Final Report

Housing markets, economic productivity, and risk: international evidence and policy implications for Australia

Volume 1: Outcomes of an Investigative Panel

authored by

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ACRONYMS

ABS	Australian Bureau of Statistics
AHURI	Australian Housing and Urban Research Institute Limited
CBD	Central Business District
COAG	Council of Australian Governments
CRA	Commonwealth Rent Assistance
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GNP	Gross National Product
HIA	Housing Industry Association
IMF	International Monetary Fund
LGA	Local Government Area
NAHA	National Affordable Housing Agreement
NHSC	National Housing Supply Council
NSW	New South Wales
OECD	Organisation for Economic Cooperation and Development
PCA	Property Council of Australia
RBA	Reserve Bank of Australia
REIWA	Real Estate Institute Western Australia
SCRGSP	Steering Committee for the Review of Government Service Provision
UDIA	Urban Development Institute of Australia
UK	United Kingdom
US	United States
VAT	Value-added Tax
WA	Western Australia

EXECUTIVE SUMMARY

Inefficient housing markets can have widespread and lasting impacts on productivity and the wider economy. Poor spatial structures, for example, mean increased travel time and congestion, while lack of affordable housing near employment exacerbates social inequalities and constrains the effective operation of labour markets. The Global Financial Crisis (GFC) has exposed potential for significant negative spillovers between housing and the broader economy. A number of studies and government inquiries have shown how Australia's fiscal settings have stimulated housing demand without directly supporting new production, thus exacerbating price inflation and consequent affordability pressures. At the same time, it is unclear how effective recent policy efforts to alleviate potential constraints to new supply have been in addressing Australia's housing market problems.

In this context, and building on recent international experience, this project, funded by the Australian Housing and Urban Research Institute (AHURI), aimed to examine key concepts and identify key indicators of housing system efficiency, responsiveness, and risks, relevant to Australia. It also aimed to examine wider implications of particular housing supply settings and outcomes, for economic productivity in Australian cities and regions.

The Investigative Panel approach

The primary research vehicle was an international Investigative Panel, comprised of international scholars and Australian industry experts and industry leaders, policy officers and practitioners from Commonwealth, state and local governments. The Investigative Panel met over a two-day roundtable event guided by terms of reference covering definitional issues surrounding housing system efficiency/responsiveness and measures/indicators applicable to Australia; approaches to measuring/monitoring housing supply, market trends and risks in Australia, and current limitations; policy initiatives to support housing supply in different locations and economic contexts; and research and policy implications. A series of four discussion papers was prepared by the research team to support the panel deliberations.

Rather than solving a specific problem, or undertaking primary empirical research, the major objective of the Investigative Panel was to develop a deeper framework for understanding and further investigating (through subsequent empirical work), the complex issues surrounding the housing market and its relationship to economic productivity and the wider economy. Also on the panel's agenda was the range of policy settings and interventions for improving the operation and responsiveness of the housing market, particularly in terms of housing supply in Australia's cities and regions. In this sense, the involvement of scholars from the United States, the United Kingdom, and Ireland, provided an important opportunity to recalibrate Australian research and policy knowledge in the light of international experiences in the lead up to, and following, the GFC. Further, the involvement of participants from all levels of government, the housing industry and the financial sector, provided rich perspectives on these issues. Government and industry participation also highlighted the growing chasm between available policy relevant data and information about key drivers and trends in Australia's housing market, and the tools for policy intervention at all scales of government.

Overview of report and key findings

This Final Report summarises the discussion papers and Investigative Panel responses to the key issues raised as a series of findings in relation to the terms of reference. It also identifies key implications for further research and policy development.

Chapter 1 introduces the project and outlines the specific research questions, the Investigative Panel approach, the terms of reference, and the selection of participants. In addition to the nine core academic members of the research team, an additional 18 participants joined the panel

from Commonwealth, state, and local governments, the Reserve Bank of Australia, and the development industry.

Chapter 2 of the report discusses relationships between the housing market and the economy, and implications for the settings governing housing supply at regional and local scales, drawing on the panel discussions and background papers.

Chapter 3 provides an overview of recent international experiences in the lead up to and following the GFC, and identifies potential lessons for Australia. It draws particularly on public presentations delivered by the international participants, and Dr Luci Ellis (Reserve Bank of Australia) and Professor Mike Berry, in response to these presentations, as well as material presented in the background papers.

Chapter 4 reviews existing and potential roles of government in supporting the housing market at Commonwealth, state, and local scales. Drawing on panel deliberations that involved government and industry participants, and the background papers, the chapter also reviews the range of potential indicators to inform and monitor government responses to housing market trends, particularly in relation to supply outcomes at regional and local scales.

Chapter 5, the concluding chapter, summarises the overall findings in relation to the terms of reference and highlights key research priorities and policy implications arising for different scales of government intervention.

Key findings of the Investigative Panel deliberations are summarised below in relation to each of the terms of reference.

Housing markets, economic productivity and risk

Overall, the panel identified four aspects of economic productivity in relation to housing markets:

1. *Labour market mobility*, which is constrained when there is a shortage of affordable homes accessible to employment opportunities. The panel observed a small body of empirical research demonstrating the mismatch between the location of jobs and housing that is affordable for moderate and lower income earners in Australia. This mismatch is growing as the price differential deepens between capital city housing markets (particularly inner ring areas near public transport) and outer metropolitan and regional markets.

2. *Labour market participation and employment rates*, which is also constrained by a shortage of affordable housing opportunities in accessible locations, near employment. Some studies show that participation rates among women is further affected by long distances between home and work. High housing and transport costs in metropolitan areas are also likely to push lower income earners to regional areas with fewer employment prospects but lower housing costs, further undermining employment rates and labour market participation.

3. *Costs associated with urban congestion*, which are exacerbated by a mismatch between the location of jobs and affordable housing opportunities, and inadequate public transport.

4. *Costs to the wider economy* arising from high housing costs and levels of borrowing and expenditure on housing. Further, the panel emphasised the implications for Australia's international competitiveness as high housing costs place pressure on wages and make Australia more expensive in which to 'do business'.

However, the panel noted that the empirical evidence base to quantify these emerging productivity problems in Australia remains limited and depends on a variety of government sources (census data, Commonwealth and state transport and infrastructure departments) collated through periodical publications such as the *State of Australian Cities* series, and through sporadic consultancy or funded research efforts.

In addition to productivity, the panel noted a series of wider economic risks arising within Australia's housing market:

→ Risks to consumption and non-housing investments arising from high proportions of household budgets and borrowing capacity being diverted towards the housing sector.

→ Volatility arising from speculation, particularly during a period of low interest rates, and potential oversupply in some market sectors, arising from new models of housing provision through medium and high density development.

→ Growing disparity between housing markets that are accessible to capital city employment opportunities, and outer metropolitan and regional areas, meaning that new housing construction in these less accessible locations will not ease overall affordability pressures.

→ Growing welfare dependency as lower income groups and retirees face ongoing housing costs in private rental, particularly given the demographic challenges presented by the ageing population.

While previous Australian studies have drawn attention to many of these issues (particularly Berry 2006; Yates & Berry 2011), the experience presented by the international participants, as well as recent concerns about speculation in capital city markets, implies a need for a stronger policy response in addressing these risks.

More widely, new trends and risks associated with the international financialisation of housing and the global porosity of real estate markets (Aalbers 2008; Kennett et al. 2012; Rolnik 2013) were noted. In future these may have particular implications for Australia's capital city housing markets which have increasingly become a focus for international investors (Foreign Investment Review Board 2014).

From these overarching considerations, the panel investigation focused on specific terms of reference associated with defining and measuring housing system efficiency and responsiveness, the range of policy interventions needed to better support the market in relation to demand and supply pressures, and the priorities for empirical research.

Defining housing system efficiency and responsiveness in Australia

One of the expected outcomes of Australia's *National Affordable Housing Agreement* is that 'People have access to housing through an efficient and responsive housing market' (COAG 2009; SCRGSP 2014). Although these terms are not defined, the cumulative balance between projected housing supply (estimated net housing production) and demand (estimated new household formation rates), has been used as a proxy measure of state performance in promoting housing market efficiency (COAG Reform Council 2012). The panel expressed the view that this definition and measure is too narrow and focuses on the housing market and on supply in isolation to other considerations. The panel's response was to develop an expanded definition of an efficient and responsive housing market, along with a description of supporting factors and outcomes:

An efficient housing market responds to population, employment, and income growth, through adjustments to the existing housing stock and through timely and cost effective production of new and affordable dwellings in accessible locations.

An efficient housing market is supported by: a competitive land market offering a variety of sites for residential development in accessible locations; a dynamic housing industry able to adjust products and output in response to changing demographic and economic demand; regulatory settings which coordinate provision of new housing and adjustments to the existing stock in response to long term changes in demand; a prudent financial sector able to finance a variety of housing products; and financial settings which support new housing supply without increasing speculation or risk.

An efficient and responsive housing market should support sustainable urban growth, labour mobility, social inclusion and community wellbeing.

Participants also questioned whether an 'efficient' housing market, however defined, is the best policy aspiration for Australia's housing system, and whether other normative policy goals might provide a more appropriate set of objectives and criteria. Recognising existing and potential interactions between the private and social housing sectors, more holistic objectives for Australia's housing system might include:

→ Stability (e.g. steady new supply in response to population growth, despite peaks and troughs in the wider economic cycle, reduced friction between demand shifts and new supply, and demand moderation in response to new supply).

→ Diversity of housing choices (e.g. in terms of dwelling design, price, and location, and forms of tenure; and transaction costs associated with change).

→ Equity, accessibility and sustainability (e.g. location and availability of housing at different price points).

Measuring housing system efficiency and responsiveness

Participants reflected that existing measures of Australia's housing market have focused on trends occurring in the private market (e.g. new housing produced as a proportion of projected household growth) and should be expanded to consider a range of other housing indicators associated with demand (house prices, rents, and mortgage payments), access (tenure patterns across the population, vacancy rates), and potential imbalance or instability (levels of mortgage debt, investor activity, volatility in dwelling approvals/completions). Participants called for a source of independent and reliable diagnostic information on housing market trends in a holistic way, for market actors as well as government. Table 1 in Chapter 5 illustrates the range of data that needs to be brought together as a diagnostic guide for intervention.

Housing policy interventions and impacts on demand and supply

A consolidated, independent source of diagnostic data on Australian housing market trends should inform interventions by different levels of government at spatially differentiated scales. In addition to monitoring these trends, the impacts and outcomes arising from these interventions should also be examined. Table 2 in Chapter 5 proposes a selection of existing and potential policy interventions building on those canvassed in the panel discussion. It also nominates potential performance indicators to support a stable and diversified housing market characterised by an array of housing choices.

These include:

→ Government grants, subsidies, and taxes, which aim to help overcome affordability barriers to home ownership or private rental, but should be monitored to ensure that they also support housing supply, rather than inflate prices or rents.

→ Infrastructure investment and support for housing development, which should improve accessibility of housing in relation to jobs and stimulate new supply in well located areas. However, it is important to ensure that these public investments leverage increased quantities of lower and moderately priced housing in these accessible locations, rather than become capitalised in land and housing values.

→ Government land and/or government-owned development corporations, which are potentially powerful levers for overcoming land monopolies and price inflation. An indicator of efficacy is the quantity of affordable housing supply generated in areas affected by government sponsored redevelopment processes.

→ Capital funding or financial incentives for affordable housing provision to increase the supply of low-cost housing stock. Indicators should relate to the location and quality of affordable housing provided, relative to demand.

→ Planning system tools to secure affordable and subsidised housing development in well-located areas, capturing or offsetting value uplift associated with infrastructure development

and redevelopment processes (public or private); and, planning system reform to eliminate specific constraints to provision of new and diverse housing supply. Measures include potential and actual impacts on the quantity and diversity of new dwellings built, and of adjustments to the existing housing stock, as well as the location of new housing relative to overarching goals of enhanced metropolitan and regional accessibility.

A typology of regional housing market contexts, opportunities, key indicators of market trends, and potential policy levers and responses, is shown in Table 3 (Chapter 5). The table highlights how different policy levers can have different impacts across inner, middle, and outer metropolitan areas, as well as regional and remote communities.

Adjusting policy settings and interventions

In recalibrating policy settings and interventions in the housing market, the panel agreed that policy attention and interventions should focus on factors reducing the responsiveness of new supply to changing demand, acknowledging that these may play out differently in different jurisdictions and market settings. Further, it is important to work on ensuring that wider financial interventions with direct or indirect effects on demand, support rather than distort, housing choices across the market. This implies continuing to examine and address the potential effects of:

→ Particular taxation settings (e.g. stamp duty) on housing transactions, versus alternatives (like land taxes); or, tax incentives for property investment on the housing market and on household mobility.

→ Planning system requirements, building regulations, and infrastructure funding arrangements on the availability and cost of land and housing development opportunities, the location and design of new housing; and the changing composition of the housing stock.

→ Industry organisation and capacity to deliver new housing products and typologies, particularly within existing urban settings and within more complex regional housing markets.

→ The different direct and indirect housing roles of Australian governments, and the implications for effective forms of market intervention and assistance.

Key policy challenges include the development of strategies that can support housing supply during periods of price stagnation and overcoming problems associated with land supply monopolies and speculative planning applications, which result in volatile flows of new housing supply. Participants emphasised that dedicated funding will always be required to assist lower income groups access appropriate housing at the bottom of the market—with funding for capital provision, suitably leveraged, being the only demonstrated model for increasing new housing supply.

Empirical research gaps

While the Investigative Panel process—including literature and policy reviews for the discussion papers, and the expert deliberations—highlighted a series of macroeconomic and microeconomic risks arising from problems in the housing market, empirical data on specific questions around economic productivity, labour mobility and housing affordability, remains limited. Other key empirical research gaps include:

→ *The ways in which housing demand adapts to supply constraints, and the wider social and economic consequences of increasingly constrained housing choices in Australia*—as part of this research effort it is important to understand and track the differing housing payments and after-housing incomes of those in different housing tenures.

→ Similarly, *implications arising from the demographic challenge of an ageing population for the social role of housing in Australia over the next 30 years*—both with respect to the fit

between housing needs and dwelling configuration (facilities and locations in relation to services) as well as housing wealth in relation to retirement lifestyle, dependency, and government policy.

→ *The different housing roles played by each level of government and ways to better harmonise those roles* in support of a holistic approach to monitoring and responding to housing market trends.

→ *The potential levers for governments to stimulate new housing supply in response to population growth*, particularly during periods of stagnant or falling prices—to this end, the extent to which specific planning reforms already implemented by state jurisdictions, have successfully resolved blockages in new production remains unclear. (Another research priority relates to addressing gaps between planning approvals for residential development, and actual completion rates)

→ *Latent capacity within the existing housing stock, and the potential for design innovations, tenure, and financial arrangements to better use this potential capacity*—the panel noted that the ideal level of vacancy, and whether it is important to plan explicitly for excess stock, remains unknown.

→ *The impacts of emerging drivers and outcomes of new housing investment and production*—such as international investors and developers in Australia's housing markets.

The panel's deliberations also exposed key gaps in Australia's housing policy framework, which remains somewhat bifurcated between private market and social housing sectors, and undermined by the multiplicity of government responsibilities that intersect with housing outcomes in a fragmented and uncoordinated way. In challenging the concept of an 'efficient and responsive housing market', the Investigative Panel called for a more holistic understanding of the housing market within the wider economy. Participants viewed the increasing shortage of affordable and well-located homes in Australia's major cities, as a major risk to the nation's future prosperity and wellbeing.

1 INTRODUCTION

Over the past decade, and particularly since the Global Financial Crisis (GFC), there has been increasing research and policy interest in relationships between housing and the wider economy, both in Australia (Berry & Dalton 2004; Berry 2006; Beer et al. 2011; Yates 2011; Yates & Berry 2011) and internationally (Muellbauer & Murphy 2008; OECD 2011; Levitin & Wachter 2013). Such work has highlighted the macroeconomic risks associated with increasing house price inflation and affordability pressures. Affordability pressures also potentially add to labour market and economic productivity constraints. A mismatch between affordable housing and the location of jobs can mean that workers are unable to access appropriate jobs and firms are unable to access appropriate employees (Berry 2006; Productivity Commission 2014).

1.1 Background and aims

Although there has been considerable policy analysis of the demand side distortions affecting Australia's housing market (AFTS 2009; Wood et al. 2012), a key additional area for policy intervention has been supply side distortions and the supply responsiveness of new housing to changes in demand (NHSC 2014). Factors that might inhibit new housing supply, such as industry sector constraints and land use planning systems, have come under increased scrutiny, and there have been concerted efforts by the Australian states and territories to undertake reforms in these areas (COAG Reform Council 2012).

Reflecting these efforts, an 'efficient and responsive housing market' is one of six performance outcomes under Australia's *National Affordable Housing Agreement* (COAG 2009, Steering Committee for the Review of Government Service Provision (SCRGSP 2014). However, policy mechanisms to influence housing market outcomes remain limited, and measures of efficiency and responsiveness remain undefined. Further, given the spatially segmented characteristics of the housing market, more nuanced information is needed to monitor and respond to regional and local shifts in housing demand and supply.

Within this wider context, and building on recent international experience in the lead up to and following the GFC, this project aimed to critically examine the notion of an efficient housing market, and to identify key indicators of housing system efficiency, responsiveness, and risk, relevant to Australia. Through deliberative discussion with an Investigative Panel of national and international experts (October 2014), the project also aimed to examine implications of particular housing supply settings and outcomes, for economic productivity and participation at regional and local scales.

1.2 Research questions and the Investigative Panel approach

In relation to these aims, the project addressed four key questions:

1. How should housing market efficiency and responsiveness be understood and measured in Australia, across different geographic and spatial scales (metropolitan/regional, local) and market segments?

2. What housing supply trends or drivers represent opportunities for economic growth, or signify future housing market risks for specific regions and sub-market contexts?

3. How does the affordability, tenure, location, density and design of new housing supply impact on economic productivity and potential housing market stability or risk?

4. What are the wider policy implications in relation to the existing and potential housing roles of Australian governments at national, state, and local scales?

The research approached involved:

1. Establishing a conceptual framework for defining and measuring housing market efficiency.

2. Collation and analysis of the existing evidence base.

3. Policy and expert practitioner deliberation through an Investigative Panel involving international researchers, senior government representatives, and industry experts.

4. Synthesis and analysis of findings in this Final Report which also identifies key implications for policy development and empirical investigation.

1.3 Investigative Panel and research methodologies

The AHURI Investigative Panel model is designed to support direct engagement between experts from the research, policy and industry sectors, to interrogate specific policy questions. Drawing on the expertise of panel members, the Investigative Panel model can yield new policy-relevant knowledge through structured inquiry and deliberation, and stimulate new avenues for research and policy development. For this project, a key objective of the Investigative Panel approach was to convene an interdisciplinary group of senior scholars able to bridge the research, policy, and practice divides between housing, economics, and urban and regional planning. In selecting the industry and government participants, it was similarly important to recruit participants with expertise across the housing and development industry, and finance and planning sectors, as well as all three levels of Australian government.

It is important to note that additional empirical research was not a component of this study. However, the perspectives and views of the diverse interdisciplinary panel of international and Australian researchers, industry leaders, and expert policy-makers and practitioners, represent an important contribution to evolving research and literature on housing markets, the economy, and urban policy.

1.3.1 Terms of reference for the Investigative Panel

The Investigative Panel deliberations were guided by the following terms of reference, which involved:

1. The development of a policy-relevant definition of housing system efficiency/responsiveness and measures/indicators applicable to Australian urban and regional development contexts.

2. The identification of existing and emerging approaches to measuring/monitoring housing supply and market trends in Australia, and current limitations (e.g. data availability).

3. The identification of existing and emerging policies and initiatives to support overall housing supply and/or particular types, tenures or locations of housing, and their effectiveness (and potential wider benefits) in different locations and economic contexts.

4. The identification of housing supply levers that could pose short or long-term economic risks and potential policy adjustments to minimise those risks.

5. Required adjustments to Commonwealth subsidies, state and local planning policies and processes, performance measures and monitoring.

6. Priorities and methods for empirical research on the impacts of Commonwealth/state/local housing supply levers.

Refining and critically examining some of the assumptions embedded within these concepts, in particular, the notion of an efficient and responsive housing market, became an important element of the Investigative Panel's deliberations.

1.3.2 Selection and formatting of the panel, and focus jurisdictions

For this project it was important to convene a panel with participants able to canvas a wide range of research, policy, and professional perspectives across housing economics, urban and regional planning, and the range of government and industry bodies whose activities intersect with the housing market.

The academic members of the Investigative Panel formed part of the original project plan. The Australian research team provided cross-disciplinary expertise. Urban planning and property market researchers were able to draw on direct knowledge and experience in three Australian jurisdictions, where governments have recently intervened to support housing supply. These include NSW and Victoria, where planning reforms have sought to alleviate perceived impediments to housing development, and where specific initiatives have sought to incentivise affordable housing (NSW) and increase the supply of greenfield land (Victoria); and Western Australia, where the government has introduced a number of mechanisms intended to support the housing industry in delivering more affordable land and housing options.

International participants

Three international researchers, Professor Christine Whitehead, London School of Economics; Professor Kirk McClure, University of Kansas; and Dr Michelle Norris, University College Dublin, provided high level insights on housing economics, housing policy and urban planning in Europe and North America, and urban planning for local and regional housing needs.

These three participants have particular experience in nations affected by housing market downturn and financial crisis: the United States (US); the United Kingdom (UK); and, Ireland. Each was able to draw on their intimate knowledge of the lead up to, and aftermath of, the crisis in their own jurisdictions, with reference to both published and unpublished sources of data and emerging analyses of a situation which is still unfolding.

Government participants

Responsibilities for housing span all three levels of government in Australia, as outlined in Chapter 4. Participants from Commonwealth, NSW state and local government were identified in consultation with AHURI. Four participants from the Commonwealth Department of Social Services Housing and Homelessness and Labour Market Payment branches attended the Investigative Panel meeting. The Housing and Homelessness Branch oversees funding for social housing and homelessness under the National Affordable Housing Agreement (NAHA) and National Partnership agreement on homelessness respectively; as well as Commonwealth Rental Assistance (CRA) to support low-income private renters. The Labour Markets Payment Branch is responsible for income support payments, particularly unemployment and youth support benefits. Many recipients of these payments also receive CRA and are eligible for support to relocate for job opportunities. Therefore questions about the ways in which housing supply and affordability patterns influence work opportunities for lower income groups are of particular relevance, as are the potential fiscal implications arising from inadequate housing opportunities in the private market.

At the state level, officers from the NSW Government Departments of Planning and Environment (which oversees the planning system) and Family and Community Services (which administers social housing programs), participated in the Investigative Panel meeting. The Department of Planning and Environment includes a research and data analysis division and undertakes a number of functions relevant to housing supply. These include forecasts of future housing demand at state, metropolitan, regional, subregional and local scales, setting the legislative framework governing land use allocation for housing (zoning) and controls relating to density and design (including codes for lower impact forms of residential development), and governing the framework for development contributions towards local and regional infrastructure provision. Representatives from both the data analysis and housing divisions of the Department of Planning and Environment participated in the panel.

Local government planners from the City of Sydney and City of Blacktown councils also participated in the panel meeting. The City of Sydney Council covers the inner city area including and surrounding the Central Business District (CBD). It has a history of seeking to address housing and homelessness issues in the inner city, which have arisen particularly through processes of gentrification since the 1970s. As demand for housing within and

surrounding the CBD has intensified over the past 20 years, new residential developments have not provided affordable accommodation options for lower and moderate income groups. By contrast, Blacktown City Council is an outer ring local government area which has accommodated significant population growth over the past 40 years. Rural areas remain and a number of 'precincts' have been identified for future urban release in accordance with population projections set by the Government of New South Wales.. Insights from these very different councils were critical, because many of the supply blockages affecting new housing production are thought to operate at local levels.

