



Queensland

The Economic Society
of Australia Inc.

**Proceedings
of the 37th
Australian
Conference of
Economists**

**Papers
delivered at
ACE 08**



**30th September to 4th October 2008
Gold Coast Queensland Australia**

ISBN 978-0-9591806-4-0

Welcome

The Economic Society of Australia warmly welcomes you to the Gold Coast, Queensland, Australia for the 37th Australian Conference of Economists.

The Society was formed 83 years ago in 1925. At the time, the Society was opposed to declarations of policy and instead focused on open discussions and encouraging economic debate. Nothing has changed today, with the Society and the conference being at the forefront of encouraging debate.

This year we have a large number of papers dealing with Infrastructure, Central Banking and Trade.

Matters of the greatest global importance invariably boil down to be economic problems. Recent times have seen an explosion of infrastructure spending, after world-wide population growth has seen demand outpace aging supply. The world has become more globalised than at any time since World War I but the benefits of this (and the impact on our climate) has been questioned by some.

At the time of preparing for this conference we could not have known that it would have been held during the largest credit crisis since the Great Depression. The general public and politicians both look to central banks for the answers.

We are also very pleased to see a wide selection of papers ranging from applied economics to welfare economics. An A – Z of economics (well, almost).

Another feature of this conference is that we have gone out of our way to bring together economists from all walks of life, in particular from academia, government and the private sector. We are grateful to all of our sponsors, who are as diverse as the speakers.

The Organising Committee

James Dick
Khorshed Alam (Programme Chair)
Michael Knox
Greg Hall
Allan Layton
Rimu Nelson
Gudrun Meyer-Boehm
Jay Bandaralage
Paula Knight

Published November 2008
© Economic Society of Australia (Queensland) Inc
GPO Box 1170
Brisbane Queensland Australia
ecosocqld@optushome.com.au

Our Gold Sponsors



Keynote Sponsors



Unless we have specifically been requested to do otherwise, all the papers presented at the conference are published in the proceedings in full. A small number of papers will have versions that have also been made available for special editions of Journals, Economic Analysis and Policy, and the Economic Record. Authors will retain the right to seek additional publication for papers presented at the conference so long as it differs in some meaningful way from those published here.

Special Session Sponsors



The opinions expressed in the papers included in the proceedings are those of the author(s) and no responsibility can be accepted by the Economic Society of Australia Inc, Economic Society of Australia (Queensland) Inc, the publisher for any damages resulting from usage or dissemination of this work.

The Paper following forms part of - *Proceedings of the 37th Australian Conference of Economists*
ISBN 978-0-9591806-4-0

Australian Housing Market: Causes and Effects of Rising Price

Mohammad Mafizur Rahman, PhD
Lecturer in Economics
School of Accounting, Economics and Finance
University of Southern Queensland
Toowoomba, QLD 4350, Australia.
Phone: 61-7-4631 1279, Fax: 61-7- 4631 5594
Email: rahman@usq.edu.au

Abstract: Australian economic growth and the welfare of Australians are very much related to housing sector. Recently housing affordability is a widely discussed issue among the politicians, academics and policy makers. This paper therefore analyses the current housing market conditions in Australia. The paper particularly examines the factors that caused increased housing price over recent years. Various effects of this housing price hike on the Australian economy are also evaluated.

Keywords: *Australia, Housing Market, Housing Price*

JEL Classifications: *R21, R31, R38.*

Australian Housing Market: Causes and Effects of Rising Price

I. INTRODUCTION

Housing is extremely important to all people. It is a fundamental need. Home ownership has been considered as one of the key elements of high living standards. Home ownership is the security to the residents of a country; it provides independence and privacy. For most households, a house is the largest single asset as well.

Australians traditionally consider homeownership with high degree of importance as housing might help to have stable family life and to build wealth through rising house prices. For long period of time governments have been encouraging home ownership through direct grants to first-time home buyers. Around 70% of Australian households live in owner-occupied dwellings. Of these, 50% own their dwellings outright (without a mortgage loan), and 50% have mortgage loans. However, the proportion of homeowner without a mortgage has been decreasing overtime which is an indication of increased household indebtedness in the Australian economy. Housing accounts for around 55% of total Australian household assets. Around 28% of Australians live in rented accommodation, and more than three-quarters of them rent from private land lords (Eslake, 2007a; Standard and Poor's, 2006).

