

The Effect of the First Home Owner's Grant on the Perth Housing Market

By

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Declaration

“This thesis contains no material which has been accepted for the award of any other degree or diploma in any tertiary institution and to the best of my knowledge and belief, the thesis contains no materials previously published or written by another person, except when due reference is made in the text of the thesis.”

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Abstract

Housing affordability has long been a challenge for Australian Federal and State governments. One particular issue facing policy makers is improving the affordability of home ownership for first home buyers. The First Home Owner's Grant (FHOG) was introduced in 2000 as a direct subsidy to assist first home buyers in achieving the goal of home ownership. The grant was recently increased in October 2008 as part of the Federal Government's economic stimulus package, from \$7000 to \$14,000 for existing homes and \$21,000 for new homes and land.

This research investigated the impact the FHOG has had on the Perth metropolitan housing market and first time home owners, particularly since the grant's increase last year. Property sales in the top ten first home buyer suburbs from July 1999 to June 2009 were analysed to determine whether the grant had stimulated sales activity at the lower end of the market and whether lower quartile prices had also increased as a result. In addition, this study provided an insight into how effective the federal government's First Home Owner's Boost (FHOB) has been in stimulating first home buyer activity in the housing market since it was introduced. This research primarily focused on the grant's effect on the market for established dwellings as the majority of first home buyers purchase an existing house.

This study found that the FHOG stimulated activity in the first home buyer market following its inception, particularly in the new suburbs of Perth such as Ellenbrook and Canning Vale. However the price of affordable housing in most first home buyer suburbs rose as a result of this strong demand. First home buyer participation then declined as rising prices negated the grant's effectiveness. The FHOB with the assistance of very low interest rates appears to have achieved

its intended policy goal of encouraging first home buyers back into the market, although this increase in demand has again stimulated price rises in most of the suburbs studied.

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Abbreviations

| | |
|------|---------------------------------|
| ABS | Australian Bureau of Statistics |
| CAG | Commonwealth Additional Grant |
| FHOG | First Home Owner's Grant |
| FHOB | First Home Owner's Boost |
| GDP | Gross Domestic Product |
| GST | Goods and Services Tax |

Table of Contents

| | |
|-------------------------|------------|
| Abstract | iii |
| Acknowledgements | v |
| Abbreviations | vi |
| List of Tables | xii |
| List of Figures | xiv |

Chapter One: Introduction

| | |
|-------------------------------------|----------|
| 1.1 Thesis Introduction..... | 1 |
| 1.2 Research Objectives..... | 3 |

Chapter Two: Literature Review

| | |
|--|-----------|
| 2.1 Importance of Housing Industry..... | 5 |
| 2.2 Demand for Housing..... | 5 |
| 2.3 First Home Owners Grant..... | 12 |
| 2.4 Supply of Housing..... | 19 |

Chapter Three: Methodology

| | |
|------------------------------|-----------|
| 3.1 Introduction..... | 22 |
|------------------------------|-----------|

| | |
|---------------------------------------|-----------|
| 3.2 Data..... | 22 |
| 3.3 Process of Analysis..... | 24 |
| 3.4 Derivation of Results..... | 26 |

Chapter Four: Discussion and Results

| | |
|------------------------------|-----------|
| 4.0 Introduction..... | 28 |
|------------------------------|-----------|

4.1 Perth Metropolitan Region

| | |
|-----------------------|----|
| 4.1.1 Background..... | 30 |
|-----------------------|----|

| | |
|------------------------------|----|
| 4.1.2 Key Market Trends..... | 31 |
|------------------------------|----|

| | |
|--------------------------------------|----|
| 4.1.3 First Home Buyer Activity..... | 33 |
|--------------------------------------|----|

4.2 Armadale

| | |
|-----------------------|----|
| 4.2.1 Background..... | 37 |
|-----------------------|----|

| | |
|------------------------------|----|
| 4.2.2 Key Market Trends..... | 39 |
|------------------------------|----|

| | |
|--------------------------------------|----|
| 4.2.3 First Home Buyer Activity..... | 41 |
|--------------------------------------|----|

4.3 Beechboro

| | |
|-----------------------|----|
| 4.3.1 Background..... | 43 |
|-----------------------|----|

| | |
|------------------------------|----|
| 4.3.2 Key Market Trends..... | 44 |
|------------------------------|----|

| | |
|--------------------------------------|----|
| 4.3.3 First Home Buyer Activity..... | 46 |
|--------------------------------------|----|

4.4 Butler

| | |
|--------------------------------------|----|
| 4.4.1 Background..... | 48 |
| 4.4.2 Key Market Trends..... | 50 |
| 4.4.3 First Home Buyer Activity..... | 51 |

4.5 Canning Vale

| | |
|--------------------------------------|----|
| 4.5.1 Background..... | 53 |
| 4.5.2 Key Market Trends..... | 54 |
| 4.5.3 First Home Buyer Activity..... | 56 |

4.6 Ellenbrook

| | |
|--------------------------------------|----|
| 4.6.1 Background..... | 58 |
| 4.6.2 Key Market Trends..... | 59 |
| 4.6.3 First Home Buyer Activity..... | 60 |

4.7 Gosnells

| | |
|--------------------------------------|----|
| 4.7.1 Background..... | 62 |
| 4.7.2 Key Market Trends..... | 63 |
| 4.7.3 First Home Buyer Activity..... | 64 |

4.8 Maylands

| | |
|--------------------------------------|----|
| 4.8.1 Background..... | 66 |
| 4.8.2 Key Market Trends..... | 67 |
| 4.8.3 First Home Buyer Activity..... | 69 |

4.9 Morley

| | |
|--------------------------------------|----|
| 4.9.1 Background..... | 72 |
| 4.9.2 Key Market Trends..... | 73 |
| 4.9.3 First Home Buyer Activity..... | 74 |

4.10 Nollamara

| | |
|---------------------------------------|----|
| 4.10.1 Background..... | 76 |
| 4.10.2 Key Market Trends..... | 77 |
| 4.10.3 First Home Buyer Activity..... | 78 |

4.11 Thornlie

| | |
|---------------------------------------|----|
| 4.11.1 Background..... | 80 |
| 4.11.2 Key Market Trends..... | 81 |
| 4.11.3 First Home Buyer Activity..... | 82 |

| | |
|--------------------------|-----------|
| 4.12 Summary..... | 85 |
|--------------------------|-----------|

Chapter Five: Conclusion

5.1 Concluding Remarks.....86

5.2 Policy Recommendations.....89

5.3 Limitations.....90

5.4 Further research.....91

Reference.....93

Appendices

Appendix 1.....101

Appendix 2.....104

List of Tables

| | |
|---|-----|
| Table 2.1 Proportion of Grants Issued for New and Existing Homes..... | 15 |
| Table 4.1 Summary of Suburbs..... | 29 |
| Table 4.1.1 2006 Census QuickStats: Perth (Statistical Division)..... | 30 |
| Table 4.2.1 2006 Census QuickStats: Armadale (State Suburb)..... | 38 |
| Table 4.3.1 2006 Census QuickStats: Beechboro (State Suburb)..... | 44 |
| Table 4.4.1 2006 Census QuickStats: Butler (State Suburb)..... | 49 |
| Table 4.5.1 2006 Census QuickStats: Canning Vale (State Suburb)..... | 53 |
| Table 4.6.1 2006 Census QuickStats: Ellenbrook (State Suburb)..... | 58 |
| Table 4.7.1 2006 Census QuickStats: Gosnells (State Suburb)..... | 62 |
| Table 4.8.1 2006 Census QuickStats: Maylands (State Suburb)..... | 67 |
| Table 4.9.1 2006 Census QuickStats: Morley (State Suburb)..... | 73 |
| Table 4.10.1 2006 Census QuickStats: Nollamara (State Suburb)..... | 77 |
| Table 4.11.1 2006 Census QuickStats: Thornlie (State Suburb)..... | 80 |
| Table 4.12 Summary of Key Findings..... | 85 |
| Table 5.1.1 Raw Data Sample..... | 101 |
| Table 5.1.2 Filtered Data Sample..... | 102 |

Table 5.1.3 Time Series Sample.....102

Table 5.2.1 Selection of Suburbs.....104

List of Figures

| | |
|--|----|
| Figure 2.1 The Determination of Interest Rates..... | 7 |
| Figure 2.2 Increase in the Demand for Housing..... | 8 |
| Figure 2.3 Effect of First Home Owners Grant..... | 13 |
| Figure 2.4 Decrease in the Supply of Housing..... | 20 |
| Figure 4.1.0 Map of First Home Buyer Suburbs..... | 29 |
| Figure 4.1.1 Perth Housing Market..... | 32 |
| Figure 4.1.2 Relationship between interest rate and house price..... | 32 |
| Figure 4.1.3 First Home Owner’s Grant and Perth House Sales..... | 34 |
| Figure 4.1.4 First Home Owner’s Grant and Perth Unit Sales..... | 35 |
| Figure 4.2.1 Armadale House Prices..... | 39 |
| Figure 4.2.2 Armadale Unit Prices..... | 40 |
| Figure 4.2.3 First Home Owner’s Grant and Armadale House Sales..... | 41 |
| Figure 4.2.4 First Home Owner’s Grant and Armadale Unit Sales..... | 42 |
| Figure 4.3.1 Beechboro House Prices..... | 45 |
| Figure 4.3.2 First Home Owner’s Grant and Beechboro House Sales..... | 47 |
| Figure 4.4.1 Butler House Prices..... | 50 |

| | |
|---|----|
| Figure 4.4.2 First Home Owner’s Grant and Butler House Sales..... | 52 |
| Figure 4.5.1 Canning Vale House Prices..... | 55 |
| Figure 4.5.2 First Home Owner’s Grant and Canning Vale House Sales..... | 56 |
| Figure 4.6.1 Ellenbrook House Prices..... | 60 |
| Figure 4.6.2 First Home Owner’s Grant and Ellenbrook House Sales..... | 61 |
| Figure 4.7.1 Gosnells House Prices..... | 63 |
| Figure 4.7.2 First Home Owner’s Grant and Gosnells House Sales..... | 65 |
| Figure 4.8.1 Maylands House Prices..... | 68 |
| Figure 4.8.2 Maylands Unit Prices..... | 68 |
| Figure 4.8.3 First Home Owner’s Grant and Maylands House Sales..... | 70 |
| Figure 4.8.4 First Home Owner’s Grant and Maylands Unit Sales..... | 71 |
| Figure 4.9.1 Morley House Prices..... | 74 |
| Figure 4.9.2 First Home Owner’s Grant and Morley House Sales..... | 75 |
| Figure 4.10.1 Nollamara House Prices..... | 78 |
| Figure 4.10.2 First Home Owner’s Grant and Nollamara House Sales..... | 79 |
| Figure 4.11.1 Thornlie House Prices..... | 82 |
| Figure 4.11.2 First Home Owner’s Grant and Thornlie House Sales..... | 83 |

Chapter One: Introduction

1.1 Thesis Introduction

Home ownership is the dominant choice of tenure for Australian households with residential property also being the primary store of wealth for most of the population. However, the past decade has seen a substantial increase in housing prices and a subsequent reduction in housing affordability around Australia. Low housing affordability has been particularly prevalent amongst prospective first home buyers. Thus, ensuring access to home ownership is a key policy goal for government. The Commonwealth government has funded numerous direct and indirect housing assistance programs over the years to achieve this goal.

Once such program is the First Home Owner's Grant (FHOG), which was first introduced in 2000 to stimulate the housing construction industry in the wake of the GST. The grant offered first home buyers a once-off payment of \$7000 towards the purchase of a home. Since its inception, the FHOG has been increased temporarily in 2001 and 2008 in order to further stimulate the construction industry and subsequently the Australian economy. In particular, the First Home Owner's Boost (FHOB) was announced in October 2008 to stimulate the housing market in the midst of the economic downturn.

Opinions are mixed on the overall benefit of the FHOG to first home buyers and whether it achieves its desired outcome of increasing market participation amongst these buyers and hence improving their access to home ownership. Some believe that the grant has proved successful in assisting first home buyers into home ownership by helping to fulfil deposit requirements while critics purport that many of these buyers would have eventually entered

the market anyway, with the grant only having a negative effect on affordability by raising prices at the lower end of the housing market.

This research will investigate the impact the FHOG has had on first home buyer participation and house price in ten Perth suburbs popular with these buyers. In particular, the effect of the FHOB which saw the grant doubled for established dwellings and tripled for new homes will be identified to determine whether the increased subsidy has enabled more first home buyers into home ownership or merely increased the price of affordable housing.

1.2 Research Objectives

This research aims to evaluate the FHOG over time as a viable government policy to stimulate the housing market and encourage more first home buyers into home ownership. In particular, this research will endeavour to investigate the grant's impact on sales and price at the lower end of the market, popular with first home buyers.

Specifically, the analysis will aim to explore the influence of the FHOB on the level of first home buyer activity as well as movements in the price of dwellings in the lower quartile segment of the market. The market for established dwellings will be the primary focus as the majority of first home buyers prefer to purchase an existing home. By determining the grant's impact on first home buyer sales and prices at the lower end of the property market, conclusions can then be made on the effectiveness of the FHOG.

The following questions will guide the research:

- Has the First Home Owners Grant achieved the government's desired policy outcome of increasing the proportion of first home buyer activity in the property market?
- What effect has the grant had on house and unit prices at the lower end of the market?
- Did the boost to the grant in 2008 achieve the intended market stimulus of attracting more first home buyers back into the market?
- What are the implications of the proposed phasing out of the FHOB in terms of first home buyer activity and the overall health of the housing market?

Chapter Three will discuss how these research questions were answered by explaining the data used in the analysis, how the research was conducted and the manner by which the final results were derived.

Chapter Two: Literature Review

2.1 Importance of the Housing Industry

The housing industry as an economic sector represents approximately six percent of Australia's GDP (Reserve Bank of Australia 2009b). In addition, the building and construction industry employs more than 350,000 people (Housing Industry Association 2002). New home owners also require additional goods and services which may include furniture, whitegoods and landscaping services. Australian households spend approximately one third of their monthly income on home loan repayments and private dwellings account for almost two thirds of private sector wealth in the country (Housing Assistance in Australia 2008). Thus, the health of the housing sector contributes significantly to the overall health of the economy.

Home ownership in Australia has traditionally been amongst the highest in the developed world. Approximately 70 percent of Australians owned or were in the process of buying their home in 1999. This contrasts with a home ownership rate of 63 percent in Canada and a mere 40 percent in Germany (Australian Bureau of Statistics 2001a). However, the past decade has seen a substantial increase in housing prices and a subsequent reduction in housing affordability around Australia.

2.2 Demand for Housing

Housing is a basic necessity and plays a vital role in contributing to the living standards, health and well being of all Australians. As a result, demand for housing services is highly inelastic. The price elasticity of demand relates the change in quantity demanded as a result of a change in

the price of housing and was estimated to be around -0.7 by Polinsky and Ellwood, although estimates vary greatly (cited in Mayo 1981).

On the other hand, the income elasticity of demand for home ownership is relatively elastic as higher income levels tend to generate more expenditure on home purchases compared to rent (Housing Industry of Australia 2002, p. 4). Higher incomes provide households with the opportunity to save for a housing deposit and to qualify for a home loan. As such, the number of home owners with a mortgage rises positively with income (Australian Institute of Health and Welfare 2008).

Before looking at the sole effect of the FHOG on first home buyers and their decision to purchase a home, it is important to consider the plethora of other factors involved in the demand for home ownership. Population size and growth are key determinants in the demand for housing as the more people there are in the market, the stronger the demand for housing stock. Demographic variables such as the size and age of each household, the rate of marriage and divorce as well as the level of household income are important in establishing the demand for housing as well as the type of dwelling and location preferred by consumers.

Evidently, affordable house prices are vital in a household's decision to buy as well as expectations surrounding future house prices. Furthermore, house prices relative to rental prices are instrumental in determining whether to buy a dwelling as households must compare the cost of a mortgage against the cost of renting a similar property. For example, an average family home in a suburb such as Ellenbrook may fetch \$380 a week in rent. If a household purchases that same dwelling with a \$300,000 loan at a fixed interest rate of six percent, their cost of

housing services will be approximately \$450 a week. Of course, the movement of rental prices and future interest rate changes will affect the long term cost of ownership compared to rental.

The Determination Of Interest Rates

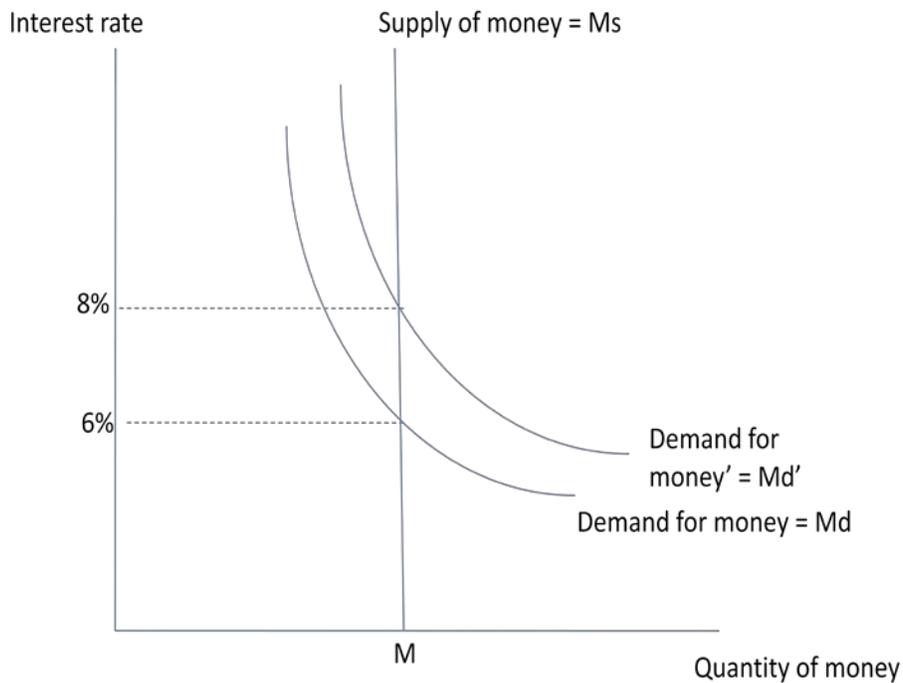


Figure 2.1

Certainly, interest rates greatly influence the demand for home ownership. Interest rates represent the cost to the borrower of borrowing funds, in this case to finance a home purchase. Interest rates rise when the demand for money increases, shown in Figure 2.1. To this end, monetary authorities are inclined to raise official interest rates during periods of economic prosperity when inflation is high and lower interest rates during recessions when the supply of money increases. Interest rates are inversely related to consumption, whereby an increase in the cash rate causes consumption to decline as the cost of borrowing money has risen. Therefore,

when interest rates are raised, the consumption of housing would tend to decline as the cost of borrowing funds for a home loan has increased. Conversely, when interest rates are lowered, consumption would tend to increase as the cost of financing a home has declined. However, there is evidence of an asymmetric effect of interest rates on consumption whereby an increase in the cash rate has a weaker effect on spending than a reduction (MacDonald et al 2009). Figure 2.2 illustrates the effect of an interest rate reduction on the demand for housing. The interest rate reduction in early 2001 contributed to an increase in demand for Perth housing. Subsequently, the quantity of housing stock purchased rose and the price of housing increased.

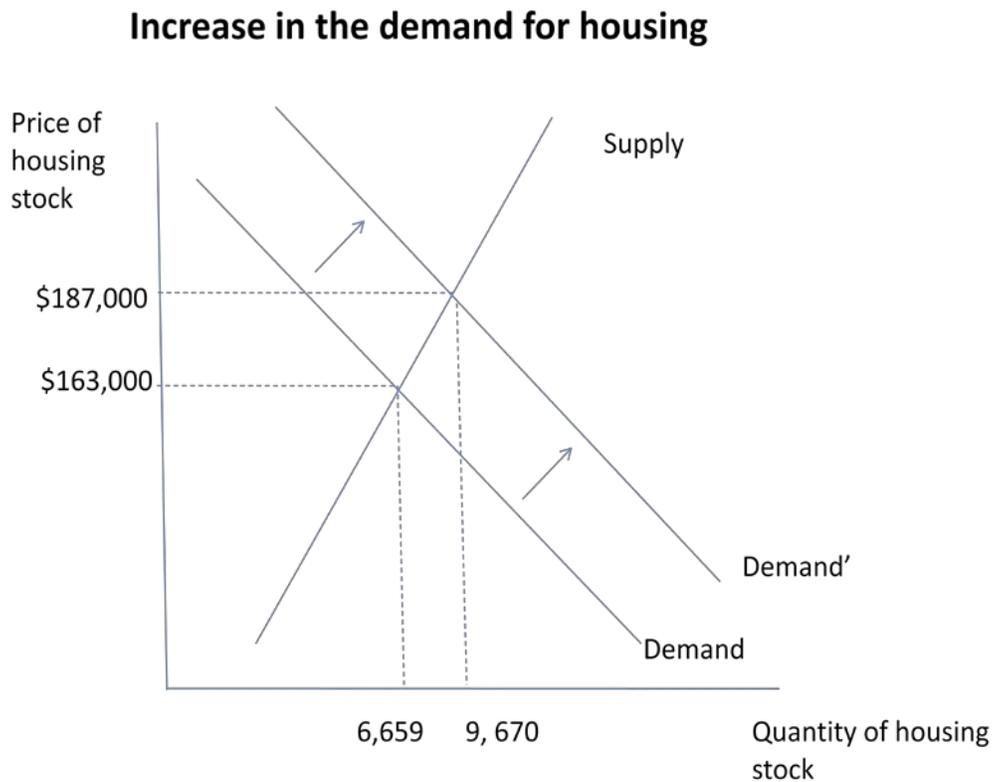


Figure 2.2

Clearly, changing interest rates greatly influence the affordability of home ownership. Recall the example above of a \$300,000 loan for a family home in Ellenbrook at a rate of six percent. Therefore monthly repayments are approximately \$1,900 a month. Suppose that the loan is a variable mortgage and the standard variable interest rate rises over time to eight percent¹. Monthly repayments for the home are now around \$2,300 a month. The cost of housing services for the household has now risen by \$400 a month or almost \$5,000 a year. The additional cost of housing will also lead to a decline in the consumption of other goods and services, consequently affecting the living standards of all members of the household.

In addition, as a twenty per cent deposit is generally required before a home loan is approved, the household's ability to save influences their chances of gaining home ownership. Their ability to save will be dependent on the level of disposable income available as well as other individual characteristics such as current form of tenure. For example, a young couple currently residing in a parental home would tend to have a greater ability to save than a couple living in a rented dwelling. The FHOG may assist buyers in meeting these deposit requirements, thus increasing their ability to purchase a house and possibly accelerating their transition into home ownership.

Further, reductions in transaction costs associated with home purchase can influence the decision of first time buyers to enter the housing market. From July 2004, the W.A. State government introduced stamp duty concessions for first home buyers whereby a house priced below \$250,000 would incur no stamp duty while first home buyers purchasing a dwelling for less than \$300,000 would pay a reduced rate of stamp duty. This threshold was then increased in 2007 to

¹ A variable home loan has a variable interest rate sensitive to economic conditions and is the most common type of loan in Australia. A fixed home loan has a set interest rate for a specific period of time (*Fixed and Variable Rate Mortgages* 2005).

\$500,000 (Department of Treasury and Finance 2007). Costello (2006) examined the impact of the 2004 stamp duty concessions on the Perth housing market by constructing a time series of quarterly demand. The research identified that the announcement of the reductions in stamp duty prior to the enactment of the policy had a negative impact on housing demand as prospective buyers stalled their purchases. Once the concessions had been introduced however, demand rose substantially in specific first home buyer segments of the market. The concessions also produced a lagged effect on the aggregate housing market as sellers of cheaper housing 'traded up' to more expensive properties.

In addition life course factors may encourage individuals to seek home ownership. Individuals generally rent in early adulthood and then move into home purchase as a household is formed through an event such as marriage or the birth of a child. This is then followed by full home ownership in older age. However social trends such as family and relationship breakdown can disrupt this pattern of home ownership. Beer & Faulkner (2009) studied the 'housing careers' of Australians and discovered that demographic processes were influencing the age and number of first home buyers. The authors discovered that despite widespread beliefs, entry to home ownership has not been delayed amongst 25 to 34 year olds with levels of home ownership amongst this demographic actually increasing in recent years. However, due to higher rates of relationship and marriage breakdown more young Australians are now exiting the housing market once gaining home ownership.

