



**Demographia
housing affordability surveys:
an assessment
of the methodology**

Peter Phibbs and Nicole Gurrán

**Shelter Brief 35
October 2008**

Demographia housing affordability surveys: an assessment of the methodology

By Peter Phibbs and Nicole Gurran

First published October 2008

Shelter Brief 35

Shelter NSW
377 Sussex Street, Sydney NSW 2000
www.sheltersnsw.org.au

Any opinions expressed in this report are those of the authors and do not necessarily reflect the views of Shelter NSW.

Table of contents

| | |
|--|----|
| Executive summary..... | iv |
| Introduction..... | 1 |
| The “International Housing Affordability Survey” | 2 |
| Problems with the Demographia methodology..... | 3 |
| Conclusion | 11 |
| References..... | 12 |

Executive summary

This report reviews the methodology and findings of four reports entitled the “International Housing Affordability Survey”, undertaken by a North American consulting firm, Demographia. The reports have been produced annually since 2005, with the most recent 2008 survey reporting data for the 3rd quarter of 2007.

This report specifically reviews the validity and generalizability of the housing affordability data used and the causal interrelationships posited by the report authors. The underlying claim of the Demographia report is that differences in housing affordability of dwelling purchase price (for owner-occupation) across the six countries examined in the “surveys” are explained by differences in land supply and land use planning regulations.

The first part of this report summarises the method and findings of the “International Housing Affordability Survey”. Essentially this methodology consists of a single indicator – the median multiple (median house price divided by median household income), using existing house price data to calculate an affordability ratio for 227 cities across the six countries (Australia, Canada, the Republic of Ireland, New Zealand, the United Kingdom and the United States). The authors then divide each city into one of two categories described as “prescriptive planning” or “responsive planning” markets, correlating high median multiples with “prescriptive planning” or “land rationing” regimes.

The second part of this report critically reviews this approach and the conclusions drawn. In summary, our key concerns with the methodology and findings are as follows.

1. **The overarching methodology is flawed** – *Housing affordability is associated with many complex and interacting variables, influencing demand and supply, including income levels and employment trends, access to (and the cost of) finance, demographic shifts, and housing preferences. However, the Demographia surveys reduce this very complex issue to a simple causal relationship between house prices and assumed planning constraints on land supply. Sound social science does not compress complex phenomenon associated with multiple variables into one or two key points to infer causality.*
2. **There is limited reporting of the economic literature** – **The Demographia reports** infer that there is an economic consensus regarding the role of what they describe as “prescriptive planning” in causing housing affordability loss, but most authoritative economic sources focus on demand factors (eg. falling real interest rates, strong economic growth, immigration rates, and, in some countries, weakening lending standards and easy credit) to explain house price growth, underplaying or ignoring planning policies affecting new housing development.
3. **The use of the median multiple** – *The Demographia surveys are based on a single indicator of housing affordability - the median multiple for housing purchase, which excludes rental dwellings which are important sources of*

affordable housing supply; includes all home buyers and all house prices across an entire city, ignoring the presence of discrete housing markets across a city that may be much more affordable than the single median multiple suggests; and excludes the impact of interest rates, which dramatically influence affordability for individual households. More precise measures of housing affordability focus on the number of households in the bottom two income quintiles paying more than 30 per cent of their income in housing costs.