Industry participants

Insights from representatives of three peak industry bodies also informed the Investigative Panel deliberations. The Property Council of Australia is the peak representative body for the property industry, including owners and developers, and includes a specific focus on residential development. The Housing Industry Association (HIA) represents building professionals and related industries. The Urban Development Institute of Australia (UDIA) represents the urban development industry. All three organisations undertake their own research and advocacy work, and produce regular publications and position statements on aspects of housing supply and affordability.

Dr Luci Ellis from the Reserve Bank of Australia (RBA) provided an important perspective on relationships between the housing market and the macroeconomy, and lessons for Australia arising from recent international experiences in particular associated with the GFC.

A full list of Investigative Panel participants is at Appendix 1.

1.3.3 Ethics approval and anonymity of participants

Ethics approval governing the recruitment of participants and the management of the Investigative Panel meeting was provided by the University of Sydney's Human Research Ethics Committee. As part of the ethics protocol governing the Investigative Panel, care was taken to ensure the anonymity of comments made by government and industry participants, who participated in the panel on the basis of their individual experience and expertise rather than as spokespersons for their organisation. According to this protocol, and the principle of 'Chatham House Rules', the majority of the quotes contained in this report are not attributed to particular individual participants.

In keeping with the policies of the RBA, Dr Luci Ellis' comments at the public roundtable event were recorded and are available at <http://www.brrmedia.com/getmp3/event_id/129132/partner_id/101/event.mp3>. Dr Ellis' comments, where quoted in this report, have been transcribed from this recording. In keeping with the overall protocol for anonymised reporting, the comments are not directly attributed in this report.

1.3.4 Research for discussion papers

Research for the discussion papers was initially undertaken by reviewing international peer reviewed literature and relevant Australian data. The discussion papers provided a common reference point to inform the panel meeting and to identify a series of focused questions. Following the Investigative Panel meeting, the discussion papers were refined primarily to correct errors of fact, and to reflect conceptual clarifications provided by the economists (Discussion Papers 1 & 2), and were then finalised as source material, containing additional detail on matters covered as part of the Investigative Panel process.

1.3.5 Panel meeting—roundtable events

The Investigative Panel meeting was held as a series of roundtables held on 27–28 October 2014. It involved both closed sessions (academic members of the panel only), session including government and industry participants, and a public event (held at the University of Sydney on the evening of 27 October). The public event was attended by over 120 people.

The agenda (Appendix 2) was structured to ensure that all participants, particularly those from government and industry, were able to make a distinct contribution to the deliberations. Adam Farrar, a professional facilitator with extensive expertise in the housing sector, guided the proceedings. All sessions were recorded and subsequently transcribed.

1.3.6 Synthesis of and validation of panel meeting outcomes

The transcripts of the panel meeting were analysed by session and theme, then organised loosely in relation to the terms of reference. This process resulted in the drafting of this Final Report, which incorporates summaries of the panel deliberations as well as direct quotes from participants, where appropriate, drawing on the meeting transcripts. The draft Final Report was circulated to all participants for their input and validation, and clarifications, corrections, and additional perspectives in relation to specific aspects of the panel deliberations were incorporated in the final draft.

1.4 Scope and structure of this report

This Final Report summarises the outcomes of the Investigative Panel deliberations in response to the terms of reference. It draws on the discussion papers, presentations by participants, and detailed transcripts of the proceedings as well as subsequent comments by participants made in response to draft versions of this report. Chapter 2 synthesises the background material presented to the panel to frame the discussion, including relationships between the housing market and the economy, and implications for the settings governing housing supply at regional and local scales. Chapter 3 provides an overview of recent international experiences, and potential for Australia. Chapter 4 reviews existing and potential roles of government in supporting the housing market at Commonwealth, state, and local scales. It also reviews the range of potential indicators to inform and monitor these responses, particularly in relation to supply outcomes at regional and local scales. The concluding chapter summarises the overall findings in relation to the terms of reference and highlights key research priorities and policy implications arising for different scales of government intervention.

A companion volume to this report compiles the final versions of the discussion papers (refined following the panel meeting), and original presentations given by the participants.

2 CONTEXT AND KEY CONCEPTS: HOUSING MARKETS, ECONOMIC PRODUCTIVITY AND RISK

There is a large body of international and Australian literature which outlines the macroeconomic dimensions of housing, summarised in the Discussion papers and referred to during the panel proceedings. A key aim of the Investigative Panel was to update this knowledge in the light of post-GFC experience, to learn from international experiences and to identify potential policy implications for Australia. A second focus was to develop a stronger policy framework for monitoring and intervening to support the microeconomic dimensions of housing markets—regional and local patterns of housing demand and supply. A final aim was to examine the ways in which housing markets can influence regional economic productivity through provision of affordable accommodation in accessible locations, or exacerbate risks associated with wider shifts in housing demand.

This chapter outlines the key outcomes of these discussions. It first sets the context by summarising the panel deliberations relating to the relationships between housing markets and the economy, and the rationale for a range of government interventions to address housing market failures. It then outlines panel views about notions of housing market efficiency and responsiveness, and potential measures of housing market outcomes in relation to economic, social, and environmental criteria.

2.1 Housing markets and the economy

Key concepts relating to the attributes of housing markets and relationships between the housing market and the wider economy were discussed among the interdisciplinary academics on the Investigative Panel.

Participants agreed that the GFC both demonstrated how macroeconomic and microeconomic dimensions of housing markets interact, and resulted in significant increases in data on the effects of this interaction, as well as in policy and research interest in the housing market.

> If there's one positive outcome, one silver lining, from the Global Financial Crisis, it's that we've now got more data. Policy-makers and, particularly, international agencies, are more focused now on the risks from housing than they were in the past, so they want more data. There has been a huge number of international initiatives that have been put forward … and the IMF and the OECD are collecting price/rent and price/income ratios. There is a lot richer data than there used to be.

However, it was felt that policy has not necessarily caught up with these data, and that the right data are still not being collected or being made available at the spatial scales needed for policy intervention. There is also a lack of consensus about how to interpret and use indicators such as price/rent and price/income ratios, as reflected in debates over what would constitute a housing bubble in Australia. Notably, in a world of very low interest rates, price-income ratios no longer properly reflect the capacity to purchase—but there is also the risk of rising interest rates in the future.

Participants also expressed the need for awareness among urban planners about relationships between the housing market and the macroeconomy. Similarly, they noted potential for a greater understanding among economists about the ways in which urban planning and related policy settings that influence the demand and supply of housing, also affect microeconomic outcomes, particularly at regional and local levels.

2.1.1 Housing markets, the macroeconomy, and risk

The discussion papers summarised relationships between the macroeconomy and housing markets, many of which were touched upon in general discussion during the panel deliberations. First, housing production is an important component of annual GDP (around

5%), and employs a significant proportion of the workforce. Industry figures estimate that around 10 per cent of the Australian workforce is employed in housing construction, real estate, and related industries (Housing Industry Association 2014). Housing approvals and commencements usually lead and lag the general business cycle providing a useful leading indicator for economic policy-makers. Housing construction is, therefore, a potentially useful counter-cyclical tool. For example, the RBA is hoping that the housing construction sector will 'take up the slack' as the mining construction sector shrinks (the Australian mining sector is moving from the construction phase to the production phase).

There are also economic implications associated with particular forms of housing tenure. Home ownership is usually associated with increased wealth and financial independence in old age, as well as social benefits such as security of tenure for owner occupiers. Nevertheless, more flexible rental tenures might better support labour market mobility and even more efficient occupation of the existing housing stock (OECD 2011).

However, the GFC exposed deeper connections between housing and the macroeconomy:

> Beyond these basics, the balance sheets of households and banks are intimately related. As house prices increase in a period of excess demand, the collateral value available to the household rises allowing it to borrow more on more favourable terms, increasing housing demand for and the supply of bank loans as the riskiness of home lending for banks falls. House prices rise further in the short term, driving prices higher, increasing the collateral value of existing houses … and so on in an upward spiral of increasing demand, prices and mortgage loans. This is described as a classic positive feedback loop. … Speculative motives can then cut in as both homebuyers and investors rush in, giving more energy to the spiral. This positive feedback loop—or set of interlocking loops—is reinforced by related wealth effects and the boost given to consumer expenditure on household white goods and furnishings—all feeding back through rising employment and income to increasing housing demand.

As prices rise, so do expectations of profit from new housing construction, increasing rates of housing production which, in turn, boost government tax revenue and GDP—but also increasing land values and the need for developer finance. However, a shock can reverse the positive feedback process, following which, demand cools, prices begin to fall in some locations, and auction clearing rates fall. The collateral value of bank loans fall also and banks begin to rein in lending to households to maintain adequate capital ratios. This reduces demand and prices drop further eroding bank balance sheets.

Investors look to other forms of investment, while consumer demand cools in the retail sector, unemployment rises and housing demand falls further.

> Exuberance turns to fear. The process unwinds unevenly over space but concertinas in time …. Volatile housing markets go hand-in-hand with volatile economies whenever the price elasticity of housing is low over a considerable time period and when perverse incentives on a massive scale enter the picture … But this is only the beginning of our story: The impact and lessons of the GFC emphasise just how critical getting housing right is for the economy as a whole.

Thus, the impact of macroeconomic measures on housing cannot be over-emphasised. The GFC led in many countries to the near closure of both wholesale and retail mortgage markets and particularly that for development finance. This has taken many years to unwind. Even countries where there was little direct impact are still seeing low levels of residential investment—setting the scene for the next round of price increases.

Further, as the housing and mortgage market is increasingly international (Kennett et al. 2012), housing market cycles may also be affected by global trends and are becoming more volatile. These shifts associated with the international financialisation of housing and the global porosity

of real estate markets (see Aalbers 2008; Kennett et al. 2012; Rolnik 2013) may have particular implications for Australia's capital city housing markets in the future if foreign real estate investment continues to rise (Foreign Investment Review Board 2014).

Participants also emphasised risks to government outlays arising from decreasing housing affordability, particularly as a result of the costs associated with provision of adequate rent assistance for low-income groups.

2.1.2 Microeconomic dimensions of housing markets

Microeconomic dimensions of the housing market relate to decisions at the individual level (i.e. consumers, investors, firms) that influence the ways in which housing is produced and consumed and how housing prices are determined. Drawing on David Harvey's metaphor of capacity to pay for movie tickets at the cinema (Harvey 1999), participating in the metropolitan housing market might be likened to trying to get a seat inside the theatre. People line up in order on the footpath according to the amount of money they have in their pockets. People file in paying at the door until the 'house full' sign goes up. Those still outside miss out.

> In rapidly growing communities the number of people queuing increases faster than the number of additional seats being added inside, so more and more people miss out. Ticket prices rise, locking more people out. People with more money pay for bigger and more luxurious seats, so attention shifts from the downstairs stalls upstairs to expanding the lounge and dress circle. Rich people buy seats for their children …. In communities becoming more and more unequal, the queue outside lengthens as cheap seats in the stalls are ripped out and replaced with more luxurious upholstery. New arrivals in town with money push into the queue half way up ….

Responses to the situation include some sneaking into the cinema and standing up out of sight (a metaphor for informal housing arrangements made in response to housing affordability pressures, e.g. sub-letting), while others club together to buy a ticket and share by sitting on one another's lap (a reference to overcrowding). Although an attempt is made to extend the market by offering more viewing sessions, the wealthy choose to see more films. Other cinemas might open in different locations, which the wealthy can access by driving their cars (provided they have sufficient information about the new cinemas) while poorer people don't have means of transport and are often poorly connected to information networks as well.

The panel noted the range of housing market phenomena captured in this metaphor, including the segmentation of the housing market, housing supply shortages and lag times associated with new production, socio-spatial and inter-generational inequality, gentrification, overcrowding, information asymmetries and homelessness. In particular, the metaphor illustrates how an unregulated housing market does not necessarily respond to increased demand with supply to satisfy the entire market, but rather operates within constraints (e.g. spatial; the lag times associated with new production) to provide new supply in a way that optimises profit. This creates particular policy challenges:

> It's clear that left alone housing supply is unlikely to be adequate—in quantity, quality, price or location—across the community.

Further, Panellists emphasised that house prices appear more responsive to changes in demand than to supply. For instance, by highlighting the conditions under which increases in demand are more likely to lead to an increase in dwelling prices rather than a corresponding increase in supply, Meen (1998) shows the aggregate house price to income ratio is more likely than not to be greater than one and, therefore, to increase over time as incomes increase.

The planning settings affecting housing supply clearly operate at the microeconomic scale. Urban policy and planning approaches in Australia have traditionally sought to forecast and accommodate fundamental changes in regional and local demand, which include underlying

population change and household formation rates (that, in turn, dictate the number of dwellings needed to accommodate the population) and wage and employment growth, which affect demand for the *quality* of housing consumed), but which also may increase demand for homes used for convenience (e.g. 'city pads') or for leisure (e.g. holiday homes). Macroeconomic drivers of demand (e.g. mortgage interest rates, employment trends, and the potential return from housing investment itself), are rarely incorporated within short or long-term planning analyses, yet tend to be key triggers of new supply.

2.1.3 *Housing markets and economic productivity*

Participants agreed that housing markets intersect with economic productivity in the macroeconomic dimensions already discussed (particularly with housing construction as a major industry sector), but also have particular effects at the microeconomic scale. At the macro level, a shortage of affordable housing affects access to employment opportunities (for workers) on the one hand, and the capacity for firms to access deep and skilled labour pools on the other (OECD 2011). At the micro level, while quantitative, empirical evidence is scant, surveys of firms and international workers suggest there is a link between housing affordability and Australia's capacity to attract international investment (e.g. NSW Trade and Investment 2013). International evidence suggests that in high pressure areas there are very significant costs to business arising from skill shortages because of housing affordability. In this context, the CBI/KPMG 2014 London Business Survey identified housing affordability as a major weakness (CBI 2014). Similarly, it is likely that the competitiveness of Australian cities will be undermined if house prices deter global talent or imply high wage costs for firms.

Other aspects of economic productivity include workforce participation rates, particularly for women and youth, which are often lower when there is a mismatch between the location of affordable housing, and work (Koutsogeorgopoulou 2011). For instance, it has been shown that the problem of youth unemployment is growing with pockets of particularly high unemployment in regions generally regarded as having more affordable housing than can be found in the larger capital cities, such as non-metropolitan Tasmania, Northern Adelaide (Elizabeth and Gawler) and Cairns (AWPA 2014).

Research prepared for the Victorian Competition and Efficiency Commission found that labour force participation is 3.5 percentage points higher in Melbourne than in the balance of Victoria (Borland 2011). The paper also pointed to the relationships between housing security and labour force participation, noting that people without secure housing may face difficulty in sustaining employment, and may be forced to move locations making it difficult to retain a job. Homelessness may also contribute to other problems that are barriers to labour force participation, such as mental illness. A vicious cycle can arise from housing pressures and unemployment, where the lack of secure housing limits employment opportunities while the lack of a job means the person lacks the capacity to pay for secure housing.

Productivity costs also arise from unnecessary time spent in traffic that accrue to individuals and businesses (around $7 billion in 2007) (BITRE 2007) while congestion represents a total economic drain of around $15 billion per year (DIRD 2014) arising from increased vehicle running costs and air pollution. This figure does not include the environmental costs of carbon emissions or the health risks (and public health costs) associated with long-term car-based commuting (Frumkin et al. 2004; Wen et al. 2006).

More widely, new analysis suggests that increased financial sector growth (e.g. that associated with increased lending for housing) crowds out real economic growth and reduces growth in productivity (Cecchetti & Kharroubi 2015).

Regional productivity issues are discussed further in Chapter 3 of this report.

2.1.4 Why the housing market is different to other markets

As outlined in Discussion Paper 1 (Section 2.3), the participants emphasised that housing markets operate differently to other markets, in part, due to particular characteristics of housing and real estate and, in part, due to characteristics and the psychology of buyers and sellers. While much has been written about these differences in the literature, participants thought that they were under-appreciated in Australian policy discourse.

A key difference is that houses are fixed in a particular location, so that land is intricately a part of the housing market, and locational attributes (reflected in land values) are an integral part of house prices. This locational fixity creates potential monopoly power for landowners because every parcel of land, to a greater or lesser degree, is different from any other. A related characteristic of housing markets is that dwellings also are unique and heterogeneous, with limited substitutability. This means that price is difficult to determine and the costs of obtaining accurate information are high, the more so because dwellings are not traded on a regular basis.[1] It is also important to note that different forms of housing tenure affect the bundle of housing 'services' associated with a particular dwelling and hence affect the value consumers place on that dwelling, as does the length of time it has been occupied. Participants emphasised the psychological commitment to place and home, which influence mobility decisions:

> Housing is highly differentiated and segmented—it's not a widget—even ignoring land use and the location issue—just the housing itself. So, the constraints on effective filtering and mobility are planning constraints, taxation and other transaction cost constraints, but also the psychological commitment to particular place and space is important.

There may be different levels of psychological commitment to home among those who live in different tenures and with respect to length of time in a particular property/area.

A second key attribute of housing markets compared with other markets is that dwellings take a long time to produce, and are very durable. This means that new dwellings will make up only a small proportion of the total dwelling stock.[2] While new housing production and adjustments to the existing stock through alterations and additions require a long lead time, demand can change very quickly in particular market conditions as there is a large pool of potential participants, including from other countries. Dwelling prices and rents, therefore, tend to increase over time as land with particular attributes becomes more scarce. Equally, the market can be extremely volatile, which in turn adds to the difficulties of determining a 'true' price.

A third key difference of housing markets is that dwellings serve a dual purpose providing accommodation services and serving as a means of storing wealth. In providing accommodation services, dwellings have a use value and a status value, satisfying both needs and wants. As a means of storing wealth, dwellings also have an asset value. This dual nature of housing can explain why, in contrast to other markets, where upward price movements reduce consumer demand and vice versa, in housing markets the reverse may well be true, at least in the short run. Thus, increasing demand, as expressed in rising prices, can continue despite increased supply, especially if households and investors expect house prices to continue to rise. See, for example, the case of Ireland presented in the following chapter.

Thus, while the relationship between supply and demand is expected to correct for market imbalances, in some cases this process can take a very long time. In a downturn there can be a risk of oversupply of new housing, which becomes apparent because overall demand has fallen and prices start to fall and auction clearance rates drop. Unlike other goods, there are

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[1] Housing markets are described by economists as 'thin' markets for these reasons.

[2] The current rate of new construction (of close to 200 000 dwellings per year) represents just over 2 per cent of the total dwelling stock.

difficulties in adjusting the existing stock in a strategy to clear oversupply, so most of the impact of reduced demand falls on new investment—with major impacts on the construction industry.

These characteristics make housing markets more volatile than other markets, although there are also counterbalancing trends—such as the capacity for owners to hold onto their houses, rather than sell at a loss—which also act to stabilise housing markets:

> There is a herd behaviour element, and sometimes things can suddenly get very volatile, and it's all to do with credit. If you are renting, you have to get out if the landlord says, but if you are a homeowner, you do not have to sell. You can withdraw and hold on in the same way that developers can land bank …. So, you get volatility, but it will settle down, unless you have a big external shock that comes, say, from the financial sector.

2.1.5 Housing market failure

Participants noted that many of the factors described above as being characteristics that distinguish housing markets arise from fundamental market failures. These include:

→ Monopolistic conditions—when there is inadequate competition, because a single seller or group of sellers operating together, dominate the market.

→ Heterogeneity of product—notably with respect to location—so that each property is in some sense unique.

→ Information asymmetries—where not all potential buyers or sellers have access to similar information to inform their decisions.

→ Externalities—positive or negative 'spillovers' not reflected in price.

→ Merit goods—goods that are not adequately produced in socially optimal quantities by the market and, therefore, must be supported by government.

Land and housing markets are inherently monopolistic and heterogonous due to the uniqueness of locations and dwellings. Information asymmetries also arise due to this heterogeneity and the consequent search costs for potential buyers. There are negative spillovers arising from particular patterns of housing development and consumption, but also positive societal externalities associated with secure and appropriate housing. Due to these positive externalities, social housing can be described as a quasi-public good—potentially offering wider public benefits (for instance, labour force participation and social inclusion), but not produced by the market in sufficient quantities, so is dependent on government (or third sector) sponsorship if there is to be optimal provision.

> If I think about housing and housing markets, it's a huge list of market failure, and the policy question always is: 'How does one intervene to offset market failure?'

While this view of market failure is prevalent among housing commentators, many economists would argue that there are many other products that suffer from greater problems—notably of health and education as well as public goods such as information. It is generally accepted that even in Northern European welfare states housing is a 'wobbly pillar' and indeed that because of its heterogeneity and the fact that most of the benefits go to either the owner or occupier and arise from choice, housing should be regarded as a private good which is best provided by the market (Whitehead 2003). In particular, negative (social and economic) externalities are not usually seen as important above quite low standards of provision (Burns & Grebler 1977). In this context, it should be stressed that much of the intervention in housing and land markets is not addressed at overcoming market 'failures' (per se), but rather aims to achieve better distributional outcomes given the large inequalities in income and wealth which mean that large proportions of the population cannot compete in the market place to achieve adequate affordable housing. This, in turn, links back to the issue of housing as a merit good—that is one that society values but is not produced by the market at the socially optimum level.

From the point of view of new housing investment, the major concerns are those around the speed of supply adjustment, uncertainty, and the relationship of housing to infrastructure provision. It is for these reasons that so much emphasis is placed on achieving effective land use planning processes for supply responsiveness (Barker 2008).

While much of the panel discussion was on market failures, it was also noted that there are fundamental issues around administrative failures in housing and land markets as well. While land use planning is generally regarded as necessary, there is a large literature on its failure to address the demands and needs of the population in countries defined by low levels of supply elasticity (Cheshire & Leven 1986; Bramley 2007) and its capacity to generate inefficiencies, delays and uncertainties in the supply of new building (Mayer & Somerville 2000; Ball 2010) (although such work is usually country specific). There is also considerable research on inefficiencies in the provision and allocation of government sponsored housing (Crump 2002; Landis & McClure 2010). In short, it is not inherent that government intervention is beneficial. It is therefore of particular importance that institutional and administrative arrangements support clear objectives and provide a transparent and responsive approach to both optimising land use and ensuring that minimum standards are achieved.

2.1.6 Government interventions in housing markets

Participants referred to four types of government interventions that can be used to address these housing market failures, including:

1. Financial taxes and transfers, to support property ownership and private rental.

2. Government land organisations, to address the problem of monopoly ownership.

3. Regulations (land use planning and building codes) to manage the location and design of housing development to control negative externalities.

4. Funding for social housing provision and arrangements for infrastructure provision.

However, as highlighted by a number of studies and government inquiries in Australia, including by members of the Investigative Panel (e.g. Parliament of Australia 2008; Yates 2010; Wood et al. 2012) and others (e.g. Eslake 2013), participants emphasised that many government interventions in the housing market have been ineffective and even counterproductive. The panel also discussed the political factors affecting the choice of government interventions in housing markets, which often results in politically feasible rather than economically efficient policies or 'too expensive subsidies'.

In particular, participants emphasised that demand-side policy settings (particularly favourable tax treatment for owner occupiers and negative gearing along with the capital gains discount for investors) have incentivised home ownership and property investment without generating sufficient new supply.

> Once house price inflation takes off, then our tax policy, and particularly for investors, where you have the speculative investment, and the capacity to make gains, they are definitely driving investment.

These interventions, combined with relatively low interest rates and readily available finance for housing during a period of strong population and economic growth, have exacerbated price inflation and have resulted in increased affordability pressures for lower income groups.

However, questions remain as to why, in most Australian jurisdictions, new housing production failed to increase in response to sustained population growth throughout the 2000s (NHSC 2014). Notably, this situation has changed, with a significant upturn in housing approvals since 2012, although it is unclear if this change of supply reflects market forces or has been supported by specific policy adjustments designed to help make the market more efficient.

2.2 Defining and measuring an efficient and responsive housing market

A key initial focus for the Investigative Panel was to discuss the policy relevance of notions such as housing system efficiency, and to canvas a range of appropriate measures of responsiveness, applicable to Australian urban and regional development settings. The question: 'How should housing market efficiency be defined and measured?' stimulated much discussion, given the conclusion from the preceding discussion that housing markets are complex and inherently different from other markets. They do not satisfy idealised market conditions, and have wider impacts on the economy which are easily overlooked in a narrow focus on the operation of the housing market in isolation.

