MEASURING THE ACTIVITY OF VICTORIA’S RESIDENTIAL DEVELOPMENT INDUSTRY

UDIA VICTORIA RESIDENTIAL DEVELOPMENT INDEX

August 2017

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MEASURING THE ACTIVITY OF VICTORIA’S RESIDENTIAL DEVELOPMENT INDUSTRY

Based on information from the UDIA Residential Development Index - August 2017

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VICTORIA
Danni Addison, Victorian Chief Executive, Urban Development Institute of Australia (UDIA)

UDIA Victoria is proud to launch the Residential Development Index (RDI) – a major research and data initiative that fills a critical gap in knowledge available to the Victorian residential development sector, policy makers and key regulators.

The RDI uses comprehensive research, data, analysis and a unique model to assess Victoria’s residential development industry and measure its activity on an ongoing basis.

The research examines the dynamics impacting the industry, including economic conditions, population growth, development activity, trend data, regulatory changes and policy implications. These industry activity fundamentals inform the RDI, which determines whether the industry is operating in a strong, moderate or weak market, relative to recent and long term history.

UDIA Victoria is pleased to present this piece of work, which will be updated regularly to demonstrate changes in market activity. The ongoing nature of the RDI will enable us to track progress, forecast future activity, and identify issues that require attention from industry, government and key regulators.

The report also provides an estimate of the residential development industry’s direct contribution to the Victorian economy, and quantifies the number of jobs the sector sustains.

Right now, the RDI tells us Victoria’s residential development industry is being driven by historically high population and employment growth. While growth in these areas is positive, the levels of housing undersupply we are facing is cause for serious concern - both from an affordability and liveability perspective for all Victorians.

Further challenges to the sector include an unclear future urban renewal pipeline, a series of policy drivers that may undermine the affordability of new apartments, and the urgent need for a 15-year land supply program in the growth corridors.

Overall the RDI shows that Victoria’s residential development industry is strong, but that there are critical issues that need to be addressed. These evidence-based findings will inform UDIA Victoria’s advocacy agenda as we work with industry, government and regulators to increase housing affordability and accessibility for all home buyers, reduce unnecessary regulatory burden on the residential development sector, and achieve an efficient planning system that delivers positive outcomes for Victoria’s future.
Executive Summary

Developed by Ernst & Young (EY) for UDIA Victoria, the Residential Development Index (RDI) provides an overview of how the Victorian residential development sector is performing compared to recent and longer term history. The RDI is informed by research that considers current drivers of activity in the market including population growth, household formation, regulatory changes, employment growth, building approvals and policy implications. The following report explains what the RDI tells us right now.

- In June 2016, the RDI moderated at 112.0; down from 112.1 in June 2015. However it is still at historical highs and above the ten year average of 106.2. Utilising forecasted input data for June 2017, the RDI is expected to remain historically strong at around 112.0.

- Townhouses in the middle and outer regions of Melbourne are performing very well, as are smaller apartment projects in the inner region. The RDI predicts that over the coming years, dwellings other than houses will become the majority of dwelling commencements that we see across the state.

- The residential development sector is currently being driven by historically high population and employment growth, combined with supply volumes that are also historically high.

- Challenges to the sector include an unclear future urban renewal pipeline and a series of policy drivers that may undermine the affordability of new apartments.

- Buyers of investment apartments face significant cost increases in acquisition and loan servicing which is likely to shift demand to established product. This will not assist the market in delivering supply volumes and will lead to tightening of vacancy rates for some categories of apartments in the rental market.

- A significant proportion of commencements don’t convert to net additional stock due to demolition of existing dwellings and construction of unoccupied dwellings.

- The tightening of vacancy rates for rental property, combined with moderate increases in rent, confirm that demand pressure is strong across Melbourne.

- Affordably priced lots in Melbourne’s growth areas remain a key driver of Victoria’s competitiveness. The strength of our population growth is driven by the supply of affordable house and land packages for interstate and overseas migrants.

- The residential development sector is a significant driver of the Victorian economy. In FY2015-16 the construction of new dwellings contributed more than $23.5 billion to the Victorian economy. This contribution is expected to increase to over $24.6 billion in FY2016-17.

- The residential development sector sustained almost 183,000 jobs in Victoria in FY2015-16. This figure includes employment directly in the sector as well as in supporting industries such as property and business services, financial services, transport and distribution, manufacturing and others.

UDIA key conclusions

1. The volume of dwelling commencements experienced in FY2015-16, FY2016-17 year to date and FY2017-18 will not be adequate to meet current population and household growth. Victoria is therefore looking at a significant demand/supply gap with respect to housing across the state. Calculated estimates of net additional supply and demand for dwellings in Victoria show that demand will outnumber supply by 4,027 dwellings throughout FY2016-17.

2. The pipeline of lot sales needs to be maintained in all growth corridors to ensure buyer preferences are met across different sub-markets.

3. Policy must ensure that a 15 year land supply program in the growth corridors is maintained for the sake of a competitive market. The attractiveness of these precincts for buyers would be enhanced by an acceleration in the expenditure of the GAIC fund which now is large enough to begin targeting infrastructure constraints.
What is the Residential Development Index?

The Residential Development Index (RDI) has been developed using three underlying inputs including demand, capacity to purchase and supply relative to demand. Based on historical data, an RDI of above 102 depicts a market that is either operating in line with medium term trends or relative strength.

**RDI scores**

<table>
<thead>
<tr>
<th>RDI Score</th>
<th>Market Description</th>
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<tbody>
<tr>
<td>Above 106</td>
<td>strong market</td>
</tr>
<tr>
<td>102 to 105</td>
<td>moderate market</td>
</tr>
<tr>
<td>Below 102</td>
<td>weak market</td>
</tr>
</tbody>
</table>

**RDI Input**

**Demand** (weighted at 40%)
- Considers population growth in Victoria
- Calculated as annual % growth over 12 months to June as an index
- Index = [annual % change + 1] x 100.

**Purchasing power** (weighted at 40%)
- Considers employment growth in Victoria
- Calculated as annual % growth over 12 months to June as an index
- Index = [annual % change + 1] x 100.