Contrary to this finding, Kupke (2008) studied the primary determinants behind home purchase and found that economic and housing market factors including affordable house prices, low interest rates and flexible lending practices were ranked as the most important determinants in

choosing to buy. Life cycle factors such as marriage and the birth of a child were ranked lower in the survey. Employment considerations including new job opportunities or job relocation were also ranked as unimportant in the decision to gain home ownership. Difficulty in finding affordable rental accommodation was ranked highly by those households in the lowest income bracket, suggesting that home buyers on relatively low incomes may be forced into home ownership out of necessity.

In contrast to classical economic theory, the behaviour of home buyers cannot always be assumed to be rational. Emotional and sentimental attachments to particular dwellings and locations can cause participants in the housing market to become irrational when making a decision to buy or sell. When a consumer chooses a house to purchase, they are also choosing a residential location to live in. Therefore characteristics such as the relative safety of the area, the presence of shops and schools nearby as well as the availability of public transport will also feature in the decision to buy.

The inherent preference for home ownership as opposed to rental accommodation by many Australians can also lead to irrational purchases. Many buyers tend to base their decision surrounding what, when and where to buy on generalised assumptions rather than rational grounds (Goss 2009). For example, there is a general assumption that home ownership is more financially beneficial than renting. Although as discussed above, the weekly cost of housing is generally higher for home owners. In addition, prospective buyers tend to believe that house prices and interest rates will always increase; therefore they perceive a relatively urgent need to enter the housing market rather than postponing the purchase and continuing to save for a larger deposit.

2.2 First Home Owners Grant

The First Home Owner's Grant was first introduced in 2000 to offset the effect of the Goods and Services Tax (GST) on house prices. It was to be administered by all state and territory governments in Australia. At its inception, the grant offered a one-off \$7,000 endowment to all first time buyers of established dwellings or new homes and land. Recipients must not have previously owned or held an interest in a residential property in Australia prior to 1 July 2000. Those in receipt of the grant must have signed the contract to buy a home or started building a home on or after 1 July 2000. To be eligible for the grant for new homes, the applicant must have purchased a home which had not previously been sold or occupied. The grant was not means-tested but was offered on the premise that the recipient would occupy the purchased dwelling as their principal place of residence. All applicants must reside in the home for a continuous period of at least six months commencing within twelve months of the transaction (Office of State Revenue 2009).

The First Home Owner's Grant as a direct subsidy to first home buyers has the same effect on the economy as any government fiscal subsidy. A subsidy is a government payment awarded to the producer or consumer in order to protect and promote growth in a certain area of the economy. Subsidies have the opposite effect of taxes whereby they reduce the price paid by buyers, increase the price received by sellers and increase the quantity of the good. This is shown in Figure 2.3 below.

The Effect of the First Home Owners Grant

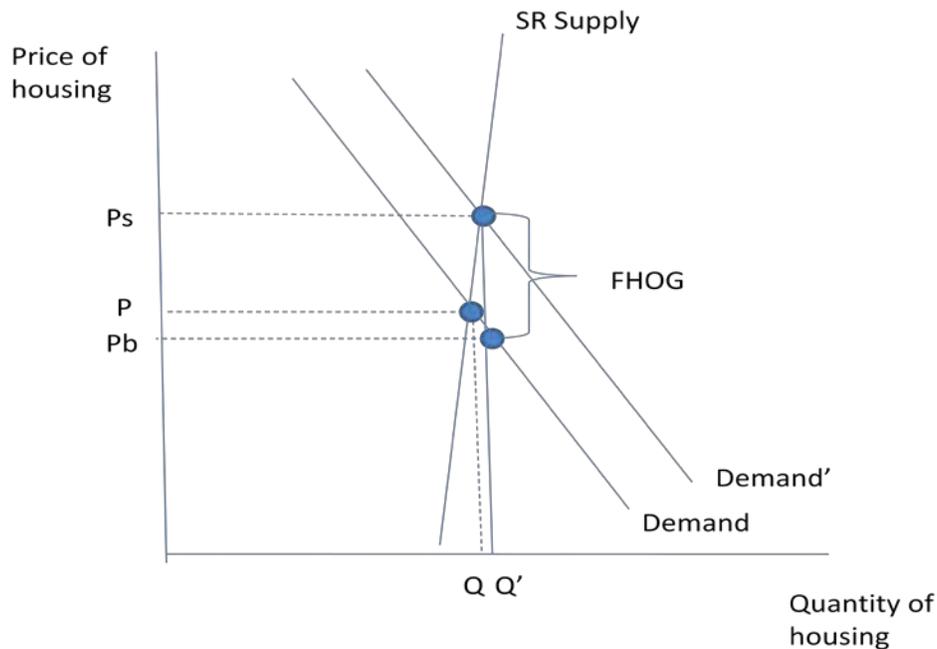


Figure 2.3

The subsidy is awarded to consumers which increases the demand for housing to *Demand'*. Consequently, the quantity of housing stock has now increased in the market. Buyers now pay the lower price *Pb* and sellers receive the higher price *Ps* for housing stock. Therefore the benefit of the subsidy is shared between buyers and sellers. Who benefits more from the grant is dependent on the relative elasticities of demand and supply, discussed in sections 2.2 and 2.4. In Figure 2.3, demand is relatively more elastic than short run supply so the seller receives more of the grant's benefit. For example, the consumer receives the \$7000 grant however as a result; the house price rises by \$5000, at least in the short run. Therefore, in theory, the price of housing will rise given the introduction of the grant. This has the benefit of increasing property value and equity for existing owners as well as boosting the market but affects housing affordability for buyers.

Since its introduction, the FHOG has been increased temporarily in 2001 and 2008. Between March and December 2001, the Commonwealth Additional Grant (CAG) was introduced, offering first home buyers \$14,000 for the purchase or construction of new homes only. Few first home buyers had taken advantage of the \$7,000 grant for the construction of a new home due to the high price of building supplies and services after the introduction of the GST (Gilfillan 2001). Therefore a further boost to the fledgling construction industry was needed. From January to June 2002, the grant was reduced back to \$10,000. At the end of this period, the grant was then reduced to its standard \$7000 for both new and existing properties and remained at this level until October 2008.

As a result of the economic downturn which threatened the housing and construction industry, Prime Minister Kevin Rudd announced a boost to the existing scheme to stimulate the housing market, particularly the construction of new homes. From October 2008 to June 2009, eligible first home buyers were entitled to \$14,000 towards the purchase of an existing home and \$21,000 towards the purchase or construction of a new dwelling. The boosted grant was then extended until September 2009, after which it was halved before ending on 31 December 2009. For buyers to be eligible for the increased assistance, they must have entered into a contract for an established home or for the purchase of a newly built home between 14 October 2008 and 31 December 2009. For applicants building a new home, construction must have commenced within 26 weeks of the contract and be completed within eighteen months (Office of State Revenue 2009).

Despite the sizeable grant available for new homes and land, the Department of Treasury and Finance (cited in De Brito 2009) received almost twice the number of FHOG applications to

purchase existing homes than to build new homes since the boost was announced. This was not a new phenomenon either with long term statistics showing that 80 percent of first home buyers buy established homes and only 20 percent build new homes (De Brito 2009, p.36). Although the \$21,000 stimulus led to a higher number of grants issued for the purchase of a new home or land, this number was still less than half of the grants issued for existing homes (see Table 2.1). This suggests that the increased grant may have little impact on the supply of housing, merely pushing up demand for existing housing stock and therefore influencing price.

| YTD | Total Grants | New homes and land | Grants for Existing Homes |
|------------|--------------|--------------------|---------------------------|
| 6/30/2009 | 7,140 | 2,263 | 4,877 |
| 3/31/2009 | 5,105 | 1,272 | 3,833 |
| 12/31/2008 | 4,541 | 1,076 | 3,465 |

Table 2.1 Proportion of Grants Issued for New and Existing Homes

Since the grant's inception, several studies have been published on the First Home Owner's Grant and its impact on housing affordability. The Australian Housing and Urban Research Institute have published several reports on the subsidy. Yates (2003) studied the impact of housing assistance, such as the FHOG, on home ownership levels in Australia and contrasted the standard \$7,000 grant with the increased \$14,000 temporarily available for new homes in 2001. The author discovered that the grant had a significantly greater impact on home ownership, construction and affordability at the \$14,000 level.

Yates' study is similar to this research however this study will focus exclusively on the Perth market. Prices in Western Australia have increased exponentially as a result of population

growth and a booming state economy. During the housing boom of 2005, Perth's average house price rose by 22.5 percent, far exceeding growth of the traditional market leaders Melbourne and Sydney (Australian Bureau of Statistics 2005). In addition, median rents in Perth rose by 25 percent over the same year (Perth Property Market 2006).

Moreover, the Reserve Bank's submission to the Productivity Commission on first home ownership investigated the affordability of home ownership and factors which have led to recent increases in house prices (Reserve Bank of Australia 2003). The report found that housing affordability had fallen significantly over the past few decades. The typical home loan deposit was equivalent to approximately 25 per cent of average annual household income in 1990. By 2003, this figure had risen to 45 per cent. However, the report found that the deposit constraint on home ownership had been eased somewhat for first home buyers by the introduction of the FHOG.

The Reserve Bank also reported that the total number of first time buyers peaked in 2001 as a result of the \$7000 grant's introduction as well as the temporary \$14,000 grant offered for new home purchases. This phenomenon reflects the fact that many first home buyers would have delayed their purchases until the grant became available or brought forward their purchases to qualify for the temporary \$14,000 grant. Although the standard \$7000 First Home Owner's Grant became a permanent subsidy, the Reserve Bank found that the number of first home buyers had fallen sharply since the end of 2001. This suggests that the standard \$7000 grant on its own may not be enough to encourage more buyers into the market. This study will build on the work completed by the RBA in determining the effectiveness of the \$7000 grant and whether temporary increases have a greater impact on participation and affordability.

The characteristics of first home buyers and their aspirations and attitudes towards home ownership were studied by Kupke and Marano (2002). The authors discovered that the FHOG was viewed positively by first time buyers with stamp duty exemptions and lower interest rates also ranked as important factors in gaining home ownership. The grant was cited as the primary determinant of the exact timing of a housing purchase.

In contrast, a recent survey conducted by Bankwest and the Mortgage Finance Association of Australia (MFAA) discovered that a mere 6.2% of first time buyers cited the First Home Owner's Grant as the reason behind their decision to purchase a home (Irvine 2009). Instead, low interest rates and lower house prices were identified as contributing to strong first home buyer sentiment in the market. Would-be buyers were also looking at other ways to help them enter the market such as assistance from family and living at home to raise an adequate deposit. There were also prospective first home buyers who were choosing to postpone their purchase until the FHOG ended in the hope that the market would then settle.

Additionally, Wood et al (2003) used the Australian Housing Market Microsimulation model to assess the impact of Federal and State policy measures on the housing market. The FHOG was included in the analysis and was found to have a substantial effect on relaxing borrowing constraints for first time buyers. The grant enhances the savings of the potential homebuyers in order to fulfil their deposit requirements for a home loan. The authors also investigated whether the FHOG resulted in 'cream-skimming' or whether it had trickle-down effects. The results of the study found that most first home buyers would have purchased a home eventually even without the grant. This was a key finding as it questions whether the grant improves affordability

for all prospective home owners in the market or whether it merely speeds up the process of home ownership for those who are fortunate enough to afford a house anyway.

Wood et al (2006) also performed micro simulation modelling on the tenure choice of Australians and the impact of government interventions such as the FHOG on these choices and general housing market outcomes. The authors draw comparisons on the standard grant and the \$14,000 grant available to new home buyers in 2001. Similarly to Yates' study, the authors identified a much stronger impact of the \$14,000 grant compared to the standard subsidy. They also observed that rental tenants are more likely to move into home ownership with the grant set at the \$14,000 level. Younger age groups appear to benefit most from the FHOG with the grant accelerating their transition into home ownership by eight years. As younger buyers would tend to have fewer savings to put towards a housing deposit, the government assistance may contribute significantly to their deposit.

More recently, there has been widespread media coverage on the effect of the FHOB on the housing market and whether it has been successful in stimulating the industry. The Housing Industry Association of Australia believes the current conditions for first home buyers are the best they have been in over seven years, given the assistance of the increased grant coupled with very low interest rates (2009). In contrast, Keen (cited in Milne 2009) believes the current conditions for first time buyers may induce a similar sub-prime crisis to the United States as the unemployment rate continues to rise and first home buyers rely on interest rates remaining at their present lows. Economists such as Keen and Minack are concerned that a housing price bubble is developing (Milne 2009). As buyers face time constraints in searching for a home prior to the boost's deadline, irrational impulse purchases may be made in order to receive the FHOB

without consideration of the long term costs of home ownership and the dangers of excessive debt.

2.3 The Supply of Housing

Housing is a highly durable commodity; therefore the supply of residential property is determined by the existing housing stock, the rate of depreciation and renovation of this stock, and the flow of new stock into the market. New construction can allow for considerable variation in housing stock over long time periods. Construction at a rate of 3.5 per cent a year adds 40 percent to the stock of housing over a decade (Muth & Goodman 1989). However, if no new construction takes place, stock declines considerably. Thus the elasticity of supply of housing depends largely upon the elasticity of new construction. Residential construction is influenced by the price of existing stock, the cost of building materials, the wages and supply of workers employed in the construction industry as well as the rate of land release and building approvals by governments. Rowley and Costello (2010 forthcoming) found lot approvals are a strong indicator of final land supply.

Figure 2.4 illustrates the effect of high building costs on the supply of housing. The GST introduced in 2000 contributed to higher costs for building supplies and services which led to a significant slowdown in residential construction activity. When building costs increase, developers face weaker profits and therefore will reduce the number of new homes they construct. Some developers may also leave the industry, leading to a reduction in the short run supply of new housing and therefore an increase in house price. The Perth median house price rose by \$10,000 in the year following the GST's introduction with building approvals declining considerably (ABS 2009a).

Decrease in the supply of housing

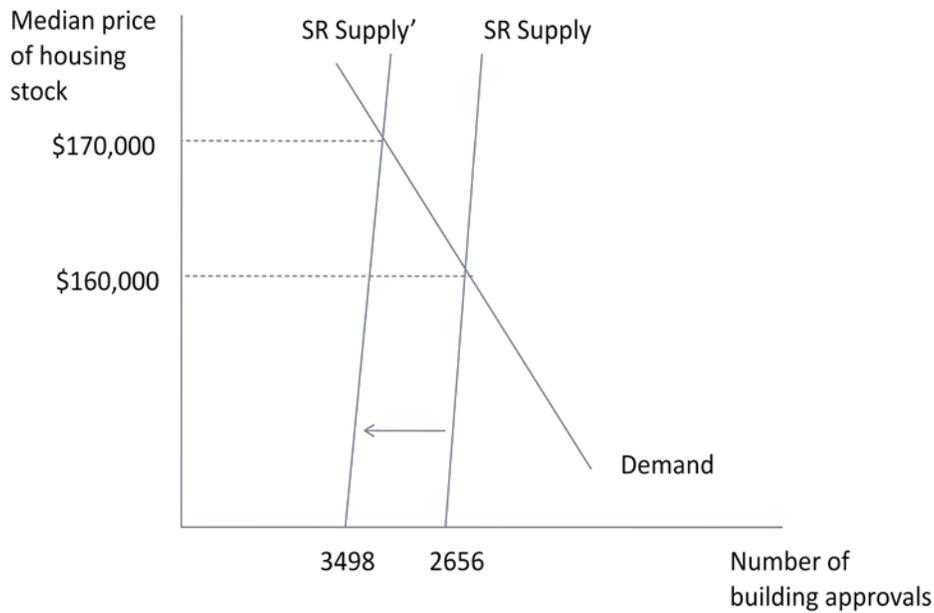


Figure 2.4

The elasticity of supply relates the change in quantity supplied as a result of a change in the price of housing. In the long run, the supply of housing services is deemed to be rather elastic as the supply of land and residential construction can respond to changes in price (Muth and Goodman 1989). In the short run however, the supply of land and housing is likely to be very inelastic as shown in Figure 2.4, because it takes time for new lots to be approved and for zoning regulations to change as well as for construction to be completed. The short run elasticity of supply was estimated to be between 0.24 and 0.83 by Rydell (cited in DiPasquale 1999). Housing in Australia is of a relatively low density with separate houses a popular dwelling type. Therefore expanding the housing supply takes a considerable length of time, particularly within the capital

cities such as Perth. As a result, there was an estimated shortfall in housing supply of 30,000 dwellings in Australia in 2007 (Housing Assistance in Australia 2008).

In the short run therefore, any increases in demand would be expected to generate a rise in house price as supply is slow to respond to a change in price. In particular, the supply of housing in urban areas close to capital cities is estimated to be more inelastic due to the lack of available land for residential development. It is expected that these areas would experience higher house prices than suburbs on the fringe of the city as supply cannot adjust significantly to an increase in housing demand. Richards (2008) found that average annual growth in house prices for inner-city suburbs has been approximately two percent higher than for suburbs close to the edge of the city.

Chapter Three: Methodology

3.1 Introduction

This research will examine the effect of the First Home Owner's Grant on the Perth housing market by empirical analysis of the top ten First Home Buyer suburbs in the metropolitan region. These suburbs were selected from the Office of State Revenue's top twenty suburbs with the highest number of grants issued from the year 2000/2001 to 2008/2009. The ten suburbs which appeared most frequently in the list over the nine year period were selected for analysis as they represented the areas with the highest proportion of first home buyers in need of government assistance. It was important that all the suburbs featured in the list for the year 2008/2009 to determine what effect the FHOB had had on each market (*see appendix 2*). Ten suburbs were selected as this number provided a broad indicator of activity in different areas of Perth and enabled key trends in the market to be determined without being too large a data set to work with effectively.

3.2 Data

Data on the number of grants paid out by the Office of State Revenue was used to identify how many grants have been issued to successful applicants per quarterly period since the grant's inception. This data shows the total number of grants paid out in Western Australia per quarter as well as separating the number of grants issued for new homes and land and those issued for existing dwellings. The data also identifies the median price of dwellings purchased by grant recipients. As discussed in Chapter Two, the records provide evidence that the majority of First Home Owner Grants are issued for the purchase of existing property. Thus this analysis

primarily concentrated on the effect of the grant on existing dwellings to determine whether the subsidy had its desired impact on the ten suburbs selected.

Data from these ten suburbs was sourced from the Real Estate Institute of Western Australia (REIWA). The data included every property transaction which occurred in each suburb for the period July 1999 to June 2009. This data provided information on sale price and land area, as well as the characteristics of each property. Using this data a quarterly time series was constructed for each suburb to identify trends such as the movement of median and lower quartile house price over the time period as well as the level of sales (*see appendix 1*). A time series for the Perth metropolitan region was also sourced from REIWA to compare trends in each suburb with the Perth median.

In addition, building approvals data was sourced from the Australian Bureau of Statistics (ABS) to determine the extent of construction activity when the grant was introduced and when it was increased in 2008. This data is seasonally adjusted and illustrates the number of building approvals granted for the construction of private houses per quarter. Data on housing finance commitments by first home buyers was also obtained from the ABS. This data shows the number of dwellings financed by first home buyers in Western Australia to determine the number of first home buyers in the mortgage market.

Data on land supply for each of these ten suburbs was also sourced from the State Lot Activity Report published by the Ministry of Planning. This data represented the number of lot approvals granted each year for each of the top ten suburbs. The data range was 2000/2001 to 2008/2009. The percentage change in the number of lot approvals each year for this data range was calculated to identify how rapidly the supply of land was contracting or expanding for each

chosen suburb. In addition, data on the amount of housing stock available from the 2001 and 2006 Census aided in assessing the level of construction activity in each suburb.

Additionally, the demographic characteristics of each first home buyer suburb were observed by sourcing data from the 2001 and 2006 Census of Population and Housing from the ABS. This data contains relevant characteristics including household size, family type and median household income. This information was used to provide a background for each suburb in order to investigate the relationship between demographic characteristics and the structure of the housing market.

Interest rate data was retrieved from the Reserve Bank of Australia's statistical tables. The data showed the cash rate target for each incremental rate change performed by the Bank. This information was organised into quarterly data from the third quarter of 1999 to the second quarter of 2009 to identify the interest rate level for each period of the analysis. This time series of interest rate data was used to identify the relationship between interest rates and market activity.

3.3 Process of Analysis

The time series was compiled by firstly filtering the sales data to remove irrelevant transactions which would not benefit the analysis. Rural and commercial properties were removed as the analysis intended to focus on activity in the residential property market. Property sales below \$10,000 and dwellings above \$1.5 million were also excluded as these sales would likely skew the results and provide unreliable estimates. In addition, most first home buyers would not be able to afford dwellings in excess of \$1.5 million thus the FHOB would not be expected to have

any impact on these sales. Land sales in excess of this amount were included in the time series, provided they were within a residential development zoning. Thus it would be possible that the developed land or new homes built on the property would then be purchased by first home buyers.

The data was then sorted into house, unit and land sales for each suburb. House sales comprised all properties classed as house, group house, townhouse, semi-detached house, terrace house and villa house. Unit sales included those dwellings classed as home unit, duplex, duplex unit, triplex, triplex unit, quadruplex, quadruplex unit, flat and apartment. All suburbs had a sufficient number of house and land sales to justify the analysis however many suburbs had a very low number of unit sales, in which case a time series for units in those areas was not constructed. All data was measured quarterly to ensure a sufficient number of sales for the analysis and to identify the immediate impact of any shocks on the housing market. In this manner, any shocks created by the introduction of the FHOG as well as periodic changes to the subsidy were discovered. Demand or supply shocks caused by other factors including the introduction of stamp duty exemptions in 2004 as well as interest rate changes were also identified in the analysis.

Once the time series was compiled, the key information was retrieved for the analysis. This included the number of sales, lower quartile price and median price for each suburb by quarter (*see appendix 1*). This data was calculated for houses, land and, where relevant, units. The percentage change in median price was also calculated to identify significant changes in price over time. The proportion of sales in the lower quartile segment of the market and those below Perth's median price were detected to analyse sales activity at the lower end of the market.

Sales and price levels in the median and lower quartile brackets of each suburb were the main focus as the majority of first home buyers eligible for the FHOG would be aiming to purchase a home at the lower end of each market. First home buyers are typically young couples aged in their 20s and 30s who have limited personal savings to fund a home loan deposit. Therefore more affordable properties below the Perth median price will be popular with this demographic. First home buyers who can purchase a house at a relatively affordable price will require a smaller loan, thereby reducing the size of their deposit and the repayments they will be required to make each month. Buyers in the upper quartile segment of the market would be less likely to be first time buyers and any first home owners who could afford dwellings in the upper quartile bracket would tend not to value the grant as an important determinant of home ownership.

3.4 Derivation of Results

The results were derived by constructing graphs from the data to observe movements in sales and price. These graphs combined the median price in each suburb with the lower quartile price and compared these prices to the Perth median (*see appendix 1*). These figures were used to compare the level of activity in each suburb to the Perth market. The number of lot approvals granted each year was quantified over the period 2000/2001 to 2004/2005 and compared to the change in housing stock to determine whether the supply of land was improving and the extent of residential construction on this land.

To determine the extent of first home buyer activity in each market, the number of grants issued per quarter was compared to the lower quartile sales in each suburb to establish any clear relationship between the FHOG and sales at the bottom end of each market. First home buyers purchasing properties in the lower quartile would have a propensity to value the FHOG relatively

highly as it would contribute substantially to a housing deposit for these homes, particularly in the most affordable first home buyer suburbs.

Where data was available on the total number of grants issued in a particular suburb for a given year, this number was compared to total house and unit sales to determine first home buyer sales. In suburbs with a significant proportion of land sales, it was assumed that one third of total grants would be used for land purchase and the remaining grants for house or unit purchase².

² Taken from the Department of Treasury and Finance's data on the proportion of grants used for established dwellings compared to those issued for new home and land purchases. Discussed at greater length in Chapter Two.

Chapter Four: Results and Discussion

4.0 Introduction

This chapter will present the results derived from the analysis of each suburb and provide a discussion of the level of first home buyer activity in each market. The chapter will ultimately determine what effect the FHOG has had on Perth's housing market in general followed by its impact on each sub-market and whether the grant has been more effective in some suburbs compared to others. A background of the Perth metropolitan region as well as each suburb in the analysis will be provided to illustrate the demographic characteristics of the Perth market and each sub-market. A summary of the key statistics for each suburb are provided in Table 4.1 below with Figure 4.1 illustrating the location of all ten first home buyer suburbs included in this analysis.