Housing plays a strong role to the social well being of Australians. Good housing in Australia has provided the good social and economic environment that is very much essential for political stability and prosperity. The burden of the government

expenditure to provide welfare for aged citizens is reduced because of the high level of home ownership in Australia (HIA, 2002).

Therefore, housing is no longer just about shelter; it must be regarded as an integral part of Australia's economic infrastructure. The family home is quickly becoming the new engine of economic growth. Many homes are used now for running small businesses, for shopping, learning and studying on-line and for performing office works. So housing is generating a flow of economic services (HIA, 2002). The contribution of housing sector to Australian GDP and employment is also notable.

While house ownership is very vital for all Australians, housing is gradually becoming unaffordable for many Australians especially in major cities. During the five years from 2000-01 to 2005-06, established house prices increased by more than 110% (an average of 16.2% a year) (Budget, 2007-08). Between 2002-03 and 2006-07 established house prices increased by an average of 33% (ABS, 2008). Therefore housing affordability is a widely discussed issue among the Australian politicians, academics and policy makers.

The current paper will therefore make an effort to analyse the Australian housing market. The paper will particularly investigate the determining factors that cause the price rise. The effects of rising price will also be evaluated.

II. AUSTRALIAN CURRENT HOUSING MARKET

Types of dwellings

The vast majority of Australians (around 98%) live in private self-contained dwellings such as house, flats or units. The small proportion of Australians also live in

institutional settings such as hostels, boarding houses, residential colleges, staff quarters, prisons, nursing homes, other welfare institutions, etc.

In 2005-06, 7.9 million households lived in private dwellings. The proportions of these households were 79% in separate houses, 11% in flats, units or apartments, and 9% in semi-detached, row or terrace houses or townhouses (ABS, 2008).

Home owners and renters

Table 1 provides a detailed picture of occupied private dwellings in Australia. Owner without a mortgage declined in 2006 compared to 2001. On the other hand, owner with a mortgage has increased during the same period. The number of renters is also increasing.

Table 1: All Occupied Private Dwellings (by tenure type)

Year	Owner without a mortgage (000)	Owner with a mortgage (000)	All owner occupied private dwellings (000)	Renter (000)	Other tenure (000)	Total (000)	Proportion of Owner occupied private dwellings (%)
1981	1548.9	1542.9	3178.9	1164.5	190.6	4534.0	70.1
1986	1981.9	1604.4	3586.3	1334.4	174.1	5094.8	70.4
1991	2362.0	1561.3	3923.2	1560.6	210.3	5694.2	68.9
1996	2658.0	1656.1	4314.0	1866.0	67.8	6247.8	69.0
2001	2810.9	1872.1	4683.0	1953.1	101.3	6737.4	69.5
2006	2478.3	2448.2	4926.5	2063.9	65.7	7056.1	69.8

Source: ABS: Year Book Australia 2008, PP. 313

Australians mostly like a free-standing house on its own block. Out of 5.5 million households that owned their home in 2005-06, 88% lived in separate houses. Also 57% of all renter households lived in separate houses; 26% lived in flats, units or apartment; and 16% lived in semi-detached dwellings (ABS, 2008).

Residential building approvals

Residential building approvals are used as a key indicator of future activity in the housing market. In 2006-2007 approvals of all dwelling units increased compared to previous year. The total number of dwelling unit approvals was 152, 790 in 2006-2007.

In 2006-07 the number of approvals for new semi-detached, row or terrace houses, townhouses, etc. increased by 1.9%, from 20,512 to 20,892. This number for new flats, units and apartments increased by 2.6%, from 23,924 to 24, 541 in the same year.

Between 2005-06 and 2006-07 the value of total new residential building (work done) increased from \$31, 280 million to \$31, 478 million, with the value of new residential building for houses increasing by \$1,149 million or 5.5% (ABS, 2008).

Housing costs

For most Australians, housing costs are substantial, and it is ongoing expenditure throughout much of their lives irrespective of buying or renting home. Housing costs are the largest regular expenses of households that are to meet from current income. For some households, housing costs are more than 50% of their income. For example, 9% of private renters and 8% of owners with a mortgage spent more than

half of their gross income on housing in 2005-06. For owners with a mortgage, average housing costs increased by \$78 per week, after adjustment for inflation, in 2005-06 compared to 1995-96. (ABS, 2008).