2.2.1 Current Australian policy definition

As outlined in Discussion Paper 1 (Chapter 2), the outcome that 'People have access to housing through an efficient and responsive housing market' (COAG 2009, Steering Committee for the Review of Government Service Provision (SCRGSP) 2014) is identified but not defined in the *National Affordable Housing Agreement*. However, the cumulative balance between projected housing supply (estimated net housing production) and demand (estimated new household formation rates), has been used as a proxy measure of state performance in promoting market efficiency (COAG Reform Council 2012). Data provided by the former NHSC was used to undertake this evaluation (Figure 1).

Figure 1: Cumulative balance of housing supply and demand, Australia 2002–12*
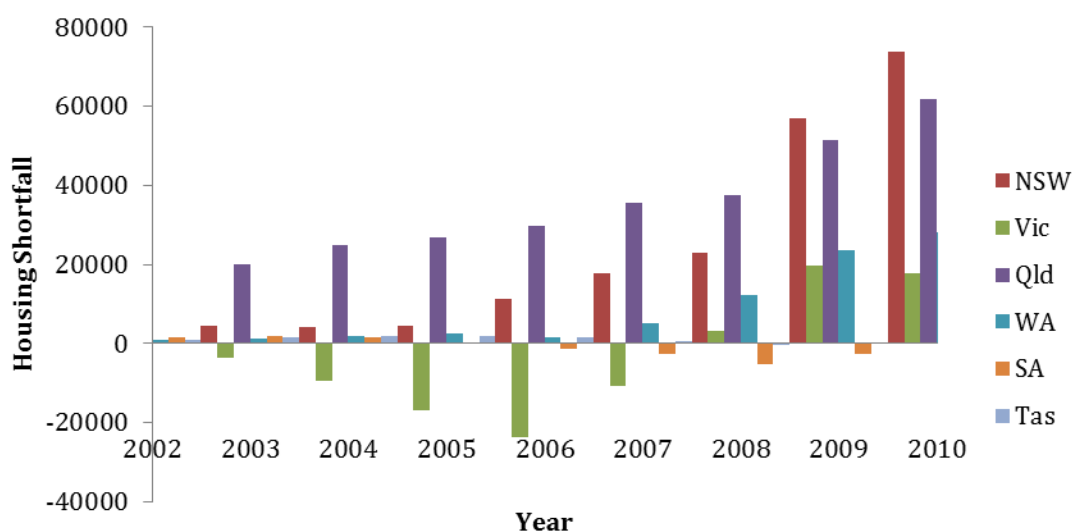
* Negative denotes surplus stock.

Source: Data derived from COAG 2012, Table 8.1

This proxy measure, with its focus on responsiveness, emphasises supply elasticity as the key indicator of an efficient housing market. However, in the traditional definition of supply elasticity (the percentage change in quantity supplied divided by the percentage change in price), the measure employed focuses on the balance between 'underlying demand' (i.e. projected household formation rates) and net new housing production. This modified interpretation of supply elasticity seeks to recognise potential cumulative interactions between price inflation, inadequate new housing production, affordability pressures, and diminished rates of new household formation. The measure is familiar to land use planners who also use household projections for estimating future demand for new dwellings, land and infrastructure to support housing development.

The approach relates the required dwelling stock to the projected number of households (with one dwelling for one household). It is not a measure of market demand, which can result in one household using more than one dwelling (e.g. with a second dwelling as a city-pad or holiday house as indicated in Section 2.1.2). It also does not recognise that household formation rates can respond to market conditions with a lack of affordable housing leading to two or more 'hidden' or potential households in one dwelling.

Further, the panel criticised the emphasis on supply elasticity alone without reference to distributional questions such as the location or affordability of housing available to lower income groups as a consequence of new housing production.

> We could have a highly efficient housing market, by some narrow definition, but have a fairly unproductive economy because we displace all of our low-income households to the fringes of our cities, where they can't get in [to the city] to get the jobs, and so they're unemployed or underemployed. Therefore, we are not being economically productive, because we are not using our labour resources effectively.

Similarly, the outcomes of an efficient housing market are not uniformly benign, due to the wider risks relating to rapid shifts in demand and consequent market volatility, which are typically exacerbated under conditions of high supply elasticity. For instance, the international participants pointed out that some of the housing markets where supply was most responsive were the most vulnerable during the GFC.

> 'We've all got areas where, in the literature they said we were incredibly efficient, and those were the areas that caused the most trouble in the crisis.'

> 'This happened in the Irish case—you could have what was a very efficient housing market in terms of supply, that created a whole pile of knock-on risks for the wider economy in terms of, for instance, funnelling too much investment into housing. Even with that, [it didn't] moderate house prices, so there was pressure for wage inflation generated. So, I think the efficiency of the housing market needs to be defined in relation to what it achieves for wider economic efficiency and also social objectives, if you're interested in social objectives, because the housing market is just a tool to achieve wider things.'

Accordingly, participants emphasised that any definition of housing market efficiency must be tied both to market failure in the wider economy, as a result of interaction of housing markets with broader financial and economic structures. Further, the spatial distribution and allocation of new housing supply is an important factor in understanding the extent to which new dwelling production addresses fundamental demand (i.e. population growth and household formation) or exacerbates risks associated with oversupply and a sudden contraction in demand.

Further, the spatial distribution and allocation of new housing supply is an important factor in understanding the extent to which new dwelling production addresses fundamental demand (i.e. population growth and household formation) or caters to speculative (or perhaps consumption-related) demand and therefore exacerbates risks associated with oversupply. It was noted that in the case of Ireland, much of the new housing produced was unoccupied and located in rural areas.

There were varied views among the participants as to whether building homes for which there is no demand is a desirable market outcome:

> It would be a very odd definition of efficiency to say that building empty houses is efficient—unless you're an extreme libertarian.

However, it was noted that there are other objectives associated with housing production—including economic objectives associated with employment, which apply particularly at regional and local scales. This raises the question of whether new housing production really needs to be tied to a fundamental demand for housing, if employment in house building has economic

benefits. For instance, in Spain, overproduction of housing (in the lead up to the crisis) was linked to regional employment growth and economic development.

These economic benefits from housing production accrue even if the housing produced is situated in inaccessible areas and doesn't address affordability issues in high demand locations.

> In Australia, people are saying that housing is going to be the saviour as the mining boom goes down. As a matter of fact, building houses is what we're looking for, just for its own sake—wherever they are, whoever they are for.

It was suggested that the approach of focusing on housing production as an economic buffer against other shocks carries fewer risks in Australia, which is 'not in an oversupply situation'. Further, with rising income and growing disparity in housing equity, comes an increasing demand for second homes.

> Some economists would say that [building additional houses that may be mainly unoccupied is] meeting housing demand, for people who want to have a second house.

The problem of producing homes that will be under occupied is similar to the problem of ensuring that any new housing, particularly new housing that is produced at relatively lower cost, is allocated to lower income groups. This points to the need to measure not only the overall supply of new homes as an indicator of the responsiveness of the housing market, but also the distributional outcomes associated with new housing production. It was further noted that Australia's housing stock is probably sufficient to meet existing demand, and that uneven distribution (the match of households to dwellings and dwelling types), rather than a shortage of dwellings, is the underlying housing problem:

> There are probably enough bedrooms in Australia. It's just that some people own ten and some people own none [and some are in the wrong place].

There is a need to expand the notion of what is affordable and what is appropriate:

> What is 'affordable' depends on access to transport, on availability of childcare, and what all those sorts of costs are. You can't just look at housing costs … What is 'appropriate' needs to take into account location. To use the classic argument: Where is it appropriate for our key workers to live?

Others pointed to the wider costs associated with building new houses when there is latent capacity within the existing stock or within established areas:

> If you're focusing on supplying new housing, typically at [the] edge [of the] city … you may find a situation where you have to retrofit infrastructure … at huge cost to the [public]. It would actually be a far more efficient solution to try to encourage better use of the existing housing stock in established suburbs.

There was general agreement that better data on the type and location of new housing, and potential impacts on overall availability of housing across the market, was important for measuring housing market responsiveness and for identifying potential risks associated with under or over supply at regional and local scales. This type of data, and particularly the extent to which new housing is likely to be occupied, as well as spare capacity in the existing stock, is also important from the perspective of most efficiently using the existing urban infrastructure and reducing the need for expensive provision of new services. Finally, more holistic measures of housing affordability, which consider questions of location and access, are needed to monitor and support economic productivity and social inclusion across Australian cities and regions.

2.3 Summary and concluding comments

In conclusion, the panel emphasised four key policy arguments for government intervention in housing markets:

→ The potential to reduce housing market volatility through a strong affordable housing sector able to operate counter cyclically.

→ The potential gains to productivity through more competitive Australian industries (able to attract and retain talented workforces; and, access to a deep local labour pool).

→ The need to make cities and regions more environmentally sustainable by ensuring that the location of homes and jobs are well matched, to reduce car dependency, and by using the existing housing stock in the most efficient way.

→ The importance of appropriate, accessible and affordable housing to overall wellbeing, and the links between the location of housing in relation to transport, work, and education opportunities and wider social inclusion (particularly workforce participation).

Finally, the members of the Investigative Panel emphasised that although an 'efficient and responsive' housing market has become an important policy goal in Australia, it is critical to consider the housing market in its wider economic context. Further, since the housing market can never be a perfectly efficient market (due particularly to the spatial fixity, heterogeneity, and durability of homes), a certain level of intervention will always be needed to achieve wider goals around financial stability, economic productivity, and social inclusion. Of the different forms of government intervention available (taxes and transfers, government land development, regulations, and funding for low-cost housing provision), a key question is how potentially economically efficient and effective each are in supporting desired outcomes, including how each intervention affects other dimensions of the housing system. The panel's responses to these questions are discussed further in the following chapters of the report, in the light of international experiences and insights arising from the GFC; current roles of Australian government in relation to housing; key interventions available to each role of government; and, in relation to spatial variations at regional and local levels. It is at these levels where the microeconomic demand and supply dynamics associated with housing markets are played out and where the productivity implications of particular housing market settings arise.

3   INTERNATIONAL EXPERIENCES AND POTENTIAL IMPLICATIONS FOR AUSTRALIA

Much of the emphasis of the international research and policy literature following the GFC has been on the interrelationships between housing markets and wider financial stability. However, a particular focus of the Investigative Panel was to examine whether the experience exposed new lessons relevant to the spatial policy settings governing housing supply.

The Investigative Panel proceedings involved formal presentations by the three international participants and two Australian participants, Dr Luci Ellis, RBA, and Professor Mike Berry, at a public event held at the University of Sydney, as well as informal presentations during the closed sessions. There was also extensive discussion among participants throughout the two-day meeting. The detailed accounts of the international experiences are contained in Discussion Paper 2. This chapter of the report summarises general comments made by participants about the significance of the GFC, before turning to the specific lessons arising from recent housing market trends in each of the international jurisdictions, and potential implications for Australia.

3.1   International experience and lessons arising from the Global Financial Crisis

The GFC was initially precipitated by the collapse of the sub-prime mortgage market in the US, which began in early 2007. By the middle of that year this had turned into a wider housing market downturn, which spilled over into Europe following the Lehman Brothers' default in 2008. This global credit crunch precipitated housing market contraction across Europe, but some nations (particularly Ireland and Spain) were more vulnerable than others (Coq-Huelva 2013; Norris 2013). In these nations, credit fuelled housing speculation and overshooting of construction had created vulnerabilities to boom and bust conditions (Duca et al. 2010).

> The GFC was a perfect storm of misplaced and perverse incentives, an inadequate regulatory apparatus and breakdown in business ethics, the growth of a predatory financial elite, supreme complacency by the economics profession, and the ultra-competitive clash of large financial oligopolists operating cross-nationally. All of these factors merged to generate the environment in which households en masse would take on excessive and unsustainable debt.

It was emphasised that although high levels of housing debt were critical in triggering the GFC, it was fundamentally a credit crisis which had repercussions across the housing market:

> Although households and their housing were critical in triggering the GFC and most affected by the aftermath, the crisis itself was a business-to-business credit crunch. Once banks and other financial institutions lost faith in the currency—the derivatives funding housing demand—they stopped lending to each other. This meant that their short-term debt could not be rolled over. No one in the financial sector knew others' risk of insolvency and being able to repay their debts. Everyone bunkered down and tried to deleverage at the same time, just as the real asset underlying the debt instruments—house values—fell through the roof.

In nations most affected by the credit crisis, the effects spread across the economy leading to unemployment, and pressure on household budgets:

> The credit crunch spread to the real economy as firms couldn't finance their working capital, couldn't pay their workers' wages. Unemployment rose, incomes fell, households cut back on less essential spending as they tried to reduce their debts to manageable proportions and meet their mortgage payments. Those who couldn't, lost

their homes, particularly in the US where increased foreclosures and forced sales drove house prices lower feeding into the downward spiral.

While not all nations were affected in this way, as discussed below, the panel agreed that the GFC drew attention to the close connections between housing and the macroeconomy, including the risks associated with debt-fuelled housing speculation, excessive economic dependence on the construction industry, and the role of irrational, herd behaviour in generating rapid swings in demand.

Housing in each of the international jurisdictions reviewed here responded differently to surging demand in the new millennium. The US and Ireland exhibited the most flexible supply responses, while, in the UK, housing output remained stagnant. These differences are discussed in more detail below, as well as in Discussion Paper 2, Sections 3.1 (US), 3.2 (UK) and 3.3 (Ireland).

3.1.1 Supply responses to increased demand: the US

In many, although not all, parts of the US (California being a notable exception), the supply response was rapid and entirely disconnected from demand fundamentals associated with new household formation:

> During the bubble years, 2000–07, for every 100 new households, we build 175 housing units … We have an enormously productive housing construction sector, so much so that we have built millions of units for which we do not have households to fill them.

Consequently, and in sharp contrast to Australia, the focus of housing policy in the US is not so much about the responsiveness of new supply:

> We are less interested in making our industry more responsive. We're more concerned now about trying to find mechanisms by which we can reign them in.

While it might be hoped that the additional housing supply developed during the boom years could improve affordability for the lowest end of the income spectrum, this did not occur. In part this was because of the location of the new housing:

> Rather than supporting the process of filtering [where higher income households upgrade their housing, triggering a filtering down of these dwellings for lower income groups], the surplus housing has actually contributed to housing market failure across the lowest value areas … The surplus of units is not helping at the lowest end. If anything, it is accelerating the demise of our oldest neighbourhoods.

US urban and housing policy-makers struggled to address these problems:

> The solutions to this don't seem to be offered very rapidly. We are trying [urban growth boundaries] in a few cities, with less than impressive results. Otherwise, America is very much a place that believes all growth is good. I don't feel we've really learned our lesson from the overbuild. If I have any lesson to bring from our side of the Pacific, it's that overbuilding is still a very real consequence of making excessive incentives to the development industry. We made them both in ease of land clearance and, especially, in ease of access to capital. Prices were rising and contractors responded to the price rises appropriately—they built more units

Further, although prices fell dramatically in the subsequent bust, they remained higher than pre-boom levels:

> Another surprising outcome … was that although prices fell dramatically in the context of the crisis, they remained above their pre-boom levels, despite the significant injection of new supply. One of the great unsolved puzzles for us is why has price not fallen by more than it has?

3.1.2 The United Kingdom

By contrast to the US, the UK has been in a situation of inadequate new supply for several decades, which in some areas appears to be constraining new household formation.

> Since 2000, [the UK has produced] fewer units than the number of projected households. In London, we are now in a situation where household formation is falling, and the size of household is increasing …

In the UK, supply is running at less than half of projected need (around 107 000 units per year in the low demand context following the GFC, compared to 250 000–260 000 projected requirements). A quarter of the projected housing requirements are intended to be satisfied in London, which appears to be unviable. However, the housing market effects of the GFC appeared contained in the UK.

> The GFC, at one level, was not the disaster we expected it to be. We didn't have large numbers of people in negative equity. We didn't have large numbers of people that were in default. We hardly had any people in arrears, as compared to what we expected. So, on the consumer side, which is where the government puts all the emphasis in urban policy, we ended up with … very little problem. That was for two reasons: we had constrained supply—we didn't have lots of housing, except in a very small number of places … and we have variable interest rates [which came down]. So, even if someone lost their job or was working fewer hours, they could afford to pay their mortgage.

However, the global credit crunch and the contraction in household demand meant that private housing production stalled. In the years following the crisis this was offset by government funding for affordable housing provision.

> But what we didn't get was any new supply. We had three years of Kick-Start affordable housing provision, which was government subsidised, just moving future housing development forward.

One of the protective factors in the UK housing market is tenure fluidity, in the sense that properties can transfer between tenures. This meant that if a household needed to sell their home and move to private rental, there was investor demand from potential landlords.

> The biggest safety valve is that our properties can transfer from any tenure to any tenure. We had a lot of units that transferred from owner occupation to private rental, and the young people who are now in private rental are in exactly the same houses that they would be in if they purchased them as owner occupiers, and mum and dad now own two houses, and let one out in the market (rather than giving it to their kids). In countries that were not able to make that tenure change, you get massive vacancies in some areas and massive overcrowding in other areas.

In building new supply, economic analysis for the UK suggests that a significant proportion of new dwellings should be vacant to offset current low vacancy across the market, and allow for mobility. However, there are policy constraints associated with the idea of building a high buffer of vacant dwellings. This raised the question for participants of what the ideal level of vacancy would be within a housing market, and ways to monitor this. It was agreed that ideal vacancy levels might differ by country.

Another legacy of the GFC in the UK is that the development industry lost a lot of capacity, particularly among the small and medium-sized builders, although regulatory factors have also made it difficult for smaller operators to remain viable:

> What we also have is a development industry that is dysfunctional. It used to have some very large house builders and lots of smaller house builders. Under the current system, partly because of the planning system, and significantly because of the GFC

and finance, the small or medium builder has no chance of building, unless they are prepared to take very great risks, or they are doing custom builds, which we have relatively little of.

One significant characteristic of new housing supply in the UK is the high proportion of dedicated affordable housing, both as part of the existing stock but also as a significant proportion of new supply (presently around 20%). This reflects historical provision through local housing authorities, as well as a strong planning framework which supports the provision of affordable housing.

3.1.3 Ireland

In Ireland, the planning system was quite liberal, and the development industry was integrated with the UK, allowing builders to shift to the UK during downturns and back to Ireland during periods of higher demand. This meant a relatively responsive housing market in terms of new supply.

> Housing output has always been responsive to house price signals, and supply, since the 1970s, has been growing. During the period of the boom, we saw a particularly pronounced boom in housing supply, particularly from 2000. At the start of the period, we were building about 35 000 dwellings a year for a population of 4.5 million, and at the height of the boom we were building 90 000 per year. New household formation during that period was about 45 000 households per year. So the population was growing, but not at the pace of supply.

Figure 2 below shows this steep trajectory of housing output in Ireland since 1990, along with escalating prices until 2006.

Figure 2: Irish housing market since 1990
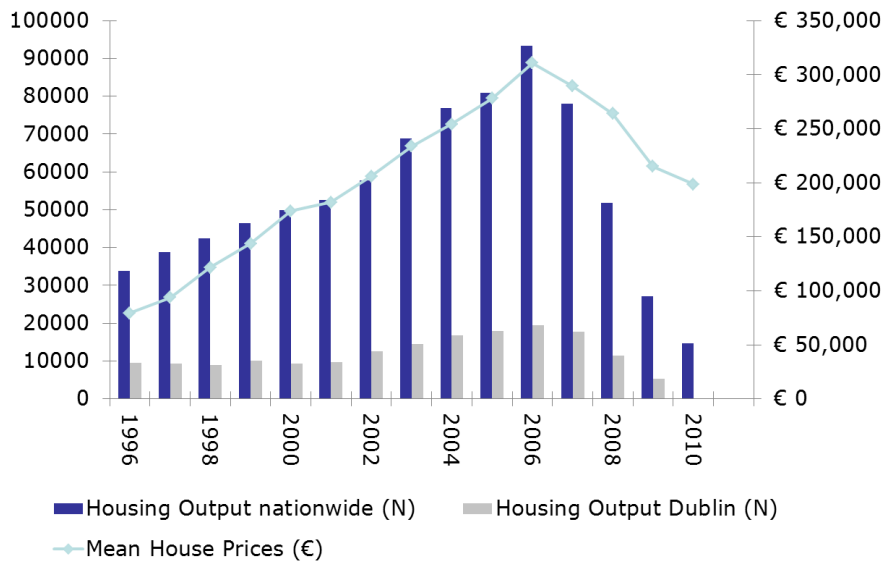
Source: Norris 2014

Despite the significant output, the problem was that this supply was often located in locations of lower demand and was, in fact, inadequate in Dublin, where there was high demand but where the development contexts were more complex.

> One of the elements of the story that is important is that delivery was not even country-wide. There was very significant oversupply in some parts of the country, and throughout the boom, certainly in my opinion, there was an issue of undersupply in Dublin, and probably in Cork, the second city, because most economic growth and

population growth was flowing into Dublin and the surrounding region. But the supply response in Dublin was much, much weaker than the rest of the country.

In Ireland, a national housing market bust slightly preceded the GFC. The effects of the GFC itself were very severe. Gross National Product (GNP) fell by 15 per cent, and this was largely driven by the housing market.

> About two-thirds of the contraction in GNP was driven by contraction in construction. Output collapsed to about 10 000 units a year, currently. Similarly, about two-thirds of the collapse in tax revenues was driven by falling construction outputs, so, loss of wages from construction, loss of VAT, loss of stamp duty on new houses, etc. Also, most of the growth in unemployment, and it has been very radical growth, has been driven by construction and construction-related industries. The bust was in large part, simply a housing bust.

It was not only the contraction in house prices and credit that undermined the Irish economy but also the consequent decline in new housing production:

> In terms of the lessons for Australia, the lessons are the risks of an overly responsive market. The reason the bust in Ireland, and also in Spain, was so much more severe than the rest of Europe, was because we had both a credit boom and bust and a boom and bust in housing output. We had both a balance sheet recession, and a situation where a whole sector of the economy that was driving jobs growth and tax growth and income growth also collapsed concurrently.

A key issue in Ireland was that all of the intervention in response to housing demand in the years preceding the GFC, was on the supply side:

> One of the major mistakes made during the period of the boom was that all the intervention was on the supply side of the market. In 1998–99, the government commissioned a series of housing market analyses, which looked at the problems in the market. At that time, they diagnosed the problem as undersupply, primarily … it wasn't within the terms of reference to talk about mortgage lending … At that time there was an issue of undersupply. Those reports were enormously influential, and all of the policy action taken between then and the bust focused on supply and on increasing supply. There was practically no demand-side action in the Irish market.

Some of the measures that may have been used to mitigate demand, such as local property taxes or interest rate setting were unavailable (with interest rates managed by the European Central Bank). Further, the system of mortgage lending regulation is quite weak and exacerbated by the entrance of foreign mortgage lenders into the Irish market.

3.1.4 Differences between the UK and Ireland: the geography of new housing supply

A key contrast between Ireland and the UK, which both have similar planning systems, is that there was pressure and incentive for rural housing in Ireland, but there were constraints associated with developing in the major population centre of Dublin. This is a major contrast to Britain where there is no real rural housing (new housing development areas are within or attached to urban centres), and where local authorities have no financial incentives for development, since they do not retain property taxes or local rates.

> In rural areas, unlike Britain, there was a lot of political pressure for increased output, and also a lot of financial pressure on councils. The political pressure was around jobs [generated by residential construction] … also the financing system for local government introduced perverse incentives to encourage oversupply in rural areas and undersupply in urban areas …. In rural areas, councils were desperate to generate sources of revenue [like business taxes and development levies]. So, there were very

strong pressures on rural councils to build. The story is one of a very strong supply response, in fact, an over-response, but not necessarily in the right areas.

There was quite a lot of money spent on social housing output during the Irish boom, however, again much of this investment was in the wrong location. This was because any social housing was seen to be an appropriate national response to the boom rather than targeted to the locations of high demand.