Key trends occurring in each market over the time series will be illustrated through the use of graphs comparing the median price for each suburb with the lower quartile price and Perth's median price. The number of grants issued in each quarter will be compared to the number of lower quartile sales occurring in the same period to determine any clear relationship between the FHOG and sales at the lower end of the market. The proportion of first home buyer sales in each market since the FHOB was introduced will also be discussed as well as movements in the price of housing at the lower end of each market. Each section will end with a short summary stating the key findings of the research. Finally, the chapter will conclude with a summary of the recent effects of the FHOB on first home buyer activity and price.

Summary of First Home Buyer Suburbs

| Suburb | Population* | Median house price | Lower quartile house price | % of sales below Perth median price | Growth in land supply** | Growth in housing stock* |
|--------------|-------------|--------------------|----------------------------|-------------------------------------|-------------------------|--------------------------|
| Armadale | 12,019 | \$270,000 | \$250,000 | 94 | 170 | -2,498 |
| Beechboro | 12,884 | \$362,750 | \$341,500 | 88 | 1,017 | 723 |
| Butler | 5,056 | \$405,000 | \$375,000 | 71 | 2,810 | 1,732 |
| Canning Vale | 23,289 | \$500,000 | \$446,750 | 24 | 5,058 | 3,182 |
| Ellenbrook | 10,477 | \$390,000 | \$367,000 | 79 | 3,582 | 1,723 |
| Gosnells | 17,277 | \$305,000 | \$289,500 | 100 | 752 | 597 |
| Maylands | 10,448 | \$410,000 | \$340,000 | 57 | 305 | 341 |
| Morley | 18,564 | \$430,000 | \$374,500 | 62 | 595 | 398 |
| Nollamara | 7,560 | \$393,500 | \$370,000 | 84 | 253 | 480 |
| Thornlie | 22,265 | \$360,000 | \$316,500 | 82 | 400 | 244 |

* As at 2006 Census

** From July 2000 to June 2008

Table 4.1



Figure 4.1 Map of First Home Buyer Suburbs

4.1 Perth Metropolitan Region

4.1.1 Background

Perth has experienced rapid economic growth over the past five years due to the strong demand for Western Australia's valuable natural resource base. The city's population has grown substantially above the national average as inter-state and overseas migrants arrive to share in the region's wealth. This significant population growth has pushed demand for housing stock in the state capital to extreme levels and consequently prices have risen dramatically. Similarly to other Australian cities, home ownership has traditionally been the most popular choice of tenure for Perth households.

2006 Census QuickStats: Perth
(Statistical Division)

| | | | |
|---------------------------------|-----------|---------------------------------|---------|
| Population | 1,445,078 | Tenure type | |
| Median household income* | \$1,086 | Being purchased | 37.60% |
| Average household size | 2.5 | Fully owned | 29.60% |
| Household composition | | Rented | 24.70% |
| Family | 67.20% | Dwelling characteristics | |
| Lone person | 23.60% | Separate house | 78.10% |
| Group | 3.60% | Flat, unit or apartment | 9.40% |
| Family characteristics | | Semi-detached, row or terrace | 11.90% |
| Couples with children | 45.80% | Median loan repayment** | \$1,300 |
| Couples w/o children | 37.10% | Median rent* | \$180 |
| One parent | 15.20% | Housing stock | NA |

* Measured weekly

** Measured monthly

Table 4.1.1

As approximately 67 per cent of Perth households are families, Perth buyers typically demand low to medium density separate dwellings on a sizeable block within a relatively short distance

to the coast. This has resulted in an ever-increasing suburban sprawl along Perth's coastline. Although the economy has slowed somewhat over the past year as a result of the global financial crisis, new resource projects planned for the coming years are expected to generate further growth in Western Australia and new employment opportunities. These developments will no doubt encourage further population growth in the state, thus once again strengthening demand for Perth's housing stock.

Such strong activity in the housing market has made it difficult for first home buyers to enter the Perth market. As a result, rental vacancy rates have fallen and prices have soared as potential buyers are forced to rent as a long term or transitional tenure due to the lack of affordability in home ownership. The market for units in the Perth metropolitan area has grown to some extent as first time buyers desperate to enter the market consider units as a cheaper alternative to a full sized dwelling³. For many Perth buyers however, units are considered an inferior good when compared to the typical 'four by two' suburban home.

4.1.2 Key Market Trends

The Perth market experienced a sharp rise in sales following the introduction of the FHOG and successive interest rate cuts in 2001. As mentioned in Chapter Two, interest rates can greatly influence a household's decision to buy a home and their ability to service a mortgage. As shown in Figure 4.1.2, the median price of Perth homes began to rise in early 2001 as the cash rate fell. Price then continued to rise throughout most of the decade due to strong demand caused by rapid population growth, strong employment and income growth in the region. Demand was generated

³ Defined here as a three to four bedroom house on a private block with a minimum land area of 200 square metres.

by owner-occupiers as well as investors wanting to take advantage of Perth's rising house and rental prices.

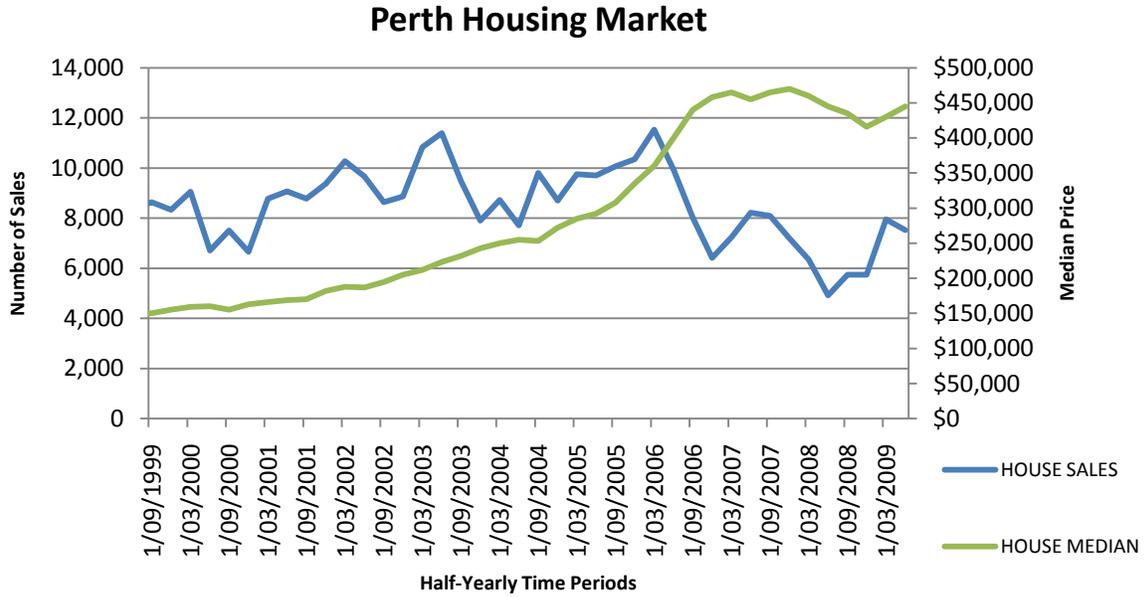


Figure 4.1.1

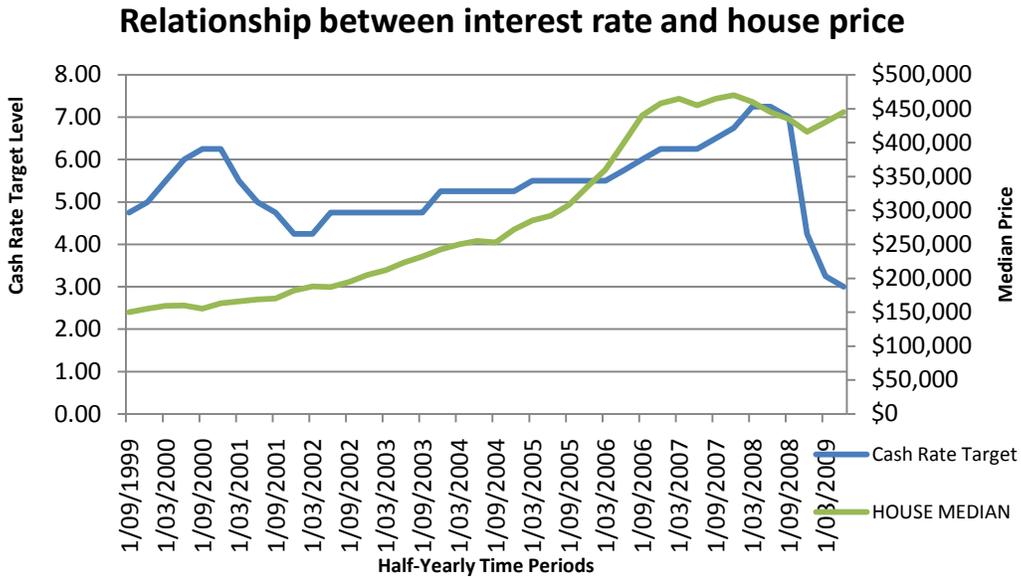


Figure 4.1.2

The supply of land improved consistently in the Perth region from 2000 to 2006 with construction activity rebounding in 2001 and reaching a peak in mid 2006. However as illustrated, price continued to rise steadily over this period, indicating supply was not able to keep pace with strengthening demand. As shown in Figure 4.1.1, prices remained high despite the significant fall in sales in 2006 as building approvals and land supply dwindled⁴.

House and unit sales fell to their lowest level in early 2008 after successive interest rate hikes and affordability issues dampened demand, shown by the sharp fall in median prices. As expected, the consecutive interest rate cuts later that year contributed to strong sales growth in early 2009. The evidence here suggests that large, consistent reductions in interest rates such as those experienced in the latter part of 2008 and early 2009 can have an immediate impact on consumption in the economy.

As a result of this strong demand, the first half of 2009 saw positive growth in the median house price of approximately 7 percent. Unit prices rose 9 percent, suggesting strong demand for Perth's relatively more affordable units.

4.1.3 First Home Buyer Activity

The number of First Home Owner Grants issued for the purchase of existing dwellings appears to correlate reasonably well with the number of house and unit sales in 2001 and the beginning of 2002. The fall in sales prior to the introduction of the FHOG is evidence of the slowdown in construction activity as well as first home buyers postponing their purchases until the grant was implemented. Dwellings financed by first home buyers then increased by 78 percent in the year

⁴ Building approvals fell 28 percent for the year ending September 2007. The supply of land contracted by 8% during the same period.

following the grant's introduction. First home buyers accounted for almost a third of total house and unit sales. However the lower quartile price appears to have responded to the level of first home buyer activity in the market during this period. In fact, the median price of dwellings financed by first home buyers increased by 17 percent in the two years following the grant's introduction.

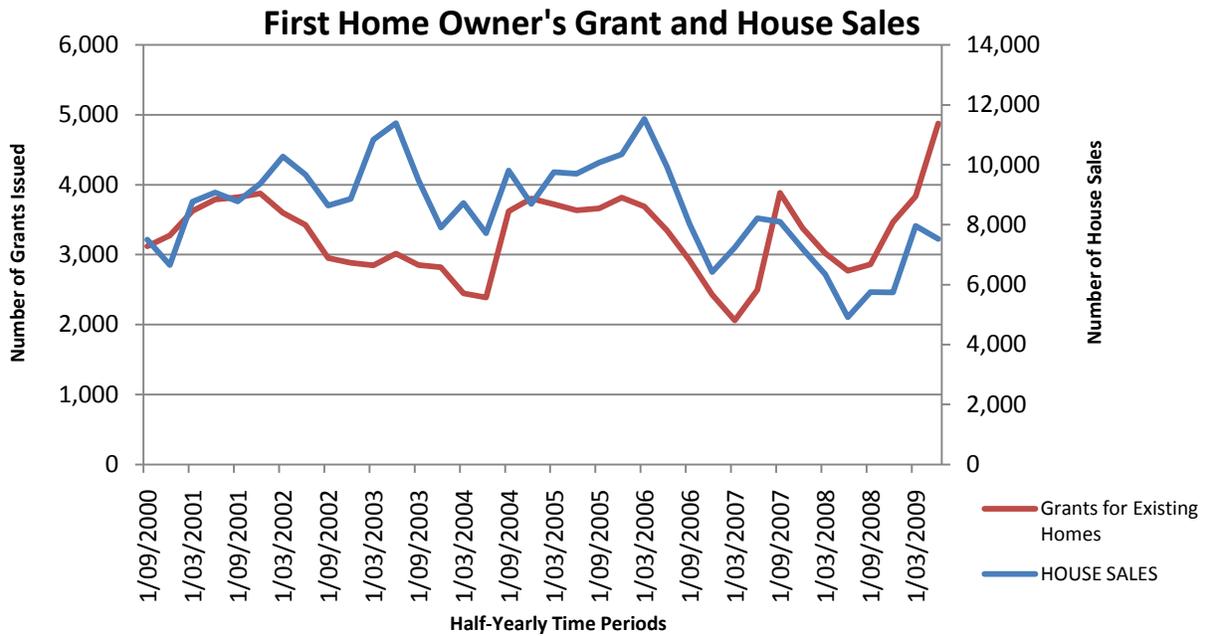


Figure 4.1.3

The proportion of first home buyer activity declined from 2002 as rising house prices and interest rates reduced the effectiveness of the FHOG. The median price of dwellings financed by first home buyers in Perth consistently increased before finally falling in mid 2008. Since then, house and unit sales have grown steadily which provides evidence that the FHOB, low interest rates and lower house prices are encouraging first home buyers back into the market. Dwellings financed by these buyers increased by 62 percent in the eight months following the FHOB

announcement with first home buyers accounting for approximately 40 percent of all house and unit sales in the Perth region⁵.

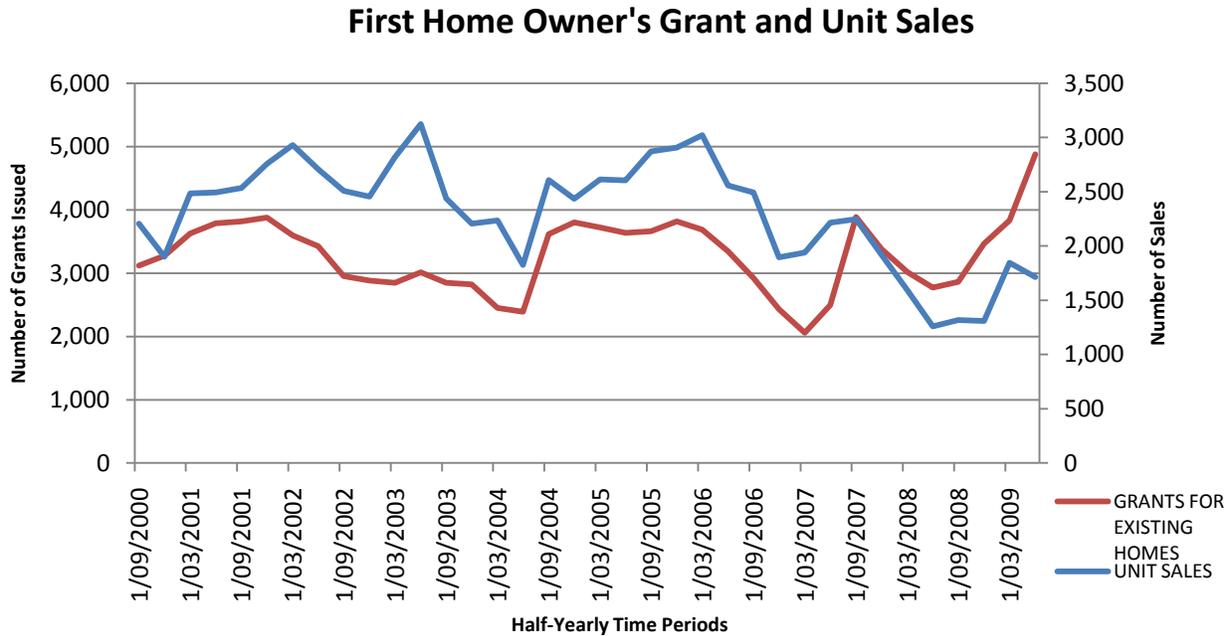


Figure 4.1.4

The slight decline in activity in the second quarter of 2009 may be due to the limited number of affordable dwellings available for purchase in Perth, particularly units. First home buyers may also be deterred by the rising median price of dwellings and uncertainty surrounding the proposed end date of the FHOB stimulus. Those first home buyers willing to take advantage of the FHOB would have ensured they applied immediately following the Federal Government's announcement in October 2008 as the boost was initially intended to cease in July 2009. The extension to the FHOB was not announced until May's Federal Budget thus buyers may have

⁵ Number of grants issued for existing dwellings was 15,038 in W.A. Assuming approximately 500 grants are issued to regional buyers in popular areas such as Bunbury and Kalgoorlie, around 14,500 grants are paid to Perth buyers. Total house and unit sales for the year were 33,151 therefore first home buyers accounted for approximately 40% of sales, assuming the majority of these dwellings were established homes.

thought they were too late to take advantage of the stimulus. In addition, due to the overwhelming demand for housing finance by first home buyers, financial institutions are taking longer to approve mortgages for these buyers. Financial institutions also tightened their lending criteria for home buyers wishing to finance their homes to avoid a similar sub-prime crisis to the United States (*Banks tightening lending criteria 2009*).

In response to this demand, the lower quartile house price increased slightly in the first half of 2009 although not as significantly as the median, suggesting that the reduction in interest rates had a greater effect on demand for the Perth market as a whole. Unit prices had the largest increase in price, suggesting that first home buyer demand for units was exceptionally strong. Due to the lower sale price of these dwellings and therefore the smaller average loan size, the FHOB may contribute substantially to a home loan deposit for a unit. For example, if a \$200,000 unit requires a 20 percent deposit of \$40,000, the \$14,000 grant will contribute to more than a third of the unit's deposit. However the existing supply of units in Perth is very low given the tradition of building low density, detached housing in the metropolitan region. At this stage, the median price of dwellings purchased by FHOG recipients has increased by 4 percent since the beginning of 2009.

In summary, first home buyers accounted for approximately one third of all house and unit sales following the introduction of the FHOG in 2000. The proportion of first home buyer activity then declined as rising house prices negated the effectiveness of the grant. However, the announcement of the FHOB and interest rate reductions at the end of 2008 appears to have attracted many first home buyers back into the market with these buyers accounting for around 40 percent of all sales. House sales at the lower end of Perth's market may decline as the FHOB

is scaled back however as the economy is showing positive signs of recovery, trade-up buyers and investors may return.

4.2 Armadale

4.2.1 Background

Armadale is an older suburb of Perth, located on the south-eastern edge of the metropolitan region, approximately 28 kilometres from the CBD. The majority of Armadale's population is of low socio-economic status with a median household income well below the metropolitan average. As such, Armadale is one of the most affordable suburbs in Perth with median rental prices and housing loan repayments well below the Perth average. Approximately 94 percent of houses sold in Armadale are at prices below the Perth median. This pattern suggests that Armadale's property market is relatively more affordable for first time buyers than the Perth market on average.

The suburb's declining population may be a result of the strong income growth in Western Australia which could have prompted former residents to move to more affluent areas of the city. The occupations of many of Armadale's residents were traditionally low paid however with the onset of the resources boom in Western Australia and subsequent labour shortages, some technicians, trade workers and labourers have been able to demand higher incomes and improve their living standards.

2006 Census QuickStats: Armadale (State Suburb)

| | | | |
|---------------------------------|--------|---------------------------------|--------|
| Population | 12,019 | Tenure type | |
| Median household income* | \$699 | Being purchased | 34.30% |
| Average household size | 2.3 | Fully owned | 26.30% |
| Household composition | | Rented | 29.60% |
| Family | 61.30% | Dwelling characteristics | |
| Lone person | 31.10% | Separate house | 80.40% |
| Group | 2.90% | Flat, unit or apartment | 12.00% |
| Family characteristics | | Semi-detached, row or terrace | 7.30% |
| Couples with children | 37.30% | Median loan repayment** | \$867 |
| Couples w/o children | 36.60% | Median rent* | \$150 |
| One parent | 24.20% | Housing stock | 5,378 |

* Measured weekly

** Measured monthly

Table 4.2.1

Evidently, there has been little residential development in the suburb with new lot approvals remaining low throughout most of the decade. Therefore, Armadale's existing housing stock is rather old with the majority of stock built prior to the 1990s. Some of these older dwellings are likely to have deteriorated or been demolished, contributing to the large decline in housing stock.

The decline in the level of home ownership may be a result of the low socio-economic status of Armadale's population as well as the growing number of individuals in the suburb who are classed as never married, separated or divorced. The growing number of units occupied may be a result of this increasing number of lone person households in the area. There is generally a high rental rate among lone person and single parent households which may account for the growing rental market in the suburb.

4.2.2 Key Market Trends

House sales in Armadale have remained relatively low and stable in contrast to other suburbs which may be a result of the suburb's declining population. The age of housing stock in Armadale and the lack of residential development in the area may also be behind this inactivity in the housing market. The lack of available housing in Armadale can also explain the rapid increase in median house price despite the low number of sales reported.

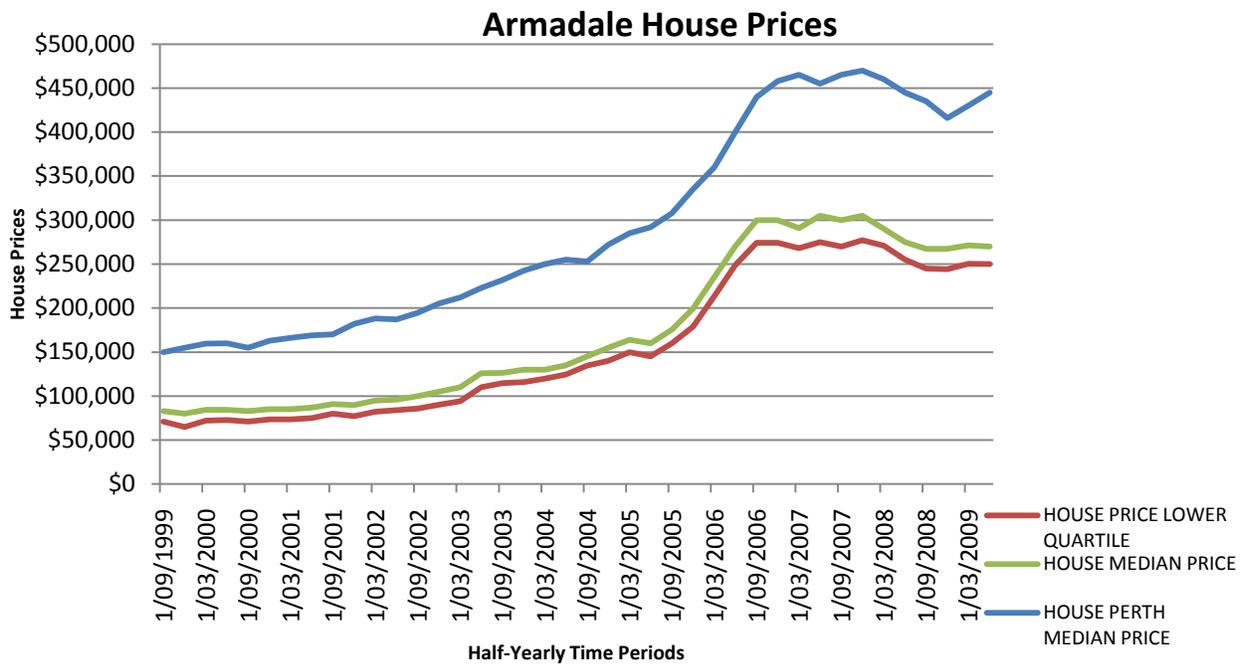


Figure 4.2.1

As shown in Figure 4.2.1, house prices in Armadale are well below the Perth median. However the median price of dwellings did experience a gradual increase over the time series as a result of growing demand from buyers and investors. This increase in price is consistent with the performance of the Perth market. In particular, the price of units has grown tremendously. It is evident that the strong growth in unit prices in Armadale occurred much later than the boom in

house prices. House prices declined in early 2008, comparable with the Perth median, however the median unit price rose by 26 percent in the same quarter.

