



EXECUTIVE SUMMARY

Housing supply responsiveness in Australia: distribution, drivers and institutional settings

Inquiry into housing policies, labour force participation and economic growth

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Inquiry panel members

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Mary Cavar	Productivity Commission
Marilyn Chilvers	Department of Family and Community Services, NSW Government
Michael Fusarelli	Department of Family and Community Services, NSW Government
Shane Garrett	Housing Industry Association Ltd
Michael Lennon	Housing Choices Australia
Paul McBride	Department of Social Services, Australian Government
Marty Robinson	Treasury, Australian Government
Iain Scott	Department of Social Services, Australian Government

Executive summary

Key points

- A 1 per cent increase in the level of real housing prices is estimated to produce a 4.7 per cent (3.9%) increase in new house (unit) supply. These house price gains translate into a very small increase in the housing stock which will do little to keep up with demand pressures. Hence, there is a need for policy reforms that promote the price responsiveness of housing supply in Australia.
 - Most of the growth in housing supply has been taking place in mid-to-high price segments, rather than low price segments. There seems to be structural impediments to the trickle-down of new housing supply. Targeted government intervention might be needed in order to ensure an adequate supply of affordable housing.
 - Job opportunities and population growth pressures are greater in urban areas than regional areas. However, meeting population growth pressures through new *house* supply in urban areas will be challenging. On the other hand, the supply of *units* appears to be stronger (all else equal) in already developed areas.
 - The impact of planning regulations on housing supply responsiveness is modest, though there is some evidence of a positive link between growth accommodating controls and housing supply growth.
 - Often the most important aspect of the planning system from a developer's point of view is the certainty and consistency of advice provided by planning officers. Planning controls may be generally restrictive but if they are applied consistently the developer can work with them and deliver housing.
 - The development industry is extremely diverse, so policy settings will not have a uniform impact across the development industry.
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Key findings

Is Australian housing supply sufficiently responsive to price that it will keep pace with growing demand?

Our model results show that the estimated price elasticity of new housing supply is 4.7 per cent for houses and 3.9 per cent for units. While elasticity estimates from international studies vary widely depending on the time periods and models employed, a comparison with US and UK studies suggest that the price elasticity of new housing supply in Australia is typically lower than in the US where the price elasticity can be as high as 15 per cent. However, the price elasticity

of new housing supply in Australia is more comparable to the UK where they are typically lower at between 0 and 1 per cent¹.

These supply responsiveness estimates actually imply an increase in *housing stocks* of much smaller percentage increments. Thus a 1 per cent increase in the level of real housing prices will, according to these elasticity estimates, produce a 4.7 per cent (3.9%) increase in new house (unit) supply but a very small expansion in *housing stocks* of between 0.05 and 0.09 per cent. As populations are increasing at 1 per cent or more per annum nationally, these elasticity estimates suggest that (*all else constant*) we require large increases in real house prices in order to meet even modest increases in housing demand. The large increases in real house prices in Australia since the 1990s could then reflect these price elasticity estimates.

Is new housing supply concentrated in relatively low value segments of the market?

Most of the growth in housing supply has been taking place in mid-to-high price segments, rather than low price segments. Unfortunately, we are not witnessing a trickle-down effect whereby households buying new housing free up vacancies in the established housing stock that housing stressed households are able to move into at lower prices and rents.

Consequently, research studies confirm that low-income households continue to experience growing difficulties accessing low cost housing. Housing in low-priced segments is presumably more affordable, but less than 5 per cent of approvals were in the bottom 20 per cent of the house and unit real price distribution in 2005–06, and this remains the case almost a decade later in 2013–14. Hence, the housing supply issue is more nuanced than commonly thought, as there seems to be structural impediments to the trickle-down of new housing supply.

Do urban areas face particular barriers to meeting population growth pressures?

Job opportunities and population growth pressures are greater in urban areas than regional areas. However, easing price pressures and expanding affordable housing opportunities will be particularly challenging for policy-makers in already developed urban areas. This is because housing supply can only be grown by increasing the density of development, or changing land use. The gradient of land areas is negatively linked to housing supply so urban areas that are hemmed in by hilly or mountainous terrain will be especially disadvantaged by these topographical constraints. Hence, our findings suggest that meeting population growth pressures through new *house* supply in urban areas is more difficult.

On the other hand, the supply of *units* appears to be stronger (all else equal) in already developed areas. Many of these urban areas with strong growth in the supply of units are job rich. Hence, the urban network linking jobs and residences in major cities will be strengthened as the market penetration of units increases. A likely by-product is shorter commutes, which can be an important boost to productivity.