House price indexes and consumer price indexes

The change of consumer price indexes (CPI) represents inflation rate. Table 2 below represents the changes of CPI and changes of established house price indexes (HPI). The results are based on weighted average of eight capital cities of Australia.

Table 2: Changes of CPI and HPI (weighted average of 8 capital cities)

Year	Change of CPI (%)	Change of HPI (%)
2003-04	2.4	15.5
2004-05	2.4	1.2
2005-06	3.2	3.9
2006-07	2.9	12.3

Source: ABS: Year Book Australia 2008, PP. 677 and 682.

It is revealed that though changes of HPI are more or less similar to those of CPI in 2004-05 and 2005-06, changes of HPI are much higher than those of CPI in 2003-04 and 2006-07. In fact, established house prices increased to 2003-04, then remained flat until 2005-06. They again increased after 2005-06, in line with the rise in established home purchases.

Recent house price trends

The housing market peaked in September 2003. The growth of property price slowed dramatically in 2004. The biggest rises occurred in the years 2002, 2003 and 2004

when prices for established houses increased, respectively, by 16.49%, 17.92% and 16.72% (Standard & Poor's, 2006).

Evidence of growth in house prices is mixed in the capital cities between June 2004 and March 2007. Growth has slowed in some capitals and has surged in others. The rapid growth of established house price is observed in Perth, with an 87% increase over the period, equivalent to an annual average growth of 26%. Considerable increase, 58% gain, is also observed in Darwin over the same period.

More modest growth of established house price, ranging from 13% in Canberra to 24% in Hobart, is also observed in other capital cities over the period of June 2004 to March 2007; only exception is Sydney where house prices decreased by 4% during this period. However, a very large increase of property price in Sydney occurred in the preceding decade which was significantly faster than all other capital cities (ABS, 2007a).

Table 3 shows the median prices of established house transfers in eight capital cities of Australia during the period of June 2004 to June 2007. There is a clear cut price increase in all cities every year over the periods with an exception of Sydney in 2006 and Canberra in 2005. House prices notably increased in Perth and Darwin during this period.

Table 3: Median price of established house transfers (unstratified)

Period	Sydney \$000	Melbourne \$000	Brisbane \$000	Adelaide \$000	Perth \$000	Hobart \$000	Darwin \$000	Canberra \$000
2004 June	499	308	305	255	262	225	249	374
2005	500	320	310	270	300	250	280	374

June								
2006	497	345	330	285	408	270	350	399
June								
2007	510	360	370	310	455	292	395	443
June								

Source: ABS 2007b: House price indexes: Eight capital cities. 6416.0. Dec QTR.

III. FACTORS AFFECTING HOUSING PRICE

Like other commodity price, house price is also mainly determined by demand and supply factors. When demand exceeds (relatively fixed) supply, price rises, according to standard economic theory. Berry and Dalton (2004) mentioned the factors that are considered responsible for house price rise in Australia. They divided these forces into three categories-short term/cyclical, institutional and long term/ fundamental. The authors rightly mentioned that although these factors were arbitrarily separated, in fact, their impacts interact in complex ways not fully understood.

Short-term factors

Interest rates

For any given price level, lower interest rates imply lower mortgage repayments which allow borrowers to borrow more at any given repayment-to- income ratio. This causes an increase of housing demand and housing prices, other things being equal. On the other hand, once interest rates go up, housing demand will ease and price will remain steady or rise moderately or even go down (depending on the collective influences of other factors).

In the Australian economy interest rates fell rapidly from the late 1980s through the general economic recession. There was a moderate rise during 95-96, and after that

fell again and remained low thereafter which continued till the end of 2003. The lower interest rates over the years contributed a lot to increased house price in Australia. Quoting from an econometric study of Yong (2000), Berry and Dalton (2004) also noted that nominal mortgage interest rates had both short and longer-term effects on real house price inflation.

Investment demand

Investment in housing increased since 1995, and it continued for last several years. So investor-landlords became an important driver of house price rises in Australia. Ex Reserve Bank Governor, Ian Macfarlane, pointed out that since 2001 investors had fuelled the continuing inflation in housing market, supported by the generous tax benefits (Berry and Dalton, 2004 quoted from Colebatch, 2003). In the 18 months to July 2002, loan approvals for investors rose by 113 percent, against 48 percent for owner occupiers (Berry and Dalton, 2004 quoted from RBA, 2002). The monthly value of housing loan approvals for investors was increased by \$2.4 billion during that period.