In fact, the median price of units in Armadale is now substantially higher than the median price of houses. The median house price has stabilised since interest rates were cut and the FHOB was introduced in late 2008 however the median unit price has risen. Thus the demand for units has become much stronger, perhaps due to the demographic characteristics of the population and the significant rental market. The existing supply of units is also much lower than that of houses, thereby contributing to price pressures.

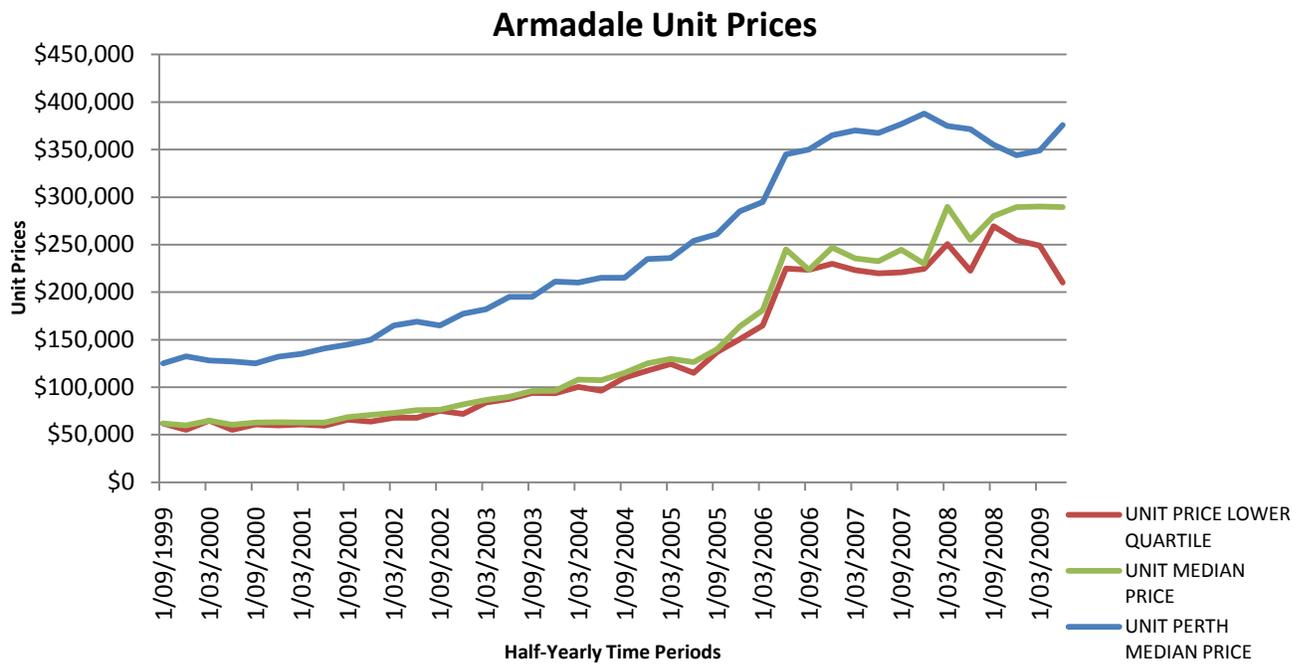


Figure 4.2.2

4.2.2. First Home Buyer Activity

Growth in house sales in 2001 appear to correlate with the number of First Home Owner Grants issued at the time for the purchase of existing homes. Official interest rates also continued to decline during 2001, making home ownership a more affordable choice of tenure. Armadale had the highest number of grants issued for the year. Clearly demand from first home buyers was strong with approximately 40 percent of house and unit sales being first home buyer sales.

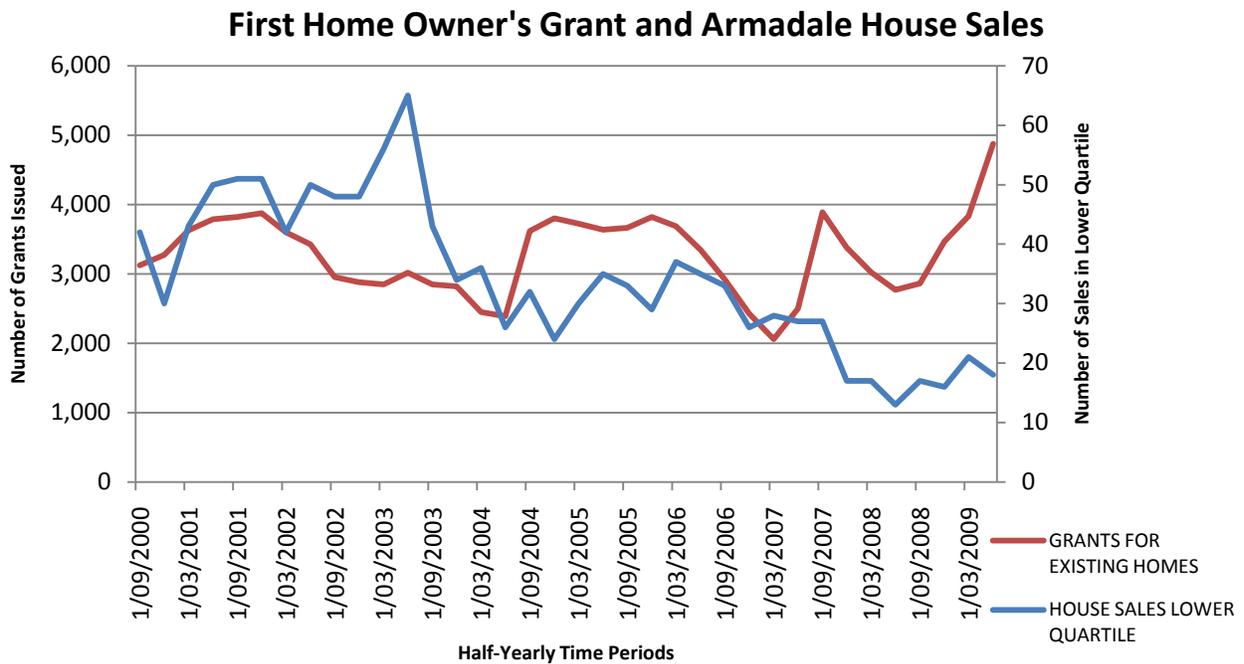


Figure 4.2.3

Since 2002 however, the relationship between the number of grants and lower quartile house sales appears insignificant. This suggests a declining proportion of first home buyer activity in the area which may have been due to rising house prices, the decline in housing stock as well as the low socio-economic status of the suburb. As incomes rose in Perth, first home buyers who could afford to buy in a more affluent suburb would tend not to have considered Armadale. In

particular, new development in surrounding suburbs such as Seville Grove and Champion Lakes may have drawn first home buyers away from the suburb. The relationship between grants and unit sales is also relatively weak however it seems to have improved since 2007.

Indeed, the FHOB appears to have contributed to recent activity in the market. House sales have not improved dramatically however the proportion of first home buyer activity has increased with approximately half of all sales being first home buyer sales. This suggests that first home buyers have replaced other buyers and investors who may have left the market due to the worsening economic conditions.

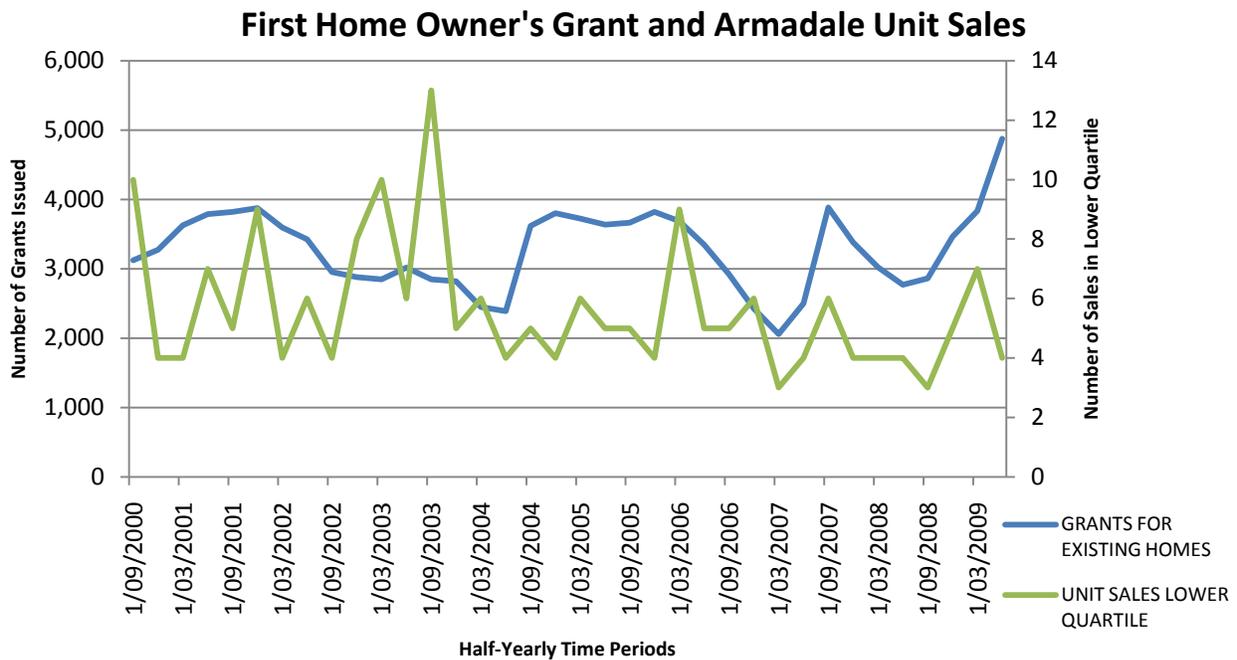


Figure 4.2.4

The decline in sales in the June quarter is likely due to the issues discussed in section 4.1.3. House prices at the lower end of the market have increased slightly since the FHOB was introduced however the lower quartile price of units has declined considerably, suggesting that

first home buyers are choosing to purchase houses in the area as they now cost less than units and are in greater supply.

In summary, Armadale's housing market experienced a high level of first home buyer activity following the inception of the FHOG. The proportion of first home buyers in the market declined soon after, shown by the deteriorating relationship between the number of grants issued and the proportion of lower quartile sales. The announcement of the FHOB appears to have encouraged some first home buyers back into the market as Armadale offers some of the most affordable property in the metropolitan area. Although it is unlikely that this significant first home buyer activity will remain once the FHOB is scaled back as Armadale only has a limited amount of housing stock available and investors may soon return to the market.

4.3 Beechboro

4.3.1 Background

Beechboro is located in the north-east of the Perth metropolitan region in the City of Swan, approximately 12 kilometres from Perth's city centre. The suburb's population grew by approximately 14 percent from 2001 to 2006. Beechboro has experienced some development over the past decade with the supply of land in the area continuing to expand. The supply of housing stock in the suburb has increased by 16 percent which is consistent with the growth in new lot approvals. As shown, there are a large number of families with children in Beechboro with average household size being significantly higher than the Perth average. Twenty five percent of Beechboro's population are children. Thus residents would be likely to demand large, family sized homes to accommodate all members of the household.

2006 Census QuickStats: Beechboro (State Suburb)

| | | | |
|---------------------------------|---------|---------------------------------|---------|
| Population | 12,884 | Tenure type | |
| Median household income* | \$1,087 | Being purchased | 55.00% |
| Average household size | 2.9 | Fully owned | 20.10% |
| Household composition | | Rented | 17.60% |
| Family | 76.80% | Dwelling characteristics | |
| Lone person | 16.00% | Separate house | 93.40% |
| Group | 2.30% | Flat, unit or apartment | 2.70% |
| Family characteristics | | Semi-detached, row or terrace | 3.90% |
| Couples with children | 53.00% | Median loan repayment** | \$1,134 |
| Couples w/o children | 27.60% | Median rent* | \$170 |
| One parent | 17.70% | Housing stock | 4,609 |

* Measured weekly

** Measured monthly

Table 4.3.1

The median age is considerably lower than the Perth average, suggesting a high number of first home buyers in the suburb. There is also a high migrant population in the area, further contributing to the demand for housing in the suburb. There are a much larger proportion of homes being purchased in the suburb compared to the Perth market. This suggests that new households have entered Beechboro's housing market in recent years with the help of a mortgage, replacing former residents who fully owned these homes. The median loan repayment is slightly lower than the Perth average with median household income at approximately the same level.

4.3.2 Key Market Trends

The key trends in Beechboro's housing market are presented in the following graphs. The rise in sales in 2001 appears to correlate with the economic conditions at the time, given low house prices, the introduction of the FHOG as well as declining interest rates during the year.

Beechboro would have been a popular choice for buyers at the time as more than 90 percent of the houses sold in the suburb were priced below the Perth median. It is evident that sales activity in the suburb followed a similar trend to the Perth market.

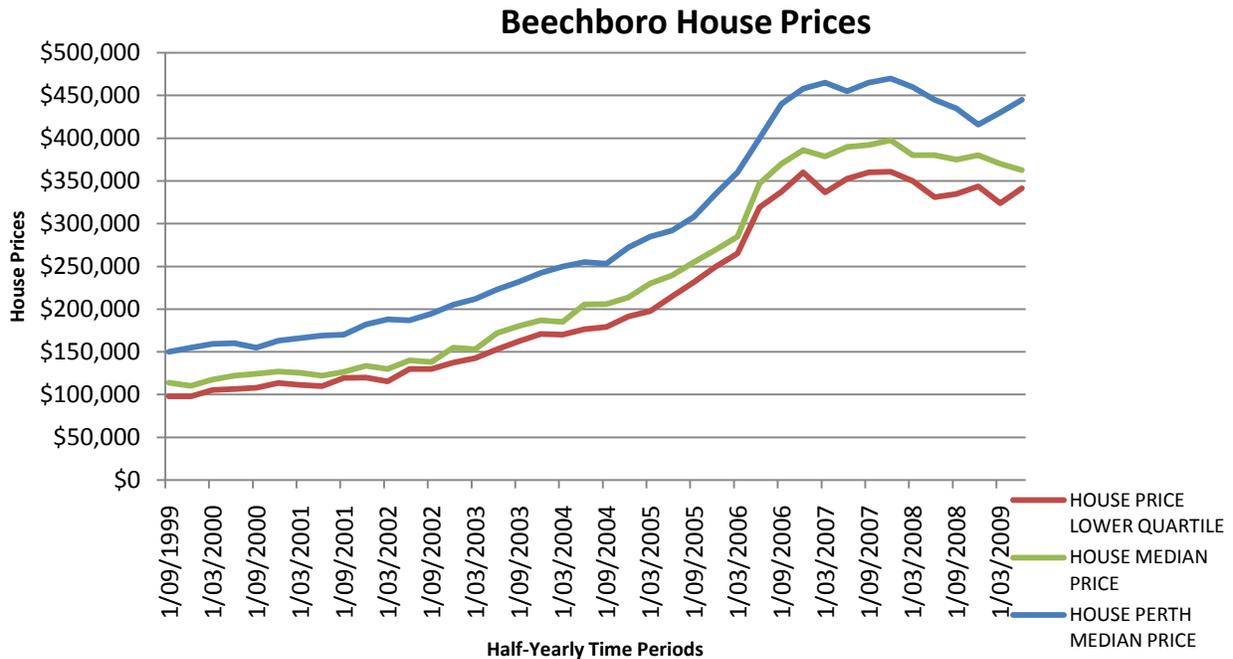


Figure 4.3.1

This strong activity in the market generated an upward trend in prices. Although sales began to decline in 2006, median house price in the suburb remained constant; suggesting that demand for housing remained strong although the supply of housing and land was waning. In fact, the median price in Beechboro declined only marginally compared to the Perth median price, implying that substantial demand in affordable areas such as Beechboro remained.

The recovery in sales in the second half of 2008 may be attributed to the decline in median house price and the reduction in interest rates. Moderating house prices attract buyers into the market who may have been delaying their purchase while prices were high during the boom years.

However, unlike Perth's median price, Beechboro's median house price continued to decline in 2009 despite the increase in sales. This suggests that sales activity was occurring at the bottom end of the market, popular with first home buyers.

4.3.3 First Home Buyer Activity

There appears to be a rather close relationship between the number of grants and lower quartile house sales. Substantial sales growth in 2001 relates to the number of grants issued. Although the subsidy was introduced in July 2000, the number of grants paid in Western Australia for the purchase of existing homes did not peak until the final quarter of 2001. First home buyers who applied for the grant after its inception in mid-2000 would likely have been issued with the subsidy and made their purchase in 2001. Applicants may also have postponed their purchase until interest rates began to decline in early 2001.

Approximately 60 percent of all home sales in the suburb were first home buyer sales during this time. Thus, the introduction of the FHOG in 2000 coupled with the reduction in interest rates during 2001 appears to have created strong sales growth in the lower end of the market. Beechboro had the second highest number of grants issued in the state for the year ending June 2002. However, this stimulus to demand had the typical effect of raising the price of lower quartile properties. The price of lower quartile housing rose faster than the median price from July 2000 to June 2002 at 22% and 15% respectively, suggesting that the grant had a positive effect on price.

First home buyer activity declined slightly after the initial impetus of the FHOG although participation remained strong with at least a third of all sales being first home buyer sales. The

proportion of first home buyer activity further increased following the announcement of the FHOB and successive interest rate cuts in 2008, with first home buyers contributing to approximately two-thirds of all house sales. In contrast to the median price of houses, the lower quartile price increased by 5 percent in the second quarter of 2009 as a result of this strong demand for cheaper housing.

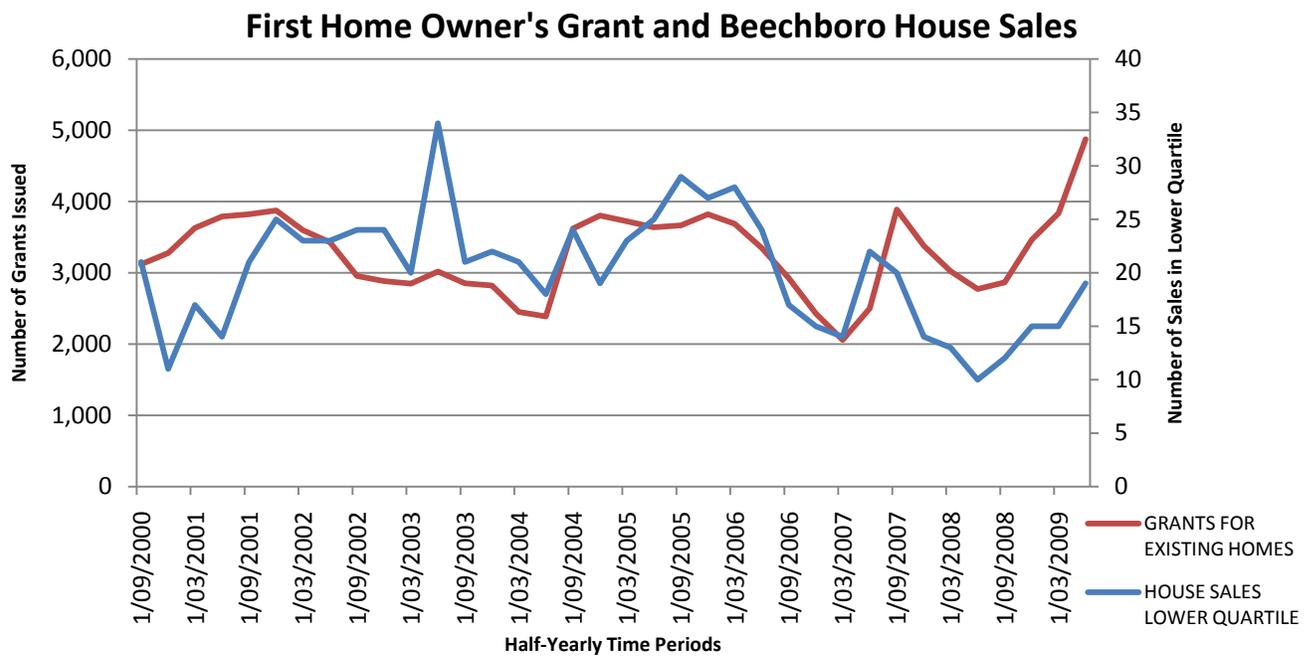


Figure 4.3.2

As sales in the lower quartile segment of the market are still increasing, prices would be expected to rise further in the September quarter as first home buyers race to secure a home before the FHOB is scaled back to \$10,500. However, the phasing out of the boost from October 2009 onwards may halt any further increase in first home buyer activity, particularly if interest rates begin to rise again.

In summary, the FHOG appears to have contributed to strong first home buyer activity in Beechboro's market, particularly following its inception and the announcement of the FHOB. However, it does appear to have led to a recent rise in the lower quartile house price which may persist as more first home buyers enter the market.

4.4 Butler

4.4.1 Background

Butler is a new suburb of Perth, located along Perth's northern coastline approximately 40 kilometres from the CBD. Butler's supply of land has grown tremendously, leading to some residential development in the suburb with further growth expected in the future as infrastructure and transport links are built as part of the Brighton estate. As a new suburb, Butler's population is relatively small and the suburb's demographic characteristics have only been recorded in the most recent 2006 Census. Due to the suburb's young age, there are a very low number of dwellings fully owned compared to the Perth average.

Butler has a large immigrant population, thus many first home buyers are families arriving from overseas and purchasing their first house in Australia. As a result, first home buyers in the suburb are likely to be older and have a higher income level and accumulated personal savings than the typical first home buyer. This trend may help to explain the higher median household income in Butler relative to the Perth average. The suburb is not as affordable as other first home buyer suburbs with median loan repayments and weekly rents far exceeding the average for the Perth metro area.

2006 Census QuickStats: Butler (State Suburb)

| | | | |
|---------------------------------|---------|---------------------------------|---------|
| Population | 5,056 | Tenure type | |
| Median household income* | \$1,205 | Being purchased | 61.80% |
| Average household size | 3.1 | Rented | 22.40% |
| Household composition | | Fully owned | 10.60% |
| Family | 83.70% | Dwelling characteristics | |
| Lone person | 11.10% | Separate house | 100.00% |
| Group | 1.20% | Flat, unit or apartment | 0.00% |
| Family characteristics | | Semi-detached, row or terrace | 0.00% |
| Couples with children | 58.20% | Median loan repayment** | \$1,517 |
| Couples w/o children | 29.60% | Median rent* | \$250 |
| One parent | 11.20% | Housing stock | 1,732 |

* Measured weekly

** Measured monthly

Table 4.4.1

Average household size in Butler is much larger than the Perth average and as a result, all dwellings occupied in the suburb are separate houses. The supply of housing stock in Butler is very new with more dwellings under construction to suit the needs of the suburb's residents and to create the type of beach-side lifestyle sought by new home buyers in the area. The Brighton estate which comprises part of Butler is a planned community with an abundance of schools, amenities and events, making it a popular location for families with children. As the demand for housing has risen significantly in Perth, new suburbs on the fringe of the city including Butler have been created in an effort to improve the supply of housing for the city's rapidly growing population.

4.3.2 Key Market Trends

Sales records for Butler’s housing market began in 2002. Since then, the housing market in Butler has experienced significant sales growth as a result of the suburb’s growing population, construction of housing stock and market conditions. The persistent growth in the first half of the decade can be attributed to the residential development of the Brighton estate taking place in the area as the supply of land continued to increase and construction activity commenced. Clearly, there was also strong demand from buyers to occupy these new dwellings. The development of the planned community of Brighton would have encouraged residents to the area who value the characteristics of a dwelling’s location as well as the home itself.

