

Housing Industry Forecasting Group

Forecast
Dwelling Commencements
in Western Australia



October 2012

Disclaimer

This document has been published by the Housing Industry and Forecasting Group.

Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the members or their representatives are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be, in respect of any information, statement, opinion or advice referred to here.

Professional advice should be obtained before applying the information contained in this document to particular circumstances.

Published October 2012

website: www.hifg.net.au

email: ian.hafekost@planning.wa.gov.au

Executive Summary

The October report provides the group's forecast of dwelling commencements in Western Australia from 2012/13 to 2015/16. The forecast will be reviewed in April 2013.

HIFG Forecast of Dwelling Commencements in WA, 2012/13 to 2015/16		
Financial Year	Dwelling Commencements	% change
2011-12 (actual)	17,495	
2012-13 (forecast)	21,000	+20%
2013-14 (forecast)	21-22,000	0 – 5%
2014-15 (forecast)	20,500 – 22,500	
2015-16 (forecast)	20,500 – 22,500	

The key points of the report are as follows:

- Despite the highest population growth in the country and the continued strength of the Western Australian economy, housing activity and consumer confidence has only recently started to shown signs of recovery.
- Vacant lot listings have been declining and final lot approvals, after reaching a low in the March quarter 2012, improved in June quarter.
- While no overall land shortage exists in Perth, HIFG's estimate of future dwelling commencements will require land supply of around 17,000 lots per annum, some of which will be sourced from demolitions and vacant land listings.
- The established housing market is only now beginning to show signs of life with Perth's property sales to listings ratio increasing to 95.5% in the June quarter, up 40.5 percentage points on a year ago. Perth's revised median house value of \$484,000 in the June quarter 2012 was 1% higher than a year ago.
- Seasonally adjusted dwelling approvals for WA in the three months to August 2012 at 5,280 were up 8% compared to the same period in 2011 (4,898).
- Dwelling commencements in 2011/12 at 17,632 were down 15% on 2010/11.
- Home loan commitments have been on a rising trend since January 2011, with approvals for new dwellings in the three months to August 2012 up 20% on the same period of last year.
- The decline in FHOG applications evident in 2009/10 appears to have reversed with applications for new homes in September 2012 above the level existing in the period before the last global financial crisis.
- Perth's median rent saw an annual increase of 13.9% to \$450 per week as a result of a low vacancy rate of 1.8% in the three months to September 2012.
- At the end of June 2012, estimated underlying demand based on demographic factors suggested a shortfall of -12,600 dwellings in Western Australia, a deficit of 21,500 dwellings in Perth offset by a surplus of 8,900 in the rest of the State.
- Despite falling interest rates and improvements in various housing affordability indexes, housing affordability remains an issue for those Western Australian households on low or moderate incomes, whether in affording private sector rents or accessing home ownership.
- In the June quarter 2012, a Perth household on the estimated median income of \$80,800 with a 10% deposit would only have been able to afford a property valued at \$322,000, with access to only 14% of houses and units sold in the quarter.
- A household in Perth needs an income of \$1,500 per week (\$78,000 pa) to be able to afford the median rent of \$450 per week. A single person with an income just above the income limit for public housing of \$430 per week would have been able to access less than one per cent of all new lettings in the June quarter 2012.

Table of contents

Executive Summary	1
Table of contents	2
Table of figures	3
1 Introduction	4
2 Housing Industry Drivers	4
2.1 Economic Overview	4
2.2 Finance Sector	5
2.3 Population Growth	5
3 Land Supply	6
3.1 Lot Potential and Production	6
3.2 Residential Land Sales	8
3.3 Residential Demolitions	9
4 Building Industry Activity and Trends	10
4.1 Building Approvals	10
4.2 Dwelling Commencements and Completions	11
4.2.1 Dwelling Commencements	11
4.2.2 Completions	12
4.2.3 Work under Construction and in the pipeline	13
4.2.4 Housing Finance	15
5 Housing Market Trends	16
5.1 Introduction	16
5.2 New Homes Market	16
5.3 Established Dwelling Market	17
5.4 First Home Buyers' Market	18
5.5 Private Rental Market	20
5.6 Public Sector	21
6 Housing Affordability in WA	21
6.1 Home Ownership	21
6.2 Private Rental	22
7 Housing Industry Resources	22
7.1 Construction Costs, Building Materials and Labour Supply	22
8 Underlying Demand for Housing	23
8.1 Underlying Housing Requirements	23
8.2 State of Supply	24
9 Forecast of Dwelling Commencements	26
9.1 HIFG's Forecast of Dwelling Commencements	26
9.2 Land Supply Assessment	26
Appendix A – Regional Land and Housing Activity	27
A1 Introduction	27
A2 Regional Western Australia – Activity 2011-12	27
A3 Annual regional trends, 2001/02 to 2011/12	27
Appendix B – Housing Industry Forecasting Group	33

Table of figures

Figure 1: Annualised components of WA Population Growth, March 2001 - March 2012	5
Figure 2 Quarterly final lot approvals by region, Sept 2003 - June 2012	7
Figure 3 Land listings in Perth and Mandurah, March 2008 - September 2012	8
Figure 4 Residential demolitions for Perth, Peel and Bunbury, 2001/02-2011/12	9
Figure 5 Building approvals in WA, July 2000- August 2012	10
Figure 6 WA dwelling commencements (original), Jun 2000-Jun 2012	11
Figure 7 Total dwelling commencements in WA, Jun 2000-Jun 2012	11
Figure 8 Annualised commencements and completions and dwellings under construction at end of quarter, Jun 1985-Jun 2012	13
Figure 9: WA unit dwellings as percentage of total dwellings under construction, 1970-2012	14
Figure 10: Number of dwellings approved but not started in WA, June 2003 - June 2012 ...	14
Figure 11: WA home loan commitments for new dwellings, July 2000-Aug 2012	15
Figure 12 Value of loan commitments for new housing investment in WA, Jun 2000-Aug 2012	16
Figure 13: Seasonally adjusted private house sales and approvals in WA, July 2006-August 2012	17
Figure 14 Quarterly indexes of house prices, Mar 2002-Jun 2012	18
Figure 15 Quarterly FHOG applications and grants paid in WA for new dwellings, September 2000 - September 2012	19
Figure 16 Quarterly FHOG grants as proportion of commencements and sales, Sept 2000-June 2012	19
Figure 17: Perth quarterly median rents and vacancy rates, 2003-2012	20
Figure 18: Net dwelling starts and cumulative surplus/shortfall in WA, Perth and ROS	25
Figure 19: Peel region, 2001/02 to 2011/12	28
Figure 20: South West region, 2001/02 to 2011/12	28
Figure 21: Great Southern region 2001/02 to 2011/12	29
Figure 22: Goldfields-Esperance region 2001-02 to 2011/12	29
Figure 23: Wheatbelt region, 2001/02 to 2011/12	30
Figure 24: Mid West region, 2001/02 to 2011/12	30
Figure 25: Gascoyne region, 2001/02 to 2011/12	31
Figure 26: Pilbara region, 2001/02 to 2011/12	31
Figure 27: Kimberley region, 2001/02 to 2011/12	32

1 Introduction

In response to stakeholders, the Group for the first time will provide a forecast of dwelling commencements and land availability for the next four years instead of two, covering the period 2012-13 to 2015-16. This will assist government and industry in their planning but it must be acknowledged that in extending the predictions the more uncertain the future becomes, hence our use of ranges beyond 2012/13.

The WA housing market was much subdued in 2010-11 following 2009/10's strong growth generated by FHOG Boost and the social housing stimulus. HIFG expects a strong growth into 2012/13, partly because of a carryover of commencements delayed by implementation issues with the new Building Act in April of this year but also from increased demand stimulated by stronger population growth, which has led to tightening of housing supply in Perth, the rapid rise in rents and lower lending rates. Dwelling commencements in the outer years of our forecast period are predicted to be maintained in the range of 20,500 to 22,500.

2 Housing Industry Drivers

2.1 Economic Overview

Against news of economic uncertainty in the global economy, the Western Australian economy continues to grow strongly. The most recent state final demand data saw the State grow by 2.1 per cent in the June quarter, to stand 15.9 per cent higher over the year. However, the lingering uncertainty has weighed on business confidence in prospects for the WA economy. Businesses expectations of the economy are sitting at low levels, despite most businesses seeing an improvement in operating conditions.¹

Western Australia's seasonally adjusted unemployment rate remained unchanged at four per cent in August. The number of employed people grew by 11,100 persons in September, and has reached a record high of 1.3 million people. This was largely due to a 6,100 increase in the number of full time employees, while part time workers ticked up by 5,000 over the month. Over the year, an additional 59,200 people have found work in the State. However, the strong jobs growth was offset by a 0.4 percentage point increase in the participation rate, which now stands at 69.1%. In the September quarter, there were 37,600 job vacancies, up by 14.6% over the year.²

Incomes, as measured by full time adult ordinary time average weekly earnings, increased 2.9% in seasonally adjusted terms in the year to June 2012. Total average weekly earnings for all employees increased 5.7% over the year.³ Despite rising incomes, consumer confidence remains at record low levels and sentiment continues to be one of building savings levels and reducing debt rather than taking on new financial commitments such as home loans.⁴ Living costs are also weighing on consumer confidence, as they dampen

¹ Commonwealth Bank – CCI Survey of Business Expectations, September Quarter 2012

² ABS Cat No 6354.0

³ ABS Cat No 6302.0

⁴ Curtin Business School-CCI Survey of Consumer Confidence, September 2012

households' ability to strengthen their financial situation. Consumers also feel that housing affordability and property purchasing conditions have deteriorated in recent months, despite the reduction in official interest rates.

2.2 Finance Sector

The Reserve Bank Board noted at its October meeting⁵ that recent indicators suggested that the pace of global growth had edged down and a weaker outlook for bulk commodity prices. The Board's current assessment of the inflation outlook gave scope for a further reduction in the cash rate by 25 basis points to 3.25%, 125 basis points lower than in November 2011. The interbank cash futures market is pricing in at least one, and possible two more rate cuts.

While at its September meeting the Reserve Board identified *a noticeable pick-up in business credit growth over recent months*⁶, credit supply remains an on-going issue for many Australian businesses, particularly land developers and builders.

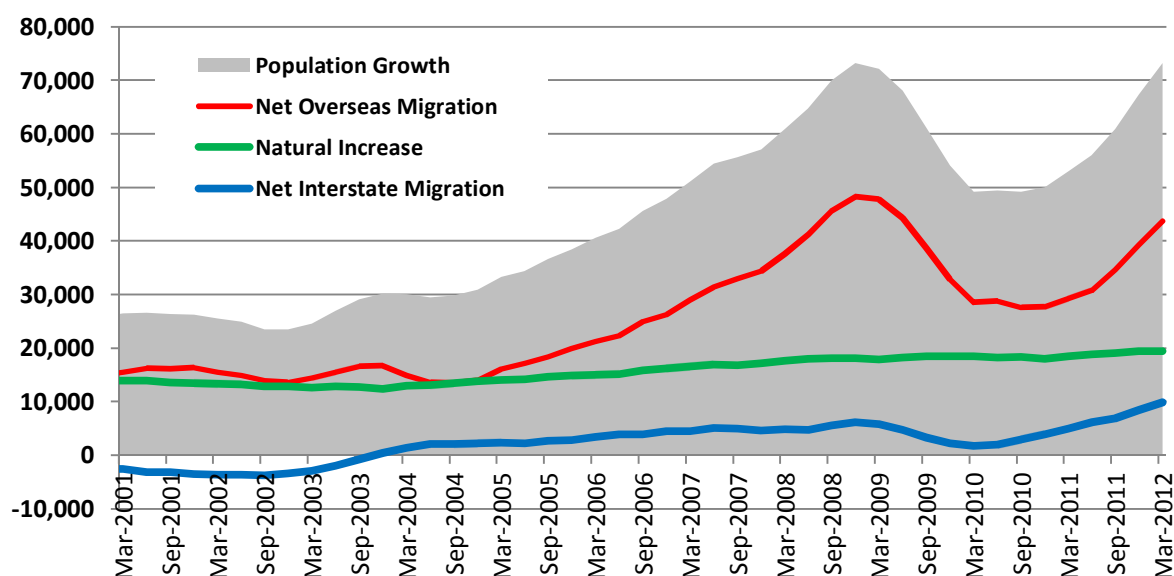
2.3 Population Growth

The latest demographic data for the March quarter of 2012 (see Figure 1 below), now benchmarked on the 2011 Census, showed the following:

- WA's population continued to grow at a faster rate than for Australia, with a 3.1% increase (73,284) in the year to March quarter 2012 compared to 1.5% for Australia. The growth in the year to March has been comparable to the year to December 2008 in terms of the strength of immigration from both overseas and interstate.
- Net overseas migration in the year to March 2012 was 43,760, 49% higher than for the year to March 2011 (29,314).
- Net interstate migration in the year to March 2012 at 9,932 was just over double the figure for the year to March 2011 (4,996).

Figure 1: Annualised components of WA Population Growth, March 2001 - March 2012

Source: ABS Cat No. 3101.0 Table 2



⁵ Minutes of the Monetary Policy Meeting of the Reserve Bank Board, 2 October 2012, RBA

⁶ Minutes of Monetary Policy Meeting of the Board, 7 August 2012, RBA

Recent projections⁷ of net overseas migration suggest that nationally the annual numbers are forecast to rise from 197,800 in March 2012 to 232,100 by June 2016 and it could be expected that Western Australia will take a larger share of this intake as is currently happening if the current employment situation holds up.