4. **The planning and land supply data used in the “surveys” is unreliable –** *No empirical data is cited to support Demographia’s assessment of whether a city’s planning regime is “prescriptive” or “responsive”. Given the difficulties associated with collecting comparative planning regime information and the lack of any existing databases for the countries examined, we can only conclude that the planning ‘data’ conveniently reflect the subjective impressions of the authors.*
5. **Infrastructure charges are presented in a very misleading way –** *The 2008 Demographia survey states that “infrastructure charges or development impact fees increase the price of housing and are typical of prescriptive planning markets... they are used to pay for ... arterial roads ... (and) ... are typically included in purchase prices and have been for decades” (p. 21). In fact, in many cases when development or infrastructure contribution requirements are long-standing and known in advance, they should reduce the purchase price of the land, meaning that the landholder, rather than developer or house purchaser, absorbs the cost burden (unless the developer has overbid due to speculative conditions). On the other hand, developers can only pass on charges to buyers if the market is willing to pay a higher price, in which case there would be little incentive for sellers to reduce prices if infrastructure charges were not imposed. Nevertheless, sudden, uncertain, or excessive infrastructure contributions that are out of scale with the cost of development are likely to discourage new housing development, and thus might indirectly impact on supply and therefore house prices. However, the Demographia reports do not make this point.*
6. **The reports ignore the desirability of locations –** *Developable residential land in highly attractive and desirable locations – the San Francisco Bay, Sydney Harbour, or Venice Beach, Los Angeles, is by very definition finite. Demand for housing in downtown Detroit, Cleveland Ohio, or Winnipeg, Canada, is simply not driven by the same pressure for access to iconic, high amenity areas. Similar locational attributes, particularly accessibility to high quality services and employment opportunities, cultural facilities, and pleasing residential and natural areas, also affect both the availability of development opportunities – opportunities in high demand locations are taken up more quickly – and the price people are willing to pay for housing in these locations. But the Demographia survey makes no reference to locational differences, comparing house prices in Wichita, Kansas, with Palm Beach, Florida.*

7. **The reports ignore submarkets** – *The Demographia surveys ignore regional submarkets, refusing to acknowledge that oversupply on the metropolitan fringe won't automatically affect house prices across the whole market. The Demographia surveys appear oblivious to empirical developments in housing market trends, both in Australia and in the United States. Similarly, by conflating large geographical areas together, such as 'Sydney' or 'Perth', the surveys ignore the sharp differentiations in patterns of land supply, demand, and house prices.*

8. **The reports ignore differences in national urban structure** – *The surveys also ignore structural differences in regional geography across the countries included in the survey. For instance, while the United States is characterized by a highly decentralized settlement structure, with over 100 metropolitan areas with populations greater than 500,000 persons, and hundreds of substantial regional cities, Australia's settlement pattern has been constrained by population size and geographical characteristics to seven primate capital cities.*

Finally, while we are clearly critical of the Demographia reports, their value is in highlighting affordability issues in general and the need to consider housing supply issues in particular. Irrespective of the broader factors contributing to affordability problems, it is crucial that policy makers respond by continuing to ensure a sufficient supply of diverse housing development opportunities in preferred locations. It is also important to recognize that many low and moderate income earners may still require additional government assistance to access appropriate housing to rent or purchase at a price they can afford. The planning system, along with other forms of government intervention and incentives, can and must play an important role in supporting and securing opportunities for new affordable housing development.

Introduction

A North American consulting firm, Demographia, have received some publicity in Australia as a result of their “International Housing Affordability Survey”. They have undertaken four “surveys”, with the most recent 2008 survey reporting data for the 3rd quarter of 2007.

The report is co-authored by Wendell Cox, principal of Wendell Cox Consultancy (Demographia) and Hugh Pavletich, a New Zealand property developer. The findings of the surveys have struck a chord with the development sector in Australia and Wendell Cox has been a frequent speaker at events sponsored by the development lobby in Australia in recent years.¹

The nonprofit social change agency, Shelter NSW, has commissioned the authors to review the “International Housing Affordability Survey”.

The purpose of our review is to make an assessment of:

- (i) the housing affordability data reported in the Demographia series, in terms of its validity and generalizability, and
- (ii) the causal interrelationships – as posited in the Demographia reports – between dwelling purchase price (for owner-occupation) and other factors such as land supply and land use planning regulations.

This report undertakes this task. The first part of the report summarises the method and findings of the “International Housing Affordability Survey”. The second part of the report critically reviews the approach of the Survey.

¹ See for example, his presentation in 2008 at the 2008 Residential Markets Outlook Summit, available at <http://www.affordablehome.com.au/files/pdf/Wendell-Cox-Are-we-really-running-out-of-land.pdf>.

The “International Housing Affordability Survey”

The “International Housing Affordability Survey” covers cities in six countries: Australia, Canada, the Republic of Ireland, New Zealand, the United Kingdom and the United States. It uses “existing” data sources to calculate an affordability indicator for cities in these six countries. The latest survey (the 2008 report) provides data for 227 cities.