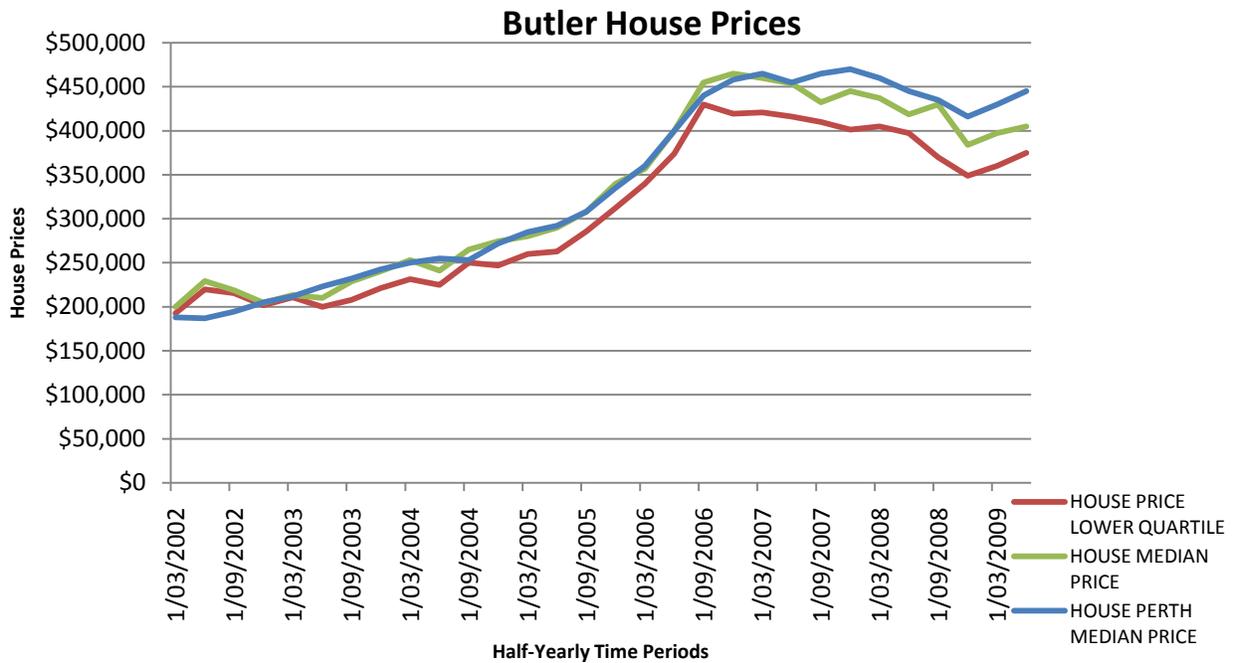


Figure 4.4.1

House prices in Butler were initially above the Perth median price in 2002 when houses were scarce however as the development of the suburb took place, Butler’s median price fell into line

with the Perth median house price. Prices rose sharply as demand grew for the suburb's newly constructed housing stock. As the majority of Butler's residents are mortgagees, the successive interest rate rises in 2007 and early 2008 led to a large decline in house sales during this period. The suburb's house prices began to decline earlier than Perth's which is likely due to weakened demand caused by these high interest rates and a slowdown in construction activity.

4.4.2. First Home Buyer Activity

The lower end of Butler's housing market has followed a similar trend with strong sales growth in the early years of the suburb's development. Speculative developers are likely to have taken advantage of Butler's future growth and accounted for much of the early sales in houses and land before prices rose. Evidently, there was no relationship between the grant and lower quartile house sales during this time. First home buyers appear to have entered the market in late 2002 although as house sales were very low, the FHOG is likely to have been used for the purchase of land.

The rise in the number of grants issued in 2004 appears to correlate with the number of house sales in the lower quartile. However, it is difficult to estimate the exact proportion of first home buyer purchases of existing homes as land sales continued to dominate the market. As the lower quartile house price declined sharply in 2007 and 2008, it does not appear that demand amongst these buyers was exceptionally strong during these years.

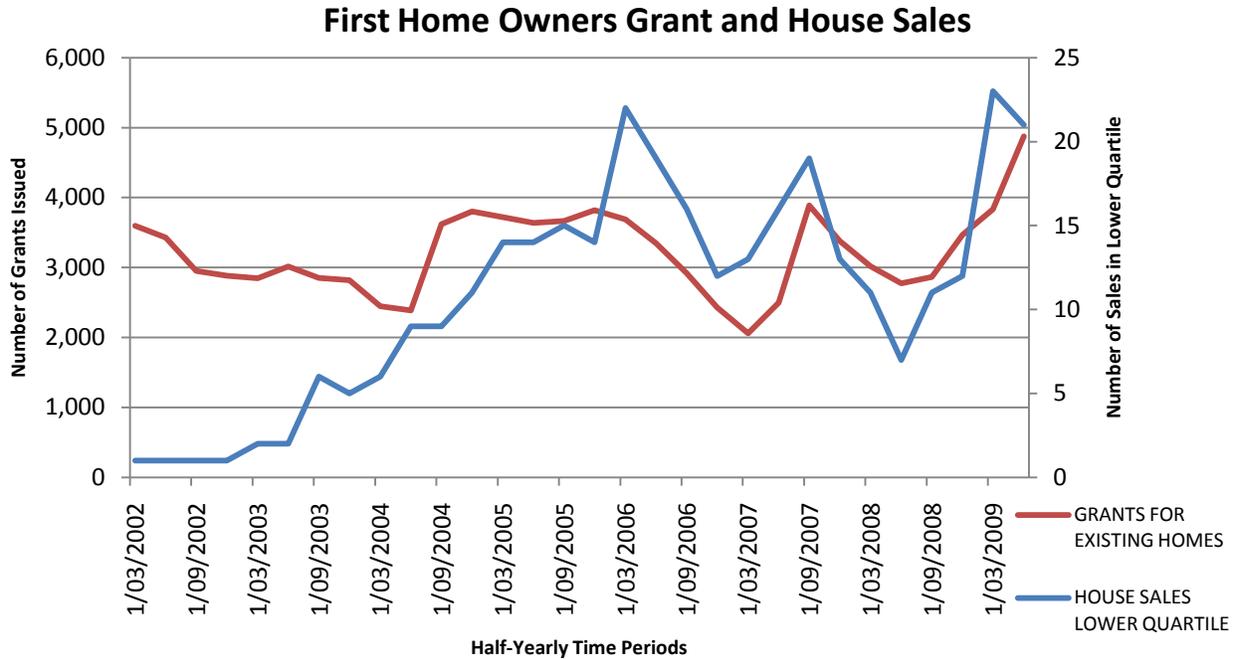


Figure 4.4.2

However, the lower quartile segment of the market has experienced a strong recovery in sales since interest rates were reduced successively and the FHOB was announced in the latter part of 2008. Assuming that one third of grants were used for land purchase, first home buyer sales appear to account for approximately 90 percent of all house sales. This is evidence that the FHOB has stimulated very strong activity at the lower end of the market. However, this strong increase in demand by first home buyers appears to have stimulated a sharp rise in the lower quartile house price since the start of 2009. This price increase is greater than the median, suggesting that the FHOB has contributed to higher house prices at the lower end of the market.

In summary, the FHOG appears to have been used for land purchases in the early years of the suburb's development. Thus, Butler appears to be one suburb where first home buyers have been willing to build their own home due to the availability of land at affordable prices. The FHOB

appears to have generated overwhelming demand from first home buyers for established homes however this activity has resulted in a substantial increase in house price at the lower end of the market. Unless new homes appear on the market in the latter part of 2009, prices may continue to escalate as the FHOB is scaled back.

4.5 Canning Vale

4.5.1 Background

Canning Vale is a relatively new residential suburb which until recently was a rural farming area. It is a large suburb located south-east of Perth, approximately 20 kilometres from the CBD. Canning Vale's population almost doubled from 2001 to 2006 as a result of substantial residential development in the area. The suburb's residents are ethnically diverse with almost 40 percent of Canning Vale's population born overseas.

2006 Census QuickStats: Canning Vale (State Suburb)

| | | | |
|---------------------------------|---------|---------------------------------|---------|
| Population | 23,289 | Tenure type | |
| Median household income* | \$1,591 | Being purchased | 61.60% |
| Average household size | 3.3 | Fully owned | 21.80% |
| Household composition | | Rented | 12.20% |
| Family | 89.40% | Dwelling characteristics | |
| Lone person | 6.80% | Separate house | 98.60% |
| Group | 1.10% | Flat, unit or apartment | 0.10% |
| Family characteristics | | Semi-detached, row or terrace | 1.20% |
| Couples with children | 62.80% | Median loan repayment** | \$1,450 |
| Couples w/o children | 27.30% | Median rent* | \$290 |
| One parent | 8.50% | Housing stock | 7,297 |

* Measured weekly

** Measured monthly

Table 4.5.1

The area's housing stock increased by almost 80 percent from 2001 to 2006 with lot approvals consistently increasing each year to far exceed the availability of land in all other first home buyer suburbs. The development of several residential estates in Canning Vale such as Livingston and Ranford complete with schools, community parks and facilities has also attracted many families to the area. As shown in the table below, almost all of Canning Vale's dwellings are separate houses, reflecting the demographic characteristics of the population.

The socio-economic status of Canning Vale's residents is moderately high with median household incomes exceeding the Perth median. Median loan repayments for mortgaged dwellings are also well above the Perth average along with median weekly rents. Similarly to Butler, a proportion of first home buyers in the area are likely to be overseas migrants who are older than typical first time buyers and therefore have higher relative incomes and savings to afford higher housing costs.

Canning Vale is a typical mortgage belt area with a very high concentration of households servicing a mortgage, compared to the Perth average. Therefore fluctuations in interest rates and other factors which affect the cost of living can have a significant impact on the household's ability to meet mortgage repayments and their vulnerability to 'housing stress'⁶.

4.5.2 Key Market Trends

After a slight downturn in sales in early 2000 perhaps attributable to the pending introduction of the FHOG, Canning Vale experienced an upward trend in sales during the following years. As in Butler, speculative developers and investors would have seized on the potential of Canning

⁶ Defined as a situation where the cost of housing for a household is high relative to household income. Generally a household spending more than 30 percent of its income on housing can be regarded as under housing stress.

Vale’s residential estates in the early stages of development and contributed to the growth in sales. Canning Vale’s median house price is significantly higher than the Perth price, thus the suburb may be out of reach for many first home buyers.

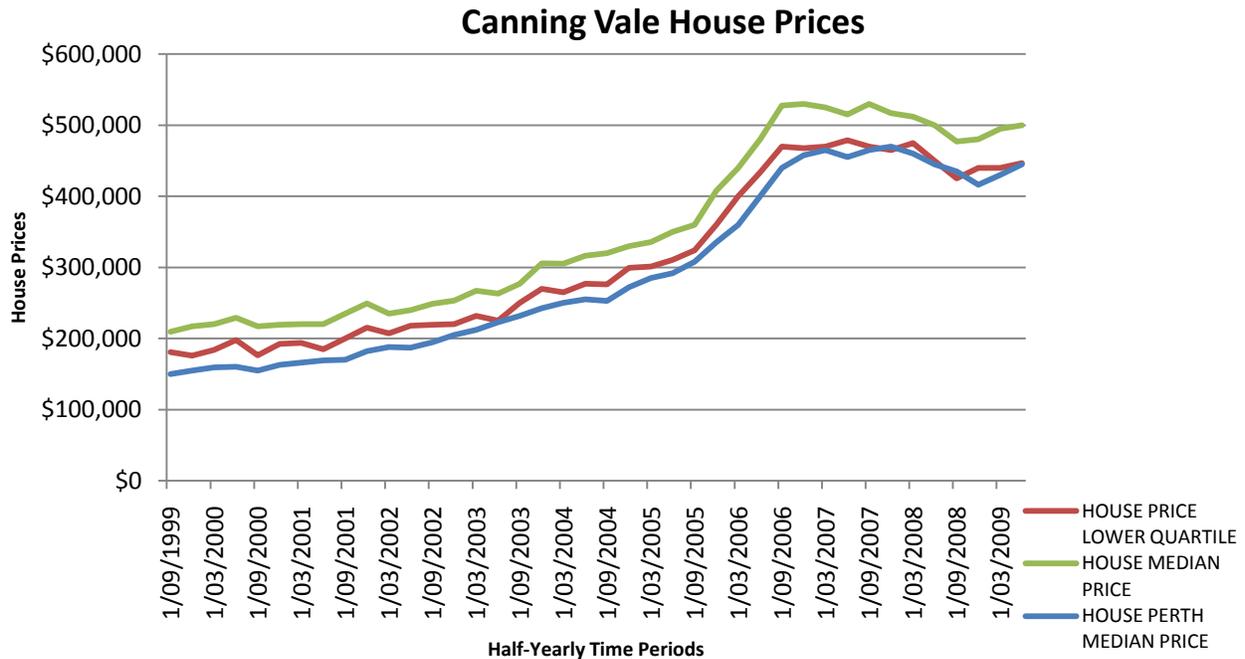


Figure 4.5.1

Rising house prices were consistent with price activity in the Perth market as Canning Vale’s population grew significantly and demand for housing strengthened. The sharp decline in sales in mid 2006 while price remained relatively stable is evidence of the demand for housing outstripping supply in the market, even in an area such as Canning Vale with an expanding supply of land and sizeable residential development. House prices began to rise again in the final quarter of 2008 as demand for housing increased following successive interest rate cuts and the announcement of the FHOB.

4.5.3 First Home Buyer Activity

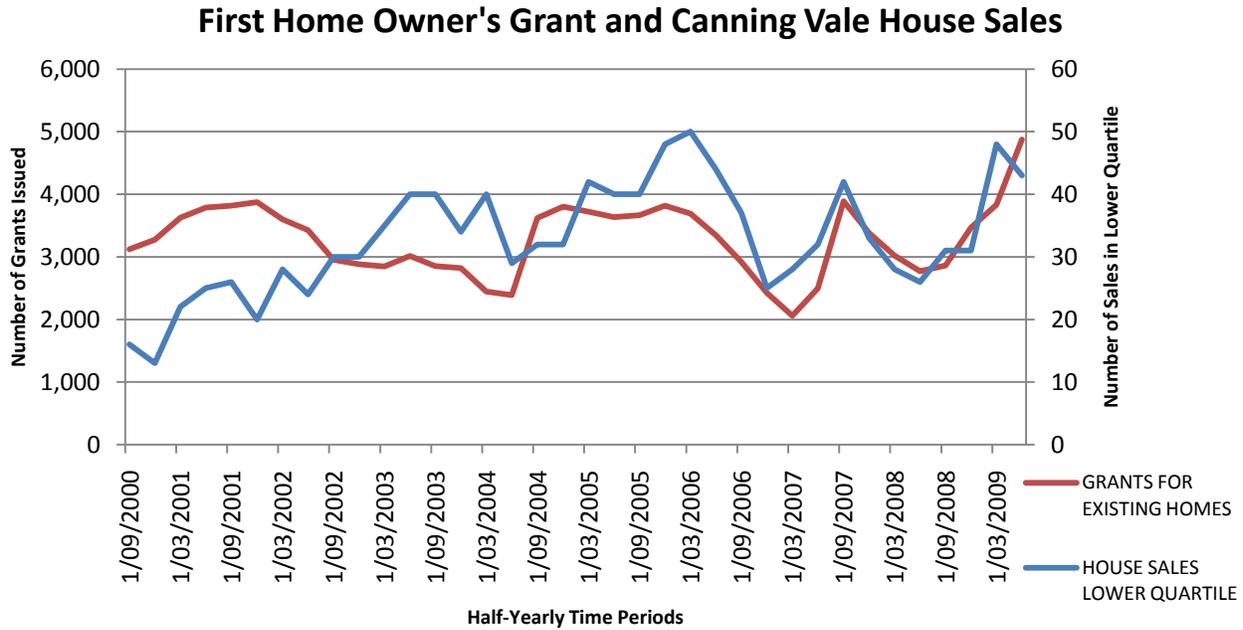


Figure 4.5.2

The number of grants issued appears to correlate fairly well with the number of sales in the lower quartile segment of the housing market. The rise in house sales in 2001 is consistent with the increase in grants issued for existing homes as well as the interest rate reductions taking place at the time. Canning Vale had the highest number of grants issued in Western Australia for the year ending June 2002. As a result, more than two thirds of all house sales in the suburb were first home buyer sales. However, house prices at the lower end of the market increased by 17 percent, compared to a 9 percent increase in the median price, which suggests that the grant contributed to a higher price for affordable homes.

Although Canning Vale continued to have one of the highest number of grants issued in the state, the proportion of first home buyer sales in the market declined considerably from 2003, which is

likely due to rising house prices in the suburb as well as successive interest rate rises. It appears that many first home buyers were being crowded out of the market due to a lack of affordability.

With house prices falling in the suburb during the latter part of 2007 into 2008, a slight recovery in sales occurred. The lower quartile price fell to its lowest level in over two years, to lie below the Perth median, thus first home buyers may have considered it a good time to purchase a home. The Reserve Bank's lowering of interest rates from September as well as the Federal Government's announcement of the FHOB in October 2008 led to a further significant increase in sales in early 2009.

Canning had the second highest number of grants issued for the year ending June 2009 with first home buyers accounting for around 45 percent of all house sales. House prices at the lower end of the market increased by 5 percent as a result of this strengthening demand. However, sales dropped back slightly in the second quarter of 2009 despite the continuation of the FHOB. This result may be due to the issues discussed in section 4.1.3.

In addition, the supply of land in Canning Vale is now falling and of course there are only a limited number of homes available in any one suburb, particularly those priced low enough for first home buyers. A suburb such as Canning Vale may also be out of reach for many first time buyers wishing to take advantage of the FHOB. Unless new homes appear on the market before the FHOB is removed, prices may continue to rise further.

In summary, there have been a very high number of grants issued to first home buyers in Canning Vale since 2001. The grant contributed to strong first home buyer sentiment in the market during 2001 and 2002 however activity declined in subsequent years as rising prices

reduced the grant's effectiveness. The FHOB has contributed to a greater proportion of first home buyer activity in the suburb although with prices still above the Perth median, the suburb is not as popular with these buyers as it was at the start of the decade.

4.6 Ellenbrook

4.6.1 Background

Ellenbrook is a relatively new suburb, located in the north-east of the Perth metropolitan region. It is approximately 21 kilometres from the Perth CBD. Ellenbrook is relatively isolated, being a significant distance from neighbouring suburbs and the city centre. Therefore, like Butler, Ellenbrook has been developed as a self-sustainable, planned community with plans to become a satellite city home to more than 30,000 people in years to come.

2006 Census QuickStats: Ellenbrook (State Suburb)

| | | | |
|---------------------------------|---------|---------------------------------|---------|
| Population | 10,477 | Tenure type | |
| Median household income* | \$1,210 | Being purchased | 59.90% |
| Average household size | 3 | Rented | 18.70% |
| Household composition | | Fully owned | 14.40% |
| Family | 80.00% | Dwelling characteristics | |
| Lone person | 12.10% | Separate house | 94.20% |
| Group | 1.60% | Flat, unit or apartment | 0.60% |
| Family characteristics | | Semi-detached, row or terrace | 5.20% |
| Couples with children | 53.90% | Median loan repayment** | \$1,408 |
| Couples w/o children | 32.40% | Median rent* | \$231 |
| One parent | 13.00% | Housing stock | 3,676 |

* Measured weekly

** Measured monthly

Table 4.6.1

Ellenbrook's residential development has already been significant with the suburb's population almost doubling from 2001 to 2006 and housing stock increasing by almost 90 percent during the same period. This is due to the area's expanding supply of land for residential construction as developers commence each new phase of the development. As a rather new suburb, all of Ellenbrook's existing housing stock is less than 15 years old and Ellenbrook's dwellings have been built to suit the needs of the suburb's residents, primarily families who desire separate houses.

As with other planned communities, developers have focussed on building infrastructure and facilities for residents as well as conserving the natural features of the suburb to encourage buyers to the area. Ellenbrook is another typical 'mortgage belt' area with a very high proportion of residents in the process of purchasing a home, compared to the Perth metropolitan region. There is also a growing rental market in the suburb with weekly rents considerably higher than the Perth average.

4.6.2 Key Market Trends

The median house price in Ellenbrook began to rise later than the Perth median house price, which is likely due to the young age of the suburb and the low amount of existing housing stock available prior to 2000. Therefore demand for housing would have been relatively weak before the extensive residential development of Ellenbrook commenced.

Like Butler, house sales in Ellenbrook increased greatly as the supply of land grew tremendously and construction activity accelerated. The median house price followed a similar pattern to Butler's over the time series although Ellenbrook's prices remained below the Perth median

which may be due to the greater amount of affordable housing stock available. This suggests that the large amount of new supply on the market was restricting price growth to some extent.

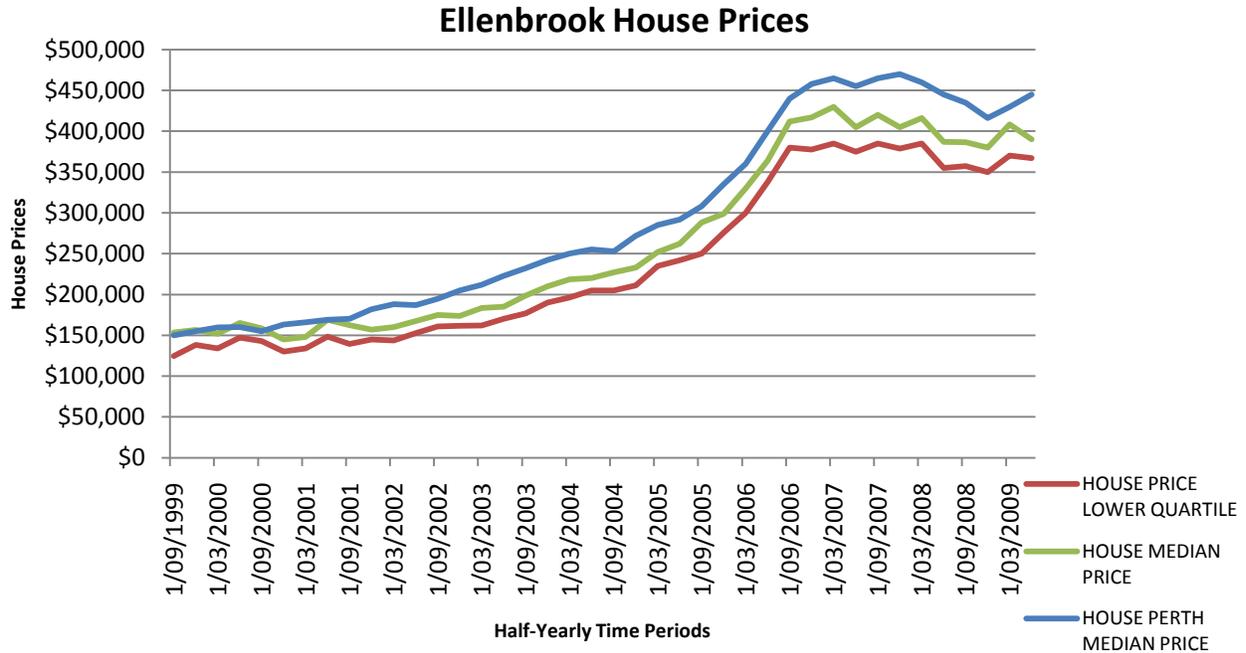


Figure 4.6.1

4.6.3 First Home Buyer Activity

Lower quartile sales were stable following the introduction of the grant in 2000, after falling slightly at the beginning of the year, suggesting that the subsidy may have achieved its intended goal of protecting the housing industry in the wake of the GST by encouraging first home buyer sales. Sales improved slightly in 2001 when interest rate cuts and falling house prices encouraged more first time buyers into the market. Most houses sold during this period were priced below the Perth median, making Ellenbrook an affordable area to buy a home. At least half of all house sales for the year ending June 2002 were first home buyer sales. The lower quartile house price then increased slightly as a result of this strong demand.

Whereas first home buyer activity slowed in many other suburbs during 2004 and 2005, first home buyer participation remained high in Ellenbrook with the number of sales below the Perth median price actually increasing. Thus, housing in Ellenbrook was still relatively cheaper than the Perth metropolitan market. The stimulus to the housing industry via the FHOB and successive interest rate cuts appears to have encouraged further sales activity. Ellenbrook had the highest number of grants issued in the state for the year ending June 2009 with first home buyer sales contributing to approximately 70 percent of total house sales. As a result of this strong demand, lower quartile price rose by 4 percent which is comparable with the median price of first home buyer dwellings in Perth.