**Supply** (weighted at 20%)
- Considers building approvals relative to forecast household formation to indicate relative supply
- Ratio of annual aggregate building approvals/annual change in number of occupied private dwellings for same period
- Index = annual aggregate building approvals/annual change in number of occupied private dwellings

**RDI** = weighted average of 3 components
Methodology and Assumptions

Economic Impact

To consider the economic impact of the residential development industry on the Victorian economy, EY has considered the value of activity in the latest annual assessment period where data is available (FY2015-16), to inform consideration of the sectors overall impact on the economy, along with the volume of jobs in Victoria that the industry sustains.

Methodology for assessing impact includes:

1. **Calculating value of activity.** Value of Dwelling Unit Commencements + underlying development contributions and land infrastructure costs.

2. **Applying economic multipliers.** This step considers the impact of the value of construction activity on overall Gross State Product (GSP) and employment in Victoria in a given period by multiplying the value of activity by an appropriate economic multiplier.

3. **Estimating relative impacts.** This assessment considers how activity generated by the sector in relation to GSP and employment compares to the overall economy and allows for consideration of the proportion of activity in the overall economy sustained by the sector.
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Residential Development Activity

Historical Trends - Victoria

An assessment of historical residential development activity over the period FY2006-07 to FY2015-16 in Victoria reveals:

- Development activity is at a historical high with dwelling unit commencements peaking in FY2015-16 at 68,730 per annum.

- Over the past two years, dwelling unit commencements have averaged 66,829 per annum compared to an average of 52,300 per annum over the ten year period to FY2015-16.

Comparing dwelling commencements with household formation:

- Not all dwelling unit commencements represent a net addition to stock. Houses and townhouses constructed in established areas are a replacement to stock. However, a historical comparison of the ratio of dwelling commencements to household formation acts as a benchmark comparator for the strength of the market over time.

- The ratio of dwelling commencements to household formation is at a historical high, with an average of 1.36 new dwellings commenced per new household over the four years to FY2015-16 peaking at 1.55 per household in FY2015-16.

- Since 2012, household formation has been steadily increasing from 41,649 per annum in 2013 to 44,271 in 2016. In FY2015-16 household formation remained steady at 45,000 households.

The number of dwellings required per household is also growing over time due to increased wealth. The wealth effect in the economy is driving greater numbers of new replacement stock for older homes and second homes/holiday homes. This means that there is an underlying baseline demand for new dwellings in Victoria in addition to demand driven by household formation and population growth.

Source: ABS Data 2017

*Annual Household Formation data for 2006 to 2011 was not available. The 2006 to 2011 period calculated based on ratio of Population to Households of 2.5 persons. These estimates have been determined using data released by the Victorian Government. We acknowledge that if this data fluctuates, these forecasts are expected to be revised and updated.
Residential Development Activity

Historical Trends by Dwelling Type - Victoria

An assessment of historical residential development activity by dwelling type over the period 2007 to 2016 in Victoria reveals the following trends:

• The relative volume of building approvals for houses relative to other stock (including townhouses, units and apartments) has shifted markedly over time with rapid growth in the non-house category.

• In FY2006-07, 77% of all building approvals in Victoria were for new houses compared to 23% for ‘other dwellings’ (flats/units and apartments). By FY2010-11, houses represented just 59% of new building approvals and in FY2016-17 this ratio fell to 53%.

• The primary driver of dwellings other than houses is for projects comprising four or more storeys. In FY2006-07 this category represented 8% of new dwelling approvals. In FY2016-17 it represents 28% of total dwelling approvals. Approvals for apartments in a four or more storey building peaked in FY2014-15 representing approximately 31% of total approvals.

• Townhouse development has also grown steadily. This typology was established in FY2006-07 as a driver of the housing market. Since FY2006-07, townhouse developments have ranged between 11-16% of total building approvals, peaking at 16% in FY2016-17 with a forecast of 10,978 building approvals.

• It is expected that over coming years, the transition in the market where ‘other dwellings’ become the majority of dwelling commencements will become a permanent feature of the market.
Residential Development Activity

Emerging Trends in Overall Activity

An assessment of recent residential development activity over the past three years to 2016 in Victoria reveals the following trends:

- Dwelling commencements over the six months to December 2016 have experienced a moderate decline compared to the same period a year ago. In the six months to December 2016 Victoria had 32,683 commencements compared to 35,344 a year earlier, equating to a 7.5% decline. The level of commencements is still relatively high and above those over the same period in 2014.

- Building approvals data to March 2017 points to continued stability in the market with only moderate declines in some categories of dwellings. Over the nine months to March 2017 relative to the same period in 2016, dwelling approvals are up 0.8%. The annual comparison for the March quarter 2017 versus March quarter 2016 is even more positive with growth of 1.3% over this period. The recent strength in building approvals suggests that dwelling commencements in 2017 may stabilise in line with volumes in 2016.

Trends by defined regions of Melbourne:

- Building approvals in established areas of Melbourne (the inner, middle and outer regions) moderated in FY2015-16. This was in contrast to strong growth in approvals in inner and middle ring LGAs over the 12 months to FY2014-15 with annual growth of 25% and 36% respectively.

- Melbourne’s growth areas have experienced continued growth in approvals since FY2013-14. Over the year to FY2014-15 growth equated to 20% with further growth of 6% in FY2016-17. Building approvals for growth areas is forecast to reach a total of 19,149 dwellings in FY2016-17.

Source: ABS Data 2017

*Data was only available until March quarter of FY16/17. June quarter data was extrapolated assuming YTD growth rate remains constant for the remainder of the FY.

These estimates have been determined using data released by the Victorian Government. We acknowledge that if this data fluctuates, these forecasts are expected to be revised and updated.
Residential Development Activity

Emerging Trends by Dwelling Type

Assessment of components of recent activity in Victoria by dwelling type confirm:

- Total townhouse building approvals increased by circa 4.0% in the 12 months to FY2016-17 (based on our extrapolated forecasts).

- Apartments (one to three storeys) have decreased significantly by circa 20%, whereas apartments (four plus storeys) have increased slightly by 1.70%.

- Building approvals for new homes remain at historical highs with activity over the nine months to March 2017 at levels 1% higher than the corresponding period in 2016. The strength in this component continues to be driven by strong volumes of lot sales in Melbourne’s growth areas and high volumes of interstate and overseas migration.