How do planning regulations influence housing supply responsiveness in Australian housing markets?

In terms of *direction* of impact, growth accommodating controls are positively correlated with both house and unit approvals while growth restricting controls are negatively correlated with

¹ Mayer and Sommerville (2000a) found that in the US, a 1 per cent rise in house prices would yield a 15 per cent increase in new housing starts over a period of five quarters. Malpezzi and Maclennan (1994) found that in the post-World War II period up to the 1990s, the price elasticity of housing was between 6 and 13 per cent in the US, but much less elastic at between 0 and 1 per cent in the UK when estimated using a flow model. When they adopt a stock adjustment model, the price elasticities are very different for the US—ranging from 1 to 6 per cent—though they remain unchanged at between 0 and 1 per cent for the UK. Whitehead's (1974) study spans the period 1955–72, and she also found relatively inelastic supply in the UK, with elasticities ranging from 0.5 to 2 per cent.

both house and unit approvals. However, only the relationship between growth accommodating controls and approvals is *statistically significant*; in the case of growth restricting controls the association is insignificant. Moreover, the *size* of the impact is marginal for both types of controls as indicated by the small coefficients on both planning variables in the model.

How do institutional settings affect the responsiveness of housing supply to demand pressures?

The development industry is extremely diverse, so policy settings will not have a uniform impact across this industry. The supply of detached housing is much quicker to respond to changes in market demand than multi-unit supply. The complexity of the multi-unit development process means it is very difficult for developers to respond quickly to changes in market demand. Development timeframes in the middle ring and inner city core suburban multi-unit housing market are long as there are many stages in the development process where there are potential barriers that can extend the development timeframe or prevent development altogether. The availability of finance can be a major barrier to development, particularly for smaller developers. Developers seek certainty in the development process. The more certainty state and local government can deliver in this process the greater the supply responsiveness is likely to be, all other things being equal.

Policy development options

Our findings show that real house price gains translate into a very small increase in the housing stock. Large increases in real house prices are needed to enable housing supply to match demand pressures (assuming other drivers of supply are unchanged). There is a case for policy reforms that promote the price responsiveness of housing supply in Australia.

Housing tax preferences and asset test concessions increase the demand for housing by encouraging the accumulation of savings in housing wealth. They are therefore helping to fuel price pressures by adding to demographically driven increases in demand; at the price elasticities we estimate, it is likely that these tax and asset test concessions are largely capitalised into house prices. If governments are unwilling to curb these concessions, their continued presence makes supply-side policy reform even more important. Those reforms should seek to promote the price responsiveness of new housing supply as well as more efficient use of the existing housing stock. It is the former suite of reform options that we focus on in the following subsections. But we should note that most of the demand for housing at any point in time is met from the established stock of housing. Reforms that help this established stock meet higher levels of demand should not be neglected.

Policy thinking around the supply of affordable housing has tended to focus on the number of new approvals and completions of houses and units, with the assumption that 'more must be good' because it eases housing market pressures and expands affordable housing opportunities. The results presented in this report suggest that a broader perspective is warranted to address the structural impediments that weaken the 'trickle down' impact of new housing supply. Furthermore, it is likely that targeted government intervention will continue to be needed to ensure adequate supply of affordable housing. This can be done either through direct subsidies that are targeted in areas in need of affordable housing, including regional and rural Australia, or via indirect measures that improve financial incentives for profit-maximising developers to supply at the lower end of the housing market.

Thinking on Australian planning reform as a supply measure should extend beyond the simplistic interpretation which assumes that the mere presence of a control is a barrier to supply. Indeed, our econometric modelling results suggest that planning measures may not be a key factor influencing housing supply. It may be that restrictive planning policies will prevent development only if they have a negative impact on revenue, making development unprofitable. On the other hand, developers will likely be more willing to work through restrictive controls if it

means they can generate a profit from the site. For instance, a number of restrictive controls may be outweighed by a single control that permits a developer to make a profit, for example a high density zoning within a strong housing market.

This is not to say that planning regulations necessarily have little impact on housing supply responsiveness in a local area. Often a key aspect of the planning system from a developer's point of view is the certainty and consistency of advice provided by planning officers. Planning controls may be generally restrictive, but if they are applied consistently the developer can work more easily with them to deliver housing. Hence, policy reform in the planning system may benefit from a tighter focus on improving certainty and consistency throughout the planning process, so as to minimise potentially adverse impacts on developers' revenues.