Tax benefits, underlying socio-demographic factors, institutional reforms, increasing rental income, broader development in the economy and capital markets contributed to increased investment demand for housing. Sharp downward correction was observed in equity market around the world in mid-2000; this caused the capital switched out of shares and into other assets like bonds and real estate. A sharp increase in the flow of debt-financed private investment into residential property occurred with the perception that investment in property is preferable in terms of risk and return.

Economic climate

Over past several years economic condition in Australia was very good; inflation was under control and unemployment rate had continuously been falling. Average incomes of people were rising. So sentiments among investors and owner occupiers were stronger. These factors increased housing demand. Yong (2000) found that unemployment had significant effects on real housing prices in Australia both in the short and long runs (Berry and Dalton, 2004).

Institutional Factors

Financial deregulation and innovation

In the 1980s, Australia's financial system was notably deregulated. Many direct government controls over the lending activities of financial institutions like the banks were removed. Simultaneously, new lending and other institutions including foreign banks, mortgage brokers and originators, mortgage insurers and industry superannuation funds entered into the market for housing finance. New sources of finance for housing purchase were mobilised by the secondary residential mortgage market. New lending criteria- such as, consideration of the full value of a second household income for establishing maximum lending limits- were introduced. All these factors were favourable to increase housing demand and housing price.

Land supply and the land-use planning system

Housing prices and affordability are related to land price which is largely determined by the supply of developed urban land. Residential land supply is affected by factors like development costs, the structure of the land development industry, relative returns from non-housing uses, and the rules and effectiveness of the land-use planning system. Controls over the uses of land affect both the availability of developed land and the land cost. The regulatory process takes time to bring underdeveloped land into use; thus it reduces the short-term responsiveness of

supply to immediate demand pressures. Therefore this short-term price inelasticity of supply is one factor for increased house price in Australia.

There has been a notable increase in the price of land in Australia in recent years. During 1992-2003, the real price of land increased by around 12 percent per annum, while the price of constructing a dwelling increased by around 3 percent per annum. Over the past decade, the land component has contributed around 80 per cent to the increase in the price of an established dwelling in Australia (Bond, 2003).

Government taxes, levies and charges

In Australia government at all levels imposes taxes, levies and charges on the development and use of urban land. To some extent these costs are in turn passed on in final house prices. These costs are: developer levies (local government and other infrastructure providers), stamp duty on the sale and transfer of land and land tax (state government); and GST on new house construction and the renovation of existing houses. All these costs add up a notable component of housing prices. Quoting from the Housing Industry Association, Berry and Dalton (2004) noted that, for new housing, “the total indirect tax take is over \$124,000 in Sydney and \$88,000 in Melbourne”.

Long-term factors

Demography

Demographic factors significantly affect housing prices in the long run. Increasing population growth increases the number of households in a country which in turn increases the housing demand and thus housing price.

Australia's population has been growing over time (see Table 4). Total population reached to 20.7 million in 2005-06, compared to 19.4 million in 2000-01. Also the average household size is declining due to increase of single person and single parent households. The average number of people per household fell from 2.7 to 2.5 over the nine years to 2003-04 (ABS, 2007c). The growth of overall population and smaller households, other things being equal, implies an increasing demand for housing which is the major determinant for housing price hike in Australia. International migrants who are living in the capital cities are considered fundamental drivers of housing development and price inflation in those cities over the long term.

Table 4: Components of population change and estimated resident population

Year	<u>Components of population change</u>				<u>Population</u>		
	Births 000	Deaths 000	Natural increase 000	Net overseas migration 000	At end of period 000	Increase* 000	Increase %
2000-01	247.5	128.9	118.6	135.7	19413.2	259.9	1.36
2001-02	247.4	130.3	117.2	110.6	19654.9	241.6	1.24
2002-03	247.4	132.2	115.2	116.5	19902.7	247.9	1.26
2003-04	252.1	133.2	118.9	100.0	20139.8	237.1	1.19
2004-05	255.8	131.4	124.5	123.8	20409.1	269.4	1.34
2005-06	264.3	133.1	131.2	134.6	20701.5	292.3	1.43

* The difference between total growth and the sum of natural increase and net overseas migration is due to intercensal discrepancy.

Source: ABS: Year Book Australia 2008, PP. 180.