> So we ended up with some oversupply of affordable housing in some rural areas, and chronic undersupply of affordable housing in urban areas … during the period of the boom; we also had a very unusual system of financing social housing for rent and affordable housing (which is housing for sale at sub-market value to low-income households). Our system was 100 per cent capital finance upfront. The government were awash with money, so they could afford this system. When the bust came, the financing model effectively collapsed, and social housing output went down from about 7500 units per year at the peak, to about 600 through the bust.

However, an outcome of the crisis has been renewed interest in increasing social housing supply to address housing demand pressures in Dublin and as a way of attempting to re-establish the housing industry.

3.2   Implications for Australia

In discussion, the lessons arising from the international cases, and the value of international comparison, was emphasised. However, it was also noted that Australia is characterised by some important differences. A key difference is that real house price growth in Australia was not as sharp over the past ten years as in some other advanced economies:

> Australia is not one of the 'boomier' places over the last ten years. Prices have risen faster than consumer prices, but they have not risen materially faster than household incomes in Australia.

Australia has also experienced periodic moderations in price not seen in some other countries:

> This is not a country where we haven't experienced house price falls. We have experienced house price falls. There is risk in the system that people have already experienced. It's simply incorrect to treat the Australian history as if there has never been any kind of downturn.

The period towards the end of the 1996–2004 boom was a recent period of risk and price moderation:

> We nearly … got into trouble in 2002–03 when we did have quite a bit of speculative, investor housing. Fortunately that phase of our housing market ended with a fizzle, rather than a bust. But that experience has really coloured our thinking about the risks around housing ….

In distinct contrast to the US and Ireland, at the time of the GFC, Australia had not been affected by large-scale speculative housing production, or oversupply. Nor has it experienced the chronic underproduction that has characterised the UK, although for the past decade new construction did fall short of increases in underlying demand. Recently, however, new production in Australia has returned to levels more consistent with its population growth:

> Australia is a long way from oversupply nationally. Supply is increasing, and that's an expected result of the current stance of monetary policy. It is needed to house a growing population, and it's intended as part of the handover from the end of the mining investment boom, in that other sectors need to, and now have the scope, to expand more quickly than they did when the boom was in full swing. So building approvals are running at an annual rate of about 200 000, so we're building more than [the UK] would

like to, and we have a much smaller population. That's extraordinary. It's quite a bit higher than in the past decade. Detached housing is still a bit over half of that, but there has been a real switch to medium and high density becoming more important in recent times. A lot of the reason for that is that we have really strong population growth.

However, it is important to consider the quantity and location of new supply in Australia:

I think there is a lot for financial stability policy-makers to learn and to consider about urban geography. We tend to look at national aggregates, but one of the things I've learned over the last decade is that you've got to look at local area stuff as well. I think the planning profession can certainly contribute a lot to that thinking.

Further, in comparison to the predominant policy focus in Australia on housing shortage and sluggish supply responses, the international cases pointed to the risks associated with overly flexible housing markets:

I'm really glad to see a focus on the risk of overbuild. In Australia, the usual narrative is about housing shortages, i.e. all the problems of high prices would be solved if we could just build more. Of course, the usual assumption is that that means if we could only build more detached houses on the fringe, because suburban housing is the ideal type of housing for everybody. That's the assumption. But what the US and Ireland and Spain have shown is that the really painful outcomes happen when there is an overhang of excess supply.

3.2.1 Lessons learned on the supply side

One of the themes to emerge from the Irish case in particular was the focus on supply in diagnosing the housing problem:

The focus on supply in diagnosing problems is common in a lot of systems, because a lot of people have a vested interest in supply being the problem ….

It was agreed that, in the Irish case, this unbalanced policy emphasis on supply reinforced speculative expectations driving the boom, and led to a focus on national housing output rather than differentiated analysis and interventions to ensure that new supply was actually addressing demand in key locations (e.g. Dublin) and would address the accommodation needs of the growing population.

Participants observed that the experiences of Ireland and the US also offer insights into the potential outcomes that might arise from a very different planning system. There is often an assumption that deregulation of planning systems might free up housing output to a level achieved in parts of the US. Even if this were desirable (as demonstrated, oversupply has been very disruptive in particular locations), fundamental differences in industry structure make it unrealistic to attempt to emulate the supply elasticities achieved in parts of the US.

In the US, large developers go out and build on spec—maybe a thousand houses in a suburb, where they own the land and the house—and they sell it. Whereas the large [Australian] developers are mainly land developers, and they [produce] 25–50 lots at a time, which generates some low supply elasticities, but has some other benefits, for them, but possibly also [helps counteract] risks of oversupply … I think the lesson is that while people say we need to change the system in Australia to emulate America's supply elasticities, we'll never do that while we have the development system we have.

One way in which the US situation might be emulated is to remove locational planning controls (e.g. land use zoning and development contributions and charges), in favour of the free market system, to see whether the market would respond with increased supply. Aside from the wider urban economic inefficiencies associated with dispersed housing provision, and wider economic risks outlined above, the highly concentrated system of land ownership in Australia means that it is unlikely that the results would deliver more affordable housing options.

You build a land bank at lower cost, so what you're doing is you're ripping producer surplus out of the system, rather than meeting the consumers' needs.

However, the comparison reinforces the need to consider strategies to address the monopolistic system of land ownership/development.

3.2.2 Demand side adjustments

A second lesson, particularly in relation to macroeconomic implications and risks for Australia, is the ways in which the dynamics of housing demand and supply shift. For instance, the UK situation of inadequate new housing production and consequent affordability pressures in high demand areas, such as London, shows that demand for new housing does adjust in response to supply conditions. The changes in patterns of new household formation can make it difficult to define whether there is under supply within a market, using current measures.

> The extent of the demand side adjustments in Britain have been totally unpredictable, and absolutely massive, and … they are not showing up in terms of our traditional measures of housing need. That makes it more difficult at the national level to make the case for affordable housing.

Measures to capture some of this evidence include households that haven't formed (older children still living with parents), or sharing (forming households at lower rates). The number of households shifting from owner occupation to private rental is another indicator of shifting demand in response to barriers to home ownership (in the UK a million households have moved from the owner occupied sector to the private rental sector).

For Australia, indicators should also consider the different housing conditions of segments of the population. For instance, more affluent families are likely to have additional space in their homes to accommodate adult children. Similarly, the match of housing type to household groups is also an important indicator, with very small apartments being an appropriate dwelling for young, single professionals who are out a lot, but probably not lower income households who spend a lot of time at home or those with larger families. Another indicator suggested by participants is whether after housing expenses leaves pensioners in rental accommodation with less funds than those in owner occupation, which would indicate a problem in the system. Finally, a key lesson is the importance of understanding the spatial patterns of demand and supply, and the very different market drivers and risks in different locations.

3.2.3 Lessons to be learned about affordability for lower income groups

A number of panellists made the point that, as highlighted in the international cases, housing crashes do not deliver affordability benefits for lower income groups.

> One of the key messages I drew from the presentations and the supporting paper was that housing crashes do not improve affordability. Housing prices are lower, but capacity to pay is also lower. That's something I hope that a lot of people will take away from this work … It's something that is not well understood.

An overall conclusion was that many different systems have led to a common problem associated with a fundamental shortage of affordable housing for low-income groups in high demand locations.

> The reality is that there are many variables that can generate the same basic thing. No matter how much [housing] you provide in any city, you still have massive affordability problems at the bottom end of the system. It's that lesson that I think one needs to take from the American system.

Further, particularly in the UK and to a lesser degree in many parts of the US, incomes fell faster in the context of the crisis than did house prices, again meaning that the price falls did not improve affordability outcomes for lower income groups. This lesson is often lost in

reportage on national level house price falls, which mask the fact that these price drops do not resolve affordability barriers for lower income groups.

Spatial variations in patterns of housing demand and supply, and the implications for policy interventions, are addressed in the following chapter.

4 MEASURING AND RESPONDING TO REGIONAL AND LOCAL HOUSING MARKET TRENDS IN AUSTRALIA

A key question addressed by the Investigative Panel was how local and regional housing markets and planning frameworks can and do adjust to changing drivers of housing demand in Australia; the different types of intervention available to each level of government; and the types of information needed to inform these policy responses at regional and local scales.

Discussion Papers 3 and 4 provided a reference point for these deliberations. Discussion Paper 3 set out key features of Australian housing submarkets and implications for urban policy and planning as a subregional typology of housing market contexts, opportunities, risks, indicators, and potential policy levers. Discussion Paper 4 reviewed the range of existing and potential information sources to inform analyses and policy interventions at national, regional, and local scales.

Representatives from the Commonwealth, NSW state, and NSW local governments, and from the housing industry provided important perspectives. The interstate academic members of the panel, provided insights into the regional and local variations in housing markets in Victoria and WA, the available policy levers to address supply/demand imbalances, and sources of information used to inform these interventions.

A special session involved representatives from the Housing Industry Association (HIA), the Urban Development Institute of Australia (UDIA), and the Property Council of Australia (PCA). The session canvassed industry perspectives regarding the key factors inhibiting housing market responsiveness, views about risks and opportunities within particular market segments, and sources of data to inform industry players and policy-makers.

This chapter of the report summarises the outcomes of the panel discussions, firstly outlining the different roles played by Australian government in relation to housing, and the ways in which particular interventions influence patterns of demand and supply at regional and local scales and across different submarkets. Industry perspectives on these issues are also provided. Finally, there is discussion about the sources of data and potential measures and indicators that could better inform the housing industry and policy-makers at all scales.

4.1 Housing roles of Australian governments

The three levels of Australian government have different responsibilities with direct and indirect impacts on the housing system (Figure 3 below). Historically, the Commonwealth's key housing roles have been limited to funding for housing assistance, delivered by the states and territories through social housing programs and through government land organisations, as well as the provision of income support for lower income groups in private rental accommodation (Commonwealth Rent Assistance (CRA) payments). The taxation settings and financial subsidies for property investment are also predominantly governed by the Commonwealth. The Commonwealth's housing related roles currently fall within the portfolios of Treasury (taxation, transfers, fiscal regulation), Social Services (funds for housing assistance and income support), and Infrastructure and Regional Development (planning and cities policy and analysis).

The Australian states and territories have specific functions for housing assistance (managing social housing programs funded in part under the NAHA), urban planning (the legal framework governing the location and density of new development), and the majority of major infrastructure provision (e.g. roads, public transport, hospitals and schools). State and territory treasury portfolios have broad interest in the housing market through their role in revenue collection (e.g. stamp duties on property transactions, and land taxes), in relation to the activity of the economically significant housing and construction industry, and, potentially, in relation to
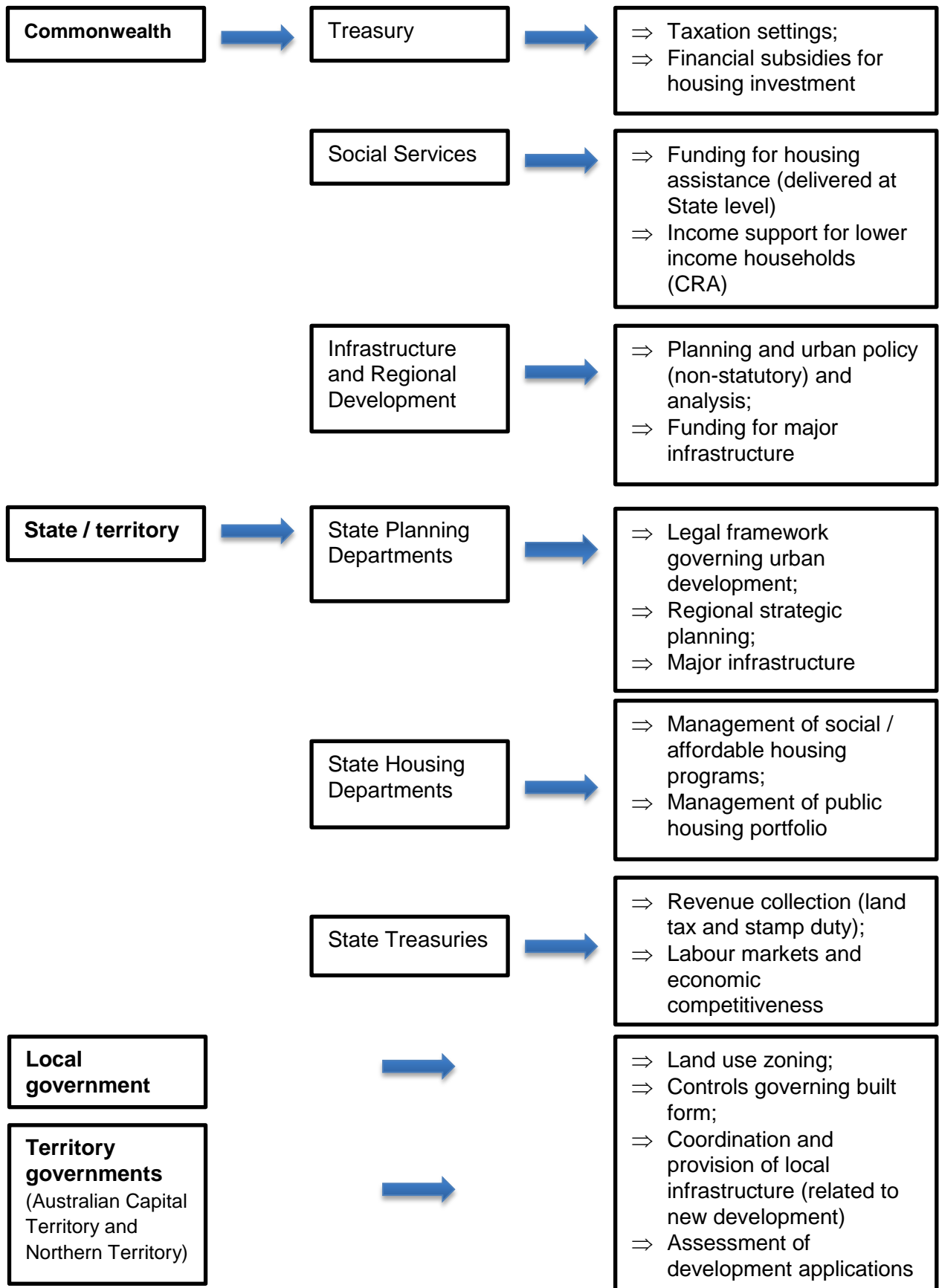
labour market productivity and competitiveness, issues associated with housing affordability for key workers.

The housing roles and capacities of local government in Australia vary according to population and geographical characteristics. Formal roles are limited to land use zoning, formulating built form controls, which can affect the density and design of housing, and coordination and provision of local infrastructure (supporting new residential subdivisions and to augment existing services, particularly in response to increased populations). Local government is also responsible for assessing development proposals against this planning framework, often involving consultation with local residents. In undertaking these roles, local government is very much bound by the parameters of state planning policy and legislation (note that these roles are also undertaken by the territorial governments in the Australian Capital and Northern Territories).

A common distinction in terms of the housing-related roles and responsibilities of Australian governments, is that the Commonwealth controls the demand levers that affect housing (tax, population, income—via economic management and immigration policies), whereas the states have control of the supply levers (planning systems, expenditure on transport and infrastructure). It is sometimes argued that the states have responsibility for supply-side levers, but that local government—with its traditional responsibilities for land use zoning and development control—actually holds the levers. However, this perspective does not reflect the different levels of state control over local planning functions in Australia (which are much stronger than seen in the other international jurisdictions reviewed). Further, a series of planning reforms over the last two decades have sought to standardise local plan-making and delimit local development assessment powers, in part to relieve perceived constraints to housing development (see Gurran et al. 2014). While the impacts of these reforms remain to be assessed, one consequence has been sharp differences in levels of local government authority over key planning decisions, across the Australian states.

It is important to note that, with minor exceptions (rent assistance and funding for social housing), most Commonwealth policies affect housing indirectly.

Figure 3: Australian tiers of government, relevant departments/agencies and housing-related roles

Tier	Department/Agency	Roles
Commonwealth	Treasury	⇒ Taxation settings; ⇒ Financial subsidies for housing investment
	Social Services	⇒ Funding for housing assistance (delivered at State level) ⇒ Income support for lower income households (CRA)
	Infrastructure and Regional Development	⇒ Planning and urban policy (non-statutory) and analysis; ⇒ Funding for major infrastructure
State / territory	State Planning Departments	⇒ Legal framework governing urban development; ⇒ Regional strategic planning; ⇒ Major infrastructure
	State Housing Departments	⇒ Management of social / affordable housing programs; ⇒ Management of public housing portfolio
	State Treasuries	⇒ Revenue collection (land tax and stamp duty); ⇒ Labour markets and economic competitiveness
Local government **Territory governments** (Australian Capital Territory and Northern Territory)		⇒ Land use zoning; ⇒ Controls governing built form; ⇒ Coordination and provision of local infrastructure (related to new development) ⇒ Assessment of development applications

Source: The authors

The dispersed responsibilities relevant to the operation of the housing market in Australia have created barriers for addressing housing issues in a cohesive way. While the NAHA, between the Commonwealth and the states and territories, implies a set of national policy goals for affordable housing across the market, funding programs do not extend beyond the social housing sector.

It was noted that the planning analysis branch within the Department for Infrastructure and Regional Development produces data on urban trends under the annual State of Australian Cities series, as discussed further below, and the COAG and its capital city planning system performance measurement agenda provides a potential mechanism for intervening to influence urban outcomes, particularly those relating to the location and accessibility of housing and jobs, for instance, through funding infrastructure incentives (also see COAG Reform Council 2011; Ruming et al. 2014). However, the panel noted that this mechanism has had limited influence to date.

There were differing views about the housing roles able to be played by government across Australia's federal system, and changing portfolio configurations have affected formal responsibilities for housing policy and assistance. Several members of the Investigative Panel expressed the view that a national housing policy would provide a more comprehensive framework for addressing problems across the whole housing system and for monitoring and intervening in relation to housing and wider economic policy objectives and risks.

4.2 Housing, regional markets, and economic productivity

The panel deliberations with government participants focused initially on the relationships between the housing market and economic productivity. Three factors influencing economic productivity and their connections to housing markets were discussed: the 'spatial' dynamic (i.e. the location, accessibility, and affordability of homes and jobs within cities or regional areas); the 'mobility' dynamic (i.e. movement between cities as workers leave in search of employment opportunities or lower priced housing, affecting the depth of the labour market); and, the 'labour costs' dynamic (i.e. wage requirements due to cost of living, which in turn, is affected by house prices).

There was some discussion among participants about the ways in which dynamic tradeoffs made between householders—for instance, between the location and the size or tenure of their home—may have significant implications for patterns of economic productivity and labour force participation. For instance, housing aspirations for home ownership, or a detached home, may pull people to inaccessible fringe locations where lower priced housing is available, but where both financial and time travel costs to employment opportunities are much higher. This spatial leash has implications for the depth and competitiveness of the labour market and may discourage lower paid workers and other groups, such as women, from participating in the workforce at all. Although these decision tradeoffs are difficult to track or influence, implications for productivity are potentially significant.

Many of the interventions influencing the spatial relationships between affordable homes and jobs and the availability of a diversity of housing options within different locations, are undertaken at regional and local levels. Further, it was emphasised that national policy and financial interventions can have different and negative impacts in different parts of the country. For instance, when the RBA cuts interest rates to stimulate the economy, Sydney and Melbourne property markets were boosted, but there was only a minimal impact on other capital city markets.

Overall, it was emphasised that although Australia is one of the least sparsely settled nations in the world, it is also one of the most highly urbanised, with two-thirds of the nation living in an urban area. Around 70 per cent of Australians live in the primate capital cities, with the balance predominantly settled in coastal conurbations stretching beyond these metropolitan areas. A

sharp price differentiation between inner markets and outer suburban or regional areas has emerged:

> … the premium to being closer in has increased … There has always been a premium to being closer in, but it has gotten larger recently.

This price differential affects the capacity for workers to relocate from regional areas to accessible employment centres in the major cities, and indeed, contributes to reduced desirability for international workers. It also affects the viability of new housing projects.

4.2.1 Policy levers and new housing supply in Sydney, Melbourne, and Perth

Participants discussed regional patterns of housing supply and demand in Australia overall, and in NSW, Victoria and Western Australia in particular, and how different policy interventions are influencing outcomes. These deliberations expanded on material contained in Discussion Paper 3.

Overall, it was noted that development opportunities within inner areas and more expensive middle ring areas are often more difficult to secure due to the high costs associated with site acquisition and land assembly (as documented in previous studies, such as Rowley and Phibbs 2012). Regulatory planning approval processes affecting new housing development may also be slower.

However, in recent years the proportion of dwellings completed in established areas of Sydney has exceeded greenfield housing completions. Of the 39 000 dwelling approvals in Sydney in 2014, over two-thirds were for multi-unit dwellings, most of which are located in inner and middle ring areas. Similarly, in both Victoria and Western Australia, there have been increases in higher density developments within inner areas.

The following sections provide brief contextual information about each city, key demand and supply trends and emerging government responses to these trends. This is intended to highlight ways in which national level drivers of demand are experienced differently in different markets, and the need for spatially tailored policy interventions.

Melbourne/Victoria

In Victoria, there has been strong population growth around Melbourne which has been the fastest growing capital city in Australia for the past 12 years. New housing supply in Melbourne tends to be polarised between new, very large housing on the urban fringe (the majority of new dwellings produced), and apartments in the CBD. Many of these apartments have been very small and in high rise towers (around 40% of units being approved in high rise towers are less than 50 square metres).

Participants reported a common view that these new dwellings do not closely reflect consumer preferences but rather reflect opportunistic development approaches designed to maximise yield. Further, the development of expensive, inner city apartments, and comparatively cheaper family homes on the urban fringe (up to 55 kilometres from the CBD) appears to be exacerbating social inequality and contributing to socio-spatial polarisation. There are very few local services in these locations, which lack shops, schools, and public transport. Most participants regarded these examples as a kind of market failure.

At the same time, in Victoria there are significant barriers to infill development and to greenfield developers moving into the infill space, associated with their lack of knowledge and experience in the development context, which has driven a general conservatism, as well as the very real difficulties of site assembly, and seeking planning approval in the face of resident objections. Resident objections in Victoria have significant implications for infill housing development because of strong third party appeal rights, which allow objectors to appeal against developments. Such rights do not apply in the other Australian states, although neighbours typically have the right to be consulted about proposals.

The Metropolitan Planning Authority was established in 2014 to provide a coordinating mechanism across Melbourne, absorbing the former Growth Areas Authority. Another key change has been the introduction of a new framework for residential zoning. The threefold system allows councils to designate areas for growth in residential development through medium and high density housing, general residential development (providing for moderate growth), and neighbourhood areas (limited growth). Although the growth zone could provide more certainty to developers looking to develop there, questions remain as to whether they are in the right spots. In the rush to enact changes to implement the zones, there are concerns that the strategic planning process has been inadequate. There are also concerns that many councils will apply the zones in ways that effectively prevent new housing development in their areas. However, ironically, the introduction of new zones in Melbourne may have had perverse effects in some areas, with the potential of downzoning encouraging developers to bring forward sites, as seen in a recent increase in planning applications.

However, these applications might not result in new supply, at least in the short to medium term, as the on-selling of planning permissions is an ongoing phenomenon. Data on the incidence of trading in planning permissions is mostly anecdotal, but it appears likely that permissions are traded. This highlights the issues surrounding the inability of the planning system to activate development, and the risks associated with planning approval processes, which can increase property values without necessarily resulting in new housing development.

Perth/Western Australia

There have been a number of shifts in the Perth housing market since the GFC and the mining boom. Numerous small and medium-sized developers entered the apartment market during the boom and there are now indications that this has led to a looming oversupply of units. While the first home buyer market remains strong, overall there is a trend down in the new build and established housing markets. Further, in the period following the GFC, WA land developers have started to take 'orders' for building sites, rather than preparing lots in advance, reducing speculative risks. Developers are also preferring to enter into joint ventures, rather than having long-term land holdings. However, the process of 'ordering' land and then building a home is long, and financially difficult for people in the private rental market. Deposit requirements are the major inhibitor to home purchase in WA, particularly for households in expensive private rental markets.