Estimated residential population figures for the 10 years to 30 June 2011 showed Perth's population grew by 21.8% to 1,744,529, increasing its share of the State's population from 73.3% to 74.2%. Outside Perth, the fastest growing region was the South West with a growth of 30.2% over the period and increasing its share of the State population from 10.2% (194,129) to 11.7% (252,818). The Pilbara increased its share of the State population from 2.1% to 2.7% over the decade, growing from an estimated population of 39,461 in June 2001 to 62,736 as at 30 June 2011.⁸

HIFG has adopted the following population growth rate projections as a basis for calculating its short-term dwelling demand. The population growth has been calculated by applying the following percentage growth rates, in line with the 2012-13 State Government Budget papers to the June 2011 Estimated Resident Population (ERP) for WA of 2,352,200.

		Net Increase	Projected ERP
2011-12	2.5%	58,800	2,411,000
2012-13	2.3%	55,500	2,466,500
2013-14	2.3%	56,700	2,523,200
2014-15	2.2%	55,500	2,578,700
2015-16	2.2%	56,700	2,635,400

3 Land Supply

3.1 Lot Potential and Production

Last year, the WA Planning Commission⁹ reported that there was sufficient zoned land available at historical rates of urbanisation of 10 dwellings per hectare in the Perth metropolitan and Peel regions to meet anticipated demand for the next 22 years. However, at higher development rates, such as those proposed under *Directions 2031 and Beyond*, this horizon could be pushed out to 43.6 years.

While there is sufficient land zoned for urban development, there remains the critical issue of how quickly that land can be constructed, serviced and brought to market. In the June quarter 2012, developers lodged 587 applications to create 6,345 residential lots across the state, with changes over the previous quarter of +14% and -35% respectively¹⁰.

Conditional residential lot approval was given to 6,685 lots in the June quarter of 2012; a 21% increase from the previous quarter and up 7% on the year. Final residential lot approval

⁷ *The Outlook for Net Overseas Migration, June 2012*, Department of Immigration and Citizenship

⁸ *Regional Population Growth, Australia* ABS Cat No. 3218.0

⁹ *Urban Growth Monitor*, December 2011, WAPC

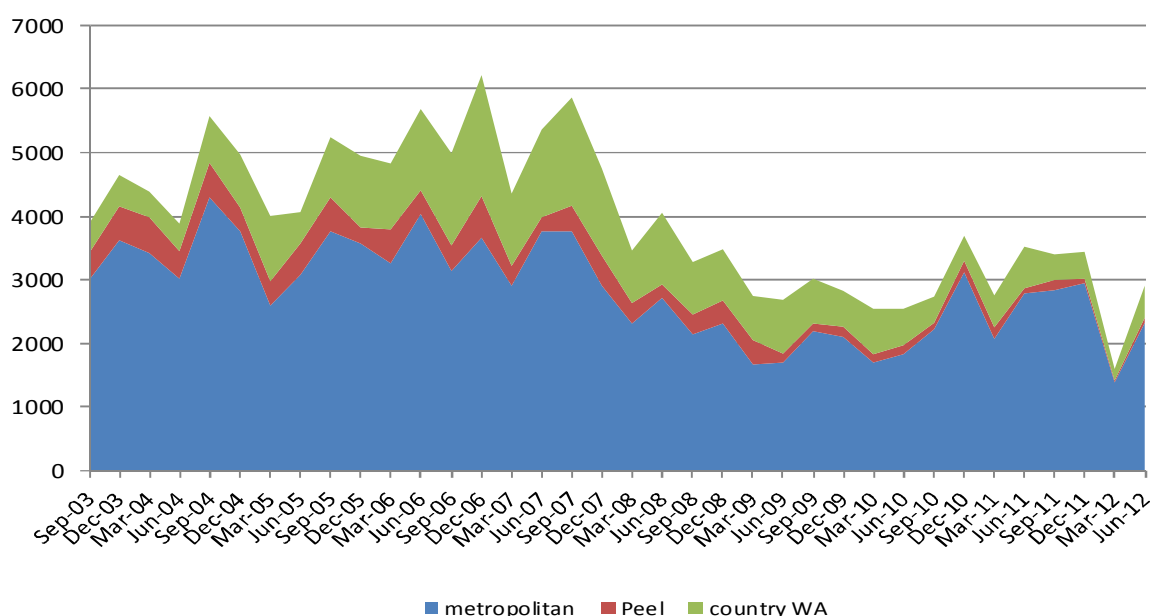
¹⁰ *State Lot Activity*, June Quarter 2012, WAPC

was given to 2,907 lots; up 14% on the June quarter 2011. At the end of June 2012, the number of proposed residential lots with current conditional approval totalled 72,381 lots across the state; up 1% on the previous quarter but down 3% on the June quarter 2011 figure. Perth accounted for 61% of the State total and with 44,280 lots was down 5% on the figure for the June quarter 2011 (46,380 lots).

Figure 2 shows final lot approvals for the Metropolitan area, Peel region and rest of the State since September quarter 2003¹¹. After reaching a peak in September 2004 and June 2006, the number of lots with final approval for the Metropolitan area declined to a low of 1,663 in the March quarter 2009 but has since increased to 2,907 in the June quarter of this year.

Figure 2 Quarterly final lot approvals by region, Sept 2003 - June 2012

Source: *State Lot Activity*, June Quarter 2012, WAPC



Based on industry data as of June 30, 2012, residential lot construction is expected to increase in 2012/13. UDIA (WA)'s survey of the 30 largest residential land developers in Western Australia shows that in the Perth metropolitan and Peel region 76 estates have committed to develop land for release in the second half of 2012 and 100 estates have committed to develop land for release in 2012/13.¹² The 2,415 new residential lots in the Perth metropolitan and Peel region which are expected to be developed and added to the stock of available residential land in the second half of 2012 represents an increase of 23.3 per cent on the December 31, 2011 survey result.

The UDIA (WA) survey shows that the number of new vacant lots on the market in the Perth metropolitan and Peel region as of June 30 fell for the third consecutive quarter, declining

¹¹ Final approval is granted by the Western Australian Planning Commission when the developer has satisfied all approval conditions, including the construction of roads and provision of utility services to the new lots. Final approval permits the issue of new titles by Landgate.

¹² Committed lot construction only includes the number of lots being physically constructed at the survey date and lots for which tenders have been called.

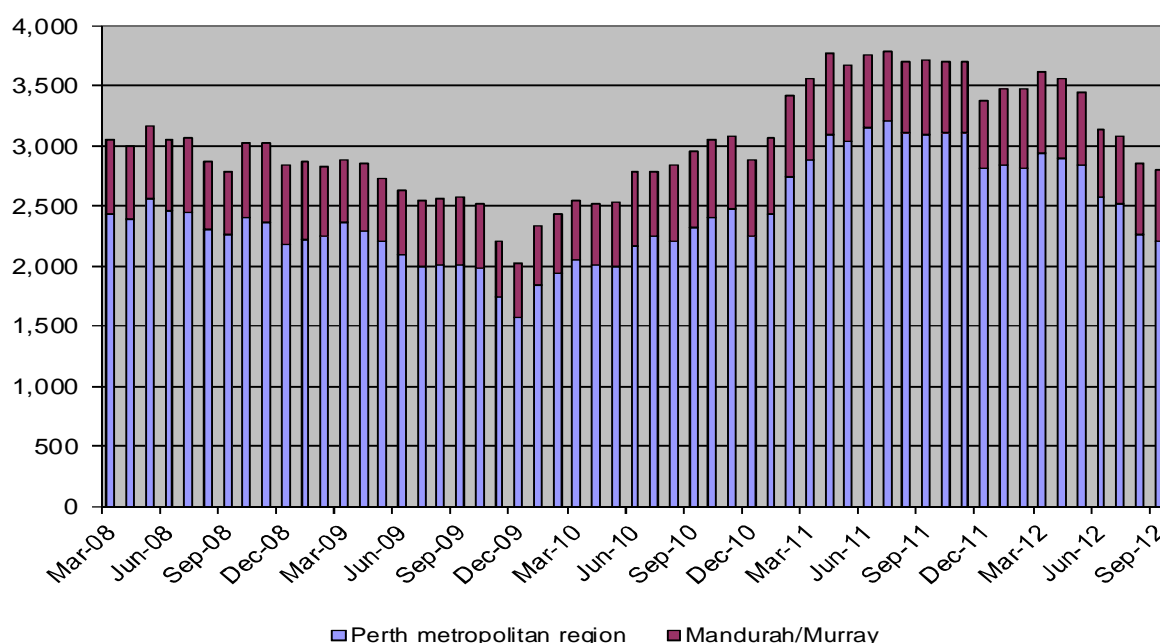
18.1 per cent from peak levels recorded on September 30, 2011. Available lots as of 30 June 2012, however, remains significantly above 2005/06 lows, with 2,050 lots for sale and a further 1,333 completed lots not on the market in the Perth metropolitan and Peel region.

Data provided by the Water Corporation to the Department of Planning indicates that in June 2012 there were 10,980 residential lots where the developer had a servicing agreement with the Water Corporation. These lots can be considered close to being available over the next 12-18 months. Of the total, 8,760 (80%) were located in the metropolitan/Peel area and 2,220 in the rest of WA, representing falls of 13% and 11% respectively in the year to June 2012.¹³

The following chart (Figure 3) shows land listings by REIWA members in the Perth region falling over the year to September 2012 by 29% to 2,202. The Peel region has seen land listings decline in the same period by 2% to 599 while land listings fell in Greater Bunbury by 7% to 171 and in Geraldton by 11% down to 332 lots.

Figure 3 Land listings in Perth and Mandurah, March 2008 - September 2012

Source: Unpublished data, Real Estate Institute of WA



3.2 Residential Land Sales

UDIA (WA)'s June 2012 Urban Development Index¹⁴, the Institute's survey of the 30 largest residential land developers in Western Australia, shows that:

- Sales of new vacant land in the Perth metropolitan and Peel region in the first six months of 2012 were 31.5 per cent above levels experienced in the first six months of 2011. Sales volumes in the March and June 2012 quarters were 18.5 per cent below peak levels experienced in 2005/06.

¹³ See: *Land Supply & Housing Activity Western Australia*, June Quarter 2012, WAPC

¹⁴ *Urban Development Index: Residential Land Activity June 2012*, UDIA(WA)

- New vacant land sales activity is mixed with one third of estates surveyed in the Perth metropolitan and Peel region experiencing sales volumes increase more than 20 per cent in the June 2012 quarter, while three in five estates experienced a decline in sales over the quarter.
- The average price of new vacant land sold in the Perth metropolitan and Peel region was \$238,000 in the June 2012 quarter, down 2 per cent on the previous quarter. Nearly half of new vacant land sales in the June quarter were in the sub-\$200,000 category.

REIWA estimates that residential land sales for WA in 2011/12 will be up around 8% to 12,900 when all settlements are processed. Perth land sales are projected to have risen 13% in 2011/12 whilst regional land sales are projected to be down 16% in the year.

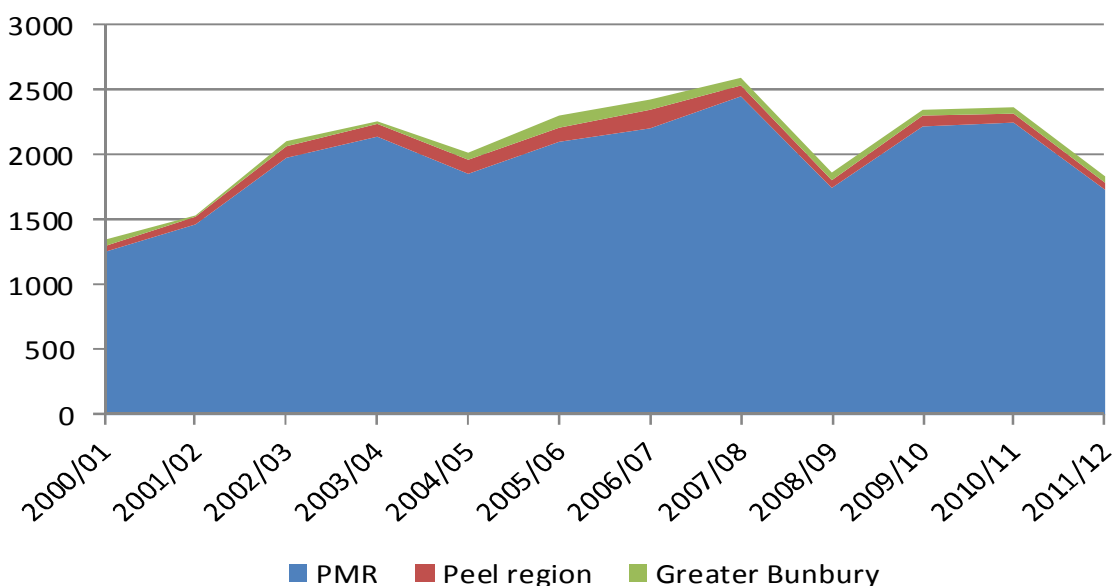
In the June quarter 2012, the median land price in Perth at \$240,000 was down marginally on the revised figure of \$242,000 for the previous quarter and up 6% on the year. In regional WA, the median land price at \$168,000 was down 4% compared to a year ago.

3.3 Residential Demolitions

The Department of Planning has been collecting data on dwelling demolitions from local government authorities for the period up to 2011/12. While not complete, data have been received from 32 of the 37 local authorities in the three regions. For those authorities we do have data for, after reaching a peak of close to 2,600 demolitions in 2007/08, numbers have fallen and were down to just over 1,800 in 2011/12.