Changing economic roles have also reinforced the demographic factors with regard to housing demand in Australia. Long run paid workforce participation of women has increased the number of two-income households which effectively increased the housing demand. Most of the population live in urban areas. This population concentration is also causing permanent house price inflation in Australia (Berry & Dalton, 2004 quoted from Ellis & Andrews, 2001).

Economic growth

A positive relationship exists between household income and housing demand. In a country like Australia the income elasticity of demand for housing is likely to be one or greater (Berry & Dalton, 2004 quoted from Bourassa & Hendershot, 1995; Meen & Andrew, 1998). So the demand for housing increases at least proportionately with income. The long term trend in real income is important in explaining house price.

Table 5 reveals that household disposable income has been increasing over time. Average real household incomes in 2005-06 are 10% higher than in 2003-04 and 34% higher than in 1994-95. The real income of high income people rose by 36% over the eleven years to 2005-06. This compares to a rise of 31% for low income earners and 32% for middle income earners (ABS, 2007d).

Table 5: Equivalised disposable household income

Year	Mean income per week (All persons)
1994-95	\$481
1997-98	\$504
2000-01	\$539
2002-03	\$552
2003-04	\$585
2005-06	\$644

Source: ABS 2007e: Household income and income distribution 2005-06, 6523.0, August 2.

Clearly the house price inflation in Australia over past several years has been driven partially by the long period of economic prosperity and relatively rapid economic growth since the middle of 1990s. Quoting from the study of Sutton (2002), Berry & Dalton (2004) noted that a 1 percent increase in GNP, average house prices increased by about 1.5 per cent over the next 4 years in Australia.

Wealth effect

In every society, housing is generally considered as the major store of wealth. In Australia gross housing assets account for more than half of total personal wealth (Berry & Dalton, 2004 quoted from Kelly, 2001). Owner occupiers and landlord-investors feel wealthier with the rising prices of existing houses. This is called 'wealth effect' which leads to an increase in consumption expenditure. As a result, aggregate demand and thus economic growth occur which in turn support rising housing prices through self-reinforcing circle. This factor also contributed to the recent price hike of Australian housing.

Furthermore, the availability and cost of land, the cost of construction and achievements in the improvement of the quality of the existing housing stock are the supply side factors that affect housing price. Reduced supply of affordable private rental housing, declining supply of social housing and lengthy time taken to release new land also positively contributed to house price inflation in Australia.

IV. EFFECTS OF RISING HOUSE PRICE ON THE ECONOMY AND HOUSEHOLDS

Positive effects

House price can affect aggregate demand and economic activity in various ways. First, more optimistic expectations with regard to the returns on property investment occur with the rising house prices. Market demand in property related sectors increases as builders start new construction. Second, private consumption increases as a result of increased house prices as homeowners feel wealthier. Third, financial behaviour of homeowners changes as a result of price hike, and homeowners become home purchasers. Taking an empirical study Helbling and Terrones (2003) note that increases in property prices tend to have a positive impact on real GDP in many countries (Zhu, 2003).

In an economy like Australia real estate is an important investment asset. If property prices rise above the cost of construction, it is profitable to construct new buildings. As a result, the boom in the construction sector boosts employment and demand in property-related sectors. This impact can be substantial as real estate investment usually represents a significant proportion of the economy.

An increase in house price indicates an increase in household wealth. So according to permanent income hypothesis of the life cycle model, owner-occupiers may increase their consumption expenditure reducing their savings.

Negative effects

The strength of the aggregate wealth effect stated above is not certain, however. It depends on several factors such as duration of the house price gains, home ownership rate in the economy, etc. The house price gains could be either temporary or permanent. The wealth effect will not be the same in both these situations. Furthermore, rising house price increases the wealth of homeowners but reduces the affordability of those households who want to purchase their own homes. First home buyers will need to save more to pay higher initial deposit and higher mortgage payments. As a result, their consumption actually drops when house prices increase.

Furthermore, house price increases usually affect the relative positions of specific groups of people. For example, the relative positions of current home-owners and home buyers can be mentioned. It is expected that the propensities to spend of these categories would be different. As a result, the wealth transfers through increased house price can have macro-economic effects (Catte, et.al., 2004).