The Western Australian Department of Housing has introduced a number of strategies designed to boost supply, through joint ventures with developers on land subdivisions; by 'de-risking' lower priced land and housing developments (offering purchase guarantees); developing innovative procurement strategies to enable bulk purchase arrangements which reduce costs; and through ongoing finance mechanisms which provide loans to lower and middle-income households. A shared equity product for eligible purchasers has also been used to sustain supply of lower priced products at this end of the market.

Sydney/NSW

Trends and interventions in housing supply in NSW were discussed through the particular lens of local government. Two local governments with very different urban contexts participated in the panel meeting.

Blacktown City Council has a number of large growth areas, where developers operate fairly independently in rolling out local services and in working to large subdivision plans, without requiring much intervention from council. Council seeks to support this process through coordination and infrastructure provision needed for growth. Blacktown is also seeking to concentrate new growth around major rail stations. The focus in these locations is on making sure planning controls align with that objective, and on reducing 'burdens' developers face in trying to develop these areas.

Like Blacktown, the City of Sydney is also mindful of the targets that are set by the NSW Government through its metropolitan planning. Council's policy interventions seek to achieve housing diversity, defined as a range of dwelling sizes, and by supporting social and affordable housing. With the market for residential development currently being very strong, another objective is to reconcile residential uses with other competing land uses. In some cases this may involve preventing residential rezonings in order to sustain employment lands.

The panel noted that Blacktown and other western Sydney councils have had trouble achieving higher density housing development, owing to feasibility. In the City of Sydney, where the majority of new development comes through renewal, the feasibility of development in relation to planning controls is also an issue.

Planning approvals and rates of new development

Participants discussed different policies surrounding greenfield housing development in each city, noting that in Sydney and Melbourne, many greenfield areas are affected by long distances from central employment areas, and limited or no public transport options (although some cities, e.g. Perth, have ensured that new suburban release areas are well connected by rail and bus).

A key issue to have emerged in each jurisdiction is the incidence of speculative rezonings— whereby land is rezoned in response to developer request, but the subdivision and sales are slow to eventuate, if at all. A similar issue relates to development approvals—where dwelling approvals are granted for a particular site, but the project does not actually commence. Rather, it is often the case that rezoned land, or sites with planning approval, are 'banked' or sold on, sometimes generating a new wave of planning applications as the next owners seek to add 'value' by increasing yield. It was agreed that this process transfers the power to catalyse housing supply solely to landholders/developers, who could then proceed to develop at a speed that optimises profit rather than reducing price inflation through increased output. However, further empirical research is needed to determine the extent of these practices.

Ireland has sought to address both of these issues, the first by introducing much stronger 'use it or lose it' legislation to ensure that planning permissions are taken up (or at least not traded on in an endless cycle of development speculation, rather than actual housing production), and has also downzoned land to prevent scattered development in areas that are expensive to service.

The typology of Australian housing submarkets presented in Discussion Paper 3 summarises generalisable information about spatial contexts, consumer preferences, and housing development opportunities and risks. It highlights the need for spatial data and policy responses that target particular market segments and locations—and clearer understandings of the ways in which diffuse drivers of demand—such as falling interest rates, international and domestic patterns of migration, financial subsidies or incentives for housing investment— interact with localised dynamics of demand and supply.

4.2.2   Industry perspectives on housing supply and affordability

Industry participants emphasised sluggish new supply as a major reason for Australia's affordability problems:

> The numbers are pretty stark. We've been underdoing it for years, and we wonder why we have a lack of private rental accommodation to affordably house low and middle-income households. It's a no brainer really—we just don't have enough supply.

It was recognised that affordability is not all a supply problem. Demand is also a major factor. Growth in household disposable income and housing aspirations result in increased demand for larger homes and more parking spaces. They also put pressure on amenity and transport rich locations. Industry participants anticipated future demand for medium density housing from

budget-constrained households, but they noted that there is still a strong aspiration in Australia for detached housing.

In discussing inadequate housing supply as a key issue explaining affordability pressures, participants emphasised that the industry would supply the low-income market if it became profitable to do so, and indeed, is capable of a significant increase in output, as demonstrated through the social housing initiative in response to the GFC.

> Delivery will happen where there are innovative funding mechanisms that enable developers to make a reasonable return.

There was considerable interest in products that could improve accessibility for moderate income earners, for instance, through shared equity models. There was also much interest in the role played by the WA government in de-risking different products, including lower cost dwellings for sale. The role of the KeyStart government loan scheme was also considered critical for the housing industry in WA, because it helps eligible purchasers over the deposit gap.

4.2.3 Planning systems and the responsiveness of housing supply

There was considerable debate about the role of the planning system in influencing supply responsiveness. Previous research and literature on this topic was canvassed in the discussion paper, and relates to potential impacts on the availability of land, the design, density, and quantity of housing able to be developed, administrative processes which increase development times and uncertainty, and costs associate with fees and infrastructure contributions.

There was discussion over the impacts of planning delays on development outcomes and affordability. It was acknowledged that delays often provide a profitable outcome for developers, particularly during times of house price inflation and low interest rates, when market increases typically exceed holding costs. However, a key issue is that holding costs represent one of the major risks associated with residential development, so reducing uncertainty as to the length of time needed for planning permission can help 'de-risk' development. For smaller developers, in particular, those not seeking to add value by adjusting the planning controls to gain a higher yield, de-risking approval times can be very important.

Community opposition to residential development was also nominated as a major issue. In a sense, opposition to development by local residents is economically rational behaviour by homeowners protecting their investment. Indeed, homeowners have a vested interest in limiting new supply if they think it will impact on property prices. It was thought that opposing particular developments has become a major strategy for grass roots politics and a means of attracting voters. Industry representatives endorsed the model of independent regional panels to remove decisions from local politics.

Indicators of planning performance currently focus on the time taken to issue approvals, or on approval rates—but the proportion of consents which are acted upon may be a more meaningful indicator of performance outcomes.

It was agreed that Australia is in a unique period to be having policy discussions about the relationship between housing supply and affordability because, in the next year, there may be more new homes supplied in aggregate, than in the country's history, although with huge regional variations.

4.2.4 Planning reform and infrastructure costs

There was also discussion about planning reform. It was noted that the imperative for reform is much lower when the market is buoyant but that fundamental problems with the planning system are likely to be exacerbated when there is a downturn in the market:

> When people are making money, problems aren't apparent. There are real structural problems in a market that can be glossed over when things are going well … and will be exacerbated in a slight downturn, and it's a crash … that's the worry we have. You need to make those structural changes in good times.

Discussion also canvassed the ways to finance infrastructure needed for new housing supply (and opportunities to use value capture mechanisms) as well as ways to subsidise or support affordable housing provision. Some industry participants expressed the view that planning requirements could ensure development opportunities were costed into the development process and priced into land values, provided that expectations are clear and foreseeable. There was support for metropolitan-wide charges for infrastructure versus development charges collected from fringe development, but recognition of the political difficulties with this approach.

> There is always an argument with the development community that that's a tax on development. At the moment [where there are] major up zonings around transport nodes, clearly, a substantial value accrues to that land. The challenge becomes, if someone is going to try to capture some of that value for affordable housing or anything, where is that cost going to be born? The aim would be for that to be from the land value, rather than being absorbed by the developer.

A key issue is the wider economic value seen to be generated by housing development, and perceived risks associated with policies that might seem to discourage new production.

> Just last week [NSW was] back at number one in terms of [the] state economy, and a major driver of that has been seen to be … [the] ability to help increase housing supply in a major way … There is a major concern [in] talking about a strand of housing policy which might be perceived to put another tax, in any shape or form, on the drivers of building more housing.

Other infrastructure models canvassed included that used by the City of Sydney, where the contribution amount is a proportion of the cost of the development, and funds are pooled. The NSW Department of Planning and Environment's Urban Feasibility Model (NSW Department of Planning 2014) could potentially be used to determine the economics of value capture as has occurred in the UK.

Overall, the discussion highlighted a need to better understand the ways in which policy levers and land use planning regulations may interact with the timing and quantity of new housing supply under different market contexts in Australia.

International participants noted that industry perceptions of planning system constraints seem to be common across all four jurisdictions. However, the US case presents an alternative perspective:

> When we listened to the industry leaders, it was pretty clear that they were saying that it's the intervention of government and planning difficulties [which is to blame for sluggish supply, and affordability problems]. I don't buy that theory. The United States has such a vast range of public oversight in the planning process. Yes, there is California with its heavy planning intervention, and commensurately high prices, but there are also other markets that are very pro-developer, very soft in terms of planning intervention, and [still] very high prices.

4.3   Sources of data informing planning and industry responses

Discussion Paper 4 outlined approaches and sources of data for regional and local housing market analysis in the UK (Section 2.1) and the US (Section 2.2), as well as current approaches in Australia (Chapter 3). Participants endorsed the content of Discussion Paper 4 as an accurate outline of the major sources of data on Australian housing supply and demand

trends. The panel deliberations then focused on the extent to which these sources were accurate and reliable, adequate in terms of level of coverage, and able to inform policy and decisions given the fragmented nature of government responsibilities for housing and the limited levers available to state and local planners.

4.3.1 Accuracy and adequacy of data on Australian housing market trends

Overall, participants expressed the view that the functions performed by the former National Housing Supply Council had not been replaced and that an independent source of information, beyond both government and industry, is needed. Similarly, the loss of metropolitan development program reporting in Sydney was thought to represent a major impediment to accurate monitoring of housing market trends in NSW.

> There is no steady stream of information across local entities, much less state entities. There's a lack of detail. There is a lack of transparency.

National (Commonwealth) leadership in monitoring housing trends and outcomes, including land supply, was called for.

There was some discussion of key data gaps. In comparison to the approaches used internationally in the examples reviewed, there is no monitoring of the extent to which new supply improves affordability outcomes—either directly (i.e. a breakdown of new housing produced by location, sector, composition and price) or indirectly (e.g. subregional or regional affordability trends and potential impacts of new supply).

A second key data gap in Australia is information on the level of infrastructure charges in different areas and the potential relationship between particular charging regimes and affordability outcomes. In NSW, departmental information on development contributions is more focused on what infrastructure can be provided, rather than on viability or affordability impacts, although these are understood in theory. Another key data gap relates to the value uplift occurring as a result of infrastructure investment or rezoning. This information is seen to be necessary to implement a value capture mechanism. However, it was noted that attempts to capture values associated with rezoning and transport infrastructure are often resisted due to the perception that they could dampen housing development and therefore undermine economic growth in the state.

The WA Department of Planning is quite progressive in terms of its data analysis. It is supported by the Housing Industry Forecasting Group, which has been operating for several years and includes people from state government and industry (the Australian Bureau of Statistics, Housing Industry Australia, UDIA, Water Corp, the Real Estate Institute, Treasury, the Chamber of Commerce and Industry, the Department of Housing, Bank West, and Associate Professor Rowley) (Curtin University). The group collects data on the housing market, which is used to forecast dwelling commencements over a five-year period. The report also explains reasons for forecast trends. Data collected includes: building approvals; the amount of land available (UDIA and REIWA); population; lot approvals; dwelling commencements; finance; first home owner grants; and transactions in the established market. More recently, the Department of Planning has started collecting data on demolitions from local governments, which has allowed for net versus gross new housing supply to be calculated.

The Group also looks at approvals and trends in the regions. Using the NHSC model, there are current projections of oversupply in the regions and undersupply in the metropolitan area. The approach has helped identify patterns of supply and demand in spatially nuanced ways, and has also created relationships and better understanding of different housing market drivers, between the organisations involved. In particular, the Group has helped to generate evidence in response to perceptions about the market (for instance, there had long been a view that insufficient land for housing development was driving price inflation in WA, but the data

collection and analysis undertaken by the Group has demonstrated steady and reasonable supply relative to the market).

4.3.2 Does the available data actually inform key planning and industry responses to changing housing demand?

The panel identified a disconnection between the range of data collected by different government agencies, and its application to inform state and regional planning:

> … available sources aren't pulled together to inform policy.

For instance, in NSW, the Department of Families and Community Development has access to a number of sources, as outlined in the discussion paper, and collects its own rent and sales data. However, there is potential to extend existing measures to examine issues such as security of tenure in the rental market, overcrowding, levels of 'overconsumption' of housing, and more detailed information on housing stress relative to disposable income. In other words, there is a focus in current analyses on the production of new housing rather than how demand is being met and how housing supply is being used:

> There is quite a lot of planning data … around the type of housing produced, where it is produced, whether it's high or low density; there is much less analysis of tenure, and price points, which would be of interest … Those two types of datasets are not brought together well, in a housing market sense, from a planning perspective.

The panel questioned how information on preferences or trade-offs, is used to inform planning decisions, and more widely, whether potential issues of reduced household formation rates, associated with affordability trends, might inform supply projections.

Currently, economic and affordability considerations are not factored into new household formation projections in NSW or in the other states. However, in NSW, WA, and Victoria, there have been surveys of housing preferences to examine trade-offs between location, housing characteristics/tenure, and costs that are being made. This type of work can be used to demonstrate the potential market for alternative dwelling types.

There have been recent efforts in subregions of Sydney, to determine how best to roll out housing projections and to find ways to accommodate financially feasible housing development towards meeting anticipated demand, but this approach, which is being undertaken by the Department of Planning and Environment in partnership with a few councils, is far from widespread.

There was particular discussion about the levers used to influence housing outcomes in response to information on housing need arising through planning processes and available data sources. Participants emphasised that the NSW Government has not declared a state target for affordable housing, and that levers available to local government remain very limited.

4.3.3 Local housing market information and planning responses

In discussing the data sources available to councils developing strategic plans, the full spectrum of sources outlined in the discussion paper are routinely used (e.g. ABS journey to work data, forecast household formation and composition, population growth, dwelling numbers, tenure trends etc.). However, it was noted that the connection between the data and planning strategies and policies remains weak. In part this reflects the fact that key census data is only updated every five years, while changing plans is also a long and infrequent process. Currently the NSW Department of Planning and Environment's Urban Feasibility Model only considers past trends, which is also a weakness. Information used by local planners is also derived through consultation/working with the development industry, although in NSW this does not occur in a formalised way.

Around the same time as the Census, the City of Sydney does its own 'floor space and employment survey'. Council staff visit every property in the city, which makes the survey a powerful source of detailed data. Information is then loaded into a GIS database, and every floor in the city can be mapped. The information is used to monitor achievement against targets. However, information on vacant dwellings and overcrowding is not picked up in the survey. Information on overcrowding does come to the council through records of complaints from neighbours, although this information is not systematically analysed.

Focusing specifically on the issue of affordable housing, Blacktown City Council does not have any specific targets or strategies. The City of Sydney has social and affordable housing targets. The social housing target (7.5% of new dwellings) aims to maintain the current proportion of social housing dwellings in the city as the total dwelling stock grows. The affordable housing target is also 7.5 per cent, and in this context refers to rent controlled housing managed by a community provider. This target seeks to increase the proportion of existing affordable housing in the city.

The City of Sydney has been able to use a number of levers to achieve these outcomes, including an inclusionary zoning scheme in Green Square and Ultimo/Pyrmont, discounted sale of council-owned land to the affordable housing provider City West Housing to develop affordable units, voluntary planning agreements with developers, and density bonuses to secure contributions for affordable housing. Developing evidence of affordable housing need through data collections by council has been important in using these levers, as has the council's capacity to undertake viability assessments of sites to demonstrate the additional value created for property owners through the planning permission process, and thus justifying modest value capture.

A number of participants expressed the view that while issues differ across each LGA, overall, there is a disconnect between existing and available data on housing needs and the market, and actual local planning policy frameworks. For instance, a key issue identified by participants is the misalignment between housing needs and the actual mix of new housing being delivered. For instance, while there is a clear demographic need for one-bedroom units, the return is often higher (though overall yield lower) on two-bedroom dwellings, with similar construction costs. This implies that the existing data is not being used, or is not able to be used effectively, to influence outcomes in terms of the composition of new housing supply.

There was discussion as to whether councils would review their planning policies if their data monitoring revealed that they weren't getting enough supply relative to state government-issued housing targets, or compared to surrounding councils. It was noted that although both the City of Sydney and Blacktown have been able to demonstrate capacity within their current planning controls to deliver against state-issued dwelling targets, not all councils have this ability. While high density in certain locations may overcome this problem, in outer suburbs, again, this form of development might not yet be viable, or acceptable to local communities. In the City of Sydney, controversial up zonings have been more acceptable to the community where the rationale for increased density is made clear. However, there was some discussion that the tendency to up zone land around stations to accommodate housing targets, while maintaining low density zoning in other areas, has resulted in concentrations of higher value amenity in some areas.

A major conclusion from the discussion is the need for more nuanced data, but also for new tools and levers that can enable local governments to draw on information in a timely way, to influence particular patterns of new supply outcomes, to contribute to affordable housing, and to monitor the impacts of these interventions.

4.3.4 Information and housing market trends

It was noted that many of the sources of data on the housing market derive from industry sources. In some cases, the method used to generate this data is not very clear (e.g. the

models used to generate price estimates by private agencies such as Australian Property Monitors) and/or the sampling approach is not very robust. All participants, across government and industry, expressed the view that greater transparency of data sources is needed. However, even independent sources of data can have self-reinforcing impacts on the housing market itself. For instance, the self-perpetuating relationship between the ongoing diagnosis of housing supply as the major issue in the Irish housing market, which actually contributed to demand by raising expectations of future price rises (in a context of undersupply).

The Irish case also highlights the importance of accurate data on housing occupation and on the location of new supply for understanding the extent to which new residential development is addressing underlying demand.

4.4   Summary and conclusions

In summary, Australia's housing market is segmented and affected by different drivers of housing demand and supply. Overall, there appears to be a growing chasm between householder preferences—which for many submarket groups, including families with dependent children and downsizers, is increasingly for inner city or highly accessible locations—and the capacity to find or afford homes within these high demand locations. Clearly, a planning policy objective—and one that is certainly emphasised in metropolitan and regional planning documents—is to provide a variety of housing opportunities across all housing market areas, in response to demand. Strategies to support these objectives tend to focus on ensuring sufficient development opportunities for a variety of housing types (through zoning and development controls), with an implication that new supply will follow.

In reality, as outlined above, the timing of new housing supply following regulatory change, or even development approval is very uncertain (Gurran & Phibbs 2013a, 2013b). This is because of the monopoly position of the land developer. Further, the extent to which new supply will enhance affordability at lower ends of the market is unclear. This raises the question of how jurisdictions currently monitor the composition of new housing stock relative to the variety of household characteristics and submarkets within the locality. It also raises questions regarding how affordability outcomes are monitored at regional and local scales. This includes both the quantity of new housing units that are affordable for low and moderate-income households, and the extent to which new supply appears to improve overall affordability. However, as outlined, current approaches to regional and local housing market analyses in Australia rarely provide this information.

5 POLICY IMPLICATIONS AND PRIORITIES FOR FURTHER RESEARCH

This final chapter of the report summarises the outcomes of the panel deliberations and addresses each of the terms of reference. It proposes an expanded definition of housing market efficiency and a series of measures for diagnosing housing market pressures and assessing responsiveness (Table 1), as a basis for determining the need for particular forms of policy intervention (Table 2). A series of performance indicators for monitoring the impacts of these interventions is also shown in Table 2. Regional and housing submarket differences have been a major theme throughout the panel deliberations, with participants emphasising the need to consider the ways in which particular types of policy interventions play out in different metropolitan and non-metropolitan contexts. A typology of these market settings, and the ways in which policy interventions might be tailored to respond to these differences, is proposed in Table 3. Finally, the chapter identifies overarching policy implications and priorities for further research.

5.1 Housing markets, economic productivity and risk

The background papers and panel deliberations focused on four aspects of economic productivity in relation to housing markets:

→ *Labour market mobility*, which is constrained when there is a shortage of affordable homes accessible to employment opportunities. The panel observed a growing body of empirical research demonstrating the mismatch between the location of jobs and housing that is affordable for moderate and lower income earners in Australia. This mismatch is growing as the price differential deepens between capital city housing markets (particularly inner ring areas near public transport) and outer metropolitan and regional markets.

→ *Labour market participation and employment rates*, which are also constrained by a shortage of affordable housing opportunities in accessible locations near employment. Previous studies have shown that participation rates among women are further affected by long distances between home and work. High housing and transport costs in metropolitan areas are also likely to push lower income earners to regional areas with fewer employment prospects but lower housing costs, further undermining employment rates and labour market participation.

→ *Costs associated with urban congestion*, which are exacerbated by a mismatch between the location of jobs and affordable housing opportunities, and inadequate public transport. Productivity costs arise from unnecessary time spent in traffic which accrue to individuals and businesses (around $7 billion in 2007), (BITRE 2007) while congestion represents a total economic drain of around $15 billion per year (DIRD 2014), arising from increased vehicle running costs and air pollution.

→ *Costs to the wider economy arising from high housing costs and levels of borrowing and expenditure on housing.* Further, the panel emphasised the implications for Australia's international competitiveness, as high housing costs place pressure on wages and make Australia more expensive in which to 'do business'.

However, the panel noted that the empirical evidence base to quantify these emerging productivity problems in Australia remains limited and depends on a variety of government sources (census data, Commonwealth and state transport and infrastructure departments) collated through periodical publications such as the *State of Australian Cities* series, and through sporadic consultancy or funded research efforts.

In addition to productivity, the panel discussed a series of wider economic risks arising within Australia's housing market, drawing on the background papers, as well as lessons drawn from material presented by the international participants:

→ *Risks to consumption and non-housing investments*, arising from high proportions of household budgets and borrowing capacity being diverted towards the housing sector.

→ *Volatility arising from speculation*, particularly during a period of low interest rates; *and potential oversupply in some market sectors*, arising from new models of housing provision through medium and high density development.

→ *Growing disparity between housing markets which are accessible to capital city employment opportunities, and outer metropolitan and regional areas*, meaning that new housing construction in these less accessible locations will not ease overall affordability pressures.

→ *Growing welfare dependency as lower income groups and retirees face ongoing housing costs in private rental*; particularly given the demographic challenges presented by the ageing population.

While previous Australian studies have drawn attention to many of these issues (particularly Berry 2006; Yates & Berry 2011), the experience presented by the international participants, as well as recent concerns about speculation in capital city markets, implies a need for a stronger policy response in addressing these risks.

From these overarching considerations, the panel investigation focused on specific terms of reference associated with defining and measuring housing system efficiency and responsiveness, the range of policy interventions needed to better support the market in relation to demand and supply pressures, and the priorities for empirical research.

5.2   Defining and measuring housing system efficiency and responsiveness in Australia

The first term of reference directed the panel to develop a policy-relevant definition of housing system efficiency and responsiveness, and to identify measures or indicators that could be applicable to Australian urban and regional development contexts. It was noted that the NAHA specifies the outcome that: 'People have access to housing through an efficient and responsive housing market' (COAG 2009). Although the notion is not defined within the Agreement, the cumulative balance between projected housing supply (estimated net housing production) and demand (estimated new household formation rates), has been used as a proxy measure of state performance in promoting market efficiency (COAG Reform Council 2012).

An alternative definition of an efficient housing market was proposed in Discussion Paper 1 (Section 3.1), for the panel's consideration:

> An efficient housing market generates a sufficient supply of appropriate and affordable homes in response to changing demand and need, through adjustments to the existing housing stock and through timely and cost effective production of new dwellings in accessible locations.

Several members of the panel expressed the view that the proposed definition remained too focused on supply, and was incorrectly tied to the notion of 'efficiency', despite inherent inefficiencies in the housing market. It was agreed that the definition should rather outline the desired elements and outcomes of an efficient housing market as part of a wider system.

Reflecting these considerations, the definition of housing market efficiency and responsiveness proposed in Discussion Paper 1 was adjusted and expanded as follows:

> An efficient housing market responds to population, employment, and income growth, through adjustments to the existing housing stock and through timely and cost effective production of new and affordable dwellings in accessible locations.