The indicator used to assess housing affordability is the median multiple – median house price divided by median household income. A range of existing house price data is used to calculate the ratio for the 227 cities. The survey then allocates cities to four categories based on their score on the median multiple:

- “Severely unaffordable”: 5.1 and over
- “Seriously unaffordable”: 4.1 to 5.0
- “Moderately unaffordable”: 3.1 to 4.0
- “Affordable”: 3.0 or less

The 2008 survey shows the following results:

| | |
|-------------------------|-----------|
| Severely unaffordable | 92 cities |
| Seriously unaffordable | 36 cities |
| Moderately unaffordable | 40 cities |
| Affordable | 59 cities |
| TOTAL | 227 |

Source: Table 2 (2008 Demographia survey)

The majority of Australian cities, including Sydney, are ranked in the “seriously unaffordable” category.

However, the most significant feature of the report is not the actual empirical results of the median multiples for the range of cities, but the interpretation of what is generating the differences between the cities. The authors explain these differences by dividing each city into one of two categories, described as “prescriptive planning” or “responsive planning” markets. They then correlate high median multiples with “prescriptive planning” or “land rationing” regimes.

The executive summary of the 2008 report encapsulates the thrust of the position of the four reports.

There is a general consensus among economists that the principal cause of the housing affordability loss has been prescriptive planning, the strategies of “urban consolidation” or “smart growth” that ration land and impose excessive fees on development (p. 3).

We think this fundamental thesis is not correct and under a series of headings, we outline some of our concerns with what we regard as a simplistic view of urban housing markets.

Problems with the Demographia methodology

1. The overarching methodology is flawed

Housing affordability is associated with many complex and interacting variables, influencing demand and supply, including income levels and employment trends, access to (and the cost of) finance, demographic shifts, and housing preferences. (See for instance, Yates and Milligan 2007). However, the Demographia surveys reduce this very complex issue to a simple causal relationship between house prices and assumed planning constraints on land supply. Such a methodology is fundamentally flawed. Sound social science does not compress complex phenomenon associated with multiple variables into one or two key points to infer causality.

The problems with the simplistic approach in the Demographia study are well summarized by the New Zealand Planning Institute (NZPI) (2007). In a press release responding to the latest release of the Demographia Report in New Zealand, the NZPI noted the complex range of factors affecting housing affordability across the six countries included in the survey, and challenged the key assertion that ‘restrictive land zoning’ is the key explanation for house price differentials across these countries in general and within New Zealand in particular:

While it’s undeniable that since 1999 house prices have risen at an unprecedented rate both here and overseas, the reasons for this vary widely between countries and are rather more complex in nature than the Demographia document would have us believe....

Specifically, we take issue with its assertion that the lack of affordable housing in this country is due primarily to ‘restrictive land zoning’ practices.

As with any other economic transaction, the price of housing is influenced by supply and demand, an equation that reflects, at any given time, the complex and dynamic interplay between numerous external factors. In the case of demand these include: overall economic growth, inflation, building construction costs, income, population growth and household formation, individual preferences and the availability of financing. Supply, meanwhile, is affected by net migration, mortgage interest rates, investment patterns, vacant land, building construction, the labour market, and the current stock of available buildings (NZPI, 2007).

As we detail below, the Demographia reports ignore all of these well established influences on housing demand and supply, including orthodox economic literature, focusing solely on a single variable affecting new house building construction – assumed differences in land use planning policies.

2. Limited reporting of the economic literature

The Demographia reports infer that there is an economic consensus regarding the role of what they describe as “prescriptive planning” in causing housing affordability loss. For instance, under a heading entitled “Emerging Consensus: Land Use Planning Inflates House Prices” in the 2007 report, the authors note that Ian McFarlane (former Governor of the Reserve Bank of Australia) blamed restrictive land use and planning

policies for the loss of affordability for first home buyers in testimony to a Parliamentary committee. Indeed, the former governor did identify supply factors relating to land use planning as influential in the price of new homes in urban release areas on the city fringe. However, the authors neglect to include his broader comments regarding housing affordability, which are quoted in full below.

