressures across the whole market.

Thus for this analysis we extend the traditional approach of examining housing demand solely as a function of population growth and household formation rates and other demographic variables to include an analysis of investor behaviour. Figure 4 shows the monthly housing finance commitments by investors over the last twenty years in Australia. Increases in investor activity, particularly after 2000, are associated with increases in house prices. In other words, investors are most influenced by potential capital gains. This is partly a reflection of the nature of Australia’s domestic housing investors – largely small investors typically owning 1-3 investment properties - but also a direct result of a change to the capital gains tax laws in 1999 (Kenny, 2005). This change allowed individuals and trusts to report only half of the net capital gain for tax purposes.

Figure 4 shows that the flow of these investment loans significantly increases when house prices start to rise in the housing booms of 1996 to 2003 (particularly following the introduction of the capital gains tax discount), and 2013 to 2015. The two largest increases in housing loans were not surprisingly in those two periods. This focus on investment during periods of price increases is what has put added pressure on house prices and has pushed the price peak up in these past two housing booms. Note that the fall from May 2015 reflects changes to lending policy which resulted in an increased interest rate for investment loans only, and foreshadowed changes to loan to value ratios.
What is most interesting is comparing investor behaviour in the housing boom in the late nineties (1996 and 1997). House prices in capital cities rose by more than ten percent in both those years, but Figure 4 reveals that the increase in housing finance commitments for investors was reasonably modest. Once the capital gains discount was introduced in 1999, there was a significantly larger surge in demand during subsequent years.

**Policy implications and further research**

This policy brief has reviewed relationships between urban planning, housing supply, and affordability in Australia overall and NSW in particular. The period since the turn of the new millennium has been characterised by concern over the impact of state and local planning regulation on housing supply and affordability. However, empirical analysis in relation to supply trends in NSW suggests that planning regulation does not appear to be inhibiting supply relative to demand (as expressed in rising house prices). By 2013, when prices in Sydney began to rise, rates of new housing supply also increased, and at a greater overall rate. However, prices did not seem to fall in response to this new production. In fact, as shown...
in Figure 4, price trends appear responsive primarily to changes in the settings governing (i.e. prudential policy) and composition of (investors versus owner occupiers) the market.

Thus, overall, empirical data suggests that demand side pressures – particularly financial deregulation, tax changes and reductions in interest rates, offer more plausible explanations for house price inflation in Australia than assumed planning system constraints on new housing supply. Further, the close relationship between demand and supply in Australia – with the majority of homes commissioned or sold off the plan, mean that any demand side constraints – such as an affordability barrier, or changes in lending criteria – will be manifest as lackluster supply (that is, fewer people contracting builders to produce new houses).

Similarly, with new supply in Australia so dependent on rising demand, resultant new housing stock by definition will not be sufficient to arrest price inflation and address the affordability barriers to home ownership faced by low and moderate income earners since the new millennium.

The analysis suggests that increased housing production is unlikely to improve affordability for low and moderate income groups. In high demand locations such as the major capital cities, additional strategies are needed to secure affordable home ownership and rental opportunities.

Further, with Australia’s new supply linked so closely to demand, patterns of new production will continue to appear volatile. The challenge in NSW and in the other states will be to maintain a steady output of new homes in line with buoyant population growth, once the current housing boom has passed.

Building up the affordable housing sector, through incentives to generate institutional investment in affordable rental housing (Milligan et al. 2013), represents an important opportunity to reduce volatility in housing production.

Additional research and policy development should also examine the potential to facilitate new and lower cost forms of housing targeting low and moderate income earners, first home buyers, or others with special housing needs, through design innovation, alternative models of housing development, and more substantive changes to state or local planning laws such as the introduction of inclusionary zoning mechanisms.
References