With regard to housing affordability in Australia Yates and Gabriel (2006) noted that 542,000 urban households and 308,000 non-urban-based households were under housing stress in 2002-03¹. The highest incidence of housing stress was found amongst young and lone person households. Housing stress and crisis were prevalent amongst urban compared to non-urban households. A high incidence of affordability problems was generally observed amongst lower income home purchasers. Of the lower income households, 14 percent were suffering from housing crisis (housing costs at least 50 percent of gross household income). It was also

¹ Households in stress defined according to 30/40 rule. Those households whose gross income falls in the bottom 40% of the income distribution and who are paying more than 30% of their household income to meet their housing costs.

noted that 36 percent of all lower income working households were in housing stress compared with 28 percent of all lower income households, and 17 percent of all lower income working households were suffering from housing crisis - spending at least 50 percent of their incomes.

The Economist magazine (2003) argues that if house price is over-valued, which may be the case in Australia, nominal house prices are likely to drop as well as real prices. If housing burst occurs it will do more harm to the general economy than when the stock market collapses. The following three arguments may be mentioned to support this claim.

- i) Housing investment is much larger part of direct household wealth than shares. Thus a fall in housing prices will give households a feeling that they are significantly less wealthy than a proportionately similar fall in share prices. So homeowners and investors (major portion of the population) reduce consumption, the aggregate level of economic activity decreases and the risk of an economic recession increases.
- ii) It is much more likely that households borrow heavily on house purchases than buying shares. As a result, over-indebtedness occurs which may lead some borrowers to sharply curtail their consumption when they are caught between falling house prices and rising interest rates.
- iii) If mortgage loan is huge for borrowers and simultaneously they are facing declining house values, they may eventually end up with 'negative equity'. This is because they owe more on their mortgage loan than the current market value of their homes. So the probability of mortgage default raises,

and the proportion of non-performing loans held by banks and other lenders increases. As a result, lending capacity (of banks and other lenders) for all purposes reduces, with potentially adverse effects on the overall economy (Berry and Dalton, 2004).

V. CONCLUSIONS AND POLICY RECOMMENDATIONS

The housing sector plays a vital role in Australian economic growth and welfare of the Australians. This paper therefore attempts to analyse the current Australian housing market. The paper particularly investigates the factors that are responsible for house price hike for last couple of years. The possible effects of this increased housing price on the Australian economy and households are also evaluated.

It is observed that the number of homeowners with a mortgage and renters has increased over the years. For owners with a mortgage, average housing costs increased substantially in recent years. Changes of HPI are much higher than those of CPI in 2003-04 and 2006-07. This research also revealed that the biggest house price increases occurred in the years 2002, 2003 and 2004 in Australia. With an exception of Sydney in 2006 and Canberra in 2005, there is a clear cut price increase of established houses in all cities every year during the period of 2004 – 2007 as well.

Factors affecting housing prices in Australia are classified into three broad categories- short / cyclical, institutional and long term / fundamental. Among the short-term / cyclical factors interest rates, investment demand and existing economic climate play a vital role to influence housing prices. In Australia, the lower interest rates over the past decade and so contributed a lot to increase house prices. Investor-landlords also became an important driver of house price rises in Australia

for last several years. A very good economic condition for last several years also contributed to increase housing demand and housing prices.

Among the institutional factors financial deregulation and innovation, land supply and the land-use planning system, and government taxes, levies and charges, are the main players that affect house prices in Australia. Financial deregulation since 1980s, the short-term price inelasticity of supply of land, increased land prices, government taxes, levies and charges positively contributed to increased house prices.

Demography, economic growth and wealth effect are the three major long-term factors. All these three factors positively contribute Australian housing prices.

Rising house price has both positive and negative impacts on the Australian economy and households. However, negative effects are strongly observed by academics and policy makers as they are detrimental to the society and the economy. A high proportion of Australian households are under housing stress and housing crisis, and the numbers are increasing.

Therefore housing affordability must be improved through the proper policy formulation and execution for the greater interest of the Australian economy and households. Policies which work only on the 'demand side' of the housing market without clearly and significantly increasing supply are almost certain to fail, with respect to affordability aims. From this point of view, Federal Government First Home Owners' Grant or stamp duty concessions or cash assistance to the renters must be viewed as costly failures. These steps merely result in more expensive houses. Instead, increasing the supply of housing- particularly low-cost housing- should be the focus of the policy. Special attention must be given to reduce the time taken to bring land and housing to market (Eslake 2007b; Berry and Dalton, 2004).