The first question is why have the prices of the eight million houses in Australia basically doubled over the last decade? The answer to that one, I think, is almost entirely on the demand side. Basically, because we returned to low inflation, interest rates were halved. People could now borrow, if they wished, twice as much. They did not have to borrow twice as much; they could have taken it in lower debt servicing if they had wanted to, but there were a whole lot of incentives in the system that meant they borrowed twice as much. The incentives were mainly tax incentives, plus a history of high inflation. So they borrowed the money and drove up house prices, so the whole stock of eight million houses basically doubled in price (House of Representatives Standing Committee on Economics, Finance and Public Administration, 18/8/06, p. 26).

So, one of the eminent economists who is claimed to support the central Demographia proposition suggests that the principal cause of housing affordability loss in Australia has nothing to do with land supply and everything to do with increased demand.

It is obvious that planning systems which reduce the supply of developable land despite conditions of strong demand will have an impact on new house prices through the operation of the laws of supply and demand. However, to suggest that the principal cause of the housing affordability loss in Australia has been *prescriptive planning* is both wrong and mischievous.

Rather, a range of notable economists, both in Australia and internationally, hold that demand factors have the largest impact on house prices, consistent with the position expressed by the ex-governor Ian MacFarlane. In a Research Discussion Paper published by the Reserve Bank, Luci Ellis demonstrates how a fall in inflation and interest margins similar to that experienced in Australia over the 1990s increased individual homebuyers' capacity to pay by as much as 60 per cent (Ellis 2006). While not everyone increased their borrowings immediately, both first-homebuyers and existing owners availed themselves of their greater borrowing capacity over time – leading to a surge in demand.

She contends that the supply of housing is inherently sticky in the face of a surge in demand of this size. This is because the increase in demand is for the whole housing stock. The available supply of housing is the existing stock, which is fixed, plus whatever building and renovating work is done over a given period. So the only increment to the supply is the flow of new dwellings and renovations of existing dwellings, which represents just a few percentage points of the size of the total stock. She concludes that:

Even the most flexible and least regulated construction sector would struggle to lift its output from something equal to a few percentage points of the dwelling stock to accommodate a surge in demand of 50 per cent or more ... It is therefore inevitable

that housing prices would rise in the face of such a surge in demand. (Ellis 2006, p. 7).

She hence takes the view that extra land supply at the fringe would not have been able to counter the price increases:

... it is simply physically infeasible for new supply to expand enough to have accommodated the expansion in households' capacity to pay, without large increases in the cost of housing and land. (Ellis 2006, p. 27).

The importance of demand rather than supply affecting urban housing prices has been reinforced by a number of other researchers. For example, Grigson (1986) argued that as new-build supply makes up only a small proportion of total housing supply, prices are determined by demand, not supply. As a result, he concluded that the planning system does not substantially increase prices in either the land or housing markets.

Nelson et al. (2002) undertook a review of the academic literature on the link between growth management, which is the US equivalent of urban consolidation, and came to the following conclusion:

We cannot emphasize strongly enough that housing prices depend more on the relative elasticity of demand, especially within metropolitan regions, than on any other factor, including growth management (Nelson et al. 2002, p.34).

Landis (1992) examined the impact of growth controls on house prices by examining seven case study communities in California and comparing them with seven pro-growth communities. He came to the following conclusion:

Data on home price trends in the seven case study communities paint a very different picture than that suggested by economic theory or by previous empirical studies. Considered on a year-by-year basis during the period between 1980 and 1987, and without reference to the size, age, or neighborhood locations of specific homes, median single family home prices did not rise any faster or to higher levels in the seven case study communities than in their counterpart pro-growth cities ... Indeed, by the end of the 1980s, housing was more affordable in some of the growth control cities than in their corresponding comparison cities (Landis 1992, p.495).

