

**THIS IS  
NOT  
VACANT**



# SPECULATIVE VACANCIES 8

THE EMPTY PROPERTIES IGNORED BY STATISTICS

Catherine Cashmore





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# About

## Prosper Australia

Prosper is a research-based organisation in Melbourne seeking to advance economic efficiency and social justice through tax reform and education. It is at the forefront of advocating the ideas and policies of the U.S. classical liberal economist Henry George (1839-1897), who believed poverty and social disorder stems from the misuse of the third factor of production, land.

## The Author

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## Privacy

The privacy of individual homeowners has not been compromised in compiling this report. The water consumption of individual properties or personal details of homeowners was not provided by water retailers; data was aggregated at the postcode level.

**Prosper Australia is a self-funded NGO. Please support our work by making a donation to the tax deductible Prosper Australia Research Institute (PARI).**

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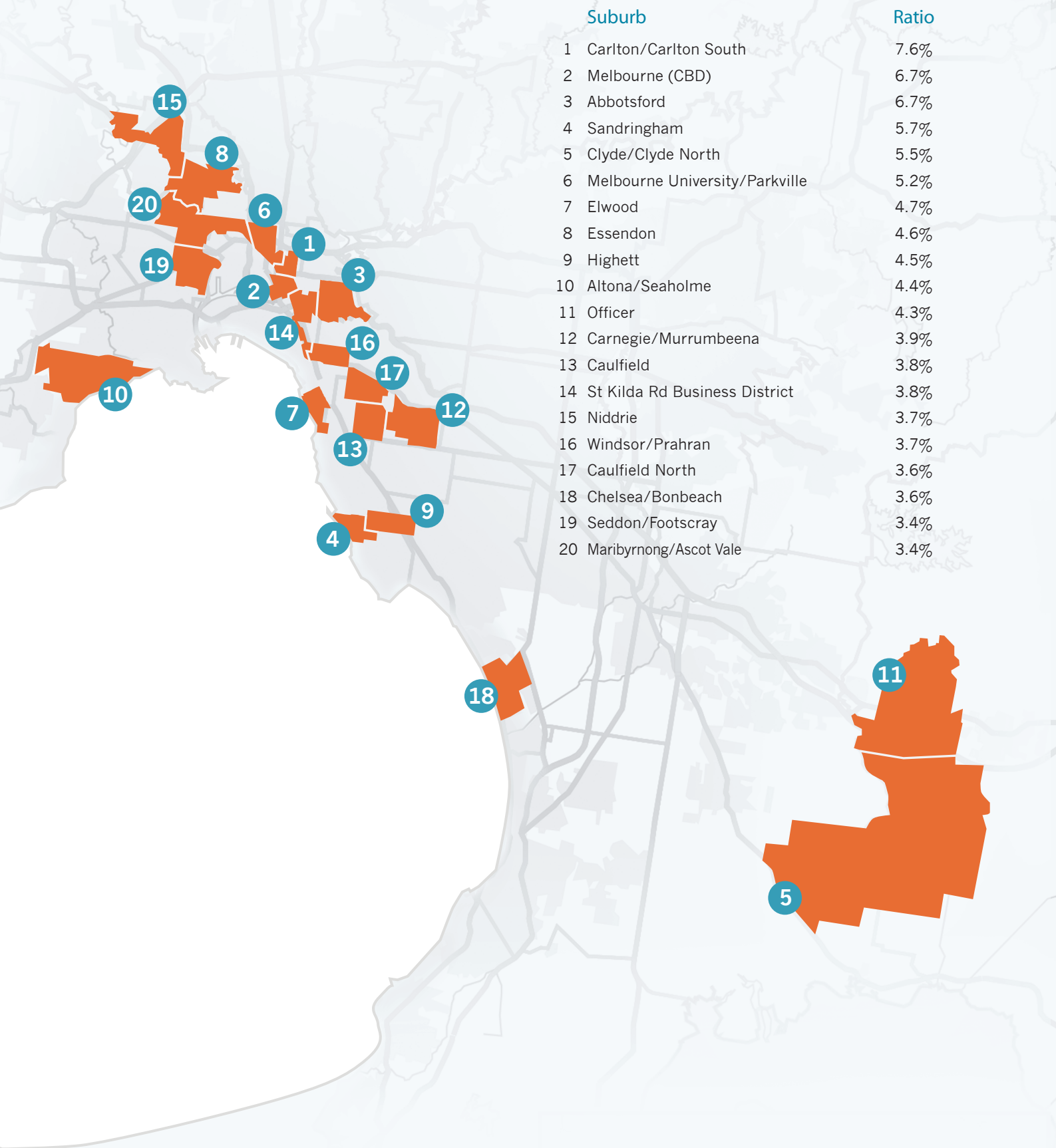
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# Melbourne Top 20 Vacancy Map





# Executive Summary

Prosper Australia's Speculative Vacancies Report demonstrates how Government housing, tax and supply policies have allowed widespread residential and commercial vacancies in Melbourne.