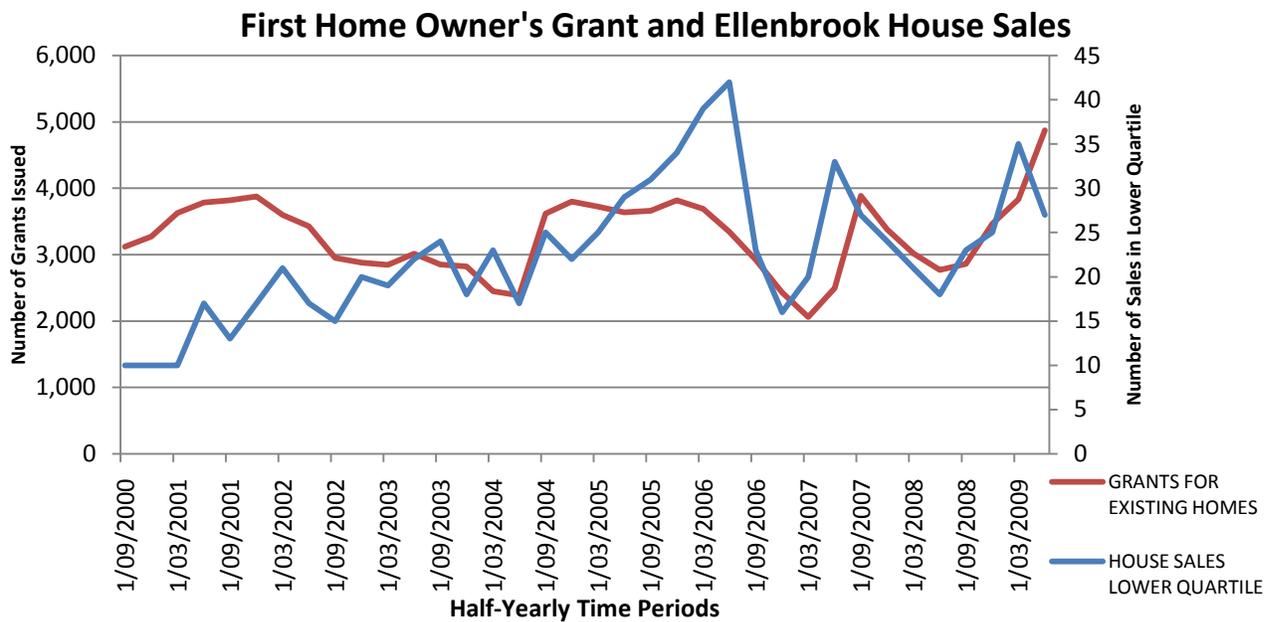


Figure 4.6.2

In summary, the FHOG appears to have contributed to first home buyer activity in Ellenbrook, particularly in the latter part of the time series when development of the suburb expanded rapidly. In addition, the FHOB and interest rate reductions appear to have further increased first

home buyer participation with these buyers now dominating the market. The price of houses at the lower end of the market has risen slightly since the FHOB was announced. Although sales declined in the June quarter, they may increase again before the boost is phased out if the FHOB has also resulted in a greater supply of new housing stock.

4.7 Gosnells

4.7.1 Background

Gosnells is an older suburb of Perth, located in the south-east corridor of the metropolitan region, approximately 20 kilometres from the city centre. Gosnells' population rose slightly from 2001 to 2006 with the quantity of housing stock improving slightly. As an older suburb, the majority of Gosnells' housing stock is rather aged with separate houses the dominant type of dwelling. New housing stock exceeded new lot approvals for the period 2000 to 2005, thus these new additions are likely to have been units.

2006 Census QuickStats: Gosnells

| | | | |
|---------------------------------|--------|---------------------------------|--------|
| Population | 17,277 | Tenure type | |
| Median household income* | \$827 | Being purchased | 39.10% |
| Average household size | 2.4 | Fully owned | 27.10% |
| Household composition | | Rented | 24.90% |
| Family | 64.70% | Dwelling characteristics | |
| Lone person | 27.60% | Separate house | 86.60% |
| Group | 3.20% | Flat, unit or apartment | 4.20% |
| Family characteristics | | Semi-detached, row or terrace | 8.90% |
| Couples with children | 39.70% | Median loan repayment** | \$997 |
| Couples w/o children | 36.20% | Median rent* | \$160 |
| One parent | 22.20% | Housing stock | 7,404 |

* Measured weekly

** Measured monthly

Table 4.7.1

All house and unit sales have been priced below the Perth median, making Gosnells a very affordable suburb to live in with median loan repayments and weekly rents well below the Perth average. As a result, the suburb's residents are of low socio-economic status with rather low median household incomes compared to the Perth average. As shown, the majority of Gosnells' households are families although there are also a large percentage of lone person households in the area. The characteristics of these families also vary widely with different types of tenure chosen to suit each household. The rising number of lone person and one parent households may have contributed to the decline in home ownership and the subsequent rise in renting.

4.7.2 Key Market Trends

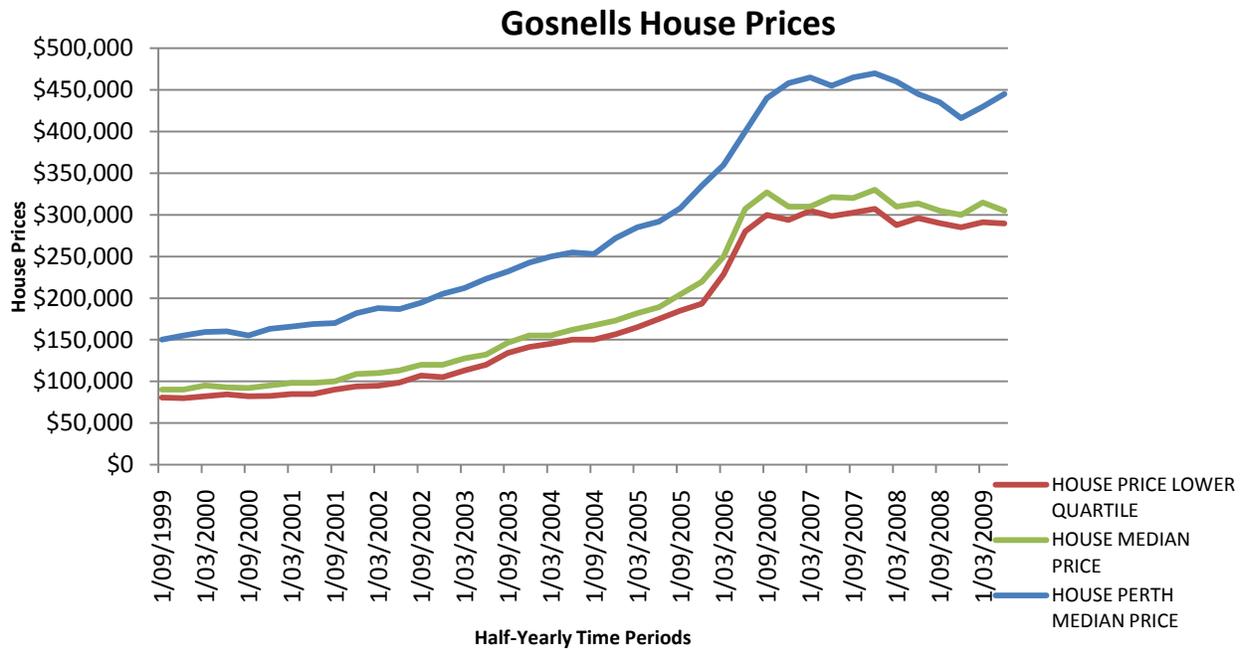


Figure 4.7.1

Sales activity prior to the downturn in 2006 appears consistent with the Perth region although house prices in Gosnells did not increase as rapidly as Perth's median, suggesting demand was

relatively weaker in the suburb. This may also be due to the growing number of renters in Gosnells. Like Armadale, buyers are likely to have purchased in a more prosperous suburb than Gosnells if they could afford to, particularly as the development in nearby Canning Vale progressed.

4.7.3 First Home Buyer Activity

The lower quartile market experienced a sharp rise in sales following the introduction of the FHOG however due to the limited amount of housing stock available in the suburb and the lack of new development, sales contracted soon after. The recovery in early 2001 is most likely a response to the interest rate reductions made throughout the year and the stimulus provided by the grant. Gosnells had the second highest number of grants issued for the year ending June 2001, thus there was a high level of first home buyer activity during that time. Approximately 45 percent of all house and unit sales in the suburb were first home buyer sales. However, first home buyer activity declined in the following years, perhaps due to rising house prices and the lack of available housing stock as Gosnells' rental market grew.

First home buyers flooded back into the market in 2007 and 2008 as investors retreated, leaving an abundance of affordable housing stock. In addition, all of these properties would have been exempt from stamp duty after the threshold was increased in May 2007. This activity may explain why the lower quartile price in Gosnells did not fall significantly, compared to the Perth median house price. The announcement of the FHOB and interest rate reductions appear to have further stimulated first home buyer participation with approximately 83 percent of all house sales being first home buyer sales. House prices at the lower end of the market have not increased as a

result which may be due to the large amount of stock available on the market, judging by the considerable decline in sales over the previous three years.

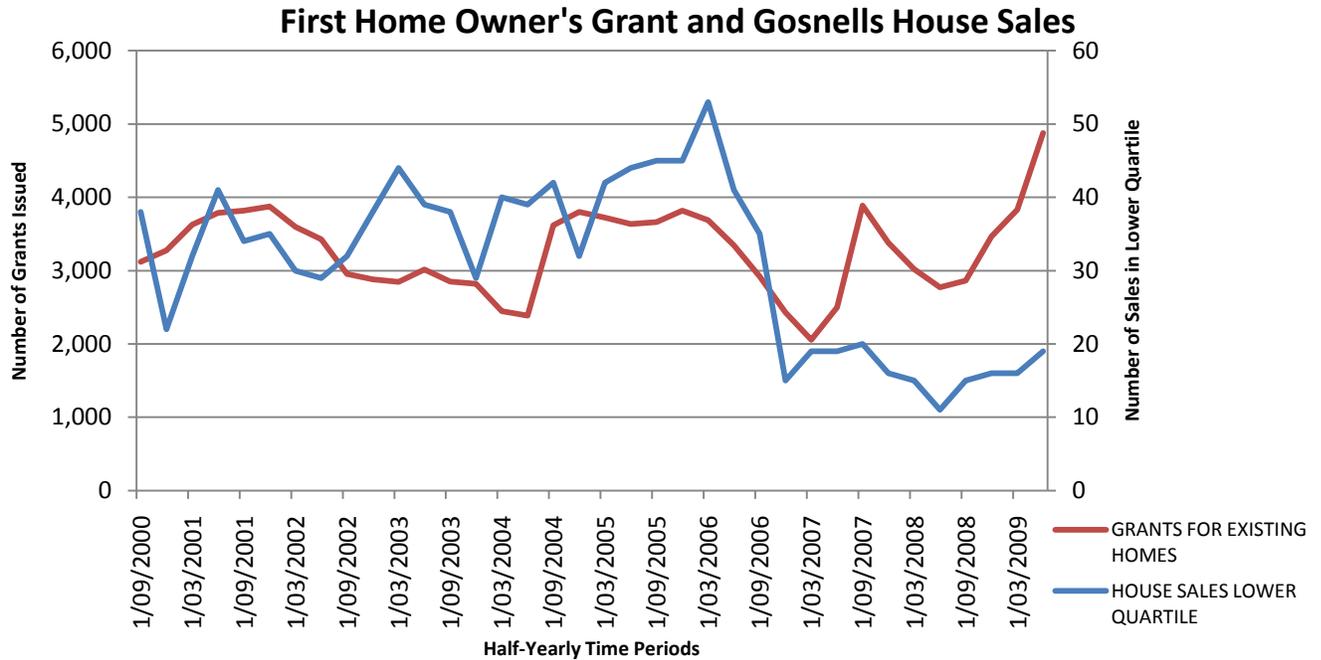


Figure 4.7.2

To summarise, the FHOOG contributed to strong demand from first home buyers in the market following its inception however first home buyer sales declined shortly after as investors entered the market. The sharp downturn in sales in 2006 and 2007 provided first home buyers with an abundance of affordable housing with first home buyer sales accounting for approximately 80 percent of all sales. This high level of first home buyer participation continued as the FHOOG was announced and interest rates declined in 2008. Despite this activity in the market, lower quartile prices have remained stable. However, if first home buyers continue to flood the market before the FHOOG is removed, prices are likely to rise. Further, it is unlikely that this very high level of

first home buyer activity will continue once the FHOB ends as investors will eventually return to the market.

4.8 Maylands

4.8.1 Background

Maylands is an inner-city suburb of Perth, located approximately 5 kilometres north-east of the CBD along the Swan River. The suburb was initially developed more than a century ago and as such, a significant proportion of Maylands' housing stock is rather old with the amount of housing stock only increasing marginally from 2001 to 2006. New housing stock has exceeded the supply of land which is due to the greater number of units built in the suburb.

Maylands' demographic characteristics are rather different from many of the first home buyer suburbs studied in this research. Lone person households are the most common household type in Maylands, followed by families. Couples without children account for the majority of family households. It is expected that these households would have a higher level of disposable income than couples with children; therefore they would tend to be more willing and able to spend a large portion of income on home loan repayments in an area such as Maylands.

Median household income is relatively low compared to the Perth median which may be due to the high number of lone persons. This phenomenon may explain the higher number of residents choosing to rent in Maylands. Given the high number of rental properties in the suburb, it is expected that Maylands has a significant investor market. However, the level of home ownership has increased slightly in recent years, perhaps due to the increased difficulty in finding

affordable rental accommodation in Perth’s suburbs and the attractive incentives available for first home buyers.

2006 Census QuickStats: Maylands (State Suburb)

| | | | |
|---------------------------------|--------|---------------------------------|---------|
| Population | 10,448 | Tenure type | |
| Median household income* | \$807 | Rented | 44.50% |
| Average household size | 1.8 | Being purchased | 24.70% |
| Household composition | | Fully owned | 16.70% |
| Family | 37.50% | Dwelling characteristics | |
| Lone person | 44.20% | Separate house | 27.50% |
| Group | 6.60% | Flat, unit or apartment | 47.10% |
| Family characteristics | | Semi-detached, row or terrace | 25.20% |
| Couples w/o children | 48.70% | Median loan repayment** | \$1,298 |
| Couples with children | 29.60% | Median rent* | \$145 |
| One parent | 17% | Housing stock | 6,539 |

* Measured weekly

** Measured monthly

Table 4.8.1

Unlike the Perth market, units are the primary type of dwelling in Maylands. The popularity of units in the suburb is consistent with the composition and size of households in the area with average household size being much lower than the Perth average. High density dwellings are also common in inner-city suburbs which lack a plentiful supply of land for housing.

4.8.2 Key Market Trends

Maylands’ housing market has followed a similar trend to Perth’s market. House sales in the suburb reached their peak much earlier than other first home buyer suburbs which may be due to the age of the area and its large amount of existing housing stock. The median price of houses in Maylands is slightly higher than the Perth median, thus houses may not be an affordable option for first home buyers.

Maylands House Prices

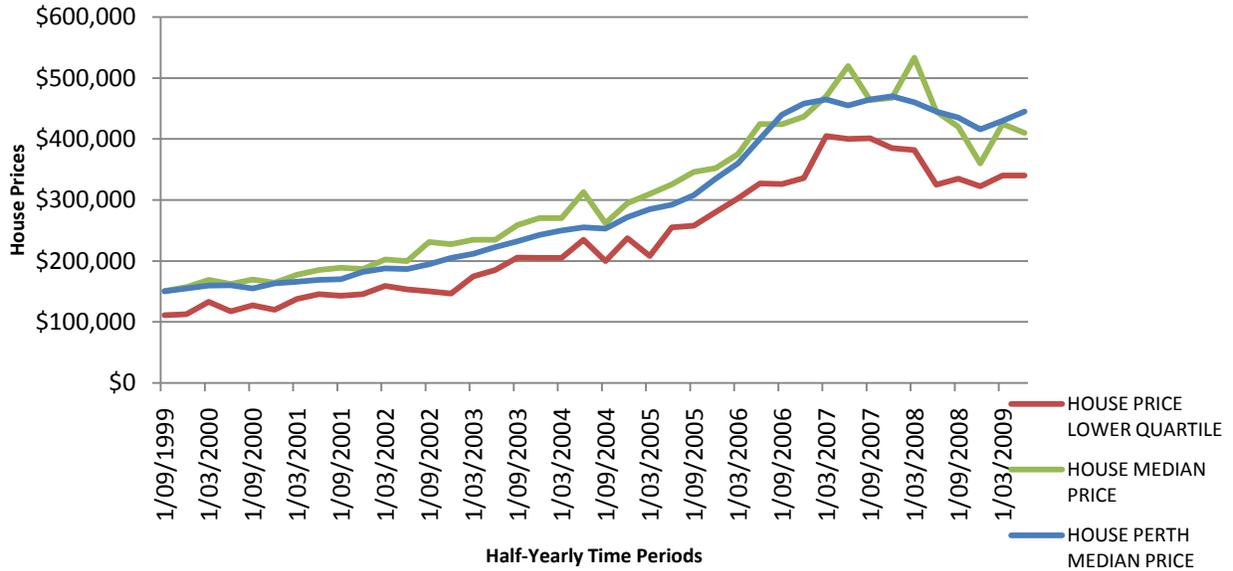


Figure 4.8.1

Maylands Unit Prices

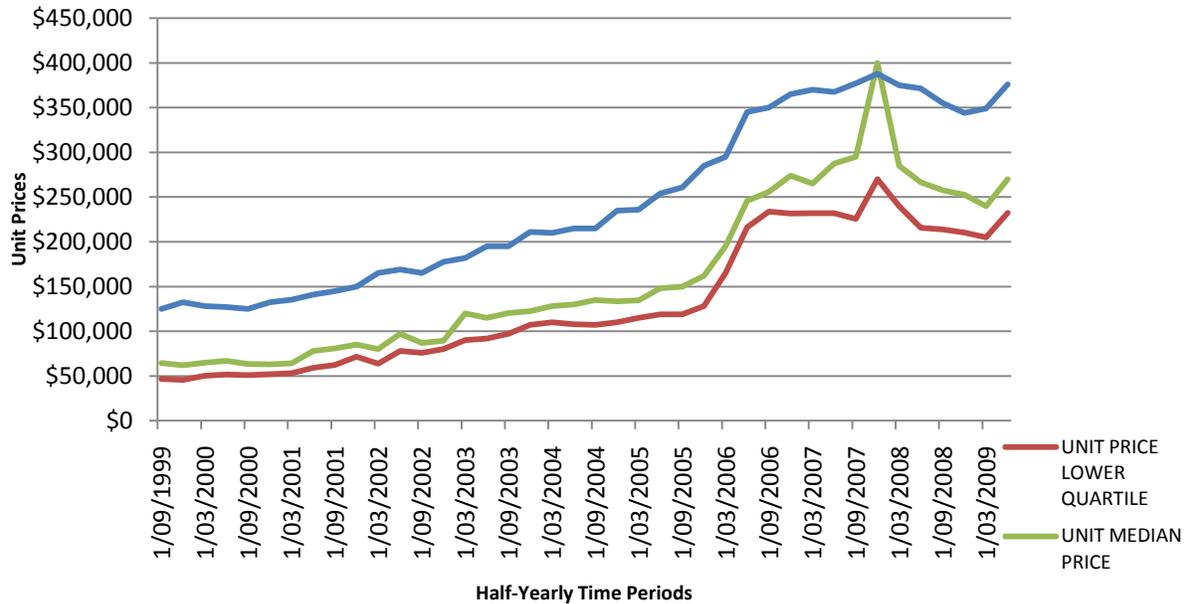


Figure 4.8.2

Unit sales similarly peaked early in the time series as buyers and investors took advantage of low prices and interest rate cuts to secure a dwelling while existing properties were still available. The median price of units peaked in late 2007 thus clearly demand remained strong in the market, despite the tremendous rise in price.

4.8.3 First Home Buyer Activity

First home buyer activity appeared to be relatively strong following the introduction of the FHOG as Maylands had the third highest number of grants issued in the state for the year ending June 2001. This high number of grants is consistent with the increase in sales at the time. The vast majority of grants issued in Maylands would have been for the purchase of existing homes due to the lack of new homes and land in the suburb. Approximately a third of house and unit sales during that year were first home buyer sales.

As the grant is believed to bring forward the purchases of first home buyers, these buyers were likely to have flooded the market early while properties were still available and before prices rose. This high level of activity led to a sharp rise in the lower quartile price for houses and units. House prices increased by 23 percent in the year following the grant's introduction with unit prices also rising by 20 percent.

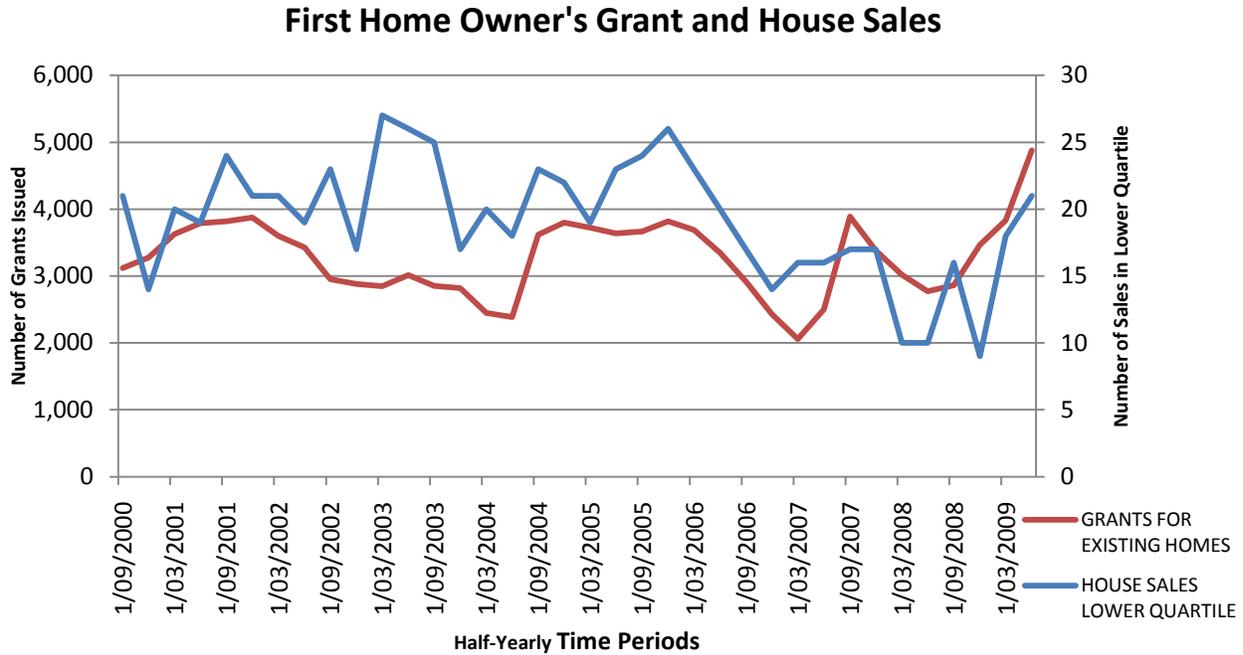


Figure 4.8.3

It appears that first home buyers took advantage of the grant to buy a house in Maylands in the early part of the decade however once prices rose above the Perth median, first home buyers seem to have opted for more affordable units. As illustrated, there is a more significant relationship between the number of grants and the number of lower quartile unit sales. Thus first home buyers may be using the grant to purchase units as they are relatively more affordable. The lower quartile price for houses reached its peak earlier than the median price, thus demand from first home buyers appears to have weakened after prices rose significantly and interest rates reached their highest levels in over a decade. The proportion of first home buyers in the market was lower during this period⁷.

⁷ First home buyers in receipt of the FHOG represented less than a third of all buyers.