Similarly, Bramley et al. (1995) suggested that if housing allocations in development plans were significantly increased across the United Kingdom, the effect on prices would be slight as prices are affected primarily by market changes rather than by planning controls. More recent work in the USA models the hypothetical price impact of supply increases due to liberalizing planning constraints in high demand locations (Aura and Davidoff 2006). With downtown Manhattan as a model, Aura and Davidoff (2006) show that permitted density would need to increase fifteen fold to offset any price impact of supply constraint to a noticeable degree. For modeling purposes, this study assumed planning controls as the only constraint to increased density, ignoring the physical, safety, and amenity reasons for density controls (that would remain a constraint if these controls were lifted), and assumed no additional marginal costs associated with additional housing unit above a certain threshold of building height.

Thus even this research likely overplays the significance of growth control on house prices and affordability.

In summary, both empirical planning research and authoritative economic sources underplay or ignore planning processes as a factor in house price growth. To emphasise this point we turn finally to the International Monetary Fund (IMF), which in its October *Economic Outlook Report* identifies falling real interest rates, strong economic growth, immigration rates, and, in some countries, weakening lending standards and easy credit, as the major factors explaining ballooning house prices over the past decade:

The historic housing booms experienced in the United States and many western European economies since the early years of this decade had their origin in falling real interest rates, strong growth, and in some cases rapid immigration. However, the expansion was also fueled by new financing techniques based on securitization and weakening lending standards, particularly in the United States (IMF 2008, p. 10).

3. The use of the median multiple

The Demographia surveys are based on a single indicator of housing affordability – the median multiple. Yet this is not a particularly sensitive housing affordability measure for a number of reasons.

- a) It only includes home purchase and excludes dwellings in the public and private rental sector, which are important sources of affordable housing supply.
- b) It includes all home buyers. However, if someone on a very high income pays ten times their income to purchase a multi-million dollar property that is hardly an issue of any public policy concern about affordability impacts on that household.
- c) It excludes the impact of interest rates. However, the key affordability issue for the individual householder is their outgoings on housing costs. So if interest rates are 10% a median multiple of 5 will cause the same affordability stress for a householder as a median multiple of 10 at 5% interest.
- d) It includes all house prices across an entire city: multi-million dollar properties are included alongside lower cost homes. However, a city with a high median multiple might have large numbers of affordable properties that operate as separate housing markets in the city. For example, in the case of Sydney a high median multiple exists although at the same time there are a large number of properties in western and south-western Sydney that are much more affordable than the single median multiple suggests.

For all these reasons, the definitive Australian Housing and Urban Research Institute (AHURI) review of affordable housing in Australia uses a more precise measure of housing affordability, known as the “30:40 rule” (Yates and Milligan 2007). This measure focuses on the number of households in the bottom two income quintiles paying more than 30 per cent of their income in housing costs. Households in higher income brackets may voluntarily spend more of their discretionary income to satisfy

their housing aspirations, without experiencing the “housing stress” undergone by lower income groups.

4. Data issues

Aside from the crude measure of the median multiple discussed above, there are two deeper data issues that obfuscate the findings of the Demographia reports.

Excluding apartments

Firstly, the Demographia “surveys” purport to measure housing affordability but the calculations in the median multiple measure only use house prices. In many markets in Australia, apartments are the point of entry into the housing market and hence the median multiple might exaggerate the barriers to ownership. For example, using data from Australian Property Monitors (APM), if apartment data was used, the median multiple for the Sydney housing market (as defined by APM) would reduce from around 8.6 to 5.9.²

While the house price median multiple has utility as a crude comparison measure, it is important to recognize that excluding apartment prices can present a misleading impression about the multiple needed to enter home ownership. In the case of Sydney, the multiple is overstated by at least two points.

The planning and land supply data is unreliable

The key premise of the Demographia surveys is the purported causal relationship between house prices and planning constraints on land supply. We have established above that this argument is based on selective reportage and ignores mainstream economic views regarding the key drivers of house price trends, both within Australia and internationally.

A more fundamental problem with the data presented in the “surveys” is that no empirical data is cited to support Demographia’s assessment of whether a city’s planning regime is “prescriptive” or “responsive”. We can only assume that the ratings are based on the impressions of the authors, therefore the purported correlation between house price multiples and planning approaches is hardly scientific. The lack of actual data cited to support the claims presented in the reports is not surprising because scholars have long grappled with the problems associated with comparing the various planning approaches used by state and local governments to regulate development within their areas, including approaches to land supply (eg. Lewis & Neiman 2000, Pendall et al. 2006). In Australia, as in the USA, we have no collective information on the 600+ principle local planning instruments covering more than 670 local jurisdictions. Even if this information existed, we lack a tool to comparatively analyse the relative strength of these controls let alone match them to house price trends. The research cited above addressed the lack of such data by undertaking specific purpose reviews of planning controls in each of the case study jurisdictions examined.