In addition, the supply of desirable land, with proper infrastructure and transport facilities, and the supply of affordable rental housing must be increased. The marginal purchasers must be supported, through appropriate help, to stay in their homes. The government can ease the housing price by reducing taxes, levies and charges. Finally, this research supports the idea of Yates (2007) regarding the development of a national affordable housing strategy which will help reduce housing stress and housing crisis in Australia.

References

ABS. 2007a. 'Wealth in homes of owner-occupier households', *Australian Social Trends 2007*, 4102.0, Australian Bureau of Statistics.

ABS. 2007b. 'House price indexes: Eight capital cities,' *Report 6416.0*, Dec QTR, Australian Bureau of Statistics.

ABS. 2007c. 'Larger dwellings, smaller households', *Australian Social Trends 2007*, 4102.0, Australian Bureau of Statistics.

ABS. 2007d. 'Media release', 2 August, Australian Bureau of Statistics.

ABS. 2007e: 'Household income and income distribution 2005-06', 6523.0, August 2.

ABS. 2008. *Year Book Australia*, Australian Bureau of Statistics.

Berry, Mike and Dalton, Tony. 2004. 'Housing prices and policy dilemmas: a peculiarly Australian problem?', *Urban Policy and Research*, 22:1, 69-91.

Bond, James. 2003. 'Recent developments in the Australian housing market', *Working Paper*, Australian Treasury (www.treasury.gov.au/documents/780/RTF/03_Housing_market.rtf).

Bourassa, Steven. And Hendershot, Patric. 1995. 'Australian capital city real housing prices, 1979-1993', *The Australian Economic Review*, 3, pp.16-26.

Budget 2007-08. 'Decision for our future - Fact sheet', *Western Australian Budget* 2007-08.

Catte, Pietro. *et al.* 2004. 'Housing markets, wealth and the business cycle', *OECD Economics Department Working Papers*, No. 394, OECD publishing. Doi: 10.1787/534328100627.

Colebatch, Tim. 2003. 'The great Australian illusion', *The Age*, 5 August, PP. 11.

Economist, The. 2003. 'Close to bursting: a survey of property,' 31 May, pp. 4-16.

Ellis, Luci. & Andrews, Dan. 2001. 'City size, housing costs and wealth', *Research Discussion paper 2001-08* (Sydney: Reserve Bank of Australia).

Eslake, Saul. 2007a. 'An introduction to the Australian economy', *Working Paper*, ANZ Bank Limited.

Eslake, Saul. 2007b. 'Economic factors affecting the housing market', *Australian Financial Review*, 12 March.

Helbling, Thomas and Terrones, Marco. 2003. 'Real and financial effects of bursting asset price bubbles', *IMF World Economic Outlook*, chapter 11, April.

HIA. 2002. 'Sustainability Strategy', Western Australian Draft, *Report*, Submitted by The Housing Industry Association.

Kelly, Simon. 2001. 'Trends in Australian wealth: new estimates for the 1990s', Paper presented at 30th Annual Conference of Economists, University of Western Australia, Perth, September.

Meen, Geoff. And Andrew, Mark. 1998. 'Modelling regional housing prices: a review of the literature', Report to Department of the Environment, Transport and the Regions, Centre for Spatial and Real Estate Economics, University of Reading, Reading.

RBA. 2002. 'Recent developments in housing prices, finance and investor attitudes', *Reserve Bank of Australia Bulletin*, July, pp. 1-6.

Standard & Poor's. 2006. 'An investor guide to Australia's housing market and residential mortgage-backed securities', Melbourne, 28 November.

Sutton, Gregory. 2002. 'Explaining changes in housing prices', *BIS quarterly Review*, September, pp. 46-55.

Yates, Judith and Gabriel, Michelle. 2006. 'Housing affordability in Australia', *Research Paper 3*, Australian Housing and Urban Research Institute (AHURI).

Yates, Judy. 2007. 'The housing affordability challenge', Seminar Presentation, September 12, AHURI.

Yong, Tu. 2000. 'Segmentation of Australian housing markets: 1989-98', *Journal of Property Research*, 17(4), pp. 311-327.

Zhu, Haibin and Tsatsaronis, Kostas, 2004. 'What drives housing price dynamics: cross-country evidence,' *BIS Quarterly Review*, March.

Zhu, Haibin. 2003. 'The importance of property markets for monetary policy and financial stability', *Conference Paper*, IMF-BIS conference on Real Estate Indicators and Financial Stability, 27-28 October, 2003, Washington DC.