> An efficient housing market is supported by: a competitive land market offering a variety of sites for residential development in accessible locations; a dynamic housing industry

able to adjust products and output in response to changing demographic and economic demand; regulatory settings which coordinate provision of new housing and adjustments to the existing stock in response to long-term changes in demand; a prudent financial sector able to finance a variety of housing products; and financial settings which support new housing supply without increasing speculation or risk.

An efficient and responsive housing market should support sustainable urban growth, labour mobility, social inclusion and community wellbeing.

Arising from this expanded definition of an efficient housing market is the question of how policy frameworks and interventions in Australia can better support these outcomes, and how performance should be measured.

Following the discussion, participants also questioned whether an 'efficient' housing market, however defined, is the best policy aspiration for Australia's housing system, and whether other normative policy goals might provide a more appropriate set of objectives and criteria. Recognising existing and potential interactions between the private and social housing sectors, more holistic objectives for Australia's housing system might include:

→ stability (e.g. steady new supply in response to population growth, despite peaks and troughs in the wider economic cycle; reduced friction between demand shifts and new supply; and demand moderation in response to new supply)

→ diversity of housing choices (e.g. in terms of dwelling design, price, and location, and forms of tenure; and transaction costs associated with change)

→ equity, accessibility and sustainability (e.g. location and availability of housing at different price points).

5.2.1 Measuring housing system efficiency, responsiveness and risk

Participants reflected that existing measures of Australia's housing market have focused on trends occurring in the private market (e.g. new housing produced as a proportion of projected household growth) and should be expanded to consider a range of other housing indicators associated with demand (house prices, rents, and mortgage payments), access (tenure patterns across the population, vacancy rates), and potential imbalance or instability (levels of mortgage debt, investor activity, volatility in dwelling approvals/completions). In part, this was the function filled by the former National Housing Supply Council, which provided a source of independent and reliable diagnostic information on housing market trends in a holistic way, for market actors as well as government.

Table 1 below summarises these measures. As shown, the table outlines measures and potential system-wide indicators of demand, supply, and housing market responses, distinguishing between market pressures (particularly demand side pressures and evidence of supply side constraints) and measures of efficiency and responsiveness. The first measure in the table shows indicators which reflect key drivers of demand (interest rates, employment and income trends, household formation, international factors, and the relative returns from housing investment relative to other asset classes). The second focuses on changes in demand which might be expected to trigger a changed housing supply response—the first being price signals, then population changes and new infrastructure investment. The third and fourth rows provide headline indicators against measures of housing supply and utilisation within the existing stock—including sales listings, clearance rates, rental vacancies, occupancy rates, and the balance of housing stock used for short-term versus long-term accommodation (particularly important in central city areas and in regional coastal towns). The flow of housing across the system—including both public and private sectors—is also captured by these measures, which include indicators, such as social housing waiting lists, as evidence of the availability of lower cost accommodation relative to demand.

Indicators of potential risk relate to wider macroeconomic questions including income/house price ratios across the market (as an indicator of competitiveness in attracting international firms); after housing costs income (as an indicator of the extent to which household budgets are affected by housing payments); the proportion of national wealth (and revenue) associated with housing assets and related taxes; the extent of borrowing for home mortgages, across the investor, home ownership, and first home buyer markets; and employment in the housing and related industries.

A series of indicators address the responsiveness of both demand and supply, including changes in prices/rents, following a change in new supply; estimates of 'missing households' (projected households not formed, potentially due to affordability constraints); and, shifting dwelling preferences. Indicators of supply responsiveness include the estimate gap between projected household growth and net new supply; the proportion of homes affordable to low and moderate-income earners; and lag times in the supply process. Measures of new housing production, and resultant changes to the existing housing stock, include numbers of residential subdivision/building applications and completion ratios; dwelling and tenure composition change; sale prices and rents of new dwellings; and the location of new homes relative to employment opportunities.

Table 1: Existing and potential measures of housing market pressures, efficiency and responsiveness to these pressures

Measure	Indicator
Demand (different implications for different submarkets)	Mortgage interest rates, financial products
	Employment trends, income growth
	Household formation
	Immigration; temporary migration (e.g. international students)
	International investment & drivers (safe havens, incentives, currency movements)
	Change in government taxes/transfers affecting housing
	Changes in relative value of housing investment to other investments
Housing supply (established market)	Number of sales listings, changes in response to demand
	Auction clearance rates, number of weeks on market, unsold inventory, real estate searches
	Rental vacancy rates
	Social housing waiting lists
Housing utilisation	Unoccupied/vacant dwellings
	Estimated over-crowding
	Average number of people per private dwelling
	Residential dwellings diverted to short term/tourist rentals
Risk/potential volatility	Income/price ratios
	After housing costs income by tenure (and age cohort)
	% of household wealth/GDP based on home values
	% of loans to investors, owner occupiers, first home buyers, and loan-to-value ratios
	% of employment in construction/real estate
	% of government revenue dependent on stamp duty/property taxes
Responsiveness of demand	Changes in prices/rents (following increases in supply)
	Population & household growth/projections & cohort change (including 'missing' households)
	Shifts in housing preferences (housing location, design, tenure)
Responsiveness of supply	Estimated demand/supply gap
	Flow of homes to market following increase in demand
	Proportion of homes affordable to low/moderate-income groups
	Lag times between demand shifts, dwelling approvals, commencements, and completions
Efficiency and responsiveness of new housing production and housing change to changes in demand	Residential subdivision/building applications/approvals/completions (ratio of approvals to completions)
	Gross/net new completions by dwelling type & sector
	Dwelling composition change; alteration & additions
	Sales prices/rents of new dwellings
	Production cost indices
	Industry organisation, labour availability
	Location of new dwellings in relation to public transport/distance from CBD

Source: The authors

Together, the spectrum of measures provides insight as to the overall efficiency and responsiveness of the housing market, as a diagnostic basis for policy intervention.

5.3 Housing policy interventions and impacts on demand and supply

A consolidated, independent source of diagnostic data on Australian housing market trends should inform interventions by different levels of government at spatially differentiated scales. In addition to monitoring these trends, the impacts and outcomes arising from these interventions should also be examined. Table 2 below proposes a selection of existing and potential policy interventions, building on those canvassed in the panel discussion. It also nominates potential performance indicators to support a stable and diversified housing market, characterised by an array of housing choices.

As shown, the first group of interventions—government grants, subsidies, and taxes—aim to help overcome affordability barriers to home ownership or private rental, but, having regard to the efficient housing market definition outlined above, these interventions should be monitored to ensure that they also encourage supply, rather than inflate prices or rents. The second category—infrastructure investment and support for housing development—should improve accessibility of housing in relation to jobs and stimulate new supply—and/or jobs, in well-located metropolitan and regional areas. However, it is important to ensure that these public investments leverage increased quantities of lower and moderately priced housing in these accessible locations, rather than become capitalised in land and housing values. The use of government land and/or government-owned development corporations, is a powerful lever for overcoming land monopolies and price inflation, and one indicator of efficacy is the quantity of affordable housing supply generated in areas affected by government-sponsored redevelopment processes.

Capital funding or financial incentives for affordable housing provision have self-evident objectives in increasing the supply of low-cost housing stock, with indicators relating to the location and quality of affordable housing provided relative to demand. The final two levers identified relate to the planning system. The first supports the range of measures identified above, by seeking to secure opportunities for affordable and subsidised housing development in well-located areas, capturing or offsetting value uplift associated with infrastructure development and redevelopment processes (public or private). The second approach—planning system reform—targets identified constraints to housing production, which are known to undermine provision of new and diverse housing supply. In designing reform agendas to improve affordability, and in evaluating the outcomes of reform, it is important to assess potential and actual impacts on the quantity and diversity of new dwellings built, and adjustments to the existing housing stock, as well as the location of new housing relative to overarching goals of enhanced metropolitan and regional accessibility.

Table 2: Policy interventions and demand/supply impacts

Intervention	Description/Purpose	Performance indicator
Grants/subsidies/taxes	Grants to support first home ownership	Proportion of first home buyers entering the market
		Owner occupation rates per age cohort
	Stamp duty discounts	Evidence of impact on new supply—proportion of first home buyers purchasing new homes
	Tax incentives for rental property investment/Targeting tax incentives (both negative gearing & capital gains tax discounts) in favour of affordable rental housing	Impact on the generation of new rental supply/new affordable rental supply
		Private market rental increases and vacancy rates
		After housing disposable incomes of pensioners in owner occupation versus those in private/public rental
	Rental assistance to enable lower income groups to afford rent in accessible locations	Rent assistance recipients located in proximity to employment opportunities
Infrastructure investment/support	Support new housing and urban development, spread housing and employment opportunities	Accessibility outcomes associated with infrastructure investment (e.g. proportion of metropolitan/regional area in close proximity to public transport)
	Reduce costs associated with development in preferred locations	Quantity of lower and moderately priced infill housing delivered in existing areas
Use of government land/development organisations to assemble/coordinate/develop land	Overcome land monopolies, prevent land price inflation	Flow of development sites
		Changes in the price of raw land relative to median house prices
		Quantity of new and existing housing sold/available for rent at affordable prices in redevelopment areas
Capital funding or financial incentives for affordable housing provision	Increase the supply of low-cost housing stock, which cannot be profitably provided by the market	Quantity of new affordable housing located in accessible locations across metropolitan/regional area as a proportion of ongoing demand (i.e. household formation and affordability measures)
Planning requirements/indicators for affordable housing as a proportion of new development	Secure development opportunities for affordable housing, throughout the metropolitan region, and ensure affordable housing obligations are factored into residual land valuations	Residual land valuations
		Proportion of new affordable housing for sale/rent in infill/greenfield developments
Planning reform to overcome constraints to housing production	Encourage new and diverse housing supply	Quantity and diversity of new dwellings produced, and adjustments to existing housing stock
		Location of new housing provided—increasing diversity of housing stock across metropolitan and non-metropolitan regions

Source: The authors

Overall, the panel emphasised that these policy interventions will have different implications in particular market settings characterised by specific opportunities and constraints.

5.4 Supporting housing supply in different locations and economic contexts

A typology of regional housing market contexts, opportunities, key indicators of market trends, and potential policy levers and responses, was presented in Discussion Paper 3 (Section 2.5). Following discussion with panel members, the typology was adjusted to highlight more clearly the ways in which different policy levers can have different impacts in these housing market settings.

For instance, government subsidies to support home purchase, assist with rental costs, or even encourage investment in rental housing can be inflationary in inner and accessible middle ring metropolitan areas, where there are inherent supply constraints. This means that other forms of intervention are needed to secure affordable housing opportunities in these strategic locations, while at the same time, it is important to avoid subsidising new supply in contexts of low market demand. Similarly, government investment in transport and other infrastructure can improve the accessibility of outer metropolitan and regional locations, spreading housing and employment opportunities and boosting demand. However, new government investment in urban renewal projects within existing inner and middle ring locations can boost housing production, but will not necessarily deliver housing opportunities that are affordable to moderate and lower income groups, because of the already high market value of these areas. The value uplift associated with new infrastructure, and or changes in planning rules, which release significant new development potential, present important opportunities to deliver more affordable homes in these contexts.

Reference was made in these discussions to some of the levers employed in jurisdictions such as Western Australia, where government land and infrastructure investment is used to procure affordable apartments for rent or purchase, in transit oriented developments, and to support affordable house and land packages in suburban and regional areas. Other levers highlighted in the table include planning reform to codify diverse housing opportunities such as accessory dwellings (which appears to have been a successful lever in outer metropolitan Sydney), and a stricter application of time limited planning approvals, as now undertaken in Ireland to manage the problem of pre-emptive rezonings and speculative planning approvals which increase land values but do not necessarily translate to new housing production in the short or medium term.

Table 3: Typology of housing market contexts, opportunities and policy levers

Housing market context	Issues	Opportunities	Policy levers & impacts
Inner city (Capital cities)	→ Increasing housing demand → Loss of low cost housing stock → Potential oversupply of high density apartments in some areas → Focus for international investors → Market driven new supply unaffordable; may exacerbate displacement through gentrification; → Informal subletting/over-occupancy	→ Supply injection through high/medium density housing → Redevelopment of underutilised sites—public/private; → Sites can support affordable housing through value uplift; → Smaller dwellings for niche segments, e.g. student housing	→ Grants have inflationary impact on prices/rents → Infrastructure investment capitalised in land values & increased prices if not 'captured' through planning requirement or betterment tax → Government land—opportunity for affordable & mixed tenure housing → Planning requirements for affordable housing inclusion → Planning reform to prevent land banking—e.g. time limited planning bonuses/approvals
Middle ring suburban areas—high value	→ Gentrification, price/rent inflation → Neighbourhood resistance to new infill/medium density development → Housing mismatch—lack of lower priced alternative housing opportunities mean many older households remain in family home	→ Adaptation of existing housing stock—accessory dwellings, dual occupancies, etc. → Supply injection through medium density housing/accommodation for the aged → Redevelopment of sites—public/private → Sites can support affordable housing provision through value uplift	As above, and: → Planning reform to codify model accessory dwellings, dual occupancy dwelling adaptations, infill housing development → Planning reform to depoliticise key housing decisions (e.g. regional panel, limiting third party appeal rights)
Middle/Outer ring suburban areas—lower value	→ Gentrification, price/rent inflation → Accessibility constraints → Development risk associated with lower market demand; → Land banking by landholders/developers, who anticipate increased market value in the future	→ Adaptation of existing housing stock—accessory dwellings, dual occupancies, etc. → Redevelopment of underutilised sites—public/private → Sites may support affordable housing provision through value uplift	→ Grants support access to affordable rental/home purchase → Investment in transport or community infrastructure (schools, civic facilities) likely to generate increased demand and enable new housing developments to meet regional housing need → Planning reform to prevent land banking—e.g. time limited planning approvals → Planning reform to codify model accessory dwellings, dual occupancy dwelling adaptations, infill housing

Housing market context	Issues	Opportunities	Policy levers & impacts
Greenfield suburban release areas	→ Poor accessibility to public transport and jobs → High costs of infrastructure provision → High land costs (prices fixed by established housing market, landholder expectations) → Pre-emptive residential rezoning increases values without development imperative) → Market driven new supply increasingly unaffordable, incentive for developers to pursue premium over volume; → Risk of oversupply in low demand areas/scattered supply which is inefficient	→ Long-term supply pipeline of new homes—less volatile market and able to respond quickly to shifting demand; → Provision of a range of housing types, including options affordable to low and moderate-income groups—market demonstration; → Create and sustain demand through quality planning and design of public realm/internal connectivity, and accessibility to surrounding areas—alternative to higher cost established suburbs	→ Grants can stimulate demand for new homes in greenfield areas → Infrastructure investment in transport improves accessibility → Government land development organisations (acquire englobo land, undertake land development, secure public transport corridors and infrastructure etc.) → Planning requirements for affordable housing for purchase → Planning reform—time limited rezoning, codified housing development models for diversity of dwelling types
Regional centres	→ Lack of housing diversity—higher costs for medium density housing → Market driven new supply not affordable relative to local incomes → Volatility—if employment in construction not sustained and new population growth fails to trigger wider economic diversification	→ Intensification and infill development/housing adaptation and conversion	→ Grants can support affordability of rents/home purchase → Infrastructure/public realm investment to catalyse market → Planning reform—time limited rezoning, codified housing development models for diversity of dwelling types
Resort/lifestyle communities	As above and → Housing development competes with lifestyle development/tourism values; → Existing community priced out of housing market → Conflict between permanent and temporary accommodation sectors—shortage of affordable permanent rental → Seasonal housing shortages → Second homes (often empty)	→ Regional economic growth stimulated by tourism and new population	→ Grants can support affordability of rents/home purchase for local residents → Infrastructure investment to support rapid roll out of housing development → Planning requirement for affordable employee housing as a condition of project approval → Planning reform—time limited rezoning, codified housing development models for diversity of dwelling types

Housing market context	Issues	Opportunities	Policy levers & impacts
Mining/remote communities	→ Sudden increases in demand → High costs of new housing provision, additional delays, due to distance and difficulties with materials and labour → Shortage of affordable accommodation to rent/purchase → Shortage of diverse/smaller accommodation units. Locals priced out of market	→ Market for innovative housing products—e.g. prefabrication, temporary housing → Opportunity to consider long-term legacy of workers' accommodation—e.g. aged housing	→ Grants can support affordability of rents/home purchase for local residents → Planning reform—support rapid rezoning/subdivision, flexible housing forms

Source: The authors

5.5 Implications and priorities for policy and research

Finally, the panel was required to reflect on wider policy implications arising from the series of discussions. Given that the Investigative Panel approach did not involve new empirical research, participants were also tasked to identify priorities and methods for empirical research on the impacts of Commonwealth/state/local housing supply levers.

5.5.1 Adjusting policy settings and interventions

It was agreed that policy attention and interventions should focus on factors reducing the responsiveness of new supply to changing demand, acknowledging that these may play out differently in different jurisdictions and market settings. Further, it is important to work on ensuring that wider financial interventions with direct or indirect effects on demand support, rather than distort, housing choices across the market.

This implies continuing to examine and address the potential effects of:

→ Particular taxation settings (e.g. stamp duty on housing transactions, versus alternatives like land taxes; or tax incentives for property investment) on the housing market and on household mobility.

→ Planning system requirements, building regulations, and infrastructure funding arrangements on the availability and cost of land and housing development opportunities and the location and design of new housing; and the changing composition of the housing stock.

→ Industry organisation and capacity to deliver new housing products and typologies, particularly within existing urban settings and within more complex regional housing markets.

→ The different direct and indirect housing roles of Australian governments, and the implications for effective forms of market intervention and assistance.

Key policy challenges include the development of strategies that can support housing supply during periods of price stagnation and overcoming problems associated with land supply monopolies and speculative planning applications, which result in volatile flows of new housing supply.

Participants emphasised that dedicated funding will always be required to assist lower income groups access appropriate housing at the bottom of the market—with funding for capital provision, suitably leveraged, being the only demonstrated model for increasing new housing supply.

5.5.2 Empirical research gaps and priorities for policy development

Participants identified a number of priorities for policy development, to be informed by empirical research of the Australian context.

Housing and the economy

The Investigative Panel process—including literature and policy reviews for the discussion papers, and the expert deliberations—highlighted a series of macroeconomic and microeconomic risks arising from problems in the housing market. Despite international literature and emerging concern about the relationships between economic productivity, labor mobility and housing affordability, empirical data remains limited. Further, the implications of Australia's high house prices for global economic competitiveness, remain unclear.

These risks predominantly arise from housing affordability pressures and a shortage of affordable homes in accessible locations. However, the evidence presented to the panel also highlighted risks arising from overly responsive conditions, in which the economy becomes increasingly dependent on the housing market.

As demonstrated in the aftermath of the Irish housing market collapse, the sudden contraction in housing construction, precipitated sharp unemployment and loss of wages across the construction, real estate, and development sectors, as well as loss of tax revenue from VAT and stamp duty on housing transactions. There was also a sharp drop in consumer confidence of homeowners as a result of their decreased levels of wealth.

Drivers and outcomes of new housing investment, including foreign investment, in Australia's housing market

Despite recent efforts to quantify the scale of foreign investment in Australia's housing market, the drivers and outcomes of new housing investment and production—such as international investors, or second home tourism—remain unclear. Particular priorities for further research include the extent to which current policy settings for housing investment (by domestic and international investors) support a net increase in the supply of homes available for purchase or rent, and the potential to encourage investment in more affordable and secure (long-term) rental housing supply.

The impact of planning system reforms on housing supply blockages

Despite more than a decade of planning system reforms in the majority of the Australian states, development industry sectors continue to emphasise the role of planning system constraints in undermining supply responsiveness, implying a need to review and quantify the impacts of key reforms on blockages in new housing production. To better target future reform efforts, it is important to determine the extent to which recent planning system changes across the Australian jurisdictions (e.g. codification, assessment panels, new infrastructure charging regimes) have performed. In particular, if the recent upswing in housing approvals observed in 2014 reflects enhanced planning system capacity to respond to increasing volumes of residential development applications, it is important to acknowledge this capacity in a timely way.

Timely information on housing market trends and outcomes at the local and regional scales of planning intervention

Further, some participants observed risks associated with a positive feedback loop around industry and policy claims of housing shortage, and real estate price effects. Evidence presented to the panel in relation to the Irish case, highlighted how increased housing supply failed to dampen speculative pressures, in part, due to inadequate and delayed data about the scale of new housing production. This issue reflects a wider evidence gap surrounding the potential levers available to policy-makers and planners at state and local government levels to support more responsive patterns of land supply and housing development. As highlighted during the panel deliberations, the differing timeframes between strategic planning (when land is allocated for housing development) and development assessment (when proposals for development are determined), are poorly aligned with housing market cycles. This mismatch is exacerbated by the critical information gaps associated with housing market trends and outcomes at the local and regional scales of planning intervention.

Capacity within the existing housing stock, and strategies for more efficient utilisation

Participants observed a lack of knowledge about latent capacity within the existing housing stock, and of the potential for design innovations, tenure, and financial arrangements to better utilise this potential capacity. Technological innovations and forms of collaborative consumption, such as those associated with the so-called 'sharing economy', may also present new opportunities to utilise latent transport and housing capacity (Shaheen & Cohen 2012; Hirschler & Zech 2014). While it is clear that a level of vacancy is important for the smooth operation of the housing market, the ideal level of vacancy, and whether it is important to plan explicitly for excess stock, remains unknown.

Housing market cycles and affordability for low-income groups

A lasting lesson from the financial crisis is that falling prices did not improve access to home ownership for lower income groups, nor did it improve rental affordability:

> One of the key messages I drew from the presentations and the supporting paper was that housing crashes do not improve affordability. Housing prices are lower, but capacity to pay is also lower. That's something I hope that a lot of people will take away from this work … It's something that is not well understood.

Similarly, participants emphasised that while a situation of excess supply creates downward pressure on prices (at least over time), demand is far more responsive to wider economic trends than to increases in supply.

Housing assistance, tenure, and market stability

Advice from international panellists suggested that certain forms of housing assistance and housing tenures provided more/less resilience during the GFC, with social housing programs and stock operating as a more effective buffer for lower income groups and the construction industry than subsidies to support private rental and even home ownership. Panellists also advised that the tenure porosity of the dwelling stock helped cushion the market in the UK as struggling home owners were able to sell to investors.

Changing housing demand

Beyond crisis conditions, an ongoing research question relates to the differing housing payments and after housing incomes of those in different housing tenures:

> We need to focus more on where real affordability issues are, which is (and certainly this is the US experience) low-income households, in private rental, people who, because of the reasons of the variability of their income, would actually be worse off if they were in owner occupation. That was the lesson of trying to put people into subprime mortgages—they were worse off than if they'd stayed in private rental. But the rent is also expensive, and in the UK it's more expensive to rent than own. That's the affordability issue we should be giving more focus to than we currently are doing.'

Accordingly, participants emphasised that a number of profound changes to housing demand had occurred over the past five years, but that these have yet to be fully identified or analysed. For example, in England there has been a marked contraction in the number of younger people entering home ownership, offset by an additional one million households in the rental market. Recent Treasury data for the former National Housing Supply Council (2014) also called attention to the potential impacts of affordability pressures on rates of household formation in Australia. Understanding the ways in which housing demand adapts to supply constraints, and the wider social and economic consequences of increasingly constrained housing choices, is an important research priority.

Housing and social equality/inequality

Finally, participants highlighted the looming demographic challenges presented by the ageing population for the social role of housing in Australia over the next 30 years, with respect to the fit between housing needs and dwelling configuration (facilities and locations in relation to services), disparities of housing wealth and welfare dependency, and expectations regarding lifestyles during retirement. The underlying conflicts between the role of housing as a form of shelter versus its economic significance as a source of wealth, mean that ongoing housing system changes will have new implications for social equality and inequality.

Participants emphasised that a level of assistance would always be needed to ensure that lower income groups are able to access adequate housing for their needs. However, the optimum level and composition of assistance, and the wider market and societal impacts of different forms of intervention, remain critical policy and research questions. Internationally,

these questions have particular resonance as new forms of housing assistance and tenure emerge.