² The Demographia 2008 report produces a median multiple of 8.6 for Sydney using **house** price of 538,400 and a median income of \$62,700. Using data from the Australian Property Monitors, the equivalent price for apartments/units was \$366,900, generating a median multiple of 5.9 (APM data accessed online at http://www.homepriceguide.com.au/media_release/APM_HousePriceSeries_JuneQ08.pdf).

Yet the units of analysis in the Demographia reports are conflated and confused into place name descriptors that do not reflect consistent or actual geographical boundaries. For instance, it is unclear from the Demographia reports whether 'Sydney, Australia' is intended to refer to the Greater Metropolitan Region (which is a formal statistical division but not a formal administrative unit and therefore is subject to multiple and diverse statutory planning policies and controls relating to planning and land release); or to the City of Sydney (which is covered by a discrete set of land use controls), or to some indeterminate area within.

5. The portrayal of infrastructure charges

Infrastructure charges are presented in a very misleading way. The 2008 Demographia survey states that "infrastructure charges or development impact fees increase the price of housing and are typical of prescriptive planning markets ... they are used to pay for ... arterial roads ... (and) ... are typically included in purchase prices and have been for decades" (p. 21). Aside from inaccuracies in the portrayal of the purpose of developer contributions and infrastructure contributions, such statements conflate the costs associated with new house construction with the price of new homes and of established homes across the entire housing market. We have already established that the peculiarities of the land and housing market mean that actual house prices bear little relationship to the costs of constructing a new dwelling.

Nevertheless, it is worth entertaining the argument, as sometimes expressed, that development contributions for local infrastructure might inflate house prices across the whole market if the value of existing homes rose to reflect assumed increases in the costs of producing new dwelling supply. Infrastructure contributions might have such an effect if they were applied to selective locations or if they were a recent introduction. Yet the authors of the Demographia reports correctly claim that such contributions have been in place "for decades" (indeed they were introduced in Australia on the suggestion of land developers during the housing boom following the Second World War) (Neutze 1995).

In fact, when development or infrastructure contribution requirements are known in advance, in many cases they should reduce the purchase price of the land, meaning that the landholder, rather than developer or house purchaser, absorbs the cost burden (unless the developer has overbid due to speculative conditions) (Been 2005). On the other hand, developers can only pass on charges to buyers if the market is willing to pay a higher price. It is argued that if the market will bear a higher price then it will be charged anyway, irrespective of the existence of a developer contribution requirement. In the first case the purchaser benefits from the provision of local amenities; in the second, they pay the same purchase price, but without the benefits (Been 2005). In the unlikely event of perfect market competition, when house prices should bear a close relationship to production costs, the home purchaser will still benefit by the additional amenity provided through the provision of infrastructure.

There are some circumstances in which impact fees are actually used as a financial deterrent to discourage development, or development of a certain type (Evans 2004). This mechanism is used typically in the United States as a way of discouraging development that will be excessively expensive for local authorities to service, instead

of or in addition to growth management controls. In these situations it would be expected that impact fees would increase house prices as a deterrent to inappropriate construction; however, such approaches are not widely used in Australia.

Finally it is worth noting legitimate development industry concern about the imposition of new regional infrastructure contributions within two new release areas of western Sydney (the North West and South West Growth sectors). There is also concern about inconsistent and uncertain development contribution regimes in operation around Australia. These charges range from contributions solely for open space (South Australia) to more comprehensive requirements for payments for local roads, parks and utilities (New South Wales, Queensland and Victoria). Such contributions are actually designed to encourage new housing supply, by establishing an organized approach to sharing the costs of infrastructure needed to support residential development.