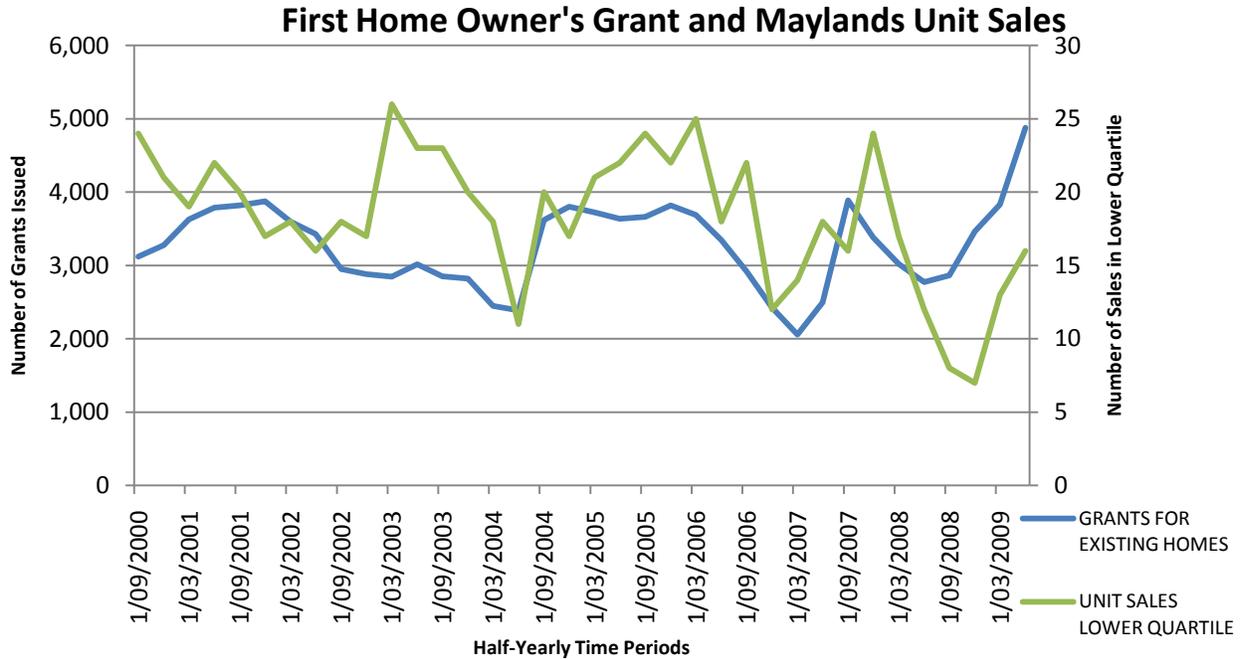


Figure 4.8.4

However, the FHOB appears to have led to a sharp rise in activity at the lower end of Maylands’ housing market, delivering its intended outcome of increasing first home buyer participation in the market. Almost half of all house and unit sales appear to be first home buyer sales. Yet again prices at the lower end of the market have responded to this strong demand with a 5 percent increase in house price and a substantial 13 percent increase in unit price in 2009. As sales are continuing to rise in Maylands, lower quartile prices may increase further before the FHOB is removed.

In summary, first home buyers contributed to strong sales growth following the introduction of the FHOG however this increased demand led to a significant rise in the price of houses and units at the lower end of the market. As a result, first home buyer participation appears to have declined over the following years, particularly in the market for houses. Nonetheless, house and

unit sales increased greatly in 2009 with approximately half of all sales being first home buyer purchases. Thus it appears that the FHOB has achieved its intended outcome of encouraging more first home buyer activity in Maylands. However the boost has contributed to a large increase in the price of housing, particularly units, as the grant has been used to purchase existing stock. Therefore it is unlikely that the strong growth in sales will persist due to the finite amount of stock available with demand continuing to push up prices.

4.9 Morley

4.9.1 Background

Morley was established in the 1950s and is located 10 kilometres north-east from the Perth city centre. Morley's population has remained fairly stable since 2001. The suburb's housing stock has increased only marginally, mostly in the form of group houses, townhouses and villa houses due to the lack of available land.

Unlike most of the first home buyer suburbs included in this analysis, Morley has a higher proportion of fully owned dwellings than mortgaged homes. This may be due to the higher median age of Morley residents compared to the Perth average, hence older home owners are more likely to own their homes outright. This indicates that sales activity may have been minor compared to other areas of Perth. Having said this, the proportion of mortgaged homes has risen in recent years, suggesting that some younger buyers may have entered the market.

Like most first home buyer suburbs, the majority of households in Morley are families although there is a reasonably even spread of couples with children and those without. There is also a fairly significant rental market. Median household income is slightly lower than the Perth

average. Weekly rents are comparable to the Perth level however median loan repayments are less, suggesting that home ownership may be a more affordable option in Morley.

2006 Census QuickStats: Morley (State Suburb)

| | | | |
|---------------------------------|--------|---------------------------------|---------|
| Population | 18,564 | Tenure type | |
| Median household income* | \$980 | Fully owned | 40.00% |
| Average household size | 2.5 | Being purchased | 31.60% |
| Household composition | | Rented | 22.90% |
| Family | 70.90% | Dwelling characteristics | |
| Lone person | 22.70% | Separate house | 89.10% |
| Group | 3.10% | Flat, unit or apartment | 2.10% |
| Family characteristics | | Semi-detached, row or terrace | 8.70% |
| Couples with children | 42.00% | Median loan repayment** | \$1,100 |
| Couples w/o children | 39.40% | Median rent* | \$185 |
| One parent | 16.70% | Housing stock | 7,933 |

* Measured weekly

** Measured monthly

Table 4.9.1

4.9.2 Key Market Trends

Morley's median price correlates very closely with the Perth median, increasing sharply as demand for housing in the suburb increased. House sales peaked early in the time series as buyers took advantage of favourable conditions including low interest rates to purchase the existing housing stock before prices rose significantly. Like the Perth market, the median house price has increased sharply since the start of 2009 as a result of strong sales growth. Lower house prices, interest rate reductions and the stimulus provided by the FHOB have all contributed to this strong demand for housing in Morley.

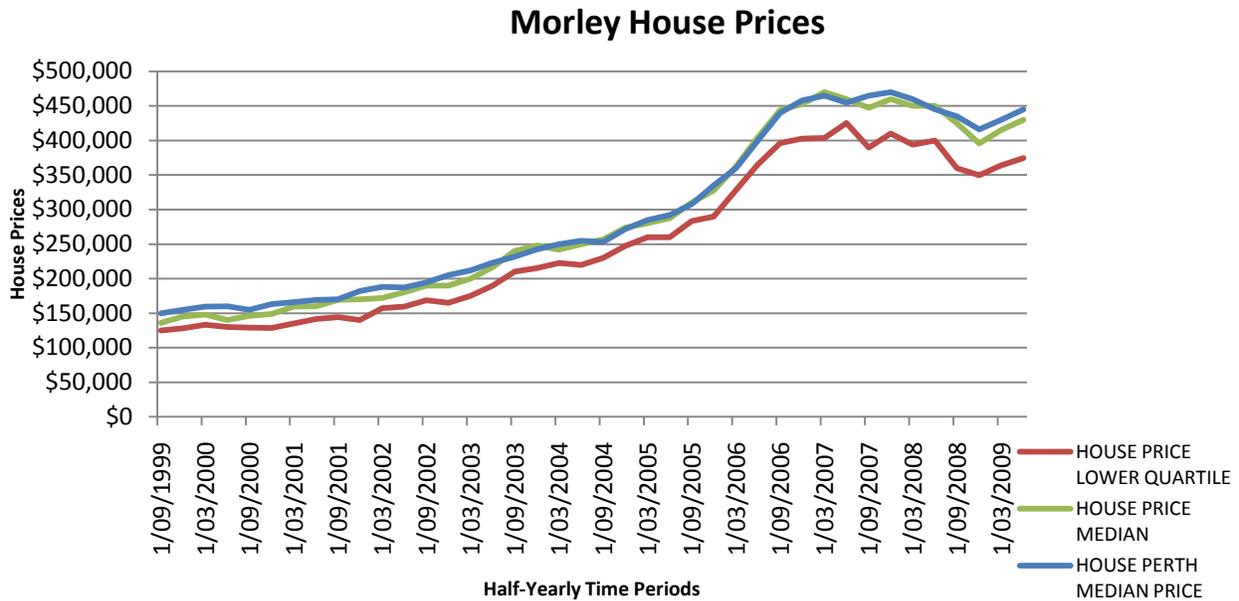


Figure 4.9.1

4.9.3 First Home Buyer Activity

The relationship between the number of grants issued and the number of sales in Morley is rather insignificant. Furthermore, the number of grants issued in the suburb is relatively low compared to other first home buyer suburbs. The introduction of the FHOG appears to have had little immediate effect on first home buyer activity as these buyers did not enter the market until 2003. First home buyer sales accounted for only 20 percent of total sales for the year ending June 2004. This may be attributed to the high price of housing in the area as well as the lack of existing stock available for sale due to the high number of fully owned dwellings and the growing rental market.

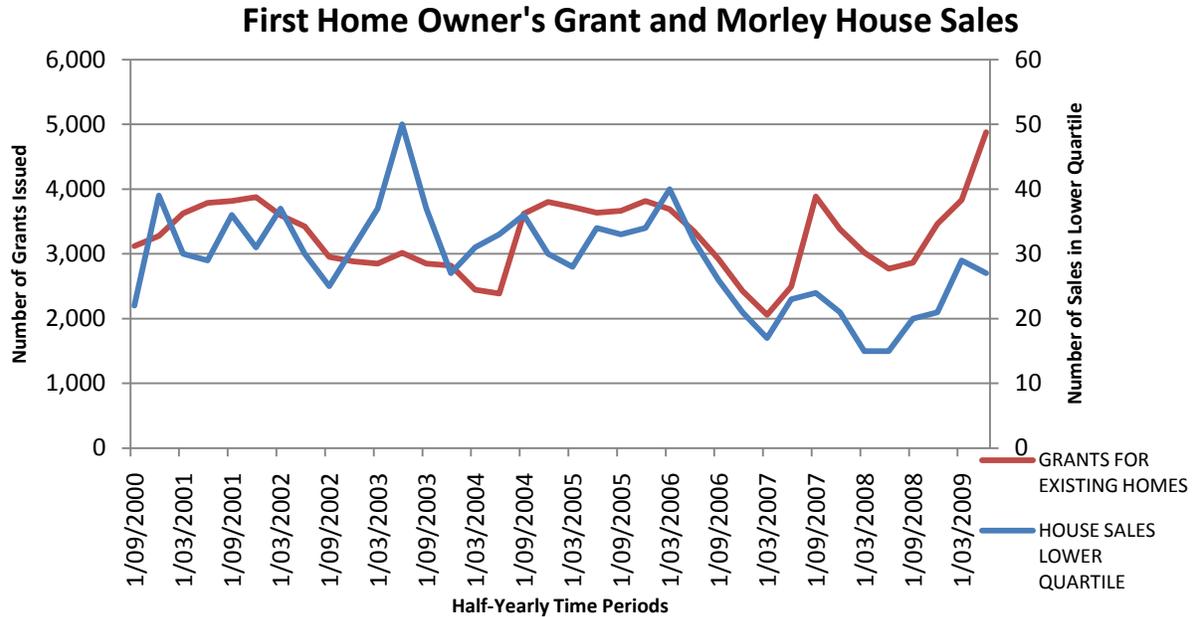


Figure 4.9.2

Despite this, the proportion of first home buyer activity improved in 2007, perhaps as a result of falling prices in the suburb and the government announcement of stamp duty exemptions for homes priced below \$500,000. The interest rate cuts and the announcement of the FHOB in 2008 further stimulated first home buyer demand with these buyers accounting for almost half of total house sales for the year ending June 2009. However as a result of this strong demand, lower quartile house price rose sharply during the first half of 2009. The FHOB does not appear to have contributed to new home sales as most new dwellings in the suburb were priced above the median.

To summarise, first home buyer activity was not particularly evident throughout most of the time series with first home buyers accounting for less than a quarter of all house sales. Sales activity is not as strong as in other first home buyer suburbs as buyers have had to rely on a limited quantity of existing housing stock with new additions priced beyond their reach. Despite this trend, first

home buyer participation improved as prices fell substantially in 2007 and was further stimulated by interest rate reductions and the FHOB. Although this strong demand has resulted in higher prices for lower quartile properties which may persist as first home buyers continue to take advantage of the FHOB.

4.10 Nollamara

4.10.1 Background

Nollamara is located approximately 10 kilometres north of Perth in the City of Stirling. The suburb's population grew by almost nine percent from 2001 to 2006. The age of housing stock varies in Nollamara with a sizeable number of older properties as well as new dwellings. The supply of land in Nollamara has been very low thus new additions to the housing stock have been in the form of smaller semi-detached dwellings. This increase in the number of smaller sized homes also reflects the declining number of families and the smaller household size in the area compared to the Perth metropolitan region.

There are a large proportion of lone person and single parent households in the suburb, which may account for the very low median household income of residents. Median weekly rents are much lower than the Perth average, thus a higher proportion of households in Nollamara choose to rent. Consequently, the housing market will have a sizeable amount of investor activity. Median loan repayments are rather high given the low household incomes in the suburb; therefore home ownership may be out of reach for many residents.

2006 Census QuickStats: Nollamara

| | | | |
|---------------------------------|--------|---------------------------------|---------|
| Population | 7,560 | Tenure type | |
| Median household income* | \$790 | Rented | 37.50% |
| Average household size | 2.2 | Being purchased | 27.10% |
| Household composition | | Fully owned | 24.60% |
| Family | 54.90% | Dwelling characteristics | |
| Lone person | 33.10% | Separate house | 61.40% |
| Group | 4.70% | Flat, unit or apartment | 0.60% |
| Family characteristics | | Semi-detached, row or terrace | 37.90% |
| Couples w/o children | 41.60% | Median loan repayment** | \$1,196 |
| Couples with children | 31.50% | Median rent* | \$165 |
| One parent | 23.60% | Housing stock | 3,766 |

* Measured weekly

** Measured monthly

Table 4.10.1

4.10.2 Key Market Trends

The market experienced a significant growth in sales in early 2001, consistent with the pattern of sales in the Perth market. The introduction of the FHOG as well as successive interest rate cuts throughout 2001 is likely to have contributed to this growth. As in other suburbs, this strong demand for housing led to a steady increase in median price which eventually declined as conditions worsened in 2008. Sales then rose following the interest rate reductions in late 2008. This increased demand has led to a 6 percent rise in the median house price.

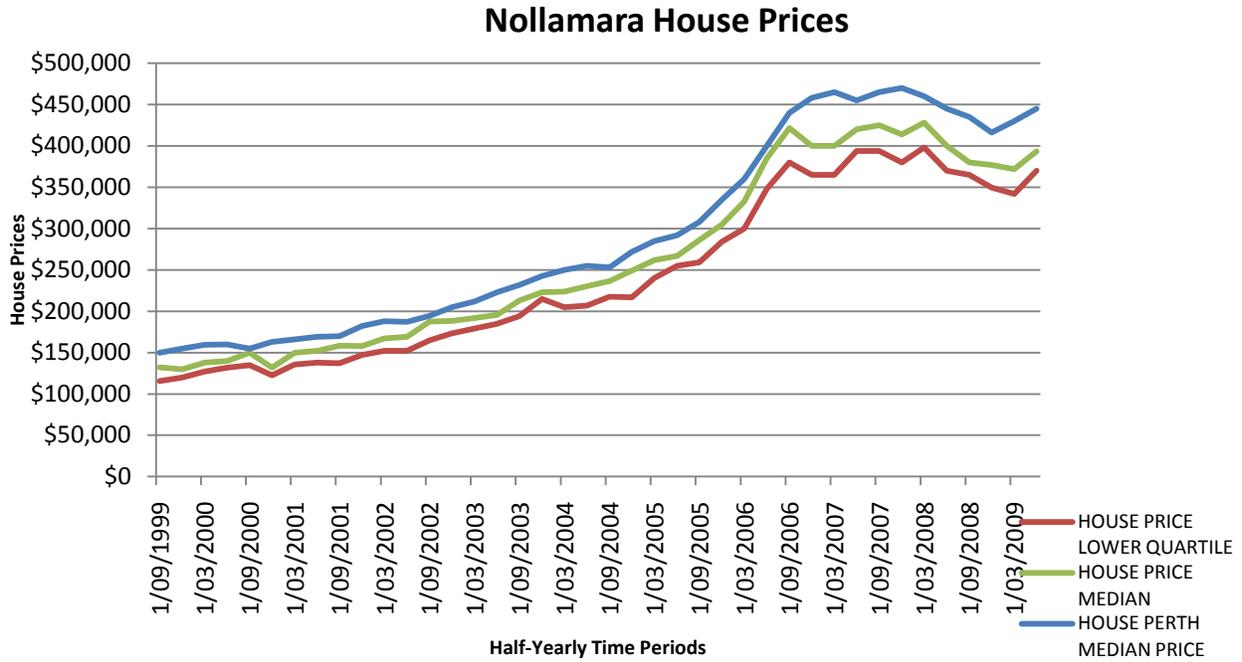


Figure 4.10.1

4.10.3 First Home Buyer Activity

The introduction of the FHOG appears to have contributed to some first home buyer activity in 2000 as approximately a third of all house sales were first home buyer sales during that period. Further, the grant appears to have encouraged new sales as several smaller houses were sold in the second half of 2000. These houses were perhaps built in the first half of the year to avoid the additional building costs imposed by the introduction of the GST. The behaviour of buyers prior to the introduction of the FHOG is consistent with other suburbs. During this period, the majority of houses sold in Nollamara were priced below the Perth median, making the suburb an affordable location for first home buyers.

This strong demand led to a 17 percent increase in Nollamara's lower quartile house price in the two years following the grant's introduction. These higher house prices then had the expected

effect of inhibiting first home buyer activity and stimulating the interest of investors in the market. However, the stimulus provided by the FHOB as well as low interest rates has had a significant effect on first home buyer participation recently with first home buyers accounting for approximately 60 percent of all house sales for the year ending June 2009. House prices at the lower end of the market have risen by 8 percent, in contrast to the growth in median house price, suggesting that the strong demand generated by the FHOB has contributed to rising house prices for first home buyers.

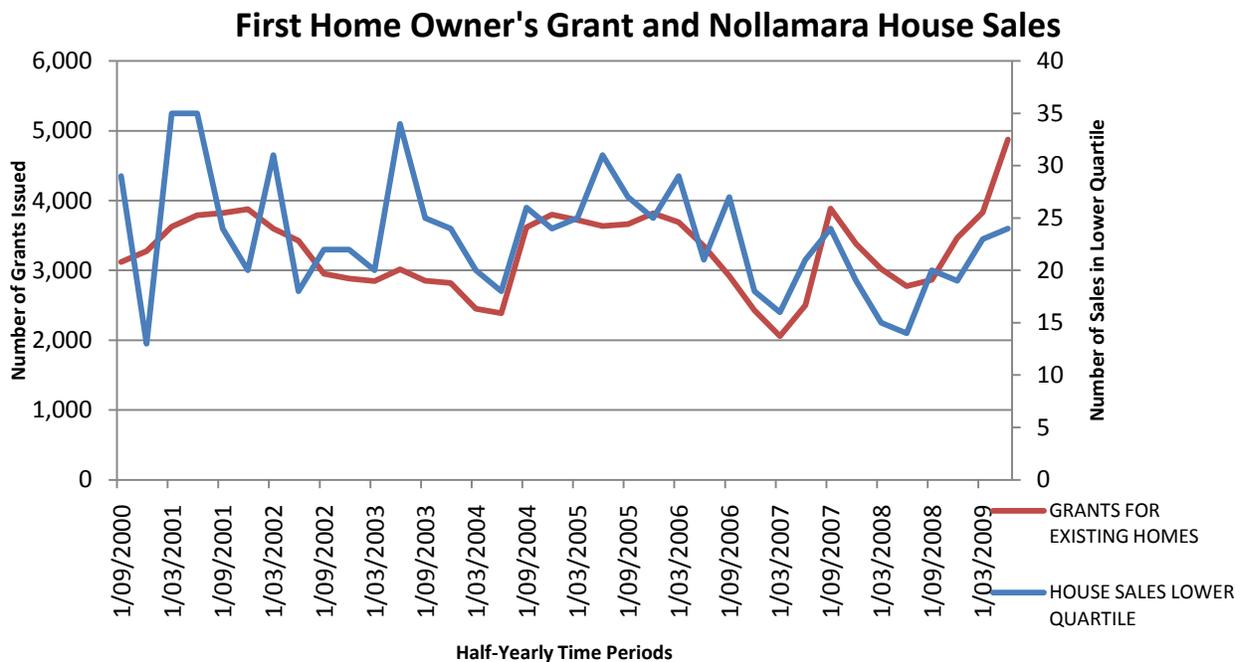


Figure 4.10.2

In summary, Nollamara has traditionally had a lower proportion of first home buyer participation in the market compared to other suburbs included in this analysis. The FHOB however appears to have increased the level of first home buyer activity as approximately 60 percent of all sales in Nollamara were first home buyer sales. Thus, the boost appears to have achieved its intended

outcome of stimulating demand by first home buyers however prices at the lower end of the market have increased. It is likely that prices will continue to rise before the FHOB is removed, in which case it is doubtful that this high proportion of first home buyer activity will remain in the market.

4.11 Thornlie

4.11.1 Background

Thornlie is located in the south-east corridor of the Perth metropolitan region, approximately 18 kilometres from the city centre. Thornlie was established in the 1950s and is a well-serviced residential area with good transport links and infrastructure. The suburb's population is rather large although it declined slightly from 2001 to 2006.

2006 Census QuickStats: Thornlie (State Suburb)

| | | | |
|---------------------------------|---------|---------------------------------|---------|
| Population | 22,265 | Tenure type | |
| Median household income* | \$1,100 | Being purchased | 45.20% |
| Average household size | 2.8 | Fully owned | 31.10% |
| Household composition | | Rented | 17.90% |
| Family | 76.50% | Dwelling characteristics | |
| Lone person | 17.40% | Separate house | 93.60% |
| Group | 2.60% | Flat, unit or apartment | 3.40% |
| Family characteristics | | Semi-detached, row or terrace | 3.00% |
| Couples with children | 48.70% | Median loan repayment** | \$1,083 |
| Couples w/o children | 33.90% | Median rent* | \$180 |
| One parent | 15.70% | Housing stock | 8,399 |

* Measured weekly

** Measured monthly

Table 4.11.1

Median loan repayments in the suburb are lower than the Perth median, making Thornlie a more affordable suburb to buy a home. Thornlie is another mortgage belt area of Perth as the majority of residents are in the process of repaying a mortgage on their home. However, the number of residents who fully own their property is higher than the Perth level, suggesting there has not been as much sales activity compared to other areas of Perth. There are also a growing number of renters in the suburb, indicating a level of investment activity in the market. Median household incomes in Thornlie are comparable with the Perth average.

Families with children are the most common household type thus the average household size in Thornlie is slightly larger than the Perth average. As a result, separate houses are the predominant dwellings in the area although there are a proportion of smaller dwellings. Thornlie's market relies predominantly on existing housing stock although there has been a slight increase since 2001. The amount of new housing stock was actually greater than the increase in lot approvals for the period 2000 to 2005, which suggests that smaller dwellings have been constructed in the suburb.

4.11.2 Key Market Trends

Thornlie's housing market is consistent with the Perth market with prices following a similar pattern throughout the time series. The median and lower quartile house prices rose slightly in early 2009 as a result of the strong demand generated from the FHOB and lower interest rates however prices have since declined, suggesting demand is beginning to slow in the market.

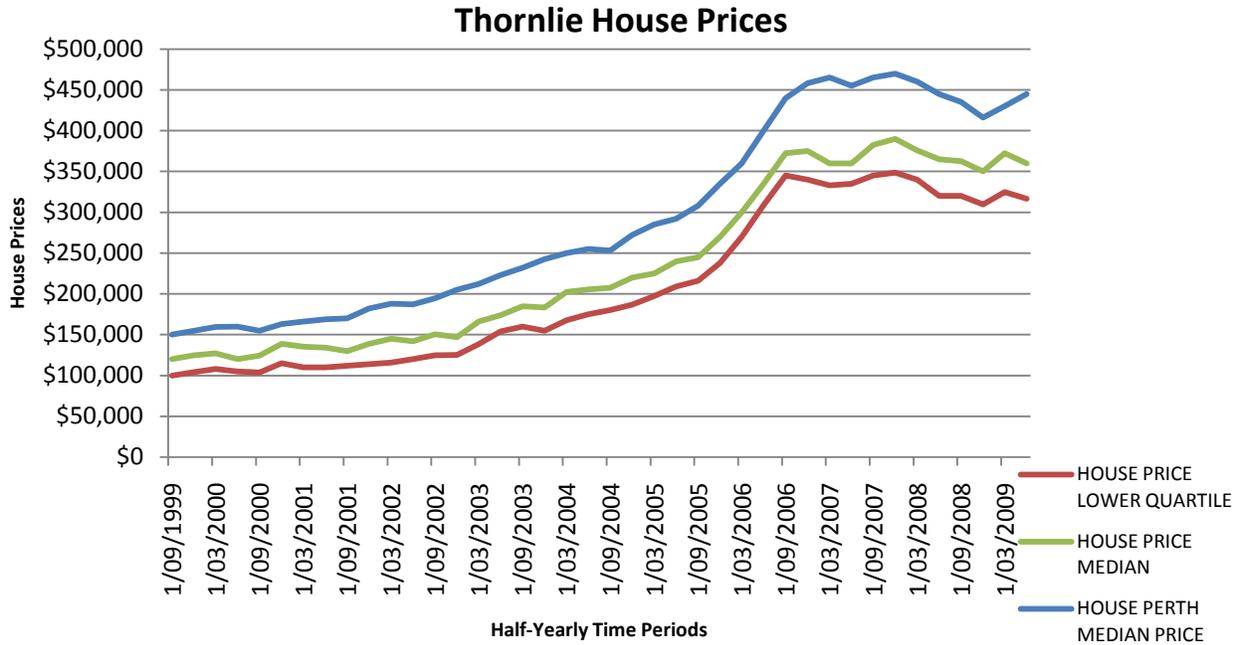


Figure 4.11.1

4.11.3 First Home Buyer Activity

The lower quartile market experienced a sharper rise in sales following the introduction of the FHOG, suggesting an increase in first home buyer activity at the lower end of Thornlie’s market. The large fall in sales preceding the grant’s introduction is consistent with most other suburbs included in this analysis. During this period, first home buyer sales represented a third of all house sales. In addition, interest rate reductions in early 2001 appear to have further encouraged more first home buyers into the market.