Due to topographical constraints and the presence of capital improvements on developed land, a policy development option in urban areas is to permit new supply at higher densities in order to accommodate population growth while easing price pressures. The supply of units appears to be higher (all else equal) than houses in already developed areas and so measures to further promote their construction could prove an effective pathway to easing price pressures and expanding affordable housing opportunities.

The supply of units is less responsive to changes in price than houses. This could be attributable to distinct differences in the development processes governing the supply of houses and units that affects the quantity of new supply in response to a price change and the timeliness of that new supply. The supply of detached housing is much quicker to respond to changes in market demand than multi-unit supply providing there is an available supply of lots for sale. Hence, from a policy development perspective, it is important to ensure such a supply of land will at least deliver a steady supply of such housing. However, multi-unit development has a long development timeline. By the time a developer has secured the land and the necessary development approvals the market may have changed, and the development may no longer be profitable. This affects both the quantity and timeliness of new unit supply when price changes. A more efficient land assembly and approval process would help make this type of development more responsive to changes in price.

There are several other policy development options that will likely improve supply responsiveness on the part of developers. First, even though monetary policy does not have a distinct housing objective, policy-makers need to be aware of the impacts of interest rate changes on housing supply because the availability of finance can be a major barrier to development, especially for smaller developers. Second, the more certainty government can deliver in the development process the greater the supply responsiveness is likely to be, all other things being equal. Third, it is important to note that developers are profit-maximising agents. Hence, ongoing government intervention will likely be needed to cross-subsidise affordable housing through additional development rights.

The development industry can respond much more quickly to negative market changes than positive market changes. The supply of dwellings is inevitably cyclical as a result. From a policy development perspective, government can take advantage of the cyclical nature of development by timing their own development activities counter cyclically and securing development deals when builders are at their least active. Overall, the development industry is extremely diverse and policy-makers need to recognise that policy settings will not have a uniform impact across the development industry. There remains a need to better understand how particular obstacles in the development process affect different sectors of the industry and to pay more attention to how and where new infrastructure is being provided so as to maximise opportunities for development in areas of high demand.

The study

This report forms part of an AHURI Inquiry into housing policies, labour force participation and economic growth. This study addresses the following research question:

What are the key drivers of housing supply responsiveness, and what do the identified effects imply for policies seeking to increase housing supply responsiveness in Australia?

In order to address this research question, the study will shed light on the links between the price responsiveness of housing supply and productivity in Australian metropolitan and regional economies. We examine whether the supply of housing is responsive in various segments of the housing markets, including geographic segments (e.g. metropolitan versus regional), price segments, and areas of low versus high population growth and job opportunities. The key drivers of housing supply responsiveness—including price, cost shifters, topographical constraints, climate, existing land uses and planning regulations—are modelled to determine their relative influence on housing supply responsiveness. The study also investigates the extent to which the organisation and structure of the Australian developer and housing industries favour or impede the responsiveness of housing supply to demand pressures. The findings from this study provide an evidence base to guide policy development that seeks to improve the scale and speed of housing supply responses to market pressures in Australia.

There is a clear and important link between the responsiveness of housing supply and economic development, which has been addressed in the international literature, but much less so in Australia. When housing supply in a regional area fails to respond speedily to positive productivity shocks (e.g. discovery of new minerals), the productivity gains can be squandered in the form of rising house prices. In metropolitan areas, housing cost pressures are becoming acute in already large cities such as Sydney, where new housing supply must overcome challenges posed by topographical, infrastructure and policy constraints. Because global transnational service businesses (banks, financial institutions etc.) are concentrated in cities, the issues in metropolitan economies are aggravated by their greater exposure to international competitive pressures.

A plethora of policy instruments at federal, state and local levels influence housing supply responsiveness. Some have direct housing objectives such as subsidised affordable rental housing schemes and planning regulations. On the other hand, fiscal and monetary policies do not have direct housing objectives but nonetheless influence outcomes in the housing market. Evidence on the drivers that affect the supply of housing will therefore offer insights into the kind of policy interventions that might aid the housing sector to adjust to demand pressures and alleviate undesirable economic and social consequences.

The research draws on a mixed methods framework of enquiry at the local government level. It combines a series of methodological approaches including estimation of the distribution and price elasticity of new housing supply, econometric modelling to uncover the key drivers of housing supply responsiveness in Australia, and industry panels to shed light on the influence of housing industry institutional settings on the responsiveness of supply to demand pressures which cannot be captured using secondary data. The analysis is conducted at the local government area level over the period 2005–06 to 2013–14.

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