Nevertheless, sudden, uncertain, or excessive infrastructure contributions that are out of scale with the cost of development are likely to discourage new housing development, and thus might indirectly impact on supply and house prices. However, the Demographia reports do not make this point. Rather, they fail to acknowledge the different contribution regimes in Australia (let alone the other countries included in the surveys), and confuse the cost of new housing construction with house prices across the entire market.

6. What about the desirability of locations?

Developable residential land in highly attractive and desirable locations – the San Francisco Bay, Sydney Harbour, or Venice Beach, Los Angeles, is by very definition finite. Demand for housing in downtown Detroit, Cleveland Ohio, or Winnipeg, Canada, is simply not driven by the same pressure for access to iconic, high amenity areas. Similar locational attributes, particularly accessibility to high quality services and employment opportunities, cultural facilities, and pleasing residential and natural areas, also affect both the availability of development opportunities – opportunities in high demand locations are taken up more quickly – and the price people are willing to pay for housing in these locations. But the Demographia survey makes no reference to locational differences, comparing house prices in Wichita, Kansas, with Palm Beach, Florida.

A good way to understand this is to note the differences between locations that are also attractive tourist destinations – such as Honolulu, the Gold Coast, New York, or Sydney, and compare them with other, “affordable” housing markets not known for their visitor appeal – like Akron, Ohio or Sudbury, Canada.

Climate differences are also likely to have significant impacts on housing demand and hence house prices. For example, sunbelt locations in the USA have seen much higher median multiples than cities in colder locations.

7. What about submarkets?

The Demographia surveys ignore regional submarkets, refusing to acknowledge that oversupply on the metropolitan fringe won't automatically affect house prices across

the whole market. The Demographia surveys appear oblivious to empirical developments in housing market trends, both in Australia and in the United States. Similarly, by conflating large geographical areas together – such as ‘Sydney’ or ‘Perth’, the surveys ignore the sharp differentiations in patterns of land supply, demand, and house prices. This makes it possible to overlook the reality of Sydney’s dual housing market characterized by plentiful land supply in Sydney’s outer fringes, with falling prices and a lack of demand, and limited new development opportunities within high amenity, inner city areas characterized by very high demand and rising prices. These differences are represented in prices across the city.

For instance, the Housing NSW *Rent and Sales Report* for March 2008 shows sales results for Sydney local government areas for non-strata properties in the inner ring demonstrate a quarterly price increase of 1.1 per cent for the inner ring of Sydney, but a 11.6 per cent and 4.6 per cent decrease in prices for properties in the middle and outer ring.

So releasing more land on the fringe of Sydney is going to make very little difference to high housing prices in established areas. However, it obviously has the potential to reduce prices in that market segment. Further, as fuel prices and road congestion has increased, the differences between submarkets in Sydney has widened, making the degree of substitution between markets much weaker. For example, again using the *Rent and Sales Report*, in 1998 the ratio between the non-strata sales prices for the inner and outer ring was 2.1 (\$395,000 for the inner ring and \$188,000 for the outer ring). By 2008 this ratio had increased to 2.3 (\$910,000 for the inner ring and \$400,000 for the outer ring).

8. Ignoring differences in national urban structure

Finally, the surveys also ignore structural differences in regional geography across the countries included in the survey. For instance, while the United States is characterized by a highly decentralized settlement structure, with over 100 metropolitan areas with populations greater than 500,000 persons, and hundreds of substantial regional cities, Australia’s settlement pattern has been constrained by population size and geographical characteristics to seven primate capital cities, along the fertile coast. Concentrating growth in such a small number of cities has led to growth pressures and a resultant spike in house prices in the cities experiencing the most rapid population growth.

Conclusion

Despite our criticisms of the Demographia reports, we are not saying that land supply is an unimportant consideration in assessing housing affordability issues, or that policy makers should not work to provide an adequate supply of land for greenfield development in preferred areas. It is clear that on some occasions in Australian cities land shortages, and, more importantly, a failure to create the conditions needed to spread demand to locations beyond the favoured inner city areas, have put upward pressure on prices in well located housing submarkets.

The value of the Demographia reports is that they highlight affordability issues in general and the need to consider housing supply issues in particular. However, as we have tried to describe in this report, the issue of housing affordability is considerably more complex than the Demographia authors present. Misconstruing or overstating particular contributory factors will not lead to effective policy responses.