- Building approvals for new townhouses also remain at historical highs with activity over the same nine month period to March 2017 6.4% higher than a year earlier.

- Building approvals for apartments continue to diverge based on the scale of development. One to three storey unit and apartment projects continue to be a drag on activity with this typology being 27% lower for one to two storey projects and 23% lower for three storey projects.

- In contrast, building approvals for four plus storey projects remain strong, with approvals over the nine months to March 2017 1.4% higher than in 2016. Of note are recent statistics for the March quarter of 2017 which are 16% higher than March quarter 2016. Whilst this project type has not reached the volumes of FY2014-15, approvals are still historically high.

Source: ABS Data – Building Approvals, Australia (Table 23)

*Data was only available until March quarter of FY16-17. June quarter data was extrapolated assuming YTD growth rate remains constant for the remainder of the FY.

These estimates have been determined using data released by the Victorian Government. We acknowledge that if this data fluctuates, these forecasts are expected to be revised and updated.
Residential Development Activity

Supply and Demand

Key considerations:

- Total building approvals data is not an accurate representation of net additional supply of residential dwellings. This is because approvals in established suburbs of Melbourne for houses and townhouses are associated with demolition of existing stock.

- It is expected that for building approvals for new houses in established areas, only circa 10% - 30% will result in additional supply depending on whether the approval is in inner, middle or outer established parts of Melbourne.

- Similarly, for building approvals of townhouses in established areas, we estimate that only circa 70% will equate to additional supply of dwellings. In the case of townhouses, most projects are two and up to three dwellings per lot with the loss of one existing dwelling.

According to these estimates of net additional supply, a demand/supply gap can be calculated over the three years to FY2016-17.

- Over the three years to FY2016-17, estimated net annual additional supply of dwellings has increased marginally from 59,176 in FY2014-15 to 61,116 in FY2016-17.

- Demand driven by population growth has increased by around 14% from a need for 56,956 dwellings in FY2014-15 to 65,143 new dwellings in FY2016-17.

- According to these estimates, FY2016-17 will experience a supply shortfall of up to 4,000 dwellings compared to 4,900 in FY2015-16. In FY2014-15 there was an estimated small oversupply of 2,220 new dwellings.

- We note that the estimates of net supply have not factored in any vacancy allowance for new dwellings. In particular, there is a growing trend for the delivery of vacant holiday homes in Victoria that would exacerbate the actual shortfalls in supply available to purchase and rent.

| Source: ABS Data |
| Note: Net supply has not factored in any vacancy allowance for these new dwellings |

| Adjusted Net Supply v Demand (VIC) |

<table>
<thead>
<tr>
<th></th>
<th>FY14/15</th>
<th>FY15/16</th>
<th>FY16/17</th>
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<tbody>
<tr>
<td>Total building approvals</td>
<td>67,043</td>
<td>67,184</td>
<td>67,113</td>
</tr>
<tr>
<td>Less houses in established areas</td>
<td>(5,903)</td>
<td>(6,230)</td>
<td>(4,283)</td>
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<tr>
<td>Less townhouses in established areas</td>
<td>(1,964)</td>
<td>(2,268)</td>
<td>(1,715)</td>
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<tr>
<td>Est. of net additional supply</td>
<td>59,176</td>
<td>58,686</td>
<td>61,116</td>
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<tr>
<td>Est. of demand for new dwellings (based on population growth)</td>
<td>56,956</td>
<td>63,600</td>
<td>65,143</td>
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<tr>
<td>Undersupply / oversupply</td>
<td>2,220</td>
<td>–4,914</td>
<td>–4,027</td>
</tr>
</tbody>
</table>
Residential Development Activity

Other Market Indicators – Rental
Vacancy and Prices

We have considered trends in other market indicators including vacancy rates and rent prices.

This assessment for vacancy rates and market rent provides an additional indication as to whether new stock that is being sold to the market may be exceeding demand, particularly in the rental market. A market where vacancy is declining with stable or increasing rents generally implies that the volume of new stock being sold is not exceeding demand.

The review of vacancy rates and rents has confirmed:

• Overall vacancy rates for rental stock in Victoria has fallen from 2.6% to 2.4% over the year to March 2017.

• Vacancy rates in Melbourne have declined significantly from 3.1% to 2.3%. There were significant declines in the inner areas, particularly 0-4km from CBD down from 4.3% to 2.4%. Stock supply in the middle ring (10-20km from CBD) has also tightened with vacancy falling from 4.1% to 2.8%.

• Weekly rents for houses in Melbourne have increased, moderately rising by 3.9% from $410 to $426 per week over the year to March 2017. Apartment rents also increased by 3.8% over the year, from $395 per week to $410 per week.

• The main weakness in the market was in weekly rents for unit/apartments in outer Melbourne, which is most likely driven by significant supply and limited wage growth of tenants. Apartment/unit rents in outer Melbourne declined by 2.1% with house rents in this area increasing by 2.9%.

The trends in vacancy rates and rents suggest that investor stock being sold to the market is being absorbed by Melbourne and Victoria’s growing population.

Key Points

• The relative levels of undersupply in the Victorian residential development sector will place continued upward pressure on dwelling prices.

• The tightening of vacancy rates for rental property combined with moderate increases in rent confirm that demand pressure is strong across Melbourne.

• Complacency regarding supply levels should be avoided, and continuing to bring forward a pipeline of development opportunities in Melbourne’s established areas and in the growth areas, should remain a priority.
Residential Development Activity

Expected Future Activity

We have considered the likely range of dwelling commencements for the balance of FY2016-17 and FY2017-18 based on forecasted population and household formation, and the longer term relationship between household growth and dwelling construction activity. This assessment has confirmed that:

- Medium term drivers of dwelling commencements are positive in Victoria and Melbourne. According to Victoria in Future (VIF) forecasts released by State Government, the estimated resident population is forecast to grow steadily in 2017 and 2018 by approximately 1.8% per annum or approximately 108,000 persons per year. The forecasts are relatively conservative when compared to ABS estimates to September 2016 of growth of 2.1% or 127,500 persons.