Clearly, the lower quartile house price responded to this increased demand in the market. Price increased sharply following the introduction of the FHOG with an 11 percent increase in the final quarter of 2000. Thus, the grant seems to have achieved its desired outcome of boosting the level of first home buyer activity in Thornlie’s market however it also had the added effect of

increasing price. As in many other suburbs, the level of first home buyer activity declined after 2002, shown by the poor relationship between the grant and the number of lower quartile sales.

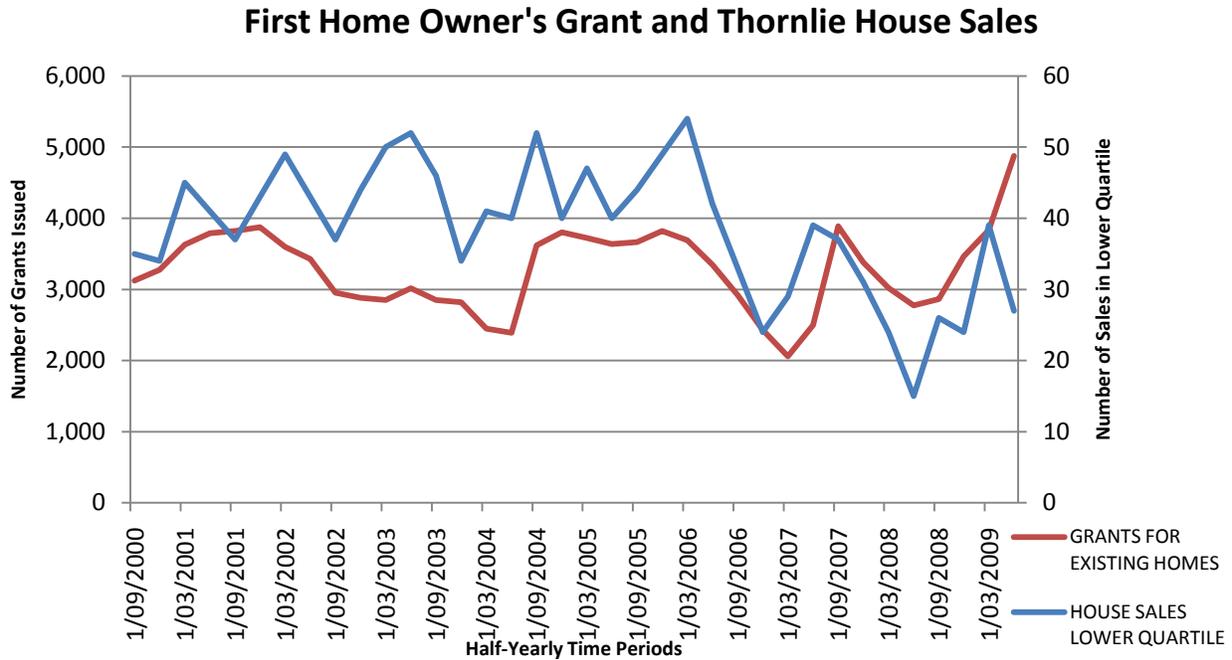


Figure 4.11.3

However, first home buyer activity increased in late 2007 as the sharp fall in sales provided a greater share of affordable housing stock in the suburb and stamp duty exemptions were increased. The FHOB and interest rate reductions further encouraged first home buyer activity in the suburb. It is estimated that approximately 55 percent of all house sales in the suburb have been first home buyer sales. The price of housing at the lower end of the market increased by 5 percent in the March quarter of 2009 although it has since declined, perhaps due to weakening demand from first home buyers. The recent decline in sales may be attributed to the lack of housing stock available in the suburb as well as other issues discussed in section 4.1.3.

In summary, the grant contributed to strong first home buyer activity following its inception. This proportion of first home buyer activity declined soon after as prices rose and the supply of housing stock remained weak. These buyers returned to the market in 2007 to take advantage of the greater supply of housing stock on the market and the generous stamp duty exemptions available. The introduction of the FHOB and interest rate cuts in late 2008 further stimulated first home buyer activity. However it is unlikely that sales will increase significantly before the FHOB is phased out as demand appears to be dwindling and there is only so much existing housing stock available for purchase.

4.12 Summary

The following table presents a summary of the key findings identified in this chapter. The impact of the FHOB on first home buyer activity and prices at the lower end of each market is ranked as being high, medium or low⁸.

| Suburb | Impact of FHOB on First Home Buyer Sales | Impact of FHOB on Price |
|--------------|--|-------------------------|
| Armadale | High | Low |
| Beechboro | High | Medium |
| Butler | High | High |
| Canning Vale | Medium | Low |
| Ellenbrook | Low | Medium |
| Gosnells | Low | Low |
| Maylands | Medium | High |
| Morley | Low | High |
| Nollamara | High | High |
| Thornlie | Low | Low |

Table 4.12 Summary of Key Findings

⁸ Suburbs where the FHOB had a low impact on first home buyer sales are those where the proportion of first home buyer activity increased by less than 10 percent over the previous year's number of first home buyer sales. A medium impact indicates an increase of between 10 and 20 percent compared to the previous year's level and a high impact indicates an increase in first home buyer sales of more than 20 percent compared to the previous year's level. The FHOB is deemed to have a low impact on price if prices rose by less than 3 percent in the first half of 2009. It is deemed to have a medium impact if prices increased by 4 to 5 percent, comparable to the increase in the median price of first home buyer dwellings in Perth. The FHOB is considered to have a high impact on price if prices increased by more than 5 percent in 2009. In suburbs where houses and units were both included in the study, an average of the price effects for both dwellings was estimated.

Chapter Five: Conclusion

5.2 Concluding Remarks

This research suggests that the First Home Owner's Grant has overall achieved its intended policy goal of increasing first home buyer activity in Perth's housing market. This study has focussed primarily on the extent of first home buyer activity in the market for existing dwellings as research found that the majority of first home buyers purchase an existing property with only a small number building their first home.

It is clear that many first home buyers took advantage of the grant following its inception in 2000 with the number of grants issued increasing rapidly in Western Australia in the years following the introduction of the subsidy. The presence of first home buyer activity is evident in all suburbs included in the analysis, although new areas such as Ellenbrook and Butler appear to have the greatest level of market participation by these buyers. The rapid development of these suburbs has created a greater supply of affordable housing stock for first home buyers, thus attracting buyers to these new areas.

The FHOG also appears to have contributed to an increase in the price of houses and units for most suburbs in the analysis. As discussed in Chapter Two, the grant would theoretically have the same effect as any government subsidy by lowering the price of a home for buyers but increasing the price received by sellers. Thus, while buyers may receive a helping hand towards meeting deposit requirements for a home loan, the cost of the dwelling they are purchasing will have increased. The grant was introduced at a time when conditions in the housing market were favourable for buyers given low interest rates and relatively cheap housing. Thus trade-up buyers

and investors were also present in the market and contributing to substantial increases in the cost of housing. Although this rise in price was a boon for the housing industry and existing home owners, first home buyers were squeezed out of many of the markets studied in this research due to affordability issues.

On the whole, the Federal Government's boost to the grant in October 2008 to stimulate the housing industry in the midst of the Global Financial Crisis appears to have achieved its intended market stimulus. First home buyer activity reached its highest level with the number of grants issued in Western Australia higher than ever before in the grant's history. The FHOB was of course announced around the same time as successive interest rate reductions occurred, thus low interest rates provided a further incentive for first home buyers to enter the housing market.

The FHOB had its greatest influence on first home buyer activity in Butler with first home buyers accounting for around 90 percent of total house sales, followed by Beechboro and Nollamara. The more affordable suburbs such as Gosnells and Thornlie had already experienced an increase in first home buyer participation prior to the announcement of the boost due to the downturn in the market which provided a greater supply of housing stock for first home buyers at more affordable prices.

Sales did decline in the June quarter of 2009 for the majority of first home buyer suburbs which may suggest that the supply of affordable housing was insufficient to meet strong demand from these buyers. It also appears that first home buyers intending to take advantage of the FHOB applied early for the grant and secured their purchase in the March quarter of 2009; particularly given the boost was originally expected to end soon after. Issues surrounding the availability of housing finance for first home buyers may also have contributed to the decline.

House and unit prices in the lower end of Perth's market have showed positive signs of growth since the effects of the FHOB have filtered through. The effect on price varies across suburbs depending on the strength of first home buyer demand and the amount of affordable housing stock on the market. In suburbs where the boost has had the greatest impact such as Butler and Nollamara, prices have increased considerably, suggesting that the rapid increase in first home buyer demand has placed upward pressure on the cost of housing.

It is difficult to ascertain what will happen to the market once the FHOB begins to be scaled back in October 2009. The strongest activity by first home buyers in this sample occurred in the first quarter of 2009 and since sales have declined since then, the full effect of the FHOB on sales activity may have already passed. For suburbs with a greater supply of land and substantial residential development such as Ellenbrook, it could be estimated that these markets will see a sharp rise in sales at the end of 2009 by first home buyers who still want to take advantage of the FHOB before it expires.

However, the price of housing at the lower end of the market may continue to rise as first home buyers rush into the market before the FHOB is removed. Once the FHOB ends, first home buyer activity is likely to decline at the lower end of the market, however as the economy is showing signs of recovery, investors and trade-up buyers may soon return to boost sales in the median and upper quartiles of the market. Although if interest rates begin to rise again, it is expected that total sales will suffer judging by previous trends.

5.2 Policy Recommendations

This research concludes that the FHOG has been successful at encouraging first home buyers into the market. However, as discovered, most first home buyers purchase existing dwellings with the assistance provided by the grant which appears to contribute to rising prices at the lower end of the market. To solve the supply issues evident in most of the suburbs studied, the FHOG could be restricted to purchases of new homes and land to encourage more first home buyers to build. This move would also promote the construction of new homes by developers targeting these buyers. The development of affordable suburbs such as Ellenbrook specifically targeted at first home buyers is recommended to provide a greater supply of affordable housing for these buyers. It appears that first home buyers may be more likely to consider buying or building a new home if there was a greater supply of affordable house and land packages available.

It is also recommended that the construction of medium density housing be considered, particularly in areas close to Perth's CBD which lack a plentiful supply of land for residential development. Smaller dwellings would suit the changing demographic characteristics of many suburbs and provide more affordable housing options for first home buyers. Demand for units appears very strong, particularly amongst first home buyers, as these dwellings typically cost less than houses but still deliver the dream of home ownership. Ultimately, the tradition of constructing low density housing close to Australia's capital cities must shift if the majority of Australians are going to continue to pursue home ownership at some stage in their lives.

5.3 Limitations

There are several limitations to this research. Firstly, the data retrieved from the Office of State Revenue on the number of grants issued for existing properties was only available at the state level, thus comparisons with the level of sales in each suburb were rather generalised. There was only limited information available on the number of grants issued in each suburb per year as very few suburbs appeared in the top twenty for the entire time series. A fuller analysis would have been possible if there was data available on the number of grants issued for existing dwellings as well as new homes and land in each suburb per quarter, enabling this data to be compared with the number of sales. The exact level of first home buyer activity in each suburb would then be more clearly determined.

Secondly, as the level of first home buyer activity was determined by the proportion of grants issued, first home buyer activity prior to the grant's introduction could not be measured. Thus, the analysis relied on the Bureau of Statistics data which indicated the number of dwellings financed by first home buyers in Western Australia to give some measure of the grant's initial impact on activity.

Additionally, the timing of this research allows some of the effects of the FHOB to be determined however at this point in time the full stimulus is still available to buyers. Therefore, the impact of the boost's scaling back in October 2009 and its expiration in January 2010 cannot be measured, only estimated from analysing conditions in the market and previous trends.

Finally, the house and unit sales data for each suburb encompassed both new and existing dwellings. Thus, it was difficult to ascertain what proportion of first home buyer sales had been

for new homes compared to existing ones. In addition, new home purchases can take time to appear in the data as they may have been bought off the plan or under a building contract and are therefore awaiting construction.

5.4 Further research

Further research is required to investigate the affordability issues surrounding the grant, particularly the FHOB. This analysis has briefly analysed the impact of the grant on house prices at the lower end of the market however a more thorough examination of the implications of the grant for first home buyer affordability is needed. A survey of first home buyers may also be necessary to determine the importance of the grant in a household's decision to purchase a home.

This research attempted to determine the exact level of first home buyer activity in the market however as stated in the previous section, generalisations and assumptions were made as there was only limited data available on the number of grants issued to buyers at the suburb level. Therefore, if more detailed information was made available for individual suburbs, further research could be undertaken to simulate this study and possibly produce more accurate results. This research could be conducted some time after the FHOB is removed, thereby evaluating the boost's effectiveness from when it was introduced to its expiration.

Although this research concludes that the majority of first home buyers purchase existing dwellings, further research could be conducted into the FHOB's effect on new house and land purchases. It would be interesting to discover, once the FHOB has been phased out, if the boost contributed to an increase in the demand for new homes and land. As mentioned, new homes may not appear in the sales data for some time to come as grant recipients are permitted 18

months to complete the construction of a new home. If the stimulus succeeded in attracting more first home buyers towards buying or building a new home and therefore stimulated the construction industry, a more substantial permanent grant for new home and land purchases may be a valid recommendation.

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Appendices

Appendix 1: Process of Analysis

| LAND_AREA | LAND_DESC | UNIT_NO | LAND_USE | ZONING | PROP_USE | PROP_CLASS | LTO_SALE_1 | SALE_DATE_1 |
|-----------|-----------|---------|----------|--------|----------|-------------|------------|-------------|
| 81 | ARMADALE | 1 | R | R40 | R | DUPLEX UNIT | 225000 | 12-Jun-09 |
| 75 | ARMADALE | 2 | R | R40 | R | DUPLEX UNIT | 230000 | 28-May-09 |
| 445 | ARMADALE | 2 | R | R15/25 | R | DUPLEX UNIT | 280000 | 25-May-09 |
| 497 | ARMADALE | 1 | R | R15/40 | R | DUPLEX UNIT | 270000 | 27-Mar-09 |
| 88 | ARMADALE | 1 | R | R15/40 | R | DUPLEX UNIT | 245000 | 20-Mar-09 |
| 78 | ARMADALE | 1 | R | R15/25 | R | DUPLEX UNIT | 225000 | 1-Mar-09 |
| 631 | ARMADALE | 2 | R | R15/25 | R | DUPLEX UNIT | 229000 | 19-Feb-09 |
| 78 | ARMADALE | 2 | R | R15/25 | R | DUPLEX UNIT | 237000 | 3-Feb-09 |
| 67 | ARMADALE | 1 | R | R15/25 | R | DUPLEX UNIT | 192500 | 12-Nov-08 |
| 88 | ARMADALE | 3 | R | R40 | R | DUPLEX UNIT | 265000 | 13-Oct-08 |
| 513 | ARMADALE | 1 | M | | R | DUPLEX UNIT | 269000 | 30-Sep-08 |
| 531 | ARMADALE | 2 | R | R15/25 | R | DUPLEX UNIT | 270000 | 13-Jul-08 |
| 68 | ARMADALE | 1 | R | R15/25 | R | DUPLEX UNIT | 225000 | 7-Jul-08 |
| 195 | ARMADALE | 14 | R | R40 | R | FLAT | 227500 | 28-Mar-09 |
| 195 | ARMADALE | 14 | R | R40 | R | FLAT | 227500 | 26-Mar-09 |
| 107 | ARMADALE | 30 | R | R40 | R | FLAT | 239000 | 12-Nov-08 |
| 251 | ARMADALE | 16 | R | R15/40 | R | GROUP HOUSE | 259000 | 24-Apr-09 |
| 271 | ARMADALE | 3 | R | R15/40 | R | GROUP HOUSE | 275000 | 21-Feb-09 |
| 304 | ARMADALE | 1 | M | | R | GROUP HOUSE | 292000 | 14-Feb-09 |
| 218 | ARMADALE | 5 | R | R40 | R | GROUP HOUSE | 241000 | 21-Jan-09 |
| 439 | ARMADALE | 1 | R | R15/25 | R | GROUP HOUSE | 250000 | 24-Oct-08 |
| 352 | ARMADALE | 1 | R | R15/25 | R | GROUP HOUSE | 295000 | 23-Sep-08 |
| 463 | ARMADALE | 4 | R | R15/25 | R | GROUP HOUSE | 278000 | 21-Sep-08 |
| 330 | ARMADALE | 1 | R | R40 | R | GROUP HOUSE | 250000 | 19-Sep-08 |
| 206 | ARMADALE | 31 | M | | R | HOME UNIT | 299000 | 13-Jun-09 |

Table 5.1.1 Raw Data Sample

| LAND_AREA | LAND_DESC | UNIT_NO | LAND_USE | ZONING | PROP_USE | PROP_CLASS | LTO_SALE_1 | SALE_DATE_1 |
|-----------|-----------|---------|----------|--------|----------|-------------|------------|-------------|
| 81 | ARMADALE | 1 | R | R40 | R | DUPLEX UNIT | 225000 | 12-Jun-09 |
| 75 | ARMADALE | 2 | R | R40 | R | DUPLEX UNIT | 230000 | 28-May-09 |
| 445 | ARMADALE | 2 | R | R15/25 | R | DUPLEX UNIT | 280000 | 25-May-09 |
| 206 | ARMADALE | 31 | M | | R | HOME UNIT | 299000 | 13-Jun-09 |
| 262 | ARMADALE | 1 | M | | R | HOME UNIT | 325000 | 9-Jun-09 |
| 226 | ARMADALE | 10 | M | | R | HOME UNIT | 325000 | 6-Jun-09 |
| 104 | ARMADALE | 7 | M | | R | HOME UNIT | 195000 | 3-Jun-09 |
| 203 | ARMADALE | 5 | M | | R | HOME UNIT | 309000 | 17-May-09 |
| 225 | ARMADALE | 12 | M | | R | HOME UNIT | 330000 | 16-May-09 |
| 213 | ARMADALE | 22 | M | | R | HOME UNIT | 299000 | 12-May-09 |
| 212 | ARMADALE | 6 | M | | R | HOME UNIT | 305000 | 4-May-09 |
| 104 | ARMADALE | 7 | M | | R | HOME UNIT | 195000 | 29-Apr-09 |
| 95 | ARMADALE | 23 | R | R15/25 | R | HOME UNIT | 205000 | 20-Apr-09 |
| 95 | ARMADALE | 23 | R | R15/25 | R | HOME UNIT | 205000 | 19-Apr-09 |

Table 5.1.2 Filtered Data Sample

| DESCR | YTD | UNIT SALES | UNIT PRICE LOWER QUARTILE | UNIT MEDIAN PRICE | UNIT UPPER QUARTILE | UNIT HIGHEST PRICE | % MEDIAN UNIT GROWTH |
|-----------|------------|------------|---------------------------|-------------------|---------------------|--------------------|----------------------|
| Armadaled | 6/30/2009 | 14 | \$97 | \$205 | \$222 | \$330,000 | -2.2% |
| Armadaled | 3/31/2009 | 25 | \$201 | \$209 | \$244 | \$349,000 | -4.6% |
| Armadaled | 12/31/2008 | 20 | \$141 | \$219 | \$247 | \$335,000 | 0.5% |
| Armadaled | 9/30/2008 | 11 | \$204 | \$218 | \$244 | \$662,000 | -1.4% |
| Armadaled | 6/30/2008 | 14 | \$108 | \$221 | \$254 | \$349,000 | -6.0% |
| Armadaled | 3/31/2008 | 16 | \$94 | \$235 | \$255 | \$349,000 | 26.1% |

Table 5.1.3 Time Series Sample

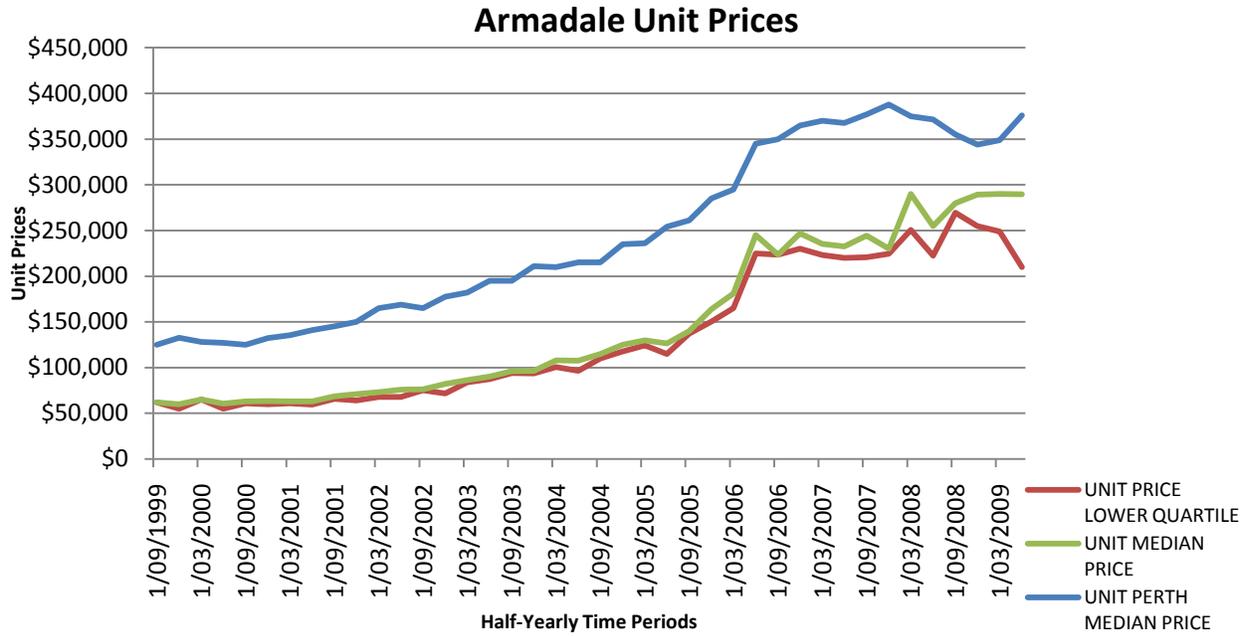


Figure 5.1.4 Graphical Time Series

Appendix 2: Selection of first home buyer suburbs

Top 20 Suburbs/Locations YTD from 01/07/08 to 30/06/09

| Top 20 | Suburb/Location | Totals |
|--------|-----------------|--------|
| 1 | ELLENBROOK | 438 |
| 2 | CANNING VALE | 395 |
| 3 | BALDIVIS | 368 |
| 4 | BUTLER | 359 |
| 5 | THORNIE | 260 |
| 6 | CLARKSON | 251 |
| 7 | TAPPING | 247 |
| 8 | KALGOORLIE | 242 |
| 9 | GOSNELLS | 236 |
| 10 | SEVILLE GROVE | 216 |
| 11 | BALGA | 214 |
| 12 | NOLLAMARA | 211 |
| 13 | MAYLANDS | 196 |
| 14 | SECRET HARBOUR | 190 |
| 15 | MORLEY | 188 |
| 16 | BEECHBORO | 185 |
| 17 | HIGH WYCOMBE | 183 |
| 18 | SUCCESS | 181 |
| 19 | ARMADALE | 179 |
| 20 | AUBIN GROVE | 178 |

Table 5.2.1 Selection of Suburbs

(Source: Office of State Revenue 2009)