An efficient planning system, supportive of diverse new housing developments in preferred areas, and reinforced by strong investment in regional infrastructure to decentralize demand, is an important component of a housing affordability strategy. However, such approaches are not generally sufficient to address the needs of the lowest income groups least able to afford suitable housing to rent or buy on the private market. A range of measures are needed to assist these groups, including specific planning levers to ensure opportunities for affordable housing are included in new development, as well as an ongoing stream of capital funding and incentives to support investment in dedicated affordable housing supply.

References

- Bramley, Glen; Bartlett, Will and Lambert, Christine (1995), *Planning, the Market and Private House-building: The Local Supply Response*, Routledge: London.
- Been, V. (2005) 'Impact Fees and Housing Affordability', *Cityscape*, 8(1):139-185.
- Cheshire, Paul and Sheppard, Stephen (1995), "On the Price of Land and the Value of Amenities", *Economica*, New Series, Vol.62, No.246, pp247-267.
- De Vries, Paul and Boelhouwer, Peter (2005), "Local house price developments and housing supply", *Property Management*, Vol.23, No.2, pp80-96.
- Ellis, Luci (2006), "Housing and Housing Finance: The View from Australia and Beyond", Workshop on Housing, Savings, and the Household Balance Sheet, Tuesday 14 November 2006, Reserve Bank of New Zealand.
- Gillen, Mike and Fisher, Peter (2002), "Residential developer behaviour in land price determination", *Journal of Property Research*, Vol.19, No.1, pp39-59.
- Grigson, W.S. (1986), *House Prices in Perspective: A Review of South East Evidence*, SERPLAN: London.
- International Monetary Fund (IMF) 2008, *World Economic Outlook Report*, October 2008, accessed online at:
<http://www.imf.org/external/pubs/ft/weo/2008/02/pdf/c1.pdf>.
- Landis J (1992) "Do Growth Controls Work? A New Assessment", *Journal of the American Planning Association*, Vol. 58, 1992.
- Lewis, P and Neiman, M (2000) *Residential Development and Growth Control Policies: Survey Results from Cities in Three California Regions*, Public Policy Institute of California, UC, Riverside.
- Malpezzi, Stephen; Chun, Gregory; and Green, Richard (1998), "New Place-to-Place Housing Price Indexes for U.S. Metropolitan Areas, and Their Determinants", *Real Estate Economics*, Vol.26, No.2, pp235-274.
- Nelson, Arthur; Pendall, Rolf; Dawkins, Casey; and Knaap, Gerrit (2002), *The Link Between Growth Management and Housing Affordability: The Academic Evidence*, The Brookings Institution Centre on Urban and Metropolitan Policy.
- Neutze, M. (1995) "Financing Urban Services", in P. Troy (ed.), *Australian Cities: Issues, Strategies and Policies for Urban Australia in the 1990s*, Cambridge University Press, Melbourne.
- NZPI (2007) New Zealand Planning Institute comments on Demographia's International Housing Availability Survey (Media Advisory), accessed online at: archive.localgovt.co.nz/News/ViewFile.aspx?ID=4125.

- Pendall, R, Puentes, R. and Martin, J. (2006) *From Traditional to Reformed: A Review of the Land Use Regulations in the Nation's 50 largest Metropolitan Areas*, Brookings Institution, August 2006.
- Productivity Commission (2004), *First Home Ownership*, Productivity Commission Inquiry Report, No.28, Commonwealth of Australia.
- Pryce, Gwilym (1999), "Construction Elasticities and Land Availability: A Two-stage Least-squares Model of Housing Supply Using the Variable Elasticity Approach", *Urban Studies*, Vol.36, No.13, pp2283-2304.
- Yates, J. and V. Milligan, with M. Berry, T. Burke, M. Gabriel, P. Phibbs, S. Pinnegar and B. Randolph. (2007) *Housing Affordability: a 21st century problem*, *National Research Venture 3: Housing affordability for lower income Australians*, Australian Housing and Urban Research Institute, Sydney Research Centre, Melbourne.