Melbourne's three main metropolitan water retailers, City West Water (CWW), South East Water (SEW), and Yarra Valley Water (YVW) made their data available for this report.

Speculative Vacancies (SVs) are assessed as properties with abnormally low water usage of less than 50 litres per day (LpD) over a 12-month period, allowing for leaks and property maintenance.<sup>1</sup> Average per capita water usage in Melbourne over 2014 was 160LpD. In addition, the 0LpD reading is also referenced as a determinant of absolute vacancy.



**Policy makers have thus far ignored Melbourne's Speculative Vacancies and their effect on property prices.**

For eight years this report has provided a SV measure to illustrate the actual utilisation of Australia's housing stock. This gives a fuller analysis of the housing market by including properties that are not for sale and not for rent. In a market characterised by speculation and the continuous mantra of a 'housing supply crisis', the need for transparency has never been greater.

Analysis was undertaken of 1,707,140 residential properties across 254 postcodes over the calendar year 2014.

Data indicates 82,724, or 4.8 per cent of Melbourne's total housing stock appeared to be vacant over this period, having consumed <50LpD. No water was consumed in 24,872 dwellings - therefore being demonstrably unoccupied.

If just those residential properties consuming 0LpD were placed onto the market for rent, this would increase Melbourne's actual vacancy rate to 8.3 per cent.<sup>2</sup> If 82,724 properties using under 50LpD were advertised for rent, the vacancy rate could rise to an alarming 18.9%.

Further examination of 130,610 non-residential properties across 254 postcodes over the same period identifies 7,941 or 6.1 per cent of Melbourne's commercial stock was also vacant over 2014, i.e. having consumed 0LpD.

Government failure to address Australia's housing affordability crisis is indefensible. Access to affordable shelter is a basic human right and underlies national prosperity.

Vacant properties impose a needless economic burden. Residents and businesses are forced to leapfrog vacancies to lesser sites at great cost, increasing commuting times and placing upward pressure on prices.

Latent supply is usually not visible without a significant downturn in economic activity. If withheld stock were put to use, it would reduce cost-of-living pressures for tens of thousands of low and middle-income families and businesses marginalised by the cost of land.

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1 Residential per capita consumption in Melbourne averaged 160LpD in 2014. 'Water Outlook for Melbourne' December 2014– Melbourne Water. Please see Chapter 3 for the methodology.

2 As a proportion of investor owned stock based on census and post census data as collated by SQM – see conclusion for further explanation – rounded up to 1dp from 8.25%.



This report recommends fundamental reforms to reduce the propensity for volatile boom-bust land cycles fuelled by speculation and unsustainable levels of household debt.

Current property taxes discourage investment into new housing, inflate the cost of land, stagnate housing turnover and hinder putting property to its highest and best use.

The report advocates that profound inefficiencies could be significantly alleviated if current transaction taxes were phased out and replaced with a holding tax levied on the unimproved value of land, alongside enhanced infrastructure financing methods for new developments.

Policy makers have thus far ignored Melbourne's speculative vacancies and their effect on property prices.

With some 4.8 per cent of Melbourne's houses showing severe under-utilisation, there is no housing supply crisis. Rather, rising prices indicate significant distortions created by policies supporting rent-seeking behaviour.

Government and statistical bodies need to recognise this disparity and employ a more comprehensive data analysis of vacant housing stock.



# Speculative Vacancies and Housing Affordability

There have been four housing affordability inquiries since the early 2000s.

The “First Home Ownership” inquiry by the Productivity Commission (2004). The Senate Select Committee inquiry into housing affordability (2008). The inquiry into affordable housing by the Senate Economics References Committee (2014), and the current Inquiry into home ownership by the Standing Committee on Economics (2015).

The central recommendation of each inquiry has been to increase the supply of affordable housing.

However, missing from the analysis is any mention of the number of long-term vacant dwellings held for speculative gain across Australia’s major capital cities - not for sale, and not for rent.