- Not all dwelling commencements represent additional stock. Typically in Victoria in recent years around 1.35 dwelling commencements have been yielded per additional household. If it is assumed that around 1.35 dwelling commencements per additional household is yielded, in FY2016-17 total commencements will equate to around 62,000 dwellings for the year. This volume would persist in FY2017-18 if the ratio of activity to households is maintained. If the ratio of dwelling commencements to household formation declines to 1.2 (equivalent to the situation observed in FY2012-13 and FY2013-14) a dwelling commencement volume of closer to 55,000 dwellings per year will be observed.

- Commencements of 55,000 dwellings per annum over FY2016-17 and FY2017-18 would represent nearly a 20% decline from commencements in FY2015-16 of 68,700. This scale of decline is unlikely given that actual commencement data to December 2016 is showing activity only 7% below the corresponding period in 2015. In addition, stabilising building approvals point to a moderation of activity rather than significant declines.

Expected Future Activity

These estimates have been determined using data released by the Victorian Government. We acknowledged that if this data fluctuates, these forecasts are expected to be revised and updated.

Key Points

- State Government forecasts of population and household growth continue to be conservative, which means that we are often caught off guard by the strength of demand.

- Dwelling commencements are expected to decline moderately in FY2017-18 however the volume of commencements experienced in FY2015-16, FY2016-17 year to date and FY2017-18 will not be adequate to meet current population and household growth.

- A significant proportion of commencements don’t convert to net additional stock due to demolition of existing dwellings and construction of unoccupied dwellings.
## Residential Development By Region

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<td>Middle Melbourne</td>
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<td>Outer Melbourne</td>
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<td>Melbourne’s Growth Areas</td>
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<td>Summary of Trends by Region</td>
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</tbody>
</table>
Residential Development By Region

Inner Melbourne

ABS building approvals data shows:

• In the nine months to March 2017, the total number of building approvals for the inner ring region of Melbourne were 9,265, which is circa 4% below the same period in the previous year.

• In the nine months to March 2017, the total number of apartment building approvals were 8,513 which is circa 2% below the same period in the previous year.

• In the nine months to March 2017, the total number of townhouse building approvals were 364 which is circa 36% below the same period in the previous year.

• In the nine months to March 2017, house building approvals is 388 which is circa 15% above the same period in the previous year.

• If the current trend continued for the remainder of FY2016-17, we expect total building approvals to be circa 12,543 or 4% below the previous year.

• Following several years of growth, the most recent data suggests a peak in the construction cycle and a moderation of activity over coming years.

Charter Keck Cramer apartment data shows:

• Unsurprisingly, the Melbourne LGA has the highest apartment commencement rates for inner Melbourne, with 5,255 apartments having commenced in four plus storey projects the FY2016-17 YTD. This volume indicates that commencement activity for FY2016-17 will exceed FY2015-16 but will still fall short of the historically high level of commencements in FY2014-15.

• Inner Melbourne has consistently performed strongly in apartment commencement rates when compared to other regions, having a total of 9,471 apartments commencing in FY2016-17 YTD. A peak occurred in FY2014-15 with 15,572 apartment commencements.

• All five LGAs have maintained high volumes of apartment commencements, in FY2016-17 YTD relative to historical data.
Residential Development By Region

Middle Melbourne

ABS building approvals data shows:

- In the nine months to March 2017, the total number of building approvals for the middle ring region of Melbourne were 13,431 which is circa 1% above the same period in the previous year.

- In the nine months to March 2017, the total number of apartment building approvals were 5,755 which is circa 5% above the same period in the previous year.

- In the nine months to March 2017, the total number of townhouse building approvals were 4,133 which is circa 6% above the same period in the previous year.

- In the nine months to March 2017, the total number of house building approvals were 3,543 which is circa 8% below the same period in the previous year.

- If the current trend continued for the remainder of FY2016-17, we expect total building approvals to be circa 17,824 or 1% above the previous year.

Charter Keck Cramer apartment data shows:

- Apartment commencement rates have remained strong in middle Melbourne in FY2016-17 YTD, having achieved 9,471 commencements over the period to March 2017. The annual outcome for FY2016-17 is likely to be significantly stronger than FY2015-16 but still below the peak of FY2014-15.

- Moonee Valley LGA has been the strongest performer in the FY2016-17 YTD, having achieved 1,408 apartment commencements, which is well above activity in the previous three years. We note this growth likely reflects in and around Footscray.

- Key LGAs maintaining high volumes of apartment commencements in FY2016-17 YTD include Banyule, Boroondara, Manningham, Whitehorse and Monash.

- LGAs exhibiting declining apartment commencements relative to FY2015-16 include Darebin, Glen Eira, Hobsons Bay and, to a lesser extent, Moreland.

- Overall apartment activity in FY2016-17 YTD is strong. Activity in FY2016-17 is likely to finish the year well above trend results over the past six years.
Residential Development By Region

Outer Melbourne

ABS building approvals data shows:

- In the nine months to March 2017, total building approvals for the outer ring region of Melbourne were 3,386 which is circa 7% below the same period in the previous year.
- In the nine months to March 2017, apartment building approvals were 597, which is circa 26% below the same period in the previous year.
- In the nine months to March 2017, townhouse building approvals were 1,219, which is circa 6% above the same period in the previous year.
- In the nine months to March 2017, house building approvals were 1,570, which is circa 6% below the same period in the previous year.
- If the current trend continued for the remainder of FY2016-17, we expect total building approvals to be circa 4,635 or 7% below the previous year.

Charter Keck Cramer apartment data shows:

- Outer Melbourne has observed a reduction in apartment commencements in FY2016-17 YTD, with 203 commencements occurring relative to a total of 488 in the FY2015-16 period.
- Maroondah, Greater Dandenong and Knox LGA have suffered a decline in growth over the past two years, having previously been the strongest LGAs in outer Melbourne in apartment growth. A total of only 112 apartments have commenced in Maroondah and Knox over FY2016-17 YTD compared to more than 370 in FY2014-15.
- It should also be noted that the apartment market in Nillumbik is effectively non-existent with no large scale apartment dwelling commencements over the past two years.
Residential Development By Region

Melbourne’s Growth Areas

ABS building approvals data shows:

- In the nine months to March 2017, total building approvals for the middle ring region of Melbourne were 14,612, which is circa 8% above the same period in the previous year.

- In the nine months to March 2017, apartment building approvals were 280, which is circa 2% above the same period in the previous year.

- In the nine months to March 2017, townhouse building approvals were 1,834, which is circa 26% above the same period in the previous year.