5.6 Concluding reflections

With an 'efficient and responsive housing market' a key policy objective in Australia, this project set out to clarify concepts surrounding housing market efficiency and measures of responsiveness. Building on recent international experience following the GFC, the project used an Investigative Panel methodology to recalibrate knowledge about relationships between housing and the economy (at macro and micro scales), and to identify implications for policy settings influencing housing supply and demand. A particular theme was the relationships between housing markets and regional economic productivity, and how wider market trends and policy interventions influence local and regional housing markets and submarkets in different ways.

The Investigative Panel involved presentations and deliberation by housing economists, planning researchers, senior policy-makers and practitioners, as well as industry experts from finance and housing development sectors. All participants drew on both published and unpublished sources of research and data, and new perspectives and insights evolved through the deliberative process itself. However, by its very nature, the Investigative Panel process does not involve empirical investigation, and indeed, a key outcome of the panel deliberations was a series of empirical research priorities, for better understanding the operation of the housing market in Australia, and the potential for more effective forms of intervention, as outlined above. The panel's deliberations also exposed key gaps in Australia's housing policy framework, which remains somewhat bifurcated between private market and social housing sectors, and undermined by the multiplicity of government responsibilities that intersect with housing outcomes in a fragmented and uncoordinated way. In challenging the concept of an 'efficient and responsive housing market', the Investigative Panel called for a more holistic understanding of the housing market within the wider economy, and of Australia's housing system, as the critical building block for the nation's future prosperity and wellbeing.

REFERENCES

Aalbers, M B 2008, 'The financialization of home and the mortgage market crisis', *Competition & change*, vol.12, no.2, pp.148–166.

Australia's Future Tax System (AFTS) 2009, *Australia's future tax system: Report to the Treasurer*, Treasury, Canberra (Henry Review).

Australian Workforce and Productivity Agency (AWPA) 2014, Labour force participation—a data profile, <http://www.awpa.gov.au/publications/Documents/ Labour%20force%20particpation-%20a%20data%20profile.pdf>.

Ball, M 2010, 'Planning delay and the responsiveness of English housing supply', *Urban Studies*, vol.48, no.2, pp.349–362.

Barker, K 2008, 'Planning policy, planning practice, and housing supply', *Oxford Review of Economic Policy*, vol.24, no.1, pp.34–49.

Beer, A., Baker, E., Wood, G. & Raftery, P. 2011. Housing Policy, Housing Assistance and the Wellbeing Dividend: Developing an Evidence Base for Post-GFC Economies. *Housing Studies*, vol.26, pp.1171–1192.

Berry, M 2006, 'Housing affordability and the economy: A review of macroeconomic impacts and policy issues', *Research Paper* no.4, AHURI, Melbourne.

Berry, M & Dalton, T 2004, 'Housing prices and policy dilemmas: A peculiarly Australian problem?' *Urban Policy and Research*, vol.22, no.1, pp.69–91.

Borland, J 2011, *Securing Victoria's future prosperity: A reform agenda*, Labour Force Participation information paper, prepared for Victorian Competition and Efficiency Commission, <www.vcec.vic.gov.au>.

Bramley, G 2007, 'The sudden rediscovery of housing supply as a key policy challenge', *Housing Studies*, vol.22, no.2, pp.221–241.

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2007, *Estimating urban traffic and congestion cost trends for Australian cities*, Working paper 71, BITRE, Canberra.

Burns, L & Grebler, L 1977, *The housing of nations*, Macmillan, London.

CBI and KPMG 2014, London Business Survey, CBI, London, url <http://www.cbi.org.uk /media/2874549/cbi_kpmg_london_business_survey_sept_2014.pdf>.

Cecchetti, S C & Kharroubi, E. 2015, *Why does financial sector growth crowd out real economic growth?*, BIS Working Papers no.490, BIS Monetary and Economic Department.

Cheshire, P & Leven, C L 1986, *On the costs and economic consequences of the British land use planning system*, Department of Economics, University of Reading, Reading.

COAG 2009, *National Affordable Housing Agreement*, Council of Australian Governments, Canberra.

COAG Reform Council 2011, *Review of capital city strategic planning systems, Report to the Council of Australian Government*, COAG Reform Council, Sydney.

—— 2012a, *Affordable housing 2010–11: Comparing performance across Australia*, COAG Reform Council, Sydney.

—— 2012b, *Housing supply and affordability reform*, COAG Housing Supply and Affordability Reform Working Party, Canberra.

Coq-Huelva, D 2013, 'Urbanisation and financialisation in the context of a rescaling state: The case of Spain', *Antipode*, vol.45, no.5, pp.1213–1231.

Crump, J 2002, 'Deconcentration by demolition: Public housing, poverty, and urban policy', *Environment and Planning D—Society & Space*, vol.20, no.5, pp.581–596.

Dalton, T 2009, 'Housing policy retrenchment: Australia and Canada compared', *Urban Studies*, vol.46, no.1, pp.63–91.

Department of Infrastructure and Regional Development (DIRD) 2014, *Trends: Infrastructure and transport to 2030*, Commonwealth of Australia, Canberra.

Duca, J. V., Muellbauer, J. & Murphy, A. 2010. Housing markets and the financial crisis of 2007–2009: Lessons for the future. *Journal of Financial Stability*, 6, pp.203–217.

Eslake, S. 2013. 50 Years of Housing Policy Failure, Submission to the Senate Economics References Committee. Canberra.

Foreign Investment Review Board 2014, Annual Report 2012–13, Commonwealth of Australia, Canberra.

Frumkin, H., Frank, L. & Jackson, R. J. 2004. *Urban sprawl and public health: Designing, planning, and building for healthy communities*, Island Press.

Gurran, N & Phibbs, P 2013a, 'Evidence-free zone? Examining claims about planning performance and reform in New South Wales', *Australian Planner*, pp.1–11.

—— 2013b, 'Housing supply and urban planning reform: The recent Australian experience, 2003–2012', *International Journal of Housing Policy*, pp.1–27.

Gurran, N., Austin, P. & Whitehead, C. 2014. That sounds familiar! A decade of planning reform in Australia, England and New Zealand. *Australian Planner*, vol.51, pp.186–198.

Harvey, D 1999, 'Time-space compression and the postmodern condition', *Modernity: Critical Concepts*, vol.4, pp.98–118.

Hirschler, P. & Zech, S. Share it–Don't Own it: Space Sharing as a Smart Solution for Cities and Regions? Real Corp 2014 Tagungsband, 21–23 May 2014, 2014 Vienna, Austria.

Housing Industry Association 2014, *Submission by the Housing Industry Association to the Competition Policy Review Panel on the Competition Policy Review*, HIA, Canberra.

Kelly, J.-F., Weidmann, B. & Walsh, M. 2011. *The housing we'd choose*, Grattan Institute Melbourne.

Kennett, P., Forrest, R. & Marsh, A. 2012. The Global Economic Crisis and the Reshaping of Housing Opportunities. *Housing, Theory and Society*, 30, pp.10–28.

Koutsogeorgopoulou, Vassiliki 2011, 'Enhancing labour utilisation in a socially inclusive society in Australia', OECD Economics Department Working Papers (852).

Landis, J D & McClure, K 2010, 'Rethinking Federal housing policy', *Journal of the American Planning Association*, vol.76, no.3, pp.319–348.

Lawless, T 2015, *A word of caution on housing supply*, Core Logic RP Data, Sydney.

Levitin, A J & Wachter, S M 2013, 'Why housing?', *Housing Policy Debate*, vol.23, no.1, pp.5–27.

Mares, P., Harrison, C., O'Toole, M., Oberklaid, M. & Hunter, J. 2013. *Productive cities: opportunity in a changing economy*, Melbourne, Grattan Institute.

Mayer, C J & Somerville, C T 2000, 'Land use regulation and new construction', *Regional Science and Urban Economics*, vol.30, no.6, pp.639–662.

Meen, G 1998, 'Modelling sustainable home-ownership: Demographics or economics?', *Urban Studies*, vol.35, no.11, pp.1919–1934.

Muellbauer, J & Murphy, A 2008, 'Housing markets and the economy: The assessment', *Oxford Review of Economic Policy*, vol.24, no.1, pp.1–33.

National Housing Supply Council (NHSC) 2014, *2013 State of Housing Supply Report; Changes in the way we live*, Treasury, Canberra.

Norris, M. and D. Coates (2014). How housing killed the Celtic tiger: anatomy and consequences of Ireland's housing boom and bust. Journal of Housing and the Built Environment vol.29 no.2, pp.299–315.

NSW Department of Planning and Environment 2014, *High housing starts supporting a strong NSW economy*, Media Release, The Hon. Pru Goward MP, Minister for Planning, Minister for Women. NSW Department of Planning and Environment, Sydney.

NSW Trade and Investment 2013, *City of choice: Sydney as a global talent hub*, research supporting issues paper no.3, City for Sydney, NSW Government, Sydney.

OECD 2011, 'Housing and the economy: Policies for renovation', *Economic Policy Reforms 2011*, OECD, Paris, pp.1–24.

Parliament of Australia 2008, *A good house is hard to find: Housing affordability in Australia*, Commonwealth of Australia, Canberra.

Productivity Commission 2014, *Geographic labour mobility*, Productivity Commission, Canberra.

Randolph, B & Holloway, D 2005, 'Social disadvantage, tenure and location: An analysis of Sydney and Melbourne', *Urban Policy and Research*, vol.23, no.2, pp.173–201.

Rolnik, R 2013, 'Late neoliberalism: The financialization of homeownership and housing rights', *International Journal of Urban and Regional Research*, vol.37, no.3, pp.1058–1066.

Rowley, S & Phibbs, P 2012, *Delivering diverse and affordable housing on infill development sites*, Australian Housing and Urban Research Institute, Melbourne.

Ruming, K. J., Gurran, N., Maginn, P. J. & Goodman, R. 2014. A national planning agenda? Unpacking the influence of federal urban policy on state planning reform. *Australian Planner*, vol.51, pp.108–121.

Shaheen, S A & Cohen, A P 2012, 'Carsharing and personal vehicle services: Worldwide market developments and emerging trends', *International Journal of Sustainable Transportation*, vol.7, no.1, pp.5–34.

Steering Committee for the Review of Government Service Provision (SCRGSP) 2012, *National agreement performance information 2011–12, National Affordable Housing Agreement*, Productivity Commission, Melbourne.

Steering Committee for the Review of Government Service Provision (SCRGSP) 2014. *Report on government services 2014*, vol. G, Housing and homelessness, Productivity Commission, Canberra.

Wen, L. M., Orr, N., Millett, C. & Rissel, C. 2006. Driving to work and overweight and obesity: findings from the 2003 New South Wales Health Survey, Australia. *International Journal of Obesity*, vol.30, pp.782–786.

Whitehad, C 2003, 'The economics of social housing', in A O'Sullivan & K Gibb (eds), *Housing economics and public policy*, Blackwell, Oxford.

Wood, G., Ong, R., Cigdem, M. & Taylor, E. 2012. *The spatial and distributional impacts of the Henry Review recommendations on stamp duty and land tax*. Australian Housing and Urban Research Institute, pp.1–62.

Yates, J 2010. *Housing and tax: the triumph of politics over economics*, conference on Australia's Future Tax System: A Post-Henry Review, Sydney.

—— 2011, *Housing in Australia in the 2000s: On the agenda too late?,* Reserve Bank of Australia, Sydney.

Yates, J & Berry, M 2011, 'Housing and mortgage markets in turbulent times: Is Australia different?', *Housing Studies*, vol.26, nos.7–8, pp.1133–1156.

APPENDICES

Appendix 1: Investigative Panel members

Table A1: Academic panel members

Member	Expertise	Affiliation
Professor Nicole Gurran	Urban planning policy and practice (particularly NSW)	University of Sydney
Professor Peter Phibbs	Development economics	University of Sydney
Associate Professor Paul Maginn	Urban planning and practice in Western Australia	University of Western Australia
Associate Professor Robin Goodman	Urban planning and practice in Victoria	RMIT
Dr Kadir Atalay	Economics	University of Sydney
Associate Professor Judy Yates	Housing economics	University of Sydney
Professor Mike Berry	Housing economics	RMIT
Professor Christine Whitehead	Housing markets, urban planning policy and practice in the UK	London School of Economics
Dr Michelle Norris	Housing markets, urban planning policy and practice in Ireland	University College Dublin
Professor Kirk McClure	Housing markets, urban planning policy and practice in the US	University of Kansas
Catherine Gilbert	Urban planning policy and practice	University of Sydney
Associate Professor Steven Rowley	Property development and development industry practice	Curtin University
Stacey Miers	Urban planning policy and practice (particularly local government)	University of Sydney
Dr Somwrita Sarkar	Urban complex systems and big data	University of Sydney

Table A 2: Government and industry panel members

Member	Position or work area	Organisation
Finance		
Dr Luci Ellis	Head, Financial Stability	Reserve Bank of Australia
Commonwealth Government		
Chris Bowen	Housing Policy, Housing and Analysis Branch	Department of Social Services
Erin Rule	Director, Payment Policy and Design, Labour Market Payments Policy Branch	Department of Social Services
Michael Wilson	Policy Officer	Department of Social Services
NSW Government		
David Birds	Housing and Infrastructure Policy	Department of Planning and Environment
Peter Gould	Transport and Planning Division	NSW Treasury
Jeff Lin	Infrastructure contributions	Department of Planning and Environment
Partha Mukherjee	Director, Research and Analysis	Department of Planning and Environment
Helen O'Loughlin	Director, Private Market Policy	Department of Family and Community Services
Local Government		
Andrew Thomas	Executive Manager, Strategic Planning and Urban Design	City of Sydney
Chris Shannon	Manager, Strategic and Precinct Planning	Blacktown City Council
Development Industry		
Stephen Albin	Chief Executive Officer	UDIA NSW
Harley Dale	Chief Economist	Housing Industry Association
Nick Proud	Executive Director, Residential Development Council	Property Council of Australia

Appendix 2: Investigative Panel agenda

AHUR
Australian Housing
and Urban Research Institute

Housing markets, economic productivity, and risk: International evidence and policy implications for Australia: INVESTIGATIVE PANEL

Location: The University of Sydney

Date: October 27–28, 2014

27 October, 2014

Main Common Room, the Women's College (University of Sydney)

9:30–11:00	Project scope, defining housing market efficiency (Panel closed session)
11:30–12:30 pm	International lessons, implications for Australia (Panel closed session)
1:30–2:15 pm	National sources, analysis and utilisation of housing market data; relationships between housing markets and the economy/ productivity (Commonwealth perspectives).
2:15–3:00 pm	Measuring regional housing market trends (data sources, analysis, policy/planning applications); relationships between housing markets and regional economic productivity (state level perspectives).
3:15–4:00 pm	Data sources and approaches to local housing market analysis, and implications for strategic planning, development assessment, and housing supply (Local government perspectives).

Boardroom (Level 4), Law School Building (University of Sydney)

4:30–5:30 pm	Housing market information used/generated by the housing development/construction industry; relationships between regulatory settings and housing product innovation; Industry perceptions of housing submarket opportunities and risks (Industry representatives).

Lecture Theatre, New Law School Building (open to the public) (University of Sydney)

6:00–7:45 pm	International Roundtable: Potential lessons from the Global Financial Crisis, for housing markets and the policy frameworks governing housing supply.
8:00pm	Dinner, Darlington Centre (University of Sydney)

28 October, 2014

Main Common Room, the Women's College (University of Sydney)

9:30–10:30 am	Responses, perspectives and observations on implications, policy similarities, and research issues from interstate participants (Professor Robin Goodman & A/Prof Paul Maginn—state and local planning and planning reform; A/Prof Steven Rowley—state/industry planning & submarket monitoring/intervention) (Panel closed session)
11:00am–12:00pm	Synthesis of evidence, deliberation and conclusions (Panel closed session)
12:00pm	Close

Appendix 3: Presentations

Challenges and opportunities for Australia's housing market: an industry perspective

Where do we need to go?

	Population Growth Scenario		
	Series A	Series B	Series C
Population in 2012	22,721,995	22,721,995	22,721,995
Population in 2050	41,939,543	37,593,636	34,349,728
Implied annual population growth rate	1.6%	1.3%	1.1%
Additional dwellings required per annum	195,293	151,129	118,164
Required annual build rate			
Low real income growth	212,924	168,760	135,795
Medium real income growth	230,555	186,391	153,425
High real income growth	248,186	204,022	171,056

Source: HIA Economics

A focus on policy reform

- In 2012 HIA commissioned independent research to investigate the 'multiplier impact' housing activity has on the broader economy.

- A 1.0 per cent total factor productivity increase for residential housing is estimated to increase national economic activity (GDP) by up to $1.1 billion a year. The flow-on impact is $5.10 of additional GDP per increased dollar of activity in residential housing.

- A reduction in inefficient taxes on housing to lower the residential cost of building by approximately 1.0 per cent, would increase GDP by up to $1.3 billion a year with a flow-on impact of $3.38 of additional GDP per increased dollar of activity in residential housing.

- There are other examples, but housing policy reform does have broader economic benefits.

THANK YOU

Harley Dale, HIA Chief Economist
October 2014
economics.hia.com.au
aciresearch.com.au

HOUSING INDUSTRY ASSOCIATION

The American Housing Bubble: Lessons for Planners

Presentation to:
Australian Housing and Urban Research Institute
Housing Markets, economic productivity, and risk
27-28 October 2014
University of Sydney

Kirk McClure

University of Kansas, USA

mcclure@ku.edu

Defining a Housing Bubble

Two definitions

Mismatch between growth in supply and household formation

Mismatch between growth in price and growth in income

Theory of self-correcting market

Message for planners

Housing Bubble as Mismatch Between Growth in Units and Households

Period	New Households	New Units (millions)
Stable 1990-2000	13.5	13.6
Bubble 2000-2007	6.9	12.0
Recovery 2008-2013	**3.9**	**4.9**

The American Housing Bubble
Kirk McClure, AHURI Presentation October, 2014

Housing Bubble as Ratio Units Added per 100 New Households and Vacancy Rate

Period	Units Added per 100 Households	Vacancy at End of Period Owner	Renter	Total
Stable 1990-2000	101	2.0	8.0	6.1
Bubble 2000-2007	174	3.4	9.4	9.0
Recovery 2008-2013	**126**	**2.7**	**7.8**	**8.7**

Housing Bubble as Mismatch Between Growth in Units and Households

Period (millions)	New Households	New Units	Starts	Permits
Recovery 2008-2013	3.9	4.9	4.5	4.4

Housing Bubble as Mismatch Between Aggregate Value and Income

Period	Ratio Aggregate Value to Income	Aggregate Rent as Percent to Income
Stable *1990-2000*	2.35 – 2.28	21.7% – 20.2%
Bubble *2000-2007*	**3.36**	**24.0%**
Recovery *2008-2013*		

Housing Bubble as Mismatch Between Aggregate Value and Income

Period	Ratio Aggregate Value to Income	Aggregate Rent as Percent to Income
Stable *1990-2000*	2.35 – 2.28	21.7% – 20.2%
Bubble *2000-2007*	3.36	24.0%
Recovery *2008-2013*	**3.24 – 2.78**	**24.2% - 24.8%**

Housing Bubble: Change in Value to Income Individual Metropolitan Areas

Metropolitan Area	2007 Peak as Percent 2000s	2011 Recovery as Percent of Bubble
Riverside/San Bernardino	108%	30%
Fort Lauderdale	101%	25%
Miami	100%	20%
West Palm Beach	94%	25%
Sacramento	91%	31%
Las Vegas	85%	35%
Average 50 Metros	48%	13%

The American Housing Bubble: Lessons for Planners

Conclusions

- Market does not self-correct
- Bubbles widespread and large in scale
- Price is no longer a reliable signal of market health
- Compelling argument for growth management

Learning from the GFC: Housing Markets and Housing Supply in England

Christine M E Whitehead
London School of Economics

University of Sydney
Monday October 27th

LSE

The Housing Problem

- Housing now regularly comes top of the list of political concerns, especially in London;

- Problems include affordability; access to owner-occupation and generation rent; lack of social housing; and most importantly low levels of new supply;

- The economics of the housing market mean demand is much more responsive than investment – with new build adding less than 1% to total supply, even in good years. So the effect of improving economic conditions is to push up prices well before any new supply appears.

LSE

What are the big issues?

- Shorter term problem arising from the financial crisis and the subsequent near closure of the mortgage and development funding markets;
- Longer term problem about the slow and inadequate response of new supply to changing demand as well as the asymmetry in that responsiveness over the economic cycle;
- The volatility of house prices and the concentration of demand in London;
- Structural changes in tenure and affordability which are modifying expectations and resulting in inter- generational inequities;
- Reductions in government support for both supply and demand.

LSE

So What Makes Up the Current Crisis?

- Tenure change - 1.5 million households have not been able to enter owner-occupation; the private rented sector has nearly doubled over the last decade;
- Some million single people who were expected to form separate households by 2011 have not done so – they either live within another household (mainly with Mum and Dad) or they share privately rented accommodation;
- House building is running at less than half the rate required to keep pace with projected household formation;
- It appears impossible to increase housing investment rapidly, in part because of lack of capacity in the industry and uncertainties re planning and demand.

LSE

Some numbers: New Supply

- Until 1970s building about half of all units in local authority sector and managed 350,000 plus in England (although high demolitions during the same period);
- However the private sector has not normally managed even 150,000 pa and did not build that much more as social sector investment declined;
- Aiming for around 230,000 net additions in the early 2000s but even at height in 2007 only around 180,000 plus maybe 30,000includig change of use as well as completions;
- Major crisis thereafter and now completions little more than 100k - although beginning to pick up;
- Household projections (without adjusting back to trend) suggest need around 250,000 units – with one third in London.

LSE

Housing Completions by Tenure

Legend:
- Local Authorities
- Housing Associations
- Private Enterprise
- 200,000 Target

Source: DCLG

LSE
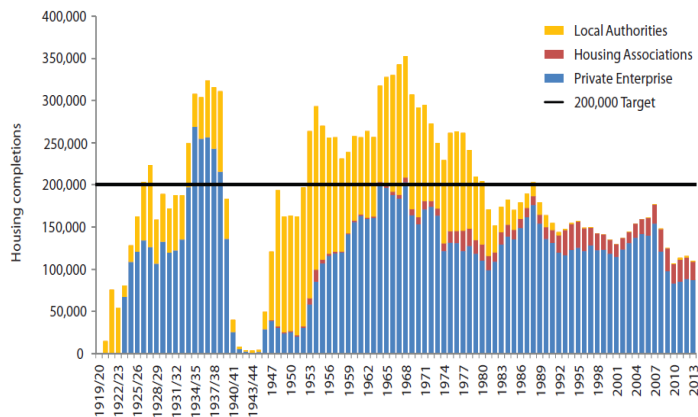
Some Numbers: Tenure

- Over 80% of adults still want to be owner-occupiers within the next ten years – but large numbers do not see how they can realise that aspiration;

- The proportion of households who are owner-occupiers is falling and is now below the European average at around 65%;

- This shift started not from the current crisis but from that in 1989/90 when there were large numbers of possessions; nearly 2 million households in negative equity; and younger households were more likely to continue to rent;

- The size of the private rented sector has doubled since 2001, while in London renting is now the majority tenure – and rising;

- This has been made possible by the capacity to move vacant properties between tenures (in contrast to planning constraints in many other countries).