Because they are not publicly advertised, these properties are overlooked by current short-term vacancy statistics based on reporting by real estate firms.



Fostered by policies that induce speculative activity, land prices have been rising at a rapidly faster pace than rents.



Prosper Australia’s annual Speculative Vacancies report uncovers these latent holdings.

Using water data as a proxy, we provide a unique insight into the number and ratio of long-term vacancies withheld from the market for a full 12-month period in Melbourne.

Stratified by postcode, the report provides a detailed study to enlighten government on sound policy recommendations to drive prosperity and assist housing affordability.

We cannot have a serious conversation about Australia’s housing supply ‘crisis’ without addressing the fundamental drivers that permit – no-less encourage – owners to lay a significant proportion of prime urban land to waste.

There are many diverse motivating factors prompting owners to leave buildings idle. Some may be undergoing renovation or awaiting demolition. Others may be derelict and in need of substantial and costly repairs.

However, the notable trend underlying the data is the large divergence between residential real estate prices and rental incomes – including both actual and imputed rents on owner-occupation.

During the 2014/2015 financial year alone, Melbourne’s median capital city land price accelerated over 14 per cent.<sup>3</sup> At just over \$700,000, Melbourne’s median house price is 8.8 times median income.<sup>4</sup> Yet, at just 3 per cent, gross rental yields in Melbourne are at their lowest on record.<sup>5</sup>

Real net rental incomes across Australia have been declining since 2001.<sup>6</sup>

Between 1994 and 2013, the number of negatively geared investors dependent on rising prices to profit escalated 152 per cent. In contrast, positively geared investors have increased by a much lesser 47 per cent.<sup>7</sup>

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3 Core Logic data 2015

4 Data sourced from LF Economics – Soos/David

5 Core Logic – Oct 2015

6 Ibid

7 Data sourced from LF Economics – Soos/David



The overwhelming majority of negatively geared investors (95 per cent) chase the capital gains associated with existing stock, rather than investing into new residential construction.<sup>8</sup> Australia's housing stock has been turned into little more than a vehicle for financial speculation, placing increasing pressure on prices.

To evidence further, since 1997, the share of loans for housing has increased from 47 per cent to 66 per cent. Only approximately 10 per cent of the flow of housing finance has been for the construction of new dwellings.<sup>9</sup>

Meanwhile, the ratio of business credit to total credit has been declining since the late 1980s.<sup>10</sup>

Credit extended for enterprise is proven to be positively associated with economic growth and faster reductions in income inequality. Household credit (principally mortgage debt) provides no such benefit.<sup>11</sup> Rather, it leads to a misallocation of credit, to feed an elevated level of speculative rent-seeking demand.

It is important to note that increasing land values are not borne from any productive activity undertaken by the owner who (as the classical economist John Stewart Mill termed it) "grows rich in their sleep without working, risking or economising."

Rather, the value of land reflects its surrounds, growing primarily through increased demand generated by government-funded infrastructure.

Rising land-values yield a special type of unearned income known as "economic rent."

As a broad measure, land prices can be calculated by multiplying current rents by 20 years. This is known as the capitalisation rate.

It is speculation induced by the capitalisation of the rental value of land into a tradable commodity that drives the boom-bust volatility of the real estate cycle.<sup>12</sup>

Withholding prime locations from the market in an unused state generates artificial scarcity, raising prices and accelerating mortgage debt.

It underpins our cultural obsession of betting on burgeoning land-price gains and using leverage to climb the mythological property ladder.

**Withholding prime locations from the market in an unused state generates artificial scarcity, raising prices and accelerating mortgage debt.**

The consequential subversion to policy reform is inevitable, as the benefits of government-funded infrastructure flow disproportionately to landowners in the form of unearned windfall gains.

Large divergences between rental income and land price inflation are an unhealthy challenge to both housing affordability and economic stability.

They lead to 'speculative vacancies.' These are properties that are denied to thousands of tenants and potential owner-occupiers by landowners that have no motivation to generate any rental income. The result is a lowering of publicised vacancy rates, and increased land prices.

The regulatory environment provides a prime motivator for property speculation.

Landowners betting on a continuation of past high rates of appreciation are advantaged by preferential tax exemptions worth an estimated \$36 billion a year.<sup>13</sup>

8 <http://www.macrobusiness.com.au/2015/07/the-worst-ever-defence-of-negative-gearing/> Onselen - 2015

9 Financial System Inquiry Final Report – Murray 2014

10 RBA 2014 