- In the nine months to March 2017, house building approvals were 12,498, which is circa 6% above the same period in the previous year.

- If the current trend continued for the remainder of FY2016-17, we expect total building approvals to be circa 19,021 or 8% above the previous year.

National Land Survey Program data (by Research4 and Charter Keck Cramer) shows:

- Using more recent data for FY2016-17 YTD, the number of lot sales in the Melbourne growth areas are at historical highs, courtesy of housing affordability and ongoing strong levels of population growth.

- Wyndham, Hume and Casey have shown the highest lot sales out of Melbourne’s growth corridors for the FY2016-17 YTD.

- The LGAs of Melton, Mitchell and Whittlesea are all expected to have higher volumes of lot sales for the full year of FY2016-17 relative to FY2014-15 and FY2015-16. In particular, Melton’s volume of lot sales is now nearly as high as the Hume and Whittlesea LGAs, and significantly higher than Cardinia, due to affordability of the corridor.
Residential Development By Region

Summary of Trends by Region

Region: Inner Melbourne

Key Trends Observed

Large apartment projects

- Inner Melbourne represents Victoria’s strongest apartment market having a total of 9,471 apartments commencing in FY2016-17 YTD.

- Over the period FY2014-15 to FY2016-17 YTD, inner Melbourne has accommodated around 60% of metropolitan Melbourne’s apartment commencements.

- Based on YTD trends, inner Melbourne is expected to have higher volumes of apartment commencements for the full year of FY2016-17 relative to FY2015-16.

- All LGAs in the region, are expected to have apartment commencements in FY2016-17 above levels of FY2015-16. However some LGAs including Melbourne and Yarra, will not reach the levels of commencements experienced in FY2014-15. Apartment commencements overall are at historic highs.

Overall building approvals

- Overall building approvals year to date FY2016-17 are tracking at 9,346 dwellings compared to 13,681 dwellings in FY2015-16. This indicates that overall building approvals in FY2016-17 in this region are likely to be slightly below the outcome for FY2015-16.

- Given the strength in apartment commencements highlighted above, it is likely the current weakness in the building approvals is in smaller scale projects including townhouses and two and three storey developments.

Policy Implications

- Assessment of key trends in the market has confirmed that commencement activity and approvals are still performing relatively strongly with some identified weaknesses in the market.

- The continued strength of the apartment market indicates that recent reforms to height controls, in and around the Melbourne CBD and city fringe have not yet had an impact on approvals and commencements. This is not surprising, as many projects currently commencing will be based on underlying planning approvals issued prior to the regulatory changes.

- It is likely that the regulatory changes introduced recently will start to have an impact on the supply of larger apartment projects over the course of FY2017-18 and FY2018-19 as the pipeline of projects with permits begins to dry up.

- In unison with planning regulation changes, adjustments to stamp duty concessions and vacant property taxes may also constrain the supply of new projects due to impacts on feasibility.
Residential Development By Region

Summary of Trends by Region

Region: Middle Melbourne

Key Trends Observed

Large apartment projects
- Middle Melbourne represents Victoria’s strongest apartment market having a total of 6,526 apartments commencing in FY2016-17 YTD.
- Over the period FY2014-15 to FY2016-17 YTD, middle Melbourne has accommodated around 37% of metropolitan Melbourne’s apartment commencements.
- The Moonee Valley LGA has been the strongest performer in the FY2016-17 YTD, having achieved 1,408 apartment commencements which is well above activity in the previous three years. The Moonee Valley LGA now has the largest volume of commencements of any LGA in the region. We note this growth likely reflects dwelling commencements in and around the Moonee Valley Racecourse precinct and Moonee Ponds.
- Key LGAs maintaining high volumes of apartment commencements in FY2016-17 YTD include Banyule, Boroondara, Manningham, Whitehorse and Monash.
- LGAs with declining apartment commencements relative to FY2015-16 include Darebin, Glen Eira, Hobsons Bay, and to a lesser extent, Bayside and Moreland. However most LGAs in the region have not experienced commencements at the volumes experienced in FY2014-15.
- Overall apartment activity in FY2016-17 YTD is strong. Activity in FY2016-17 is likely to finish the year well above trend results over the past six years, but still below FY2014-15.

Overall building approvals
- Approvals for ‘other’ residential dwellings are historically high even after the decline experienced over the 12 months to FY2015-16.
- Overall building approvals FY2016-17 YTD are tracking at 13,800 dwellings compared to 19,102 dwellings in FY2015-16, indicating overall building approvals in FY2016-17 in this region are likely to be below the outcome for FY2015-16.

Policy Implications
- The overall apartment market in middle Melbourne remains strong, however volumes in FY2016-17 are expected to be below the historical highs achieved in FY2014-15.
- Key areas of strength include the LGAs of Moonee Valley, Whitehorse and Monash. The strength in these municipalities is generally due to significant pipelines of development activity on commercial zoned land including the Box Hill Activity Centre and Glen Waverley.
- Areas of weakness include Bayside, Darebin and Glen Eira. It appears that in these LGAs, the significant volume of commencements experienced in FY2014-15 was an overhang of the development sector securing planning permits in FY2013-14 prior to the introduction of changes to the residential zones. Activity volumes in these LGAs have now returned to levels more in line with longer term trends.
- Overall dwelling commencements for larger scale apartment projects remain relatively healthy. However building approvals for townhouses and small two and three storey apartment projects have weakened in FY2016-17 YTD.
Residential Development By Region

Summary of Trends by Region

Region: Outer Melbourne

Key Trends Observed

Large apartment projects

- Outer Melbourne represents Victoria’s weakest apartment market with a total of 1,185 apartments commencing in FY2016-17 YTD.

- Over the period FY2014-15 to FY2016-17 YTD, middle Melbourne has accommodated around 2% of metropolitan Melbourne’s apartment commencements.

- Maroondah, Greater Dandenong and Knox LGA have suffered a decline in growth over the past two years, having previously been the strongest LGAs in outer Melbourne in apartment growth. A total of only 112 apartments have commenced in Maroondah and Knox over FY2016-17 YTD compared to more than 370 in FY2014-15.

- Outer Melbourne has observed a reduction in apartment commencements in FY2016-17 YTD, with 203 commencements occurring relative to a total of 488 in the FY2015-16 period.