LSE

Figure 1: Trends in tenure, 1980 to 2011-12
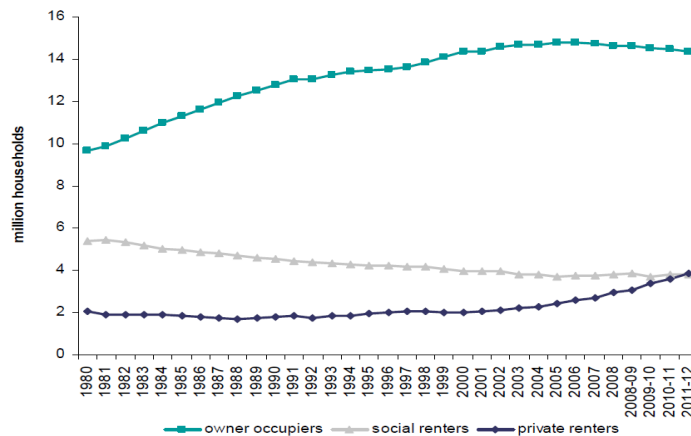
Base: all households
Note: underlying data are in Annex Table 1
Sources:
   1980 to 2008 ONS Labour Force Survey;
   2008-09 onwards English Housing Survey, full household sample

LSE

Implications for Household – and Government Expenditure

- The UK has almost always confounded economists by having lower direct costs to households in the owner-occupied sector than in the private rented sector;

- Comparative costs have moved heavily against renting since the GFC, in part because of interest rate falls but also because demand has shifted to renting as a result of credit constraints; lack of confidence; and affordability;

- Purchasers of rented units are mainly Buy to Let mortgagors – Mums and Dads; those looking to find a reasonably safe place to invest; to some extent international buyers (mainly, but not entirely in central London); and some institutional investors;

- Massive costs to government in terms of income related assistance in form of Housing Benefit (now running at about 24bn pounds - new claimants mainly employed households);

- Calls for rent stabilisation and support for new build in the private rented sector.

Household expenditure by tenure
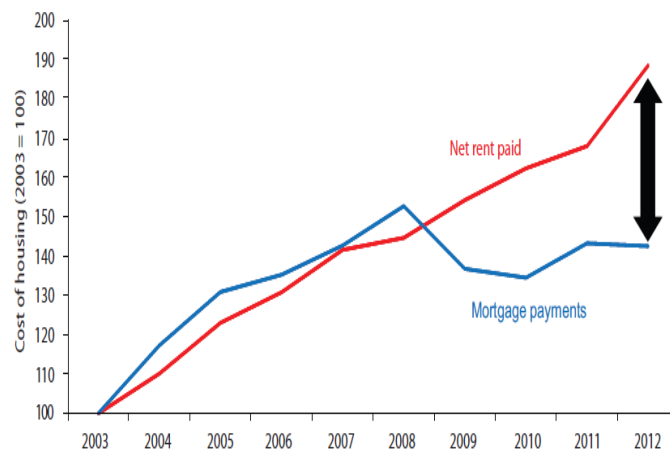
Source: ONS Family Spending Survey

Some numbers: House Prices and Transactions

- After the very rapid house price rises up to 2007, prices have risen by 13% in nominal terms in the UK as a whole but fallen in real terms (RPI has increased by 20%);
- Transactions fell from 2007 to 2010 and are still a third lower than in 2007;
- Big variations across regions: London prices now 30% higher than 2007 in nominal terms; 2% down in nominal terms in the North East; and nearly 40% down in Northern Ireland;
- Mortgage approvals also fell heavily and are now only 60% of 2007 levels by number and 50% in value terms;
- The majority of sales were cash sales for a few months in 2008 and still account for nearly 40% of all sales.

Some numbers: Trends in Affordability

- Affordability in the owner-occupied market worsened very significantly from the mid 1990s and especially from the turn of the century to the financial crisis when price to earnings ratios reached over 7:1;
- Affordability improved slightly over the next two years but then worsened again as incomes fell and stabilised at around 6.5:1;
- Very significant differences between regions - prices have been rising much faster than incomes in London and South East; rising against stagnant incomes in much of the rest of the country ; and falling by 40% since 2007 against falling incomes in Northern Ireland;
- In addition larger deposits are required to enter the market, except where government assistance - so many who can afford to buy are excluded.

A Measure of Affordability
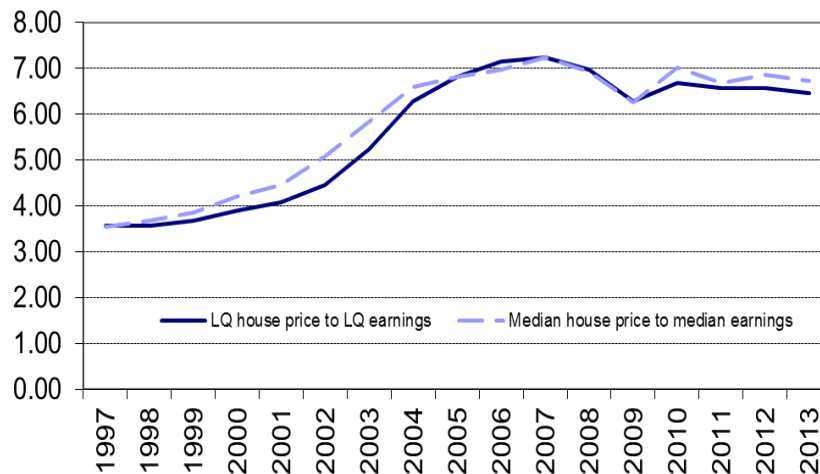
So What Has Been Done:
New Build Initiatives

- Help to Buy 1: allows households to buy new dwellings with an equity mortgage. This reduces direct costs and risks for households and directly impacts on output levels as it speeds up sales;

- Build to Rent Initiative – supports new development in the private rented sector – and is repaid at sale - so fills funding gap and reduces risk;

- New Homes Bonus - incentivises local authorities to allow planning permissions;

- All relevant and potentially useful but small impact except perhaps to developer confidence.

So What Has Been Done?
Guarantee Initiatives

- Registered Provider guarantee - reduces interest rates and offsets risks for owners of social housing;
- Private rented sector guarantee - reduces risks and costs of borrowing for institutional investors in new private rented property;
- Help to Buy 2 – guarantees 15% of any standard loan for homes with prices up to £600,000 – overcomes deposit problems and gets the existing market working – in some areas;
- But these all based on reducing the risks of higher borrowing rather than generating fundamental change in how the housing system operates.

LSE

How Can Fundamentals be Changed?
Some Suggestions

- Land - need larger/simpler sites, some in green belt /extended towns plus density increases in suburbs as well as high density regeneration for market sales/rent;
- Nimbyism is rational, so new investment must also provide benefits for those adversely affected;
- Development – need up front sales to investors to speed up the process, generate larger scale and allow lower costs of management in the private rented sector;
- New construction methods - will they help?
- Must expand the development sector and bring local and regional builders back into the market;
- Taxation - modify property tax to make it more progressive and reduce housing consumption by richer established households.

LSE

Conclusions

- The housing market in England has neither fully recovered from the GFC and the subsequent recession; nor has it solved longer term issues of supply and affordability;

- While there are improvements in the planning system and perhaps institutional investors interested in investing – as well as large numbers of potential owner occupiers - there is no point in pretending we can solve the problem by building more in the short term;

- Need to redistribute existing housing more effectively – some pressure to change the price for those already well housed to free up housing for others – but politically infeasible except perhaps for council tax;

- Also need to develop a wider range of equity investment opportunities as well as directly provide more affordable housing;

- Overall, must plan for more homes, provide more suitable land, restructure development processes and reorganise finances to make investment more responsive to demand;

- And MUST show that the political will is there to house four generations rather than three.

LSE
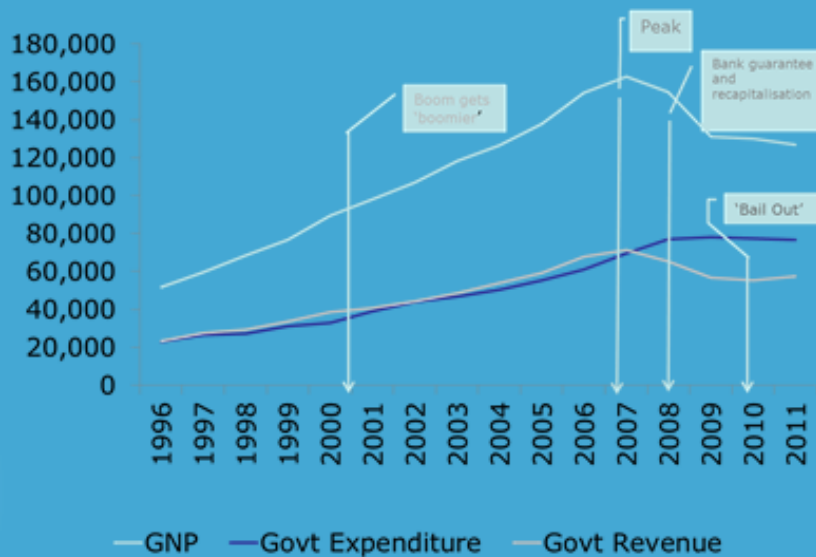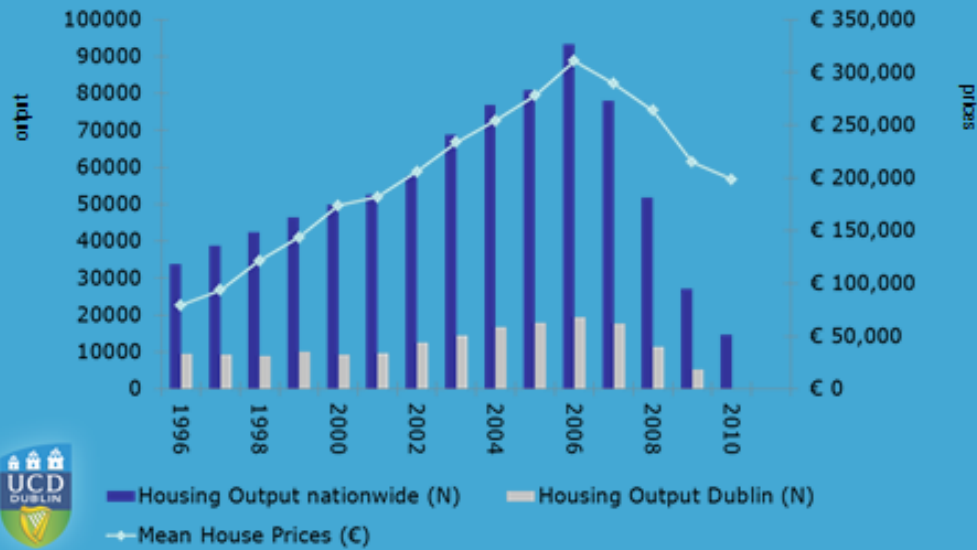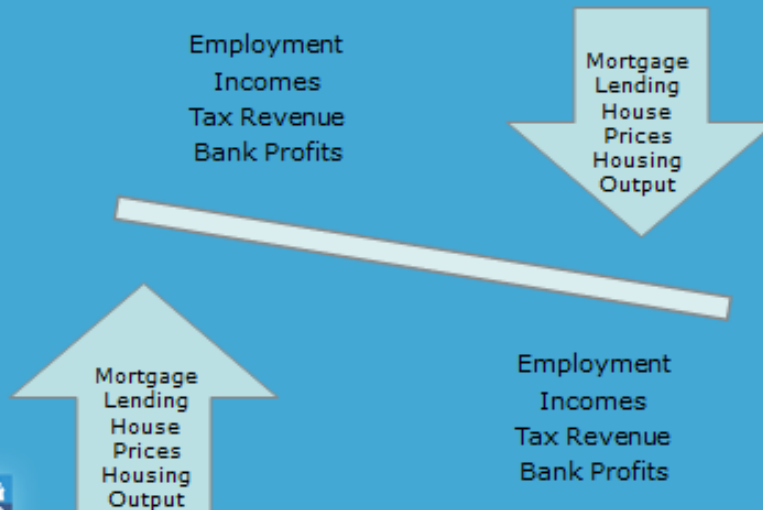
Lessons for Australia

Lesson #1

- Risks of an Overly Responsive Housing Market:
    - Balance sheet recessions + economic and fiscal contraction caused by declining housing output

Lesson #2

- The Risks are Getting Riskier
    - Globalisation of finance – cross-country synchronisation of booms and busts
    - Market transformation – more buy to let and foreign investors
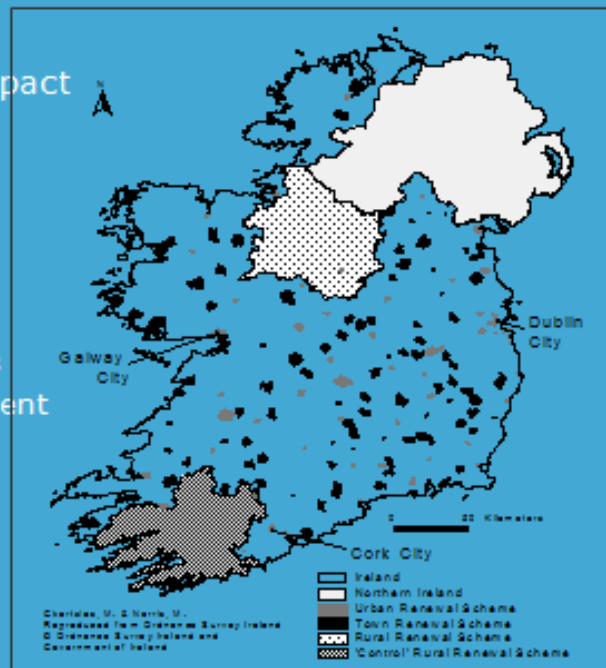

Lessons for Australia

Lesson #3

- Supply is just one part of the solution
    - Expansion of empty dwellings in Ireland
    - no demand side action
        - No property taxes
        - EMU and loss of interest rate setting powers
        - Mortgage regulation
            - Tradition of state supply rather than regulation
            - 'green jersey' agenda.

Lessons for Australia

Lesson #4

- Consider the impact of non planning policies

- perverse and contradictory incentives
  - Tax incentives
  - Local government finance

Map labels: Dublin City, Galway City, Cork City

Legend: Ireland, Northern Ireland, Urban Renewal Scheme, Town Renewal Scheme, Rural Renewal Scheme, 'Control' Rural Renewal Scheme

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Lessons for Australia

Lesson #5

- Local Housing Markets Required Tailored Responses
  - National solutions created perverse outcomes
  - Reinforced by centralised financing of local government
  - Active land management

Lesson #6

- Local Politics and Planning Cultures Matter

"Leitrim had not seen any development for 100 years. It has been said that if somebody wants to build a house on a white line in the middle of the [motorway] in Leitrim would get it! 'Cause there was nothing happening. It was very naive to think that the [local] politicians would take a long term overview as to what was appropriate. I am afraid that the attitude was that every house built in Leitrim is five jobs for a year. It didn't matter that there was nobody going to be able to buy it".

Comments for AHURI Roundtable
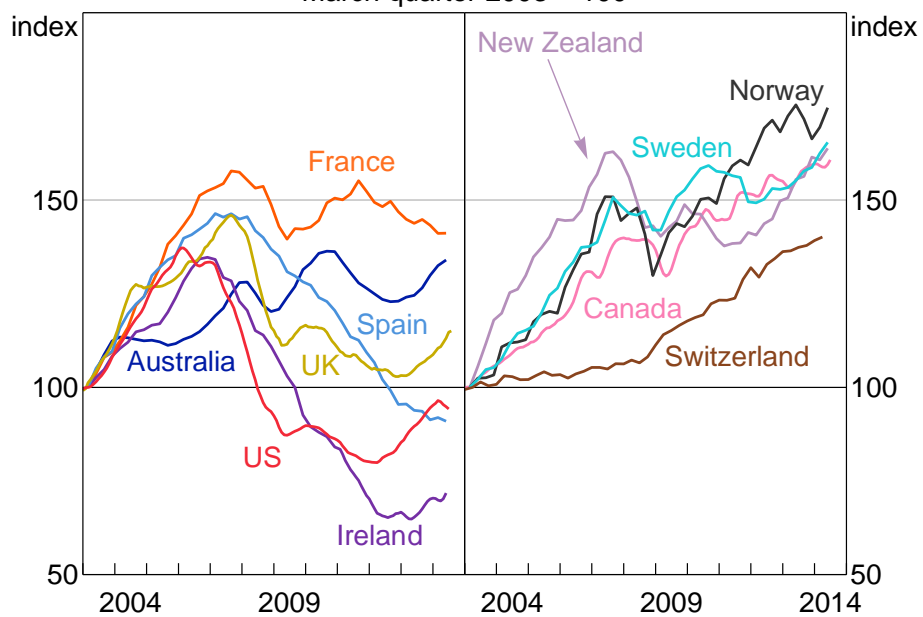
Luci Ellis

Head of Financial Stability

Reserve Bank of Australia

Views expressed are those of the speaker and should not be attributed to the Reserve Bank of Australia
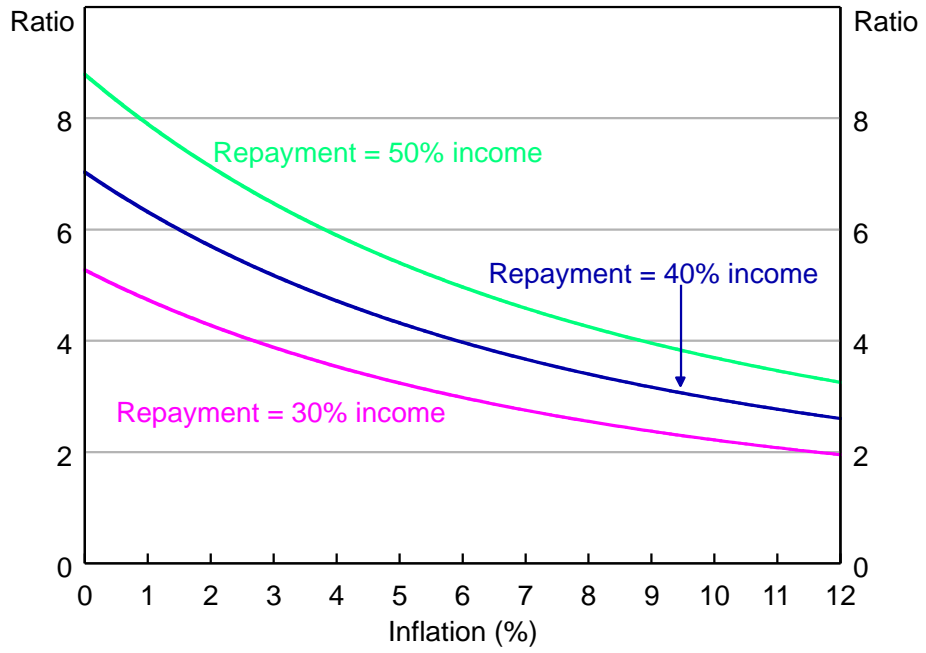
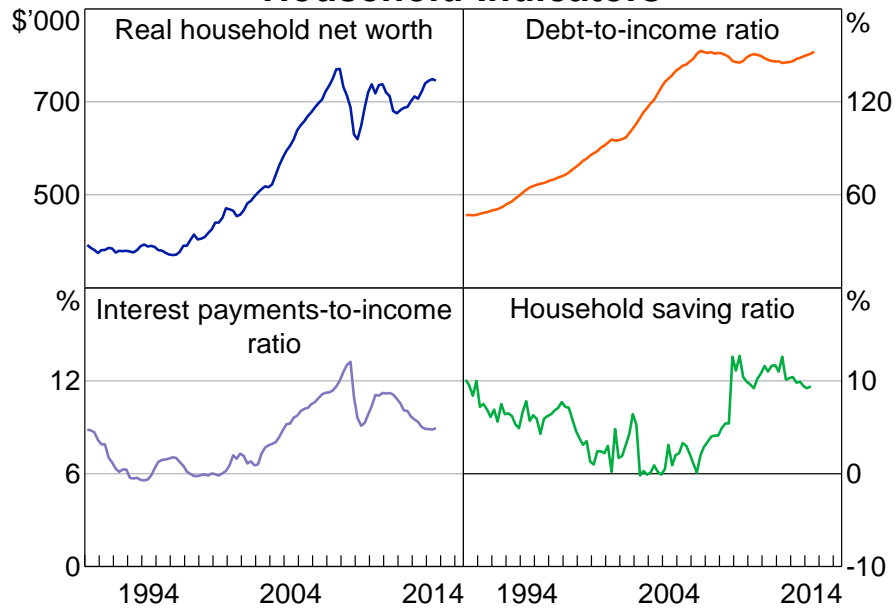**Advanced Economies – Real Residential Property Prices**

March quarter 2003 = 100

Maximum Loan-to-income Ratio
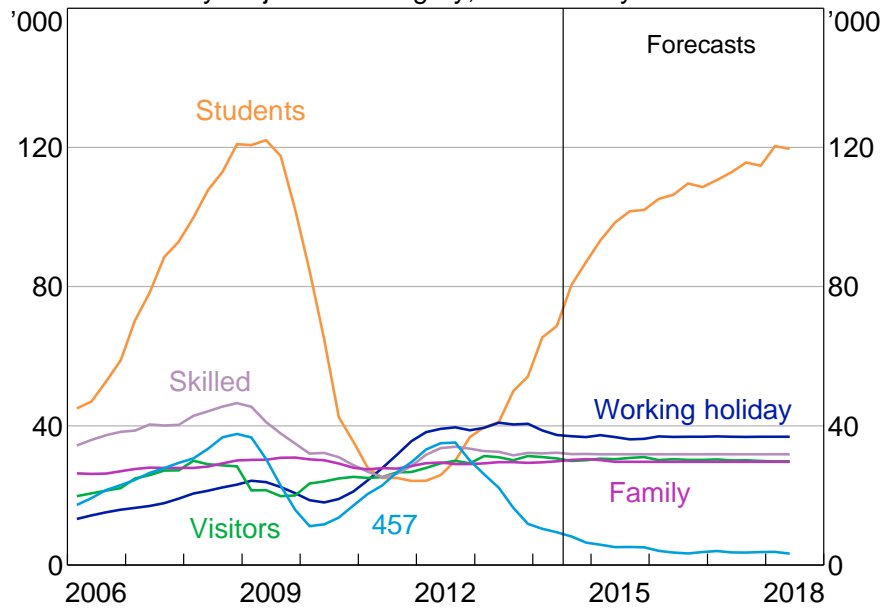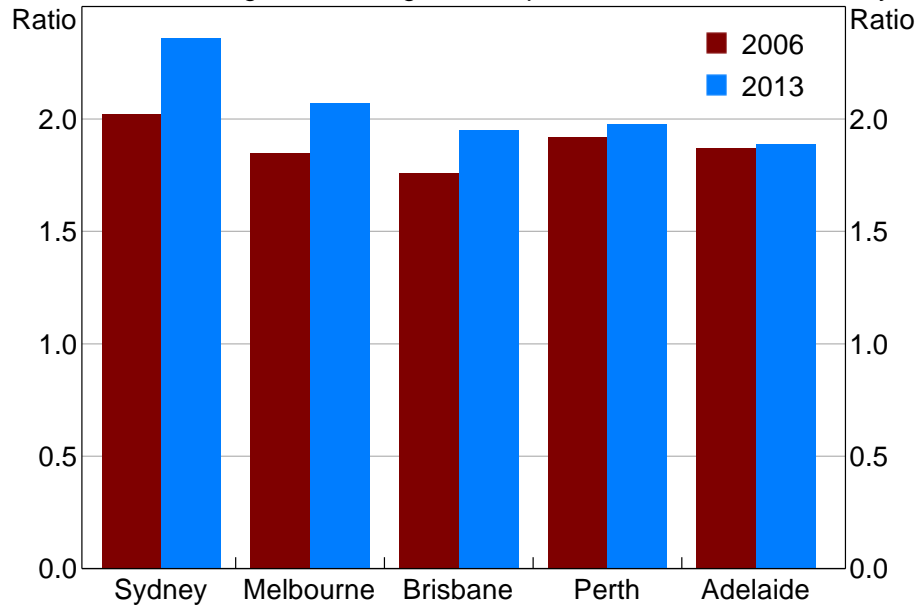Assuming 3% real interest rate on 25-year loan

Repayment = 50% income

Repayment = 40% income

Repayment = 30% income

Inflation (%)

Household Indicators

Real household net worth

Debt-to-income ratio

Interest payments-to-income ratio

Household saving ratio

Net Immigration

By major visa category, forecasts by DIBP

House Price Gradient

Ratio of inner ring to outer ring median prices, detached houses only

AHURI Research Centres