Figure 4 Residential demolitions for Perth, Peel and Bunbury, 2001/02-2011/12

Source: Data collected from local authorities by Department of Planning



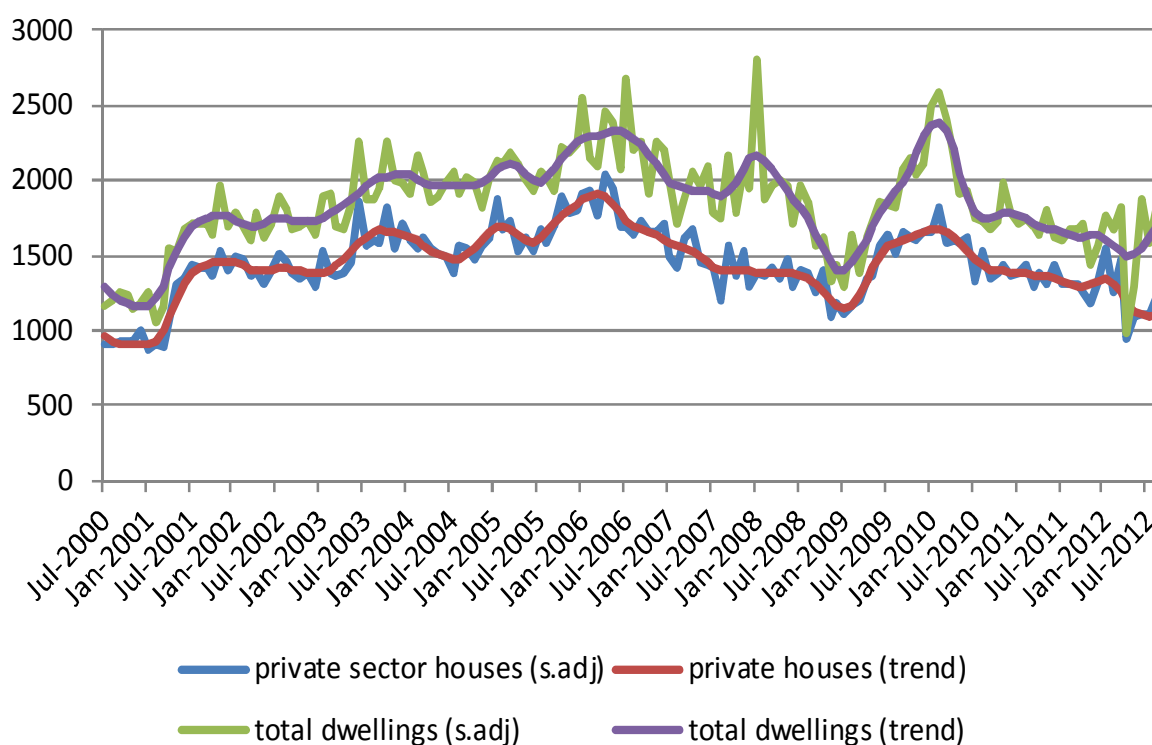
4 Building Industry Activity and Trends

4.1 Building Approvals

After an 18% fall in 2010-11, building approvals in Western Australia fell again in 2011/12 by 12% to 18,341 for the year to June 2012. The latest data for August 2012 showed the seasonally adjusted number of total dwelling approvals for WA in the three months to August 2012 at 5,280 was up 8% compared to the same period in 2011 (4,898). Implementation issues with the new Building Act resulted in very large fall in building approvals in April 2012 that now appear to have recovered following moves to address the issues. As shown in Figure 5, the trend estimate of approvals for total dwellings has turned strongly upwards for the first time since early 2010.

Figure 5 Building approvals in WA, July 2000- August 2012

Source: ABS Cat. No. 8731.0 Table 5



Across Western Australia, multi-residential approvals fell 7% in 2011/12 to 3,403 units resulting in a small increase in their share of total approvals to 19%, compared with 18% in 2010/11 and the long-term average of 20% since 1991/92. Perth accounted for 73% of approvals (10,871 houses and 2,526 other dwellings), with multi-residential units representing 19% of total approvals in Perth compared with 18% in the previous year and a long-term average of 21% since 1991/92.

4.2 Dwelling Commencements and Completions

4.2.1 Dwelling Commencements

Dwelling commencements¹⁵ in 2011/12 at 17,632 were 15% lower compared to 20,817 commencements in the previous year. The number of houses started fell by 2,214 (-13%) to 14,258, while commencements of other dwellings fell by 163 (-5%) to 2,817. With the completion of the social housing stimulus package, total public sector dwelling starts declined 59% in 2011/12 from 1,330 to 542.

Figure 6 WA dwelling commencements (original), Jun 2000-Jun 2012

Source: ABS Cat No 8752.0 Table 34

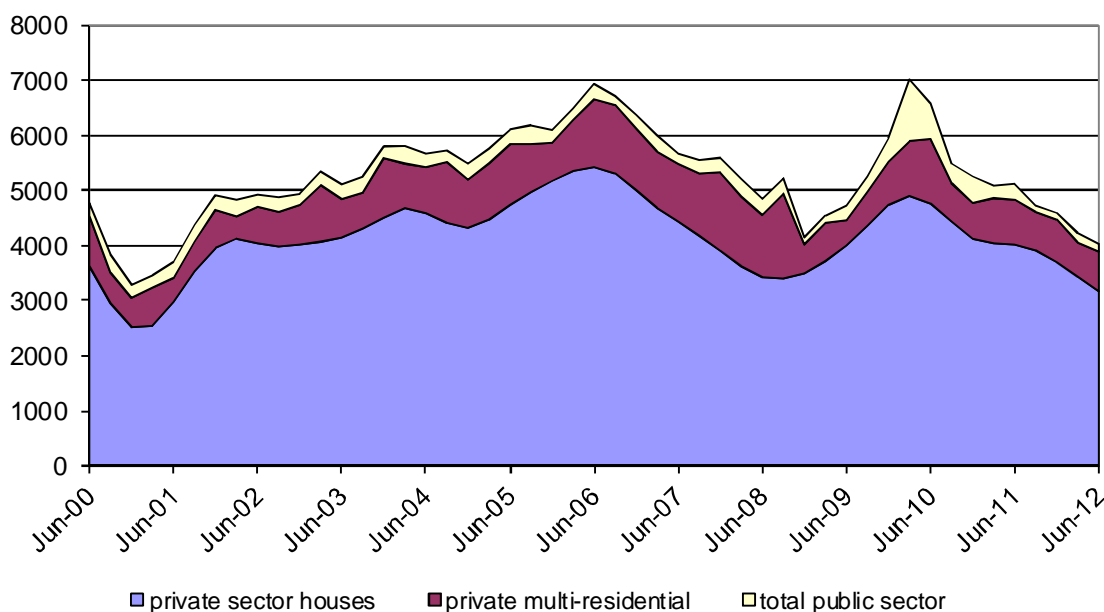
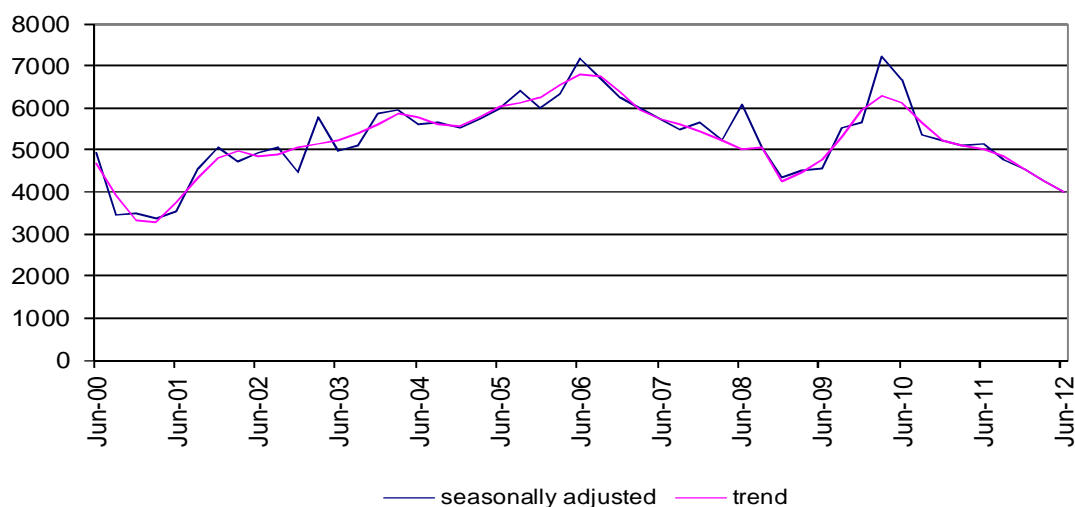


Figure 7 Total dwelling commencements in WA, Jun 2000-Jun 2012

Source: ABS Cat No 8752.0 Table 34



¹⁵ including conversions

Figure 7 above shows quarterly data for total commencements, the trend for which has been falling for the last nine quarters.

Table 2 shows that the distribution of dwelling commencements between Perth and regional WA has shifted from a ratio of 74:26 at the beginning of the decade down to 71:29 in 2010/11 and was back to 74:26 in 2011/12. The table also indicates that dwellings other than houses have been accounting for a greater proportion of total dwellings compared to houses, rising from 15% of the total in 2001/02 to 25% in 2007/08 but fell back to 17% in 2011/12.

Table 2: Distribution of Dwelling Commencements in WA, 2001/02-2011/12

Source: ABS Cat No 8752.0 – Unpublished data & includes conversions

	Perth			Regional WA			WA		
	Houses	Other	Total	Houses	Other	Total	Houses	Other	Total
2001/02	11,824	2,338	14,162 (74%)	4,417	528	4,945	16,241	2,866 (15%)	19,107
2002/03	12,435	2,649	15,084 (75%)	4,381	765	5,146	16,816	3,414 (17%)	20,230
2003/04	13,359	2,974	16,333 (73%)	5,215	927	6,142	18,574	3,901 (17%)	22,475
2004/05	12,845	3,611	16,456 (72%)	5,397	1,071	6,468	18,242	4,647 (20%)	22,835
2005/06	14,864	3,130	17,994 (70%)	6,677	1,051	7,728	21,541	4,181 (16%)	25,722
2006/07	13,360	3,787	17,147 (69%)	6,379	1,293	7,672	19,739	5,080 (20%)	24,819
2007/08	11,615	4,442	16,057 (72%)	5,101	1,173	6,274	16,716	5,615 (25%)	22,331
2008/09	10,335	3,116	13,451 (73%)	4,411	548	4,959	14,749	3,664 (20%)	18,413
2009/10	13,979	3,545	17,524 (69%)	6,030	1,750	7,780	20,009	5,295 (21%)	25,304
2010/11	11,760	2,811	14,571 (71%)	4,968	969	5,937	16,728	3,780 (18%)	20,508
2011/12	10,598	2,458	13,056 (74%) ¹	3,954	602	4,556	14,552	3,027 (17%) ²	17,612

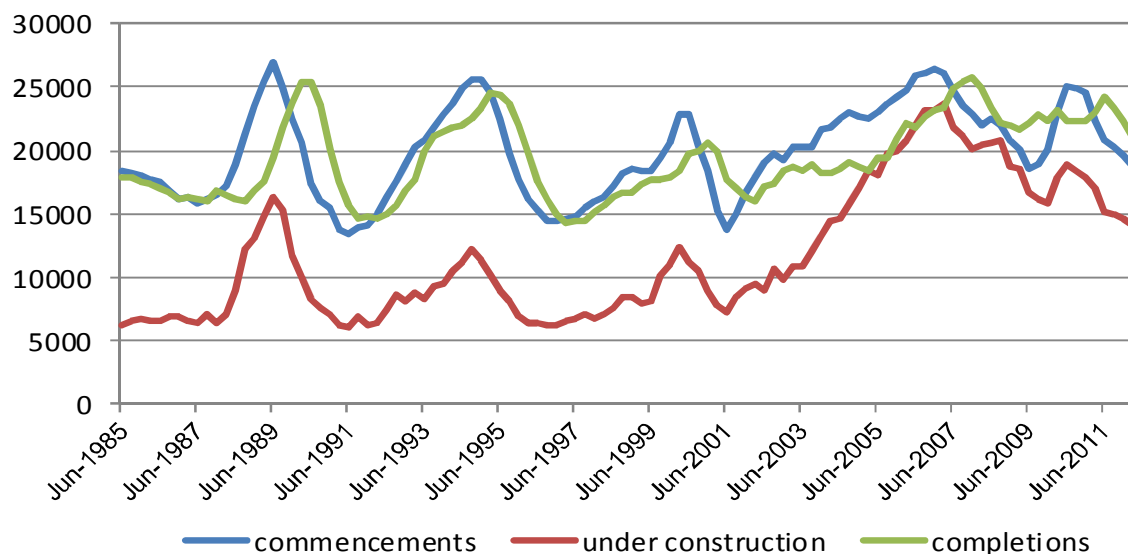
Notes: 1. Perth total as % of WA total.
2. WA other dwellings as % of total dwellings..

4.2.2 Completions

The level of completions reached an annualised peak of 19,617 dwellings at the end of June 2012, down 19% from the total of 24,293 for the previous year. The annualised level of completions is expected to continue on a downward path for another quarter or two while dwelling commencements remain on a downward slope.

Figure 8 Annualised commencements and completions and dwellings under construction at end of quarter, Jun 1985-Jun 2012

Source: ABS Cat No 8752 Tables 34, 38 & 77



4.2.3 Work under Construction and in the pipeline

After an all-time high of 23,639 in the March quarter 2007, the backlog of work reflected by the number of dwellings and conversions under construction in the June quarter 2012 totalled 12,825 and was 15% lower than the 15,140 dwellings under construction at the end of the June quarter 2011¹⁶. As figure 8 above indicates, the volume of work under construction has now reduced to below the level at the start of the WA property boom in mid-2004.

The following chart (Figure 9) shows the total dwellings under construction and the percentage of units since data were collected starting in 1969. After two peaks of close to 50% in the early 1970s and 1980s, the percentage of units in total dwellings under construction has fluctuated around 30%. The percentage rose strongly in 2008 to reach 39% in the September quarter of 2008 but has eased back to 28% in the June quarter 2012.

¹⁶ ABS Cat 8752.0 Table 77

Figure 9: WA unit dwellings as percentage of total dwellings under construction, 1970-2012

Source: ABS Cat No 8752.0 Table 77

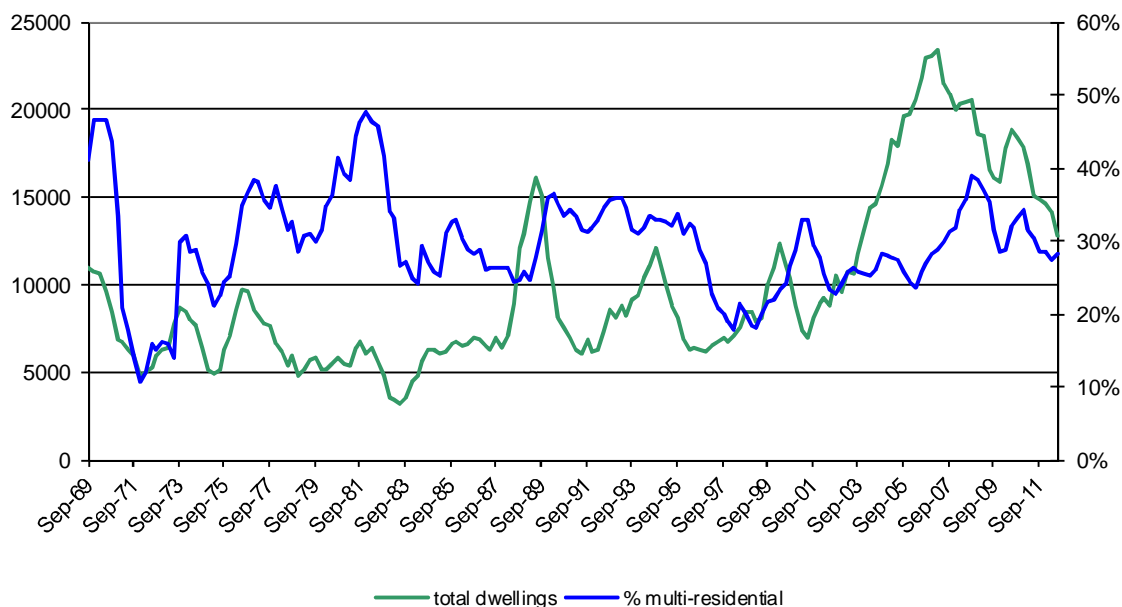
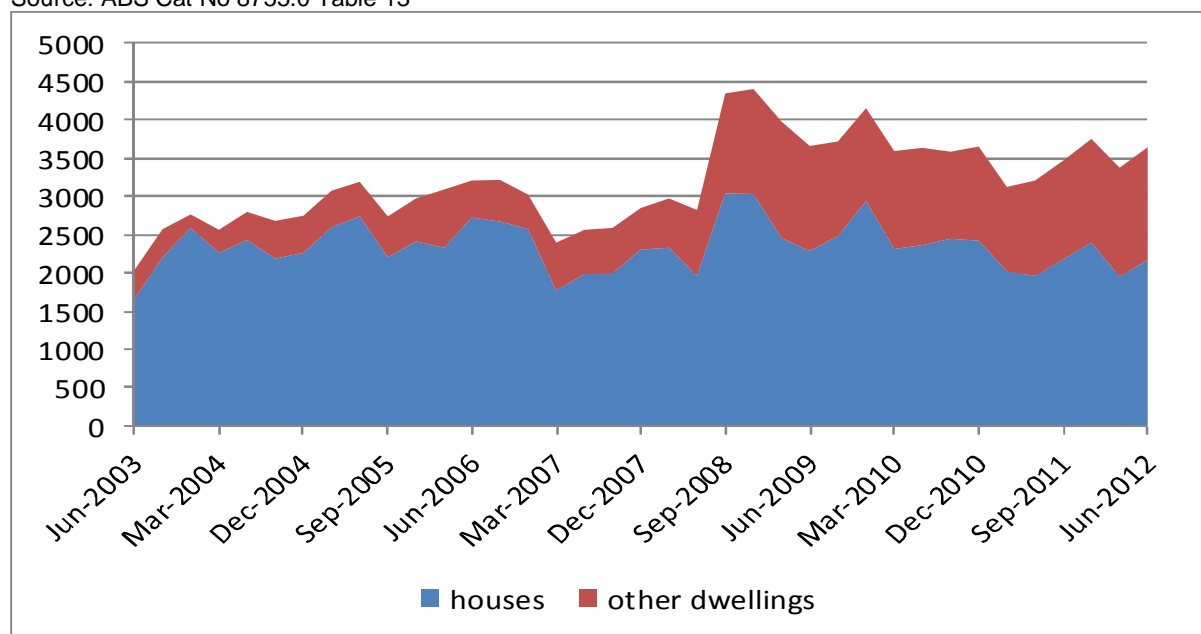


Figure 10 shows building approvals not yet started and as at the June quarter 2012 totalled 3,638, up 13% on a year ago. The stock of dwellings yet to start remained at a much higher level than prior to June 2008. The percentage of other dwellings as a proportion of total dwellings has been at a high level since June 2008 and in June 2012 was 40%.

Figure 10: Number of dwellings approved but not started in WA, June 2003 - June 2012

Source: ABS Cat No 8755.0 Table 13



As at the June quarter 2012, the value of work in the residential construction pipeline totalled \$3.513 billion¹⁷, 10% lower than 12 months previously. Out of this total, \$1.233 billion represented the value of work approved but not yet started, 12% up on 12 months previously

¹⁷ ABS Cat No 8755.0 Table 12

but the value of work still remaining to be completed was down 19% on the year at \$2.28 billion.

4.2.4 Housing Finance

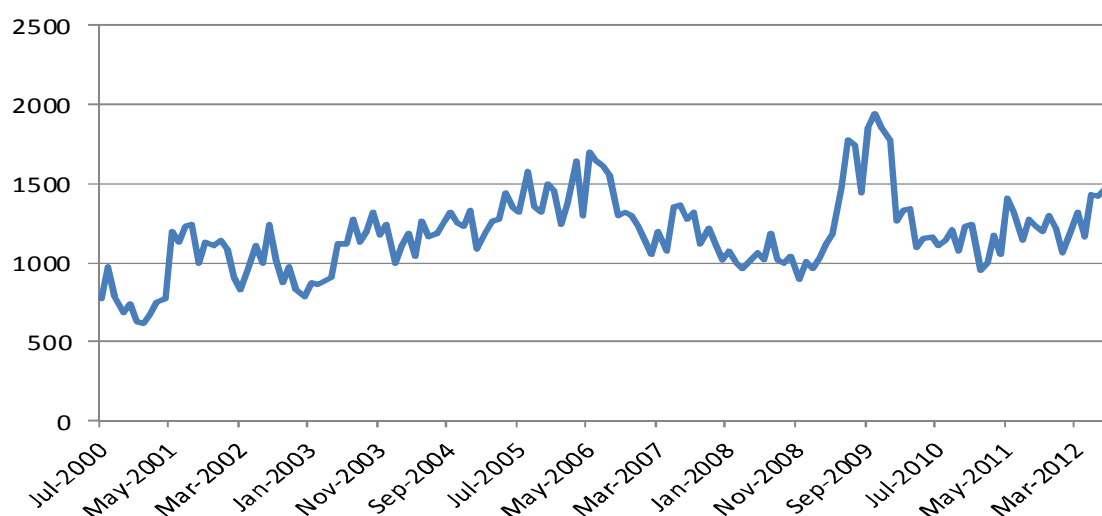
Annual growth in approvals for new owner occupier and identifiable investment loans for the construction of new dwellings has accelerated steadily since bottoming in late 2010. But the trajectory of growth is patchy compared to previous cyclical upswings in the dwelling construction cycle, consistent with household caution across a range of key economic indicators.

Growth in total (including established dwellings and excluding refinancing loans) loan commitments have been on an upward trend since January 2011. Approvals for first home buyers increased strongly by 41% in the three months to August 2012 compared to the same period of 2011 and loan commitments to trade-up buyers were up 13% over the same period. The share of loan commitments to first homebuyers¹⁸ was 34% in the three months to August 2012 compared to the long-term average of 27% since July 2000.

Figure 11 below shows the trend in loan commitments for the construction of dwellings and purchase of new dwellings. Monthly loan commitments have been on a rising trend since the most recent low point of 945 in the month of January 2011. In the three months to August 2012 a total of 4,489 loan commitments were made for new dwellings representing an 20% increase on the same period of 2011 (3,739 commitments). This appears to be running counter to the trend in building approvals, for which the trend has only recently started to turn round. Part of the explanation may be to do with the way statistics of home loan commitments are collected. When a borrower takes out two loans the figures show up as two loans and not one borrower. With more borrowers taking a combination of a fixed-interest loan and a variable-rate loan then the housing finance figures will tend to over-state the number of borrowers but we have no way of knowing by how much.

Figure 11: WA home loan commitments for new dwellings, July 2000-Aug 2012

Source: ABS Cat No 5609.0 Table 10a



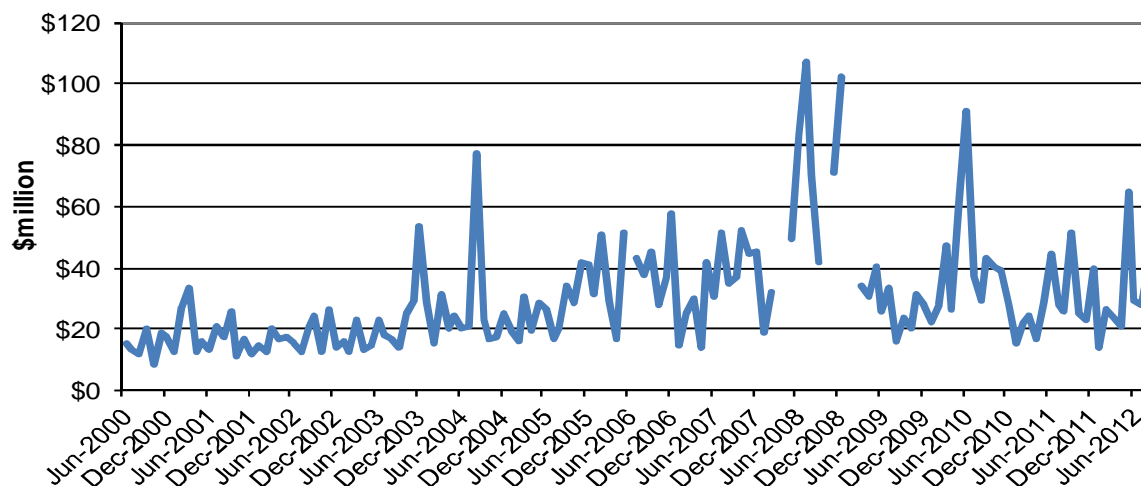
¹⁸ Share based on total loans excluding loan commitments for re-financing.

The average monthly level of financial commitments to investors for new dwellings for rent or resale (Figure 12) has been \$30 million per month for the last two years. Total value of loan commitments to investors for new construction or purchase of new dwellings for the three months to July 2012 at \$98 million was down 1% on the same period of 2011 (\$99 million).

Figure 12 Value of loan commitments for new housing investment in WA, Jun 2000-Aug 2012

Source: ABS Cat No 5671.0 Table 23.

Note: series breaks because of unavailability of data in some months.



5 Housing Market Trends

5.1 Introduction

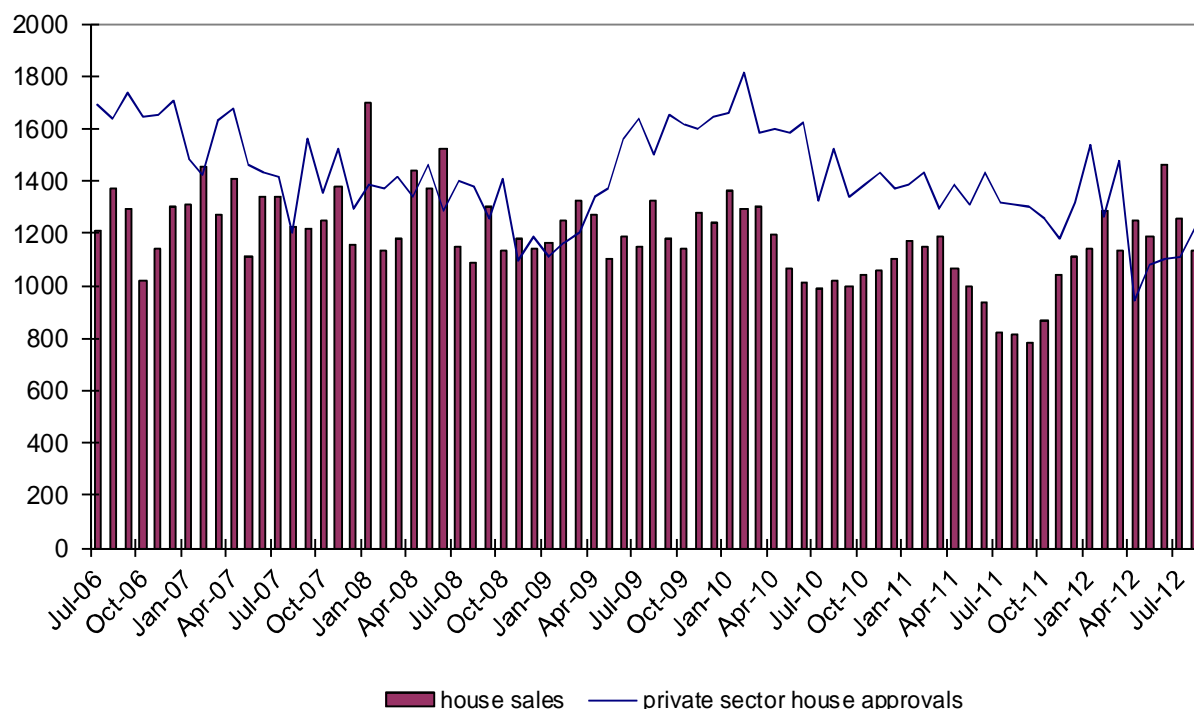
The established market in Perth has started to show some life and new home sales by the larger building companies have improved in the first half of 2012.

5.2 New Homes Market

The following chart (Figure 13) shows seasonally adjusted HIA data on house sales and building approvals for private sector houses recorded by ABS. New house sales by the major builders in WA have been rising strongly since the last low point in September 2011. In the three-months to August 2012, new house sales by HIA members were up 50% on the same period of 2011 but have eased off since June 2012.

Figure 13: Seasonally adjusted private house sales and approvals in WA, July 2006-August 2012

Source: New Home Sales, August 2012, HIA & ABS Cat No 8731.0



The index of project home prices in Perth increased by 2.4% in the year to the June quarter 2012 (see Figure 14 below), which was marginally above the increase for the consumer price index over the same period.

5.3 Established Dwelling Market

REIWA data¹⁹ showed the following:

- The projected volume of sales of established dwellings in WA for 2011/12 was 18% above the previous year but still some 14% below the 15 year average annual level.
- The number of listings (including land) reported by REIWA members in the metropolitan area has reduced from its most recent high of over 18,000 in April but at 15,000 in September 2011 was still well above the market equilibrium of 12,000.
- The average number of days between listing and exchange of contracts was 73 days in the June quarter of 2012, seven days lower than for the same time last year and well above the 45 days considered as the average in a normal market.

Revised data from REIWA indicated that the Perth median house price in the June quarter of 2012 at \$484,000 was on a par with the June 2011 figure of \$480,000.

The median house price in regional WA in the June quarter 2012 at \$369,000 was down 2% compared to both the previous quarter and a year ago.

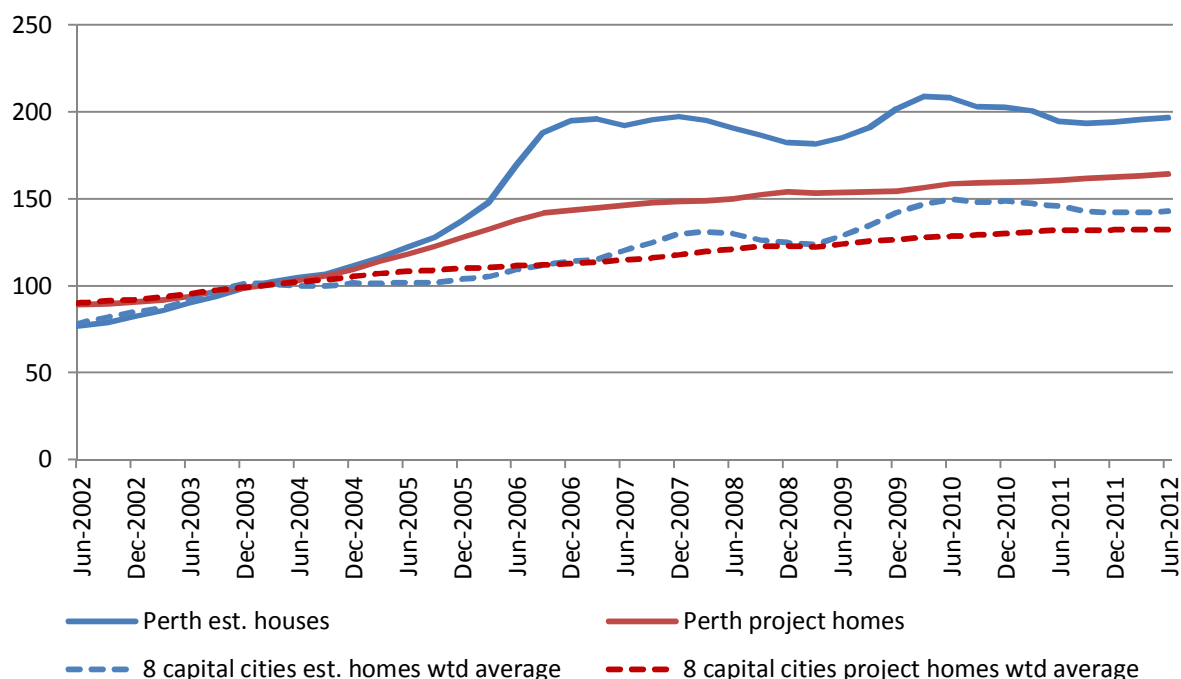
The decline in the index of prices for established homes in Perth stopped in the December quarter 2011. Perth's index of established home prices was up 1.1% in the year to the June

¹⁹ REIWA *Market Update*, June Quarter 2011, REIWA

quarter 2012 compared to a 2.1% fall for the eight capital cities weighted average. The index for project home prices has continued to rise. Perth project home price index increased 2.4% in the year to the June quarter 2012 compared to a minimal 0.2% for the eight capital cities weighted average.

Figure 14 Quarterly indexes of house prices, Mar 2002-Jun 2012

Source: ABS Cat No 6416.0



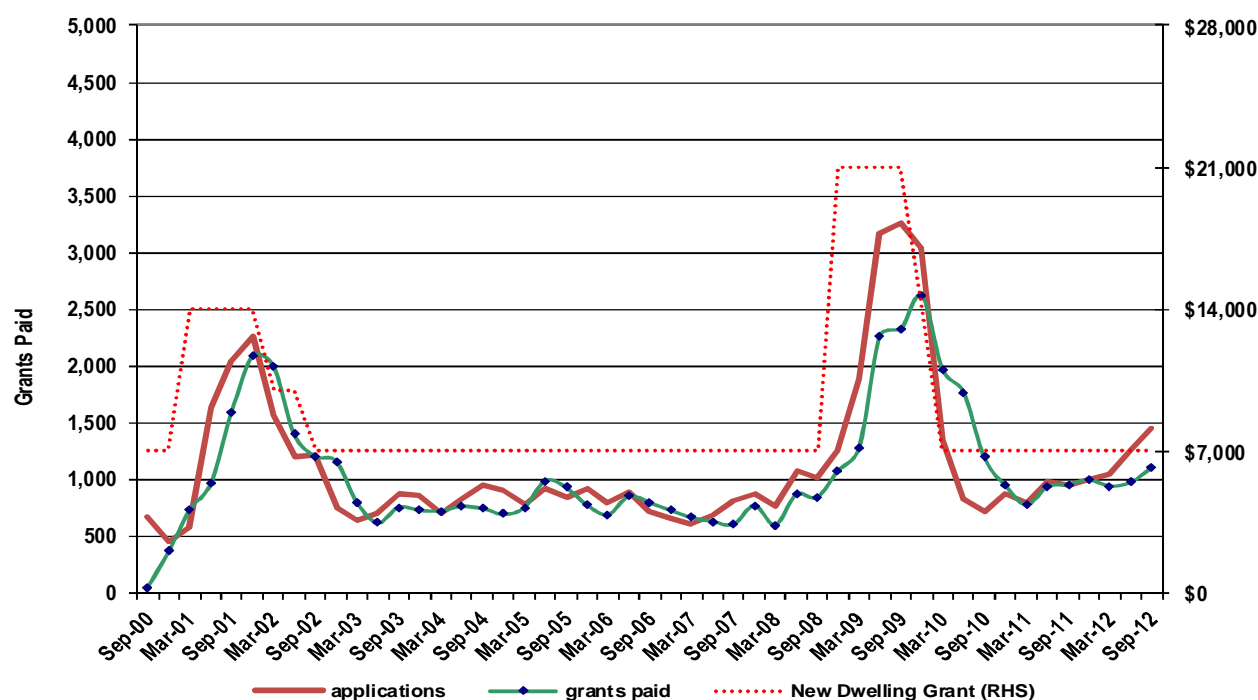
5.4 First Home Buyers' Market

REIWA estimates the proportion of first homebuyers accounted for 27% of the established market in the June quarter 2012, which was up two percentage points on the previous quarter and year.

Out of 15,192 grants paid in 2011/12, 3,858 were for new dwellings representing 25% of total grants, down from 30% in previous year and the 40% achieved in 2009/10 as result of the FHOG Boost. Figure 15 shows a positive upturn in grants paid on established homes after the trough in September 2010 and in the September quarter 2012 number was 6% above the long-term average since July 2000.

Figure 15 Quarterly FHOG applications and grants paid in WA for new dwellings, September 2000 - September 2012

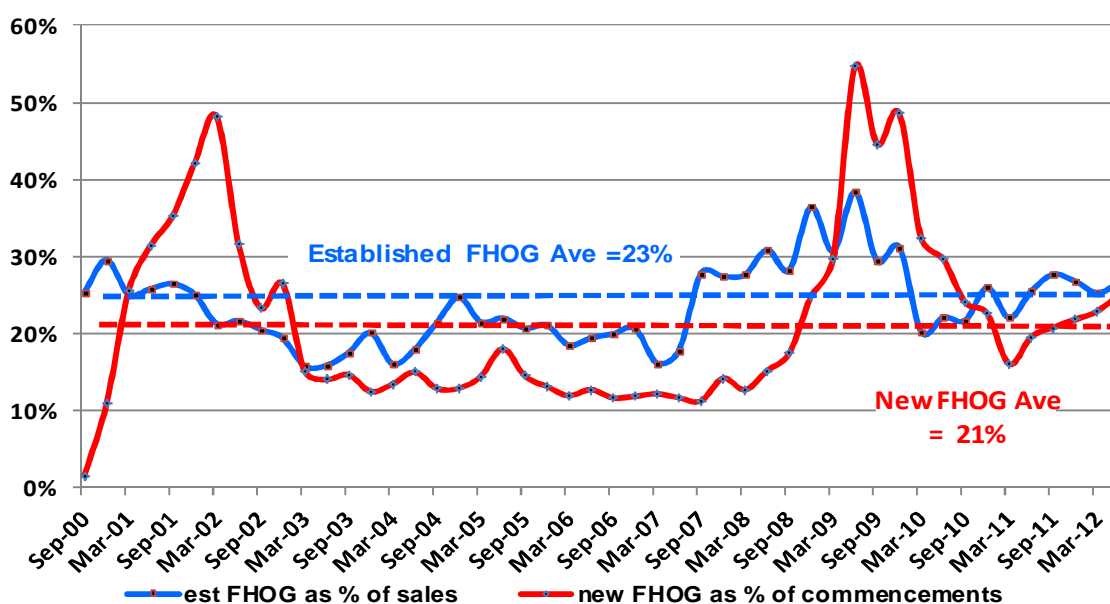
Source: Office of State Revenue



Data on grants paid (Figure 16) suggest the ratio of first homebuyers building a new home is now returning to above the pre FHOG Boost level of around 17% of total new dwelling construction. In the June quarter 2012, the ratio was as high as 25%, representative of the weak demand by up-graders to enter the market for a new home.

Figure 16 Quarterly FHOG grants as proportion of commencements and sales, Sept 2000-June 2012

Source: Calculations based on data from Office of State Revenue, REIWA and ABS Cat No 8752.0



5.5 Private Rental Market

The latest data from REIWA indicates the vacancy rate in Perth's private rental market fell to 1.8% in the three months to September 2012, one percentage point lower than a year ago. The reduction saw a rise in the median rent to \$450 per week,²⁰ up 14% on a year ago.

Figure 17: Perth quarterly median rents and vacancy rates, 2003-2012

Source: reiwa.com and REIWA member surveys

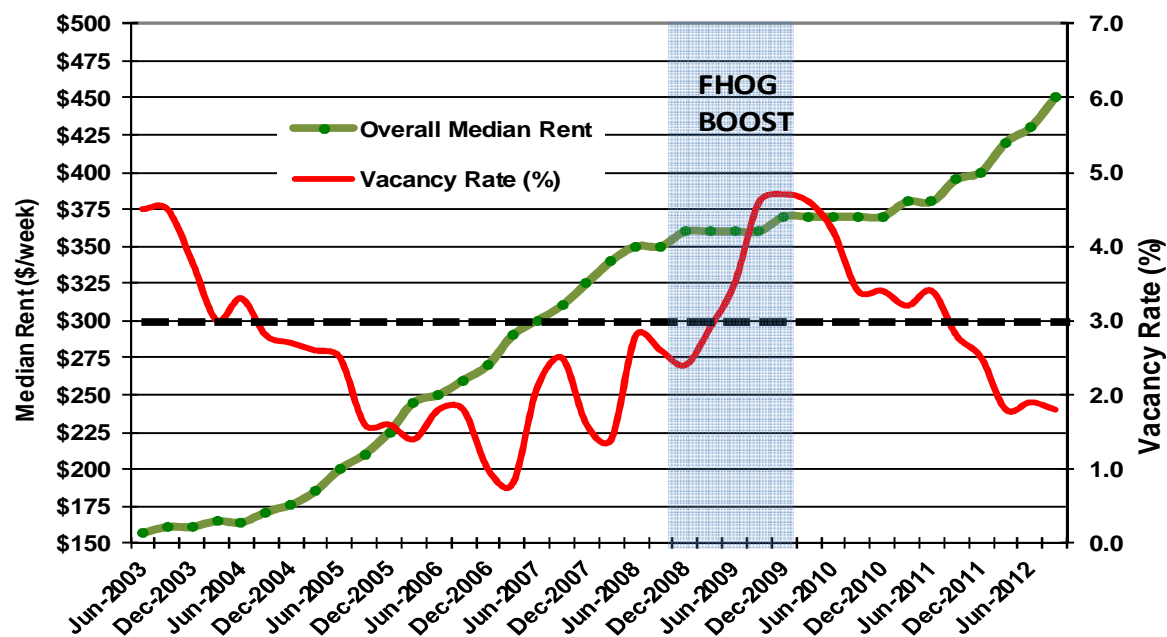


Figure 17 shows the relationship between Perth's median rent and vacancy rate since June 2003. As the vacancy rate fell below the dashed horizontal line²¹, the increase in the median rent has accelerated. The emerging lack of housing supply is being played out in Perth's rental market where the rapid fall in the vacancy rate over the past two years coincided with surge in population growth as new arrivals to the State look to the rental market for their immediate housing needs. All indications are that Perth will experience a tight rental market through to at least 2014 until new housing supply catches up with demand.

REIWA data (Table 3 below) also reported rent increases in most major regional rental markets over the year to June quarter 2012. The volatility of the Karratha and Port Hedland markets was evident in the small decline in Karratha and no change on the quarter in Port Hedland's median rent despite it being 20% higher compared to the June quarter 2011.

²⁰ REIWA web site accessed 22 October 2012.

²¹ The accepted industry standard of 3% for a balance between supply and demand

Table 3: Private sector rents in Perth and Major Regional Centres, June Qtr. 2012

Region	Median Weekly Rent	% Change over previous Qtr/yr	Vacancy Rate
Perth	\$430	+2.4%/+13.2%	1.9%
Mandurah	\$340	+4.6%/+6.3%	2.5%
Greater Bunbury	\$340	nc/+3.0%	3.0%
Geraldton	\$350	+6.1%/+16.7%	2.9%
Kalgoorlie	\$400	+2.6%/+9.6%	1.2%
Albany	\$300	+1.7%/+3.4%	4.2%
Broome	\$650	+4.8%/+8.3%	1.4%
Karratha	\$1,500	-6.3%/-6.3%	na
Port Hedland	\$1,800	nc/+20.0%	na

Source: *Market Update, June quarter 2012*, REIWA

5.6 Public Sector

Public sector dwelling commencements in 2011/12 were down 59% on the previous year to 542. Public housing was allocated \$130 million in the last State Budget over two years to deliver a total of 433 units, with 303 units to commence construction in 2012/2013 and the remaining 130 units in 2013/2014.

More broadly than simply adding to the stock of social housing, the State Government's Affordable Housing Strategy 2010-2020 is generating an increasing number of affordable land and homes in partnership with the private sector. The Golden Bay development will provide 1,750 lots with house and land packages starting at less than \$300,000 and in Broome North house and land packages starting at \$420,000. 130 affordable apartments are under construction in Cockburn Central and 161 affordable apartments in Perth CBD are to be delivered primarily funded by a private partner. In addition, the Department of Housing's innovative Expression of Interest has contracted the construction of 796 dwellings to date.

6 Housing Affordability in WA

6.1 Home Ownership

The latest HIA–Commonwealth Bank index on housing affordability for first homebuyers for the June quarter of 2012 was up 4.3 points for Perth and up 3.5 points for regional Western Australia compared to the June quarter 2011.²² The Real Estate Institute of Australia's Home Loan Affordability Indicator for the June quarter 2012²³ witnessed an improvement in home loan affordability for homebuyers in WA with an index up 2 points on the previous quarter and 5.7 points on the year.

Despite the improvement in the trends for housing affordability, access remains a problem for many would-be first homebuyers. In the June quarter 2012, a household on the estimated

²² *Affordability Report*, June Quarter 2012, HIA

²³ *Housing Affordability Report*, June Quarter 2012, Real Estate Institute of Australia

median household income of \$80,800²⁴, with minimal other credit commitments, could have borrowed around \$290,000²⁵. With a 10% deposit, they would have been able to afford a property valued at \$322,000, which was still well below the median house price of \$484,000 or even the lower quartile house price in Perth of \$382,500.

In July 2012, the average loan size of finance commitments to first homebuyers was \$290,900 in Western Australia while the median price of established homes bought by first homebuyers was \$400,000. However, the data that the average loan is based on comprises all loan commitments to first homebuyers and includes cases where some borrowers take a loan cocktail, one variable and the other fixed interest²⁶. This understates the average of the total loan amount taken up by first home borrowers. Hence, the average loan is meaningless except perhaps as a trend figure.

6.2 Private Rental

The median private rent in Perth was \$430 per week in the June quarter of 2012, a 13% increase in the year. A household needed a gross income of around \$1,400 per week, or \$73,000 per annum, to be able to afford such a rent (i.e. by not paying more than 30% of their income on rent). Households in lower incomes will be struggling and this has been one factor behind the continuing high demand for public housing, which at the end of August 2012 totalled nearly 22,300 households or 3% lower than a year ago.

The National Rental Affordability Scheme (NRAS) is now beginning to provide affordable rental housing in Western Australia with 604 dwellings completed by the end of June 2012 and close to 1,000 under construction. In return for financial incentives, currently worth \$9,981 per dwelling per year for ten-years, investors make the dwellings available to low and moderate income households at rents 20% below the local market level. Western Australia currently has a total allocation of incentives for close to 6,000 rental dwellings to be completed by 30 June 2016, with over 1,500 in the North West.

7 Housing Industry Resources

7.1 Construction Costs, Building Materials and Labour Supply

The increase in the Project Home Price Index for Perth in the year to June quarter 2011 was below the increase in the consumer price index with an increase of 1%, and below the weighted average for the eight capital cities of 3%.

The price index of building materials used in housing construction in Perth increased by 1.5% in the year to the June quarter 2012, compared with a 0.5% increase for the six major capital cities²⁷. The increase in Perth was largely attributable to increases in concrete, cement and sand (+4.4%) and other materials (+6.5%).

²⁴ Median household income for Perth from 2011 Census indexed to June 2012 by Wage Price Index

²⁵ Estimate based on 10% deposit and repayments at 30% of gross income. However, households with no dependent children are usually permitted by banks to exceed this 30% limit.

²⁶ For definition of average loan see Glossary in ABS Cat No 5609.0 issued 8 August 2012

²⁷ ABS Cat 6427.0 Tables 16 & 17.

A survey of HIA trade subcontractor members²⁸ in the June quarter 2012, reported the availability of trades in Perth and regional WA was in moderate short supply, a consequence no doubt of competition for skilled labour from the resource sector. With the slowing of the mining sector, this drain of skilled labour to the North West can be expected to reverse.

The HIA Trade Contractor Price Index²⁹ in Perth for the June quarter 2012 was 1.7% higher on the previous quarter but only up 1.1% on the year. The equivalent figures for regional WA were +7.8% and 6.6% respectively.

8 Underlying Demand for Housing

8.1 Underlying Housing Requirements

A well-argued analysis in a recent Department of Planning publication³⁰ demonstrates how sensitive underlying demand models are to the number of persons per household. It further goes on to say that “[H]ousehold formation rates and the composition of population growth are critical to measuring Western Australia’s underlying housing demand and yet are not adequately accounted for in the existing models.”

The Group believes the underlying dwelling requirement in WA based solely on demographic factors is now running at just under 22,000 dwellings per annum. This estimate is based on a population growth as outlined in section 2.3 above and an on-going ratio of 2.6 persons per household. An un-occupied factor of 5.3% and a demolitions rate of 14.41% were based on figures calculated by the National Housing Supply Council³¹ from inter-censal stock figures between 2001 and 2006.

As we reported last year, an important component of demographic-based models is the rate of household formation, which does not take into account the ability of a household to actually form a separate household. A lack of available and affordable housing to buy is one barrier to household formation. Rising rents in the private rental market will have the same affect with young people forced to stay within the family home. The increase in the number of people per household between the 2001 and 2006 Censuses suggests that these economic considerations resulted in many putting off forming a new household. Results from the recent 2011 Census suggest that the number has stabilised for now at 2.6 persons per household.

Housing demand in Western Australia is not as high as projected by the NHSC as 2010 household projections based on the 2006 Census has shown that the declining trend in persons per household has been arrested and the 2011 Census confirms that there has been a small lift in this rate after 100 years of decline.

²⁸ Trades Report, HIA Austral Bricks, June Quarter 2012

²⁹ *ibid*

³⁰ Section 2.3, *Perth & Peel Development Outlook 2011/12*, August 2012, WAPC

³¹ 2nd State of Supply Report, April 2010, NHSC.

The dramatic slide in the proportion of nuclear families between 1986 and 2001 as Gen X offspring left home has also been arrested with the proportion flat-lining at 33% rather than continuing to decline as projected as Gen Y kids stay at home. The rise in fertility since 2001 may have also contributed to this trend. The projected growth in couple only and lone person households has not eventuated with the number of lone person households in fact declining between 2006 and 2011.

The 2011 Census also showed up a significant growth in the State's unoccupied dwelling stock, rising by 22,000 from 10% of the dwelling stock in 2001 to 109,000 or 12% of the dwelling stock in 2011.

8.2 State of Supply

As in our previous reports, the HIFG has utilised the National Housing Supply Council model updated to reflect assumptions based on the latest data from the 2011 Census. This presents a dramatic turnaround in the state of housing supply in Western Australia. Whereas the NHSC in its latest report³² suggested a shortfall in the State of some 38,000 as at June 2011, our interpretation of the model based on completions suggest the housing system was in virtual equilibrium in June 2009 with a shortfall of 15,400 by 30 June 2011, nearly 60% below the Council's estimate.

The alternative approach of using commencements, which has been the traditional method of assessing the state of supply, allows for the inclusion of projected commencements to forecast the state of supply over the short term. With the benefit of disaggregated commencement data provided by ABS along with historic population data and projections, the HIFG is able to make a more informed assessment of housing supply in WA. Using this methodology, the following chart (Figure 18) shows the estimated surplus/shortfall of dwellings in WA, Perth and the rest of the State for 2001/02 to 2011/12 and the forecast period of 2012/13 to 2015/16 against the number of dwelling commencements net of demolitions and an adjustment for un-occupied properties.

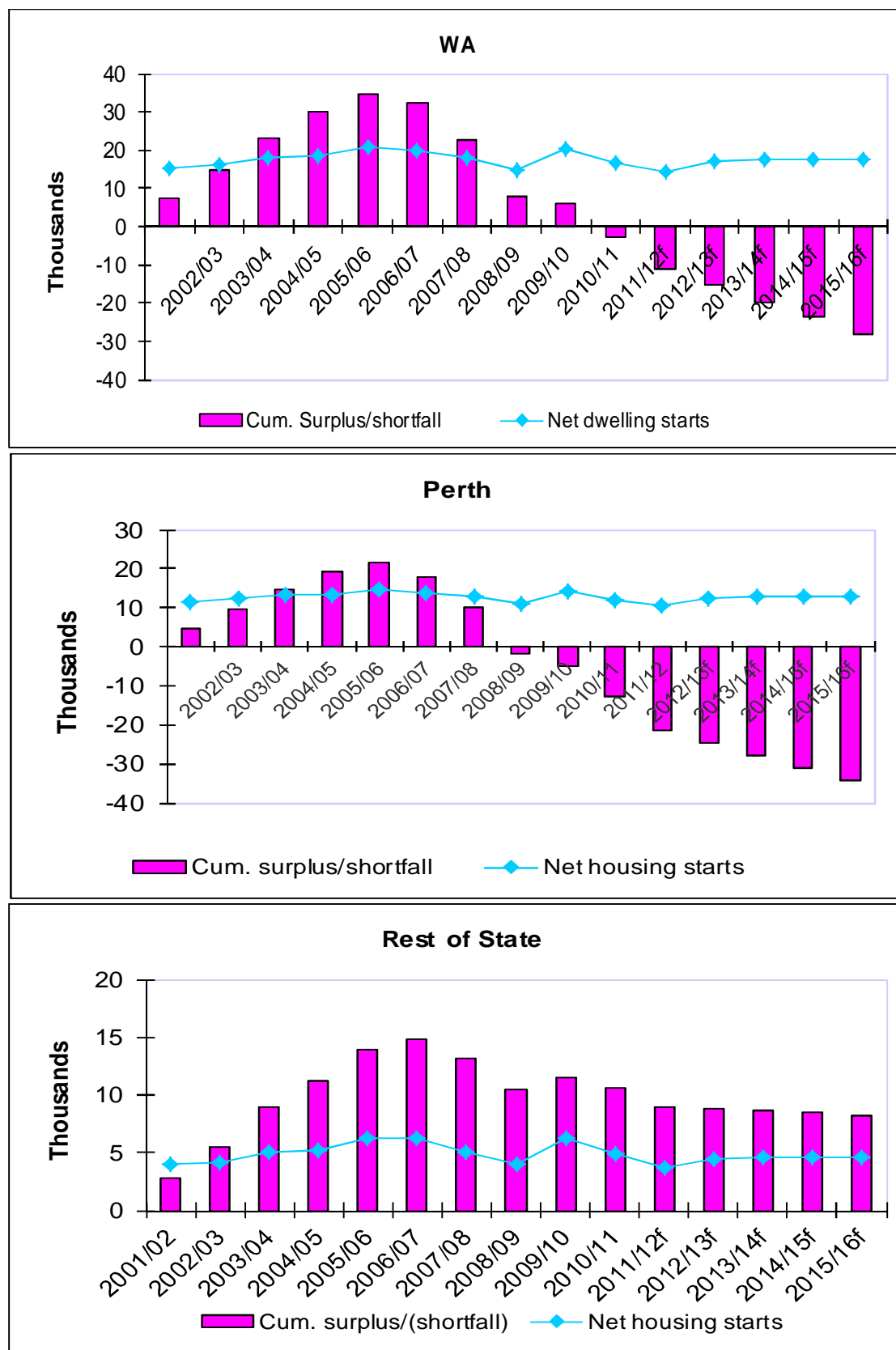
At the end of June 2012, compared to underlying demand based purely on demographic factors Perth had an estimated shortfall of 21,500 dwellings. This estimate increases to a shortfall of 34,400 by June 2016, still 3,600 below the NHSC's estimate of the shortfall as at June 2011.

In the rest of the State, excluding Perth, the opposite is the case with an estimated surplus of 8,900 dwellings over underlying demand in June 2012 that falls to a surplus of 8,300 by June 2016. This obviously does not take into account housing shortages in some regions, such as the Pilbara and Kimberley (see Figures 26 & 27 below), which are more than offset by housing surpluses in other regions.

³² *Housing and Affordability – Key Indicators, 2012*, June 2012, National Housing Supply Council

Figure 18: Net dwelling starts and cumulative surplus/shortfall in WA, Perth and ROS

Source: HIFG



9 Forecast of Dwelling Commencements

9.1 HIFG's Forecast of Dwelling Commencements

After the continued fall of 16% in dwelling commencements in 2011/12, the HIFG are expecting a 20% increase in 2012/13 to 21,000 starts. Part of this increase is attributable to a carryover of around 1,000 dwellings that might have commenced in the last quarter of 2011/12 but were delayed because of implementation issues with the introduction in April 2012 of the new building approval system under the Building Act.

HIFG Forecast of Dwelling Commencements in WA, 2012/13 & 2015/16		
Financial Year	Dwelling Commencements	% change
2011/12 (actual)	17,495	
2012/13 (forecast)	21,000	+20%
2013/14 (forecast)	21 – 22,000	0 – 5%
2014/15 (forecast)	20,500 – 22,500	
2015/16 (forecast)	20,500 – 22,500	

Recent falls in home lending rates to their current low levels would in normal times result in strong demand for home ownership and new dwellings. However, consumer confidence remains low and is only now showing signs of a gradual improvement. Therefore, members believe that dwelling commencements in 2013/14 and the out years will achieve an upper limit of 22,500. The downside risks are that the eurozone goes into financial meltdown, the US economy falters and the global economy fails to grow with a consequent depressing impact of the Australian economy.

9.2 Land Supply Assessment

On the basis of 1.3 dwellings per lot³³, our forecast suggests there will be a need for around 17,000 lots per annum. Of course part of this need will be sourced from demolitions and existing vacant listings. While final lot approvals for Perth picked up in the June quarter 2012, they are still running at a much lower level than prior to the GFC. With continued restrictions on access to finance, developers are providing lots for immediate demand rather than adding to stock numbers. The recent cuts in interest rates, and with more forecast, means the demand for land and new housing may well pick up quickly towards the end of 2012/13 and test the market's ability to meet that demand in a timely manner.

While there is an overall sufficient supply of residential land available to meet demand for the immediate future, HIFG remains concerned that the land supply pipeline may have difficulty in meeting future demand if there is a sudden increase by buyers.

³³ Estimate based on ABS unpublished data referred to in HIFG's October 2011 Report (page 12).

Appendix A – Regional Land and Housing Activity

A1 Introduction

This appendix provides a summary of land development and building activity in regional Western Australia, using available data and reports from HIFG member organisations.

A2 Regional Western Australia – Activity 2011-12

Data on land development from the WA Planning Commission summarised in table A1 indicates that while there are plenty of residential building lots under assessment and with conditional approval there is a low level of lots with final approval. From a very low level, lot applications in the Gascoyne have markedly increased with development interest in the Shire of Exmouth.

Table A1: State Lot Activity, June Quarter 2012

Region	Applications lodged by Developers: proposed lots	Applications under assessment: proposed lots	Conditional approvals: proposed lots	Developers' stock of conditional approvals: proposed lots	Final approvals: lots
Perth					
Peel	717	867	515	6,650	84
South West	805	1,624	408	7,348	85
Great Southern	106	1,023	261	2,548	15
Mid-West	76	226	13	4,030	133
Wheatbelt	32	168	8	2,738	12
Goldfields-Esp	54	54	35	1,002	34
Gascoyne	90	90	53	236	3
Pilbara	12	231	637	2,301	108
Kimberley	10	8	83	1,248	111
Total	1,902	4,291	2,013	28,101	585

Source: State Lot Activity, June Quarter 2012, WAPC

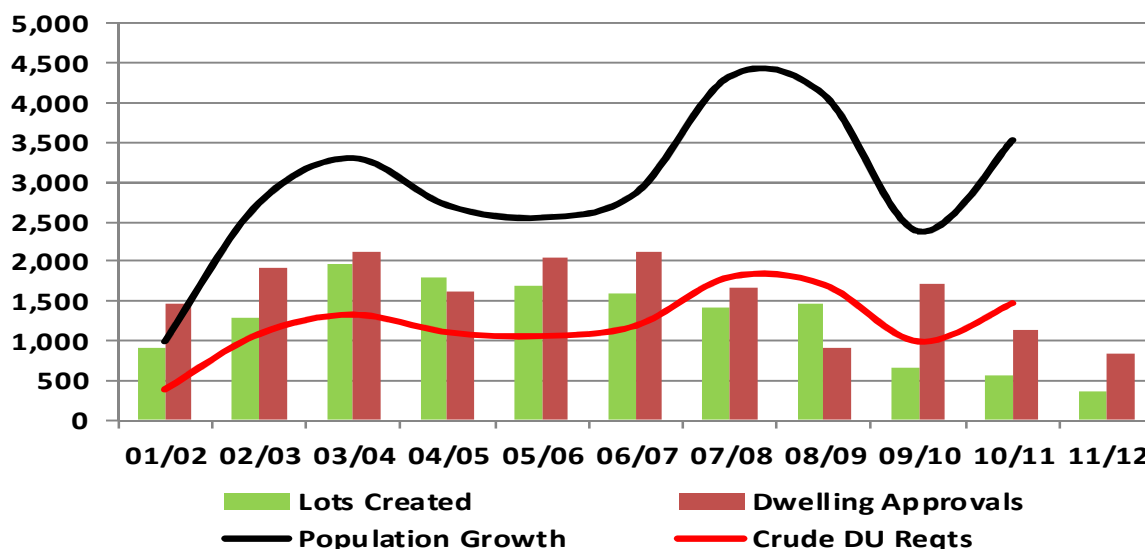
A3 Annual regional trends, 2001/02 to 2011/12

The following charts provide summary annual data since 2001/02 showing: final residential lots created, total building approvals, population growth and estimated dwelling unit requirements based on regional persons per household from the 2011 Census. Estimated resident population figures for 2011/12 are not yet available.

The Peel region (Figure 19 below) has witnessed strong population growth in 2007/08 and 2008/09 but saw a decline following the start of the GFC. Growth has started to pick up again in 2010/11. Building approvals have generally been above the crude measure of dwelling unit requirements but is seeing some shortfall in the last two financial years.

Figure 19: Peel region, 2001/02 to 2011/12

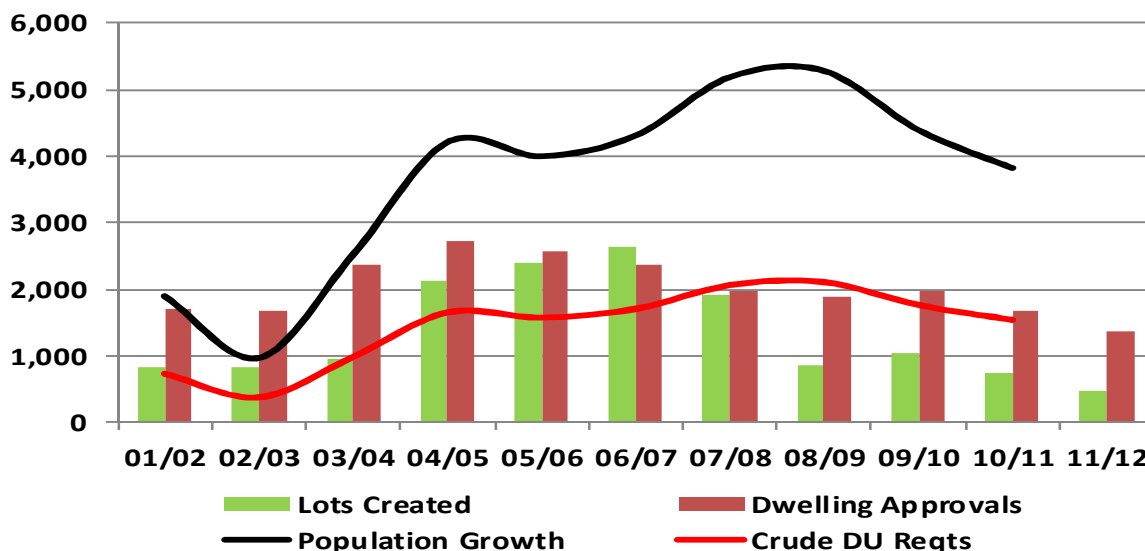
Source: ABS, WAPC and HIFG estimates



Population growth in the South West has been strong since 2003/04 although it has eased off following the GFC. Lots created and dwelling approvals have been above the crude measure of dwelling requirements except in 2007/08, 2008/09 and 2010/11 and look likely to be well below need in 2011/12.

Figure 20: South West region, 2001/02 to 2011/12

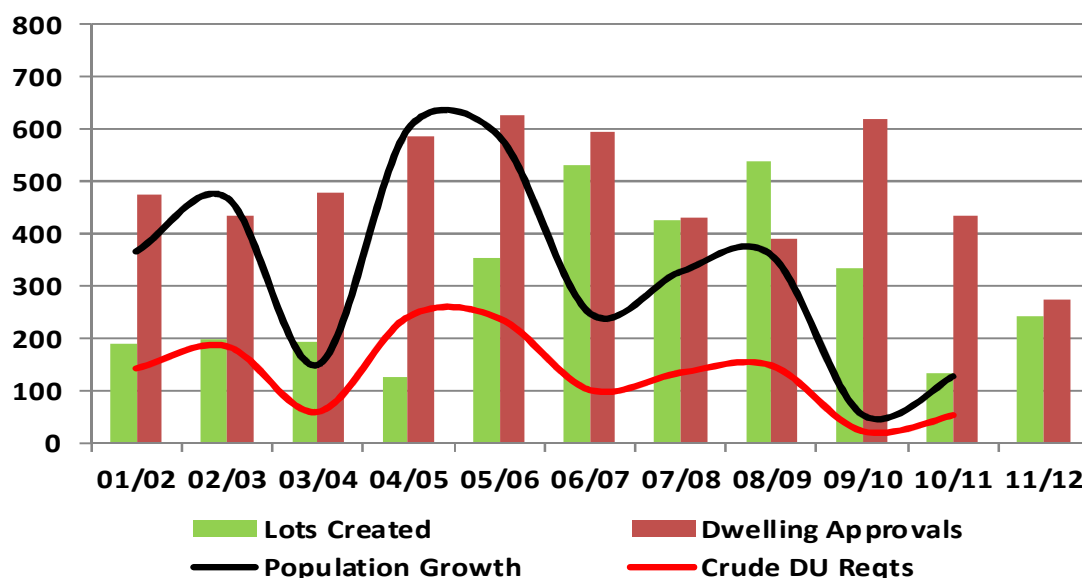
Source: ABS, WAPC and HIFG estimates



Population growth in the Great Southern (Figure 21) has been at a much lower level compared to the South West over the last ten-years. While growth has shown wide variations, building approvals have been staying well ahead of dwelling requirements. However, new lots created have been well under a thousand per year since 2009/10.

Figure 21: Great Southern region 2001/02 to 2011/12

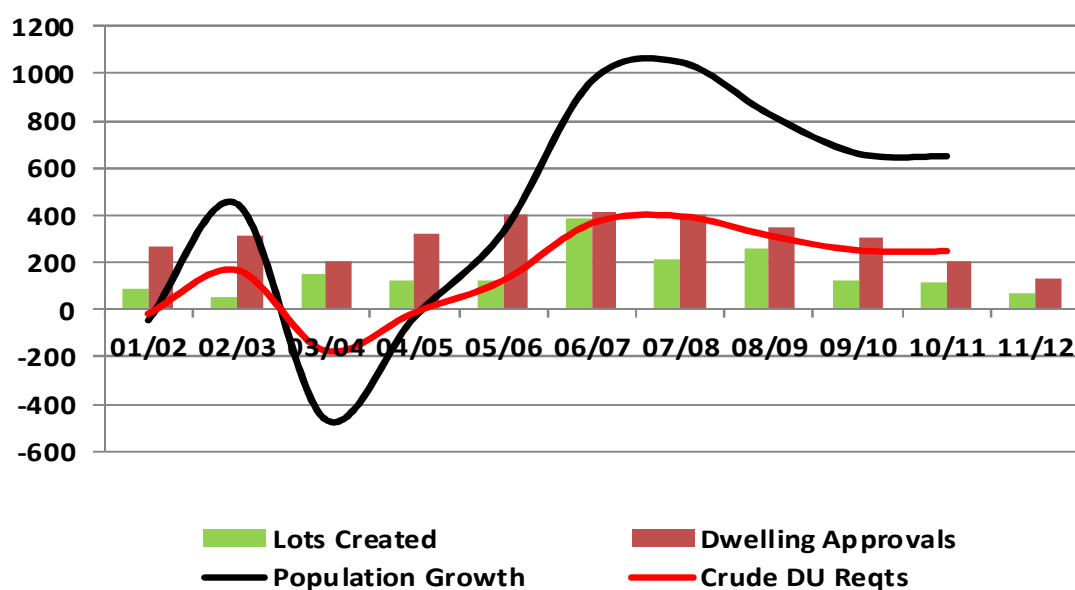
Source: ABS, WAPC and HIFG estimates



The Goldfields-Esperance region (Figure 22) has seen substantial swings in population over the last ten-years, which can be related to the fortunes of the mining sector in Kalgoorlie. New lots created have been running at a low level since 2008/09.

Figure 22: Goldfields-Esperance region 2001-02 to 2011/12

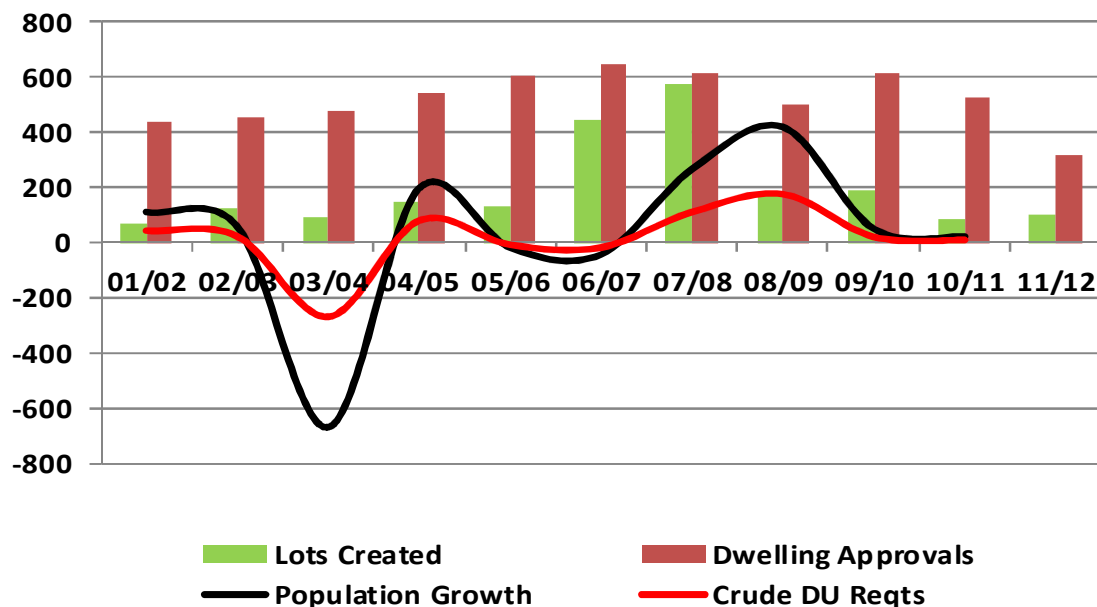
Source: ABS, WAPC and HIFG estimates



Population drift from the Wheatbelt (Figure 23) was particularly noticeable in 2003/04 with a significant negative growth rate. Building approvals have been well ahead of what would be needed to meet the estimated dwelling needs of the region.

Figure 23: Wheatbelt region, 2001/02 to 2011/12

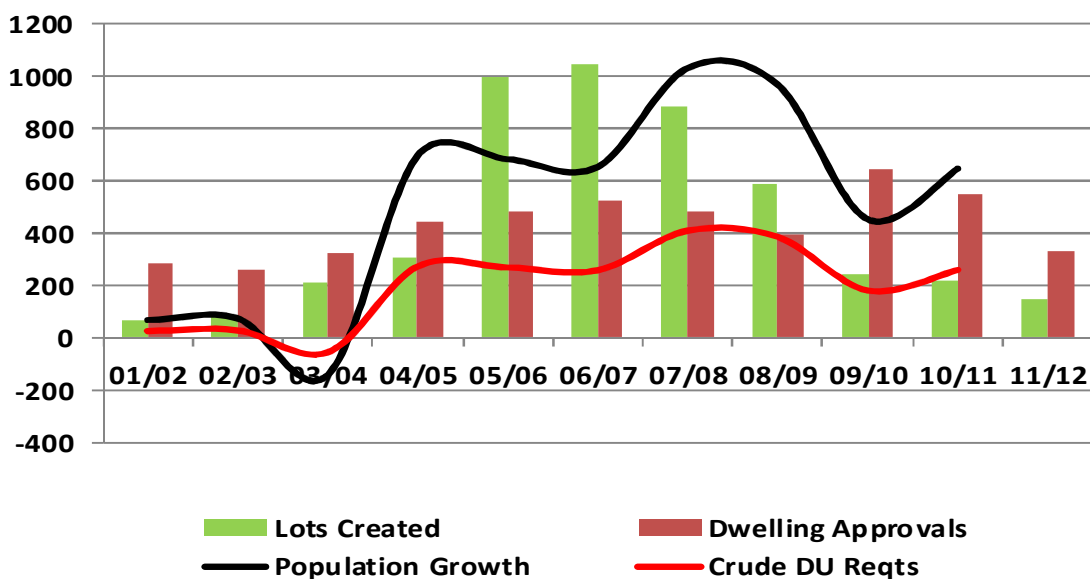
Source: ABS, WAPC and HIFG estimates



The Mid West region of the State (Figure 24) has seen a significant population growth since 2003/04 as a result of economic growth in the area. Despite this growth, Building approvals have managed to stay ahead of dwelling unit requirements. The chart clearly demonstrates the excess of lots created in the middle part of the decade in the Geraldton region that was started to be taken up by the higher level of building approvals in 2009/10 and 2010/11.

Figure 24: Mid West region, 2001/02 to 2011/12

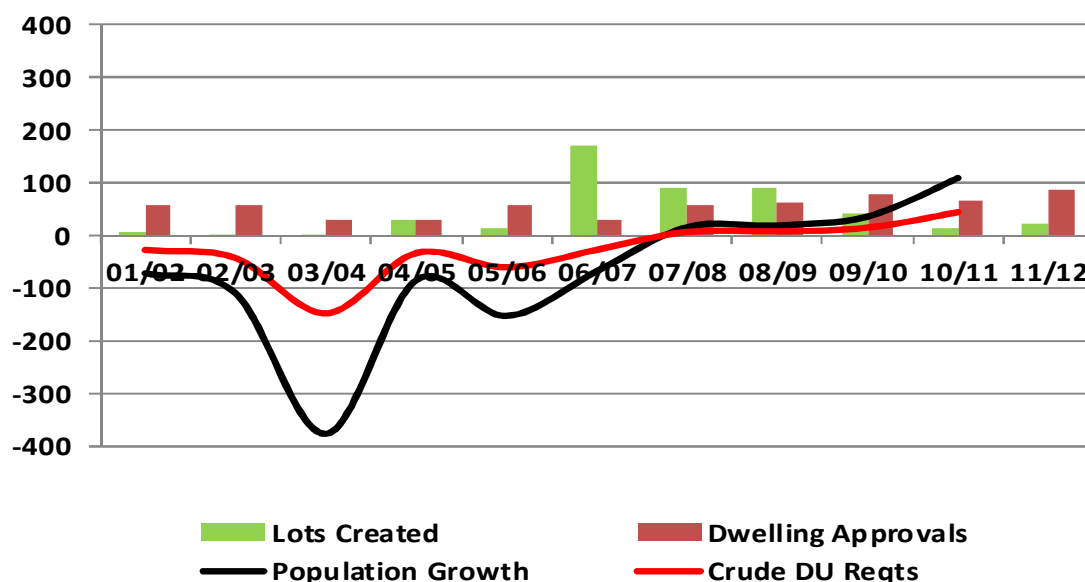
Source: ABS, WAPC and HIFG estimates



Population growth in the Gascoyne region (Figure 25) was negative for the first half of the last decade. Building approvals have remained positive with no perceived housing shortfall. With greater offshore activity, the region's population has started to see some growth after 2008/09 with a concomitant increase in building approvals.

Figure 25: Gascoyne region, 2001/02 to 2011/12

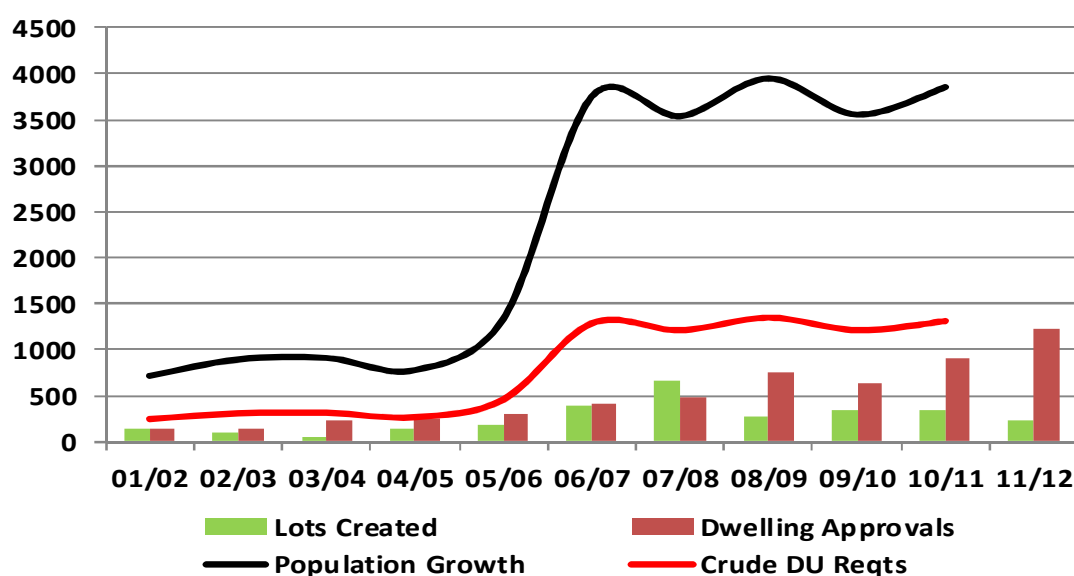
Source: ABS, WAPC and HIFG estimates



The Pilbara region has been subject to the swings and roundabouts of the mining and resources sectors. Figure 26 demonstrates the large growth in the Pilbara's population that started in 2005/06 with the most recent mining boom. New building lots and building approvals have been running well below the level needed to meet housing demand, resulting in the very high price of housing in the area. However, building approvals have responded strongly since 2009/10.

Figure 26: Pilbara region, 2001/02 to 2011/12

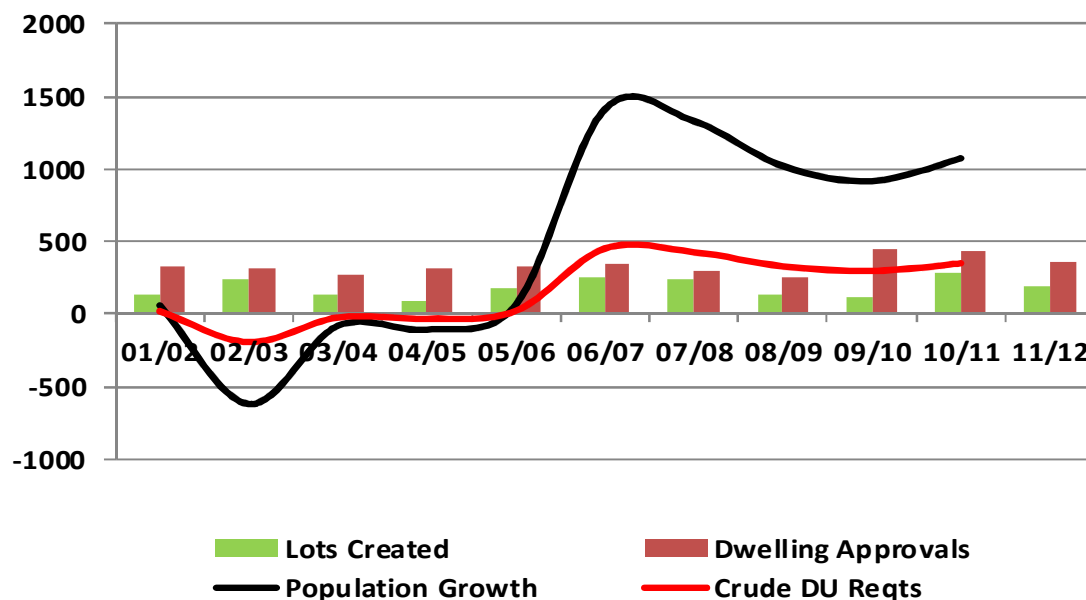
Source: ABS, WAPC and HIFG estimates



After negative population growth in the early part of the last decade, the population in the Kimberley region (Figure 27) increased strongly from a low base in 2006/07. New residential lot creation and building approvals have fallen well below the crude measure of housing need since 2004/05, resulting in the scarcity of housing and high rents and house prices in the region.

Figure 27: Kimberley region, 2001/02 to 2011/12

Source: ABS, WAPC and HIFG estimates



Appendix B – Housing Industry Forecasting Group

The Group is a joint industry and government body re-established in February 2008 to provide independent commentary on the housing sector in WA. The Department of Planning and the Department of Housing jointly provide the HIFG secretariat and research function.

Membership of the Group is drawn from major organisations associated with the housing and land development industry in Western Australia and from government. Through its diverse membership, the Group has access to considerable expertise and knowledge of the sector, including land development, real estate, the private rental market, social housing, building statistics, demographics, building resources and home finance.

HIFG Members – as at October 2012

Member	Organisation Represented
Stewart Darby (Chair)	Real Estate Institute of WA
Alan Langford	Bankwest
Dana Mason	Chamber of Commerce and Industry WA
John Dastlik	Housing Industry Association
Gavan Forster	Master Builders Association
Damian Callachor	Chamber of Minerals and Energy
Tim Connoley	Urban Development Institute of Australia (WA)
Simon Ward	Department of Housing
Steven Rowley	Housing and Urban Research Institute of WA
Brett Coombes	Water Corporation
Simon Zheng	Department of Treasury
Tom Mulholland	Department of Planning
Jacqui Homer	Department of Premier and Cabinet

Observers

Marion Thompson	Urban Development Coordinator
David Waymouth	Australian Bureau of Statistics

Secretariat

Ian Hafekost