Overall building approvals

- Overall building approvals FY2016-17 YTD are tracking at 4,237 dwellings compared to 5,939 dwellings in FY2015-16. This indicates that overall building approvals in FY2016-17 in this region are likely to be slightly below the outcome for FY2015-16.

Policy Implications

- The overall apartment market in outer Melbourne remains constricted, and the major three LGAs suffered declining levels of apartment commencement levels over the last two years.

- The weakness in these municipalities for large apartment projects is generally due the lack of maturity within the market, with dwellings primarily being townhouses and low level apartment developments.

- The building approvals for FY2016-17 in outer Melbourne appear to be declining in relation to FY2015-16 levels.
Residential Development By Region

Summary of Trends by Region

**Region: Melbourne’s Growth Areas**

### Key Trends Observed

**Lot Sales**
- Growth areas represent Victoria’s largest lot sales market, having a total of 17,607 lots sold in FY2016-17 YTD.
- Wyndham, Hume and Casey have shown the highest lot sales out of Melbourne’s growth corridors for the FY2016-17 YTD, albeit all three LGAs are exhibiting lower lot sales than those shown in FY2015-16.
- Wyndham continues to be the strongest LGA in the region for lot sales, having achieved 4,542 lot sales in FY2016-17 YTD, which is above FY2015-16 levels. This implies a strong level of activity.

### Policy Implications
- The lot sale market in the growth areas remains strong. Volumes in FY2016-17 are expected to be above those achieved in FY2015-16. The number of lots sold in the Melbourne growth areas have been performing well courtesy of housing affordability and ongoing strong levels of population growth.
- Key areas of strength include the LGAs of Wyndham, Hume and Casey. The strength of lot sales in these LGAs have been supported by a longer term program of Precinct Structure Plans (PSP) releases.
- However the strong growth in lot supply combined with price escalation (particularly on a per m2 retail sales price) reveals that supply is still not adequate in many growth corridors.
- It will be important for State Government to maintain a wide mix of projects in each development corridor to ensure a diverse range of product and price points.

### Key Points
- Affordably priced lots in Melbourne’s growth areas remain a key driver of Victoria’s competitiveness. The strength of our population growth is driven by the supply of affordable house and land packages for interstate and overseas migrants.
- Policy must ensure that a 15 year land supply program in the growth corridors is maintained to keep the market competitive. The attractiveness of these precincts for buyers would be enhanced by an acceleration in the expenditure of the GAIC fund which now is large enough to begin targeting serious infrastructure constraints.
Residential Development - Economic Contribution

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Economic Contribution - Employment 26
Residential Development - Economic Contribution

Economic Contribution to the Victorian Economy

We have utilised ABS building approval data (value estimates) and associated infrastructure spending for new residential projects in Victoria to calculate estimated economic activity and employment generation.

Economic contribution is a measure comprising all market related expenditure generated by a specified industry or an activity. Economic contribution studies do not consider the substitution impacts to other industries. As such economic contribution is a gross measure rather than a net measure.

To estimate economic contribution, this study adopts an input/output approach to calculate the direct and indirect (wider) economic impacts. REMPLAN was engaged to develop input/output multipliers that reflect the specific characteristics of the Victorian economy.

Three common indicators of an industry, economic size or value are:

- **Gross industry output** – Market value of goods and services produced, often measured by turnover/revenue. Gross output is also referred to as ‘gross economic contribution’ or ‘gross expenditure’.

- **Value added** (Gross State/Regional Product) – Market value of goods and services produced, after deducting the cost of goods and services used.

- **Jobs** – This analysis focuses on the value add number of jobs generated by an industry or attraction.

Based on the economic value add measure, the new residential construction sector had a total contribution to the Victorian economy of around $23.5 billion in FY2015-16. This is equivalent to just under 6.5% of the Victorian economy and implies that one in every $16 of activity is driven by the sector. Based on current trends, in FY2016-17 it is expected this contribution will grow to $24.6 billion.

**Table 1: Expenditure ($m)**

<table>
<thead>
<tr>
<th></th>
<th>FY14-15</th>
<th>FY15-16</th>
<th>FY16-17 (forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building approvals new projects ($m)</td>
<td>$18,195</td>
<td>$19,698</td>
<td>$20,741</td>
</tr>
<tr>
<td>Estimated land development costs in Melbourne’s growth areas ($m)¹</td>
<td>15,858 lots sold $95,000 / lot = $1,507 m</td>
<td>21,987 lots sold $95,000 / lot = $2,089 m</td>
<td>22,009 lots sold $95,000 / lot = $2,091 m</td>
</tr>
<tr>
<td>Total expenditure ($m)</td>
<td>$19,702</td>
<td>$21,787</td>
<td>$22,832</td>
</tr>
</tbody>
</table>

**Table 2: Economic value add ($m)**

<table>
<thead>
<tr>
<th></th>
<th>FY14-15</th>
<th>FY15-16</th>
<th>FY16-17 (forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct value add ($m)</td>
<td>$4,091</td>
<td>$4,594</td>
<td>$4,798</td>
</tr>
<tr>
<td>Indirect value add ($m)</td>
<td>$17,015</td>
<td>$18,861</td>
<td>$19,766</td>
</tr>
<tr>
<td>Total value add ($m)</td>
<td>$21,160</td>
<td>$23,452</td>
<td>$24,564</td>
</tr>
</tbody>
</table>

¹ The adopted $95,000/lot in calculating land development costs includes DCPs, GAIC, and civil works. However, the total number of lots sold does not include regional Victoria.

² REMPLAN modelling provides the ability to calculate the value of gross regional product and to assess likely economic impacts of proposed changes. REMPLAN can foster an understanding of the interdependent nature of the local economy.
Residential Development - Economic Contribution

Economic Contribution - Employment

Based on the expenditure estimates and the contribution this expenditure makes to the economy, it is possible to estimate the number of jobs sustained by the construction of new dwellings. Employment multipliers developed by REMPLAN economy estimate the average number of jobs sustained for every million dollars of expenditure.

Job creation numbers reflect the current structure of the economy and predicts the number of full time, part time and casual jobs created. Direct jobs are those created in the residential construction industry in either residential building construction (for building approvals) or heavy and civil engineering construction (additional infrastructure spend).

Indirect job creation occurs across the economy in different industries that are supported by new residential construction.

Industries supported by new residential construction include; other construction, manufacturing, professional, scientific and technical services, transport, postal and warehousing; and retail and wholesale trade.

Table 4 reveals that up to 183,000 jobs were sustained in Victoria by the construction of new residential dwellings directly and indirectly across all sectors. This figure is expected to grow to nearly 192,000 jobs in FY2016-17.

Summary

In FY2016-17 it is expected that the construction of residential dwellings and the associated infrastructure requirements will generate approximately $70 billion in economic activity. Approximately $24.5 billion of this expenditure will remain in the Victorian economy and contribute to Gross State Product.

This activity and contribution will support almost 192,000 full time, part time and casual jobs across the Victorian economy.

Table 3: Jobs (full time, part time and casual)

<table>
<thead>
<tr>
<th></th>
<th>FY14-15</th>
<th>FY15-16</th>
<th>FY16-17 (forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct jobs creation</td>
<td>42,569</td>
<td>46,508</td>
<td>48,870</td>
</tr>
<tr>
<td>Indirect jobs creation</td>
<td>123,583</td>
<td>136,479</td>
<td>143,068</td>
</tr>
<tr>
<td>Total jobs</td>
<td>166,151</td>
<td>182,987</td>
<td>191,938</td>
</tr>
</tbody>
</table>

Key Points

- In FY2015-16 the construction of new dwellings made a contribution to the Victorian economy of more than $23.5 billion. This contribution is expected to increase to over $24.6 billion in FY2016-17.
- The residential development sector sustained almost 183,000 jobs in Victoria in FY2015-16. This figure includes jobs sustained directly in the sector as well as in support industries such as property and business services, financial services, transport and distribution, manufacturing and other sectors.
- It is important to note that these estimates of impact and revenue do not include the contribution that the residential development sector makes to the Victorian Government’s own source tax collections. State taxes including stamp duty and land tax are supported by the sector. While off-the-plan stamp duty concessions will apply to first home buyers and those residing in new properties, it is important to note that developers fund large stamp duty and land tax collections as part of the land acquisition and development process.
- Other charges including open space contributions and developer levies also provide State and Local Government with a diversity of revenue streams to fund capital projects and services.
Implications of Major Recent Policy Changes

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Future Monitoring of Impacts 29
Implications of major recent policy changes

Summary of Impacts

PLANNING POLICY CHANGES
- Changes to residential zones
- Central City controls (Amendment C270)
- Better Apartment guidelines
- Urban renewal pipeline

TAX CHANGES
- Removal of stamp duty concessions for off-the-plan investments
- Removal of stamp duty for first home buyers
- Foreign buyer surcharges

APRA LENDING REGULATIONS
- Limiting interest only lending to 30% of total mortgages
- Internal upper limit on volume of interest only lending at Loan to Value Ratio = 80%

IMPACTS
- The impact of C270 and Apartment Standards will likely be felt in FY2017-18 and FY2018-19 as the pipeline of current projects with permits are consumed
- The impact of the original residential zone changes on supply is likely to be offset by the latest changes to the residential zones
- A clearer urban renewal pipeline will assist the industry’s understanding of future supply. The structure plan for Fisherman’s Bend and Arden should be resolved as soon as possible

IMPACTS
- The removal of off the plan concessions for investors is expected to impact projects with a high volume of product that appeal to investors
- Projects with studio and smaller one and two bedroom units that appeal to investors will suffer from demand shift by investors to established properties
- Foreign buyer surcharges will impact new and established product – less of a direct impact
- Impact will be felt in FY2017-18 and FY2018-19

IMPACTS
- Drives upward movement in cost of interest only loans. Already a premium of nearly 0.8% compared to principal place of residence
- Will add to cost of purchasing new and established investment property
- Adds to the competitive disadvantage that apartments targeted to investors will face. These disadvantages include higher net prices and higher servicing costs
Policy Changes

Future Monitoring of Impacts

<table>
<thead>
<tr>
<th>Policy/Regulation Change</th>
<th>Key variables to be monitored</th>
</tr>
</thead>
</table>
| Changes to Residential Zones | The following datasets should be monitored during FY2017-18 and FY2018-19 to ascertain how the recent changes to residential zones impact the development market:  
  • Building approvals for projects categorised as ‘other’ in ABS building approvals data in the inner and middle region of Melbourne including analysis of individual LGAs.  
  • Building approvals for one, two and three storey apartment projects and townhouses in the inner and middle region of Melbourne. |
| Amendment C270 and Better Apartment Guidelines | The following datasets should be monitored to ascertain how this policy change has impacted the development market during FY2017-18 and FY2018-19:  
  • Building approvals for four storey-plus apartment projects in the inner and middle region of Melbourne.  
  • Average apartment prices including on a square metre basis relative to the ABS dwelling index for all houses in Victoria. |
| Removal of stamp duty concessions for off-the-plan dwellings and foreign buyer surcharges | The following datasets should be monitored to ascertain how this policy change has impacted the development market:  
  • Sales of new apartments using data from various sources.  
  • Volume of home loan approvals for first home buyers and investors for new dwellings. |
| APRA regulatory changes | The following datasets should be monitored to ascertain how this policy change has impacted the development market:  
  • Home loan approvals for investors.  
  • Data on the volume of investor acquisitions of new and established properties. |
Results of the Residential Development Index (RDI)

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Testing Correlation of Inputs 32
Results of the Residential Development Index (RDI), August 2017

The RDI has three components:

a. demand for residential development represented by relative population growth;

b. the ability to purchase property reflected by the employment status of property buyers and;

c. overall supply levels calculated by ratio of building approvals to forecasted household formations.

Each input can be calculated on a quarterly, bi-annual or annual basis at a point in time subject to the availability of data. It should be noted that employment and building approvals data is available with limited lags whereas estimates of population have approximately a six month lag. The results for the RDI and its components are depicted in the opposite figure. In summary based on the last ten years of analysis between June 2006 and June 2016:

1. The index has moderated in 2016 at 112.1 down from 112.2 in June 2015, however it is still at historical highs and above the ten year average of 106.21 (depicted in the figure opposite)

2. The index was at its lowest point in June 2006 (100.9) and June 2009 (101.9) when building approvals (supply), employment growth (purchasing power) and demand was all relatively weak compared to averages over the period.

3. Utilising forecasted input data for June 2017 the RDI is expected to be 112.7.

4. The index has also been forecasted to June 2020. Demand (population) and purchasing power (employment) were extrapolated based on growth forecasts from the State Budget 2017-18. Supply forecasts have been extrapolated based on VIF forecasts of household formation and medium term averages and the ratio of building approvals to household formation.

Based on historical data for the last 10 years, the following conclusions can be made in regard to how estimated current values of the RDI compare to long term averages:

• An RDI of above 106 confirms the market is historically strong
• An RDI of 102 to 105 confirms a market operating in line with medium term trends
• An RDI of less than 102 confirms a market that is either in decline or operating with activity below medium term trends.
Testing Correlation of Inputs

To consider the accuracy of the RDI, its outputs have been compared with actual dwelling commencement activity over the past 10 years. This has confirmed that:

1. The index of residential activity trends closely with dwelling commencements with the absence of any noticeable time lag.

2. UDIA expect both demand and purchasing power inputs are relatively stable. Demand growth driven by population ranges between 1.4% and 2.2%. Purchasing power driven by employment growth ranges between -0.5% and 3.5%.

3. Supply is represented by the ratio of building approvals and household formations (annual change in the number of occupied private dwellings). Between January 2009 to January 2011, and from January 2013 until January 2016, building approvals significantly outpaced growth in households.

To further consider the accuracy of the RDI we have undertaken a series of correlation tests on its outputs relative to movements in dwelling unit commencements.

The comparison is depicted in the opposite charts and reveals the following:

1. Overall, the RDI has achieved circa 95% correlation with dwelling unit commencements over the past 10 years. This suggests the RDI explains 95% of the movement in dwelling unit commencements and is an accurate indicator of the relative level of activity in the Victorian residential construction sector.

2. The individual inputs to the index are weighted based on their relative impact on activity. Sensitivity tests on the weightings of the three input variables revealed

Key Points

- The RDI suggests that Victoria’s residential development sector is operating at a level well above longer term trends.

- The sector is currently being driven by historically high population and employment growth combined with supply volumes that are also historically high.

- Population and employment growth are likely to return to longer term trends in future years. Threats to the sector include an unclear future urban renewal pipeline and a series of policy drivers that may erode the affordability of new apartments.

- The pipeline of lot sales need to be maintained in all growth corridors to ensure buyer preferences are met across different sub-markets.
Methodology and Assumptions

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Methodology and Assumptions

Data Sources and Glossary

### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>EY</td>
<td>Ernst and Young</td>
</tr>
<tr>
<td>LGA</td>
<td>Local Government Area</td>
</tr>
<tr>
<td>UDIA</td>
<td>Urban Development Institute of Australia</td>
</tr>
<tr>
<td>VIF</td>
<td>Victoria in Future</td>
</tr>
<tr>
<td>GSP</td>
<td>Gross State Product</td>
</tr>
</tbody>
</table>

### Study Areas and Usage of Data

- For the building approvals analysis we have made the following assumptions:
  - Tables/graphs in “Section 4 – Trends in Residential Development by Region” only displays those approvals listed as “New Houses” and “New ‘other’ Residential Houses”. We note there is a residual level of approvals per annum (less than 2% of annual approvals).
  - Each geographical catchment has been referenced against defined LGAs.

- For the Melbourne geographical catchments (also shown on the following page’s map):
  - **Inner Ring //** This term throughout the report refers to Melbourne’s inner ring LGAs (<10km from CBD). LGAs within inner ring Melbourne include; Melbourne, Port Phillip, Yarra, Maribyrnong and Stonnington.
  - **Middle Ring //** This term throughout the report refers to Melbourne’s middle ring LGAs (10-20 kms from CBD). LGAs analysed within middle ring Melbourne include; Moreland, Darebin, Banyule, Boroondara, Glen Eira, Manningham, Whitehorse, Monash, Bayside, Kingston, Moonee Valley, Brimbank and Hobsons Bay.
  - **Outer Ring //** This term throughout the report refers to Melbourne’s established outer ring LGAs (>20kms from CBD). LGAs analysed within outer ring Melbourne include; Nillumbik, Maroondah, Knox, Greater Dandenong and Frankston.
  - **Growth Areas //** This term throughout the report refers to the defined Melbourne growth areas. LGAs analysed within Melbourne growth areas include; Hume, Whittlesea, Mitchell, Casey, Cardinia, Melton and Wyndham.

### Data and Information Sources

In completing components of this report we have utilised existing sources of data including the following:

- Australian Bureau of Statistics
- Victoria In Future 2016
- EY data and research
- National Land Survey Program (Research4) and complementary data sources
- Charter Keck Cramer data
Methodology and Assumptions

Residential Development Index

Methodology

The Residential Development Index considers demand for residential development, the ability to purchase property reflected by the employment status of property buyers, and overall supply. In considering these factors the RDI acts as an interface between top down demand and bottom up supply, and can be used to consider the overall health of the industry, relative to historical trends.

The index is depicted in the opposite diagram and includes the following components:

1. Demand component of index. Considers population growth in Victoria. Calculated as annual % growth over 12 months to June as an index. Index = [annual % change + 1] x 100. The index is weighted at 40%.

2. Purchasing power component of index. This component considers employment growth in Victoria. Calculated as annual % growth over 12 months to June as an index. Index = [annual % change + 1] x 100. The index is weighted at 40%.

3. Supply component of index. Considers building approvals relative to forecast household formation to indicate relative supply. Ratio of annual aggregate building approvals/annual change in number of occupied private dwellings for same period. Index = annual aggregate building approvals/annual change in number of occupied private dwellings. This component is weighted at 20% of the overall index due to the higher level of variability in supply that has been observed over time.

Tests on the predictive accuracy of the index and comparisons with other drivers of residential construction activity including vacancy and sales rates are included.

It is acknowledged that other factors influence the operation of the new residential construction sector including interest rates and other economic drivers. These factors are assumed to directly and indirectly influence the three key drivers that act as inputs to the RDI. The RDI (including its weightings) will be updated over time as drivers of the market are continually assessed and re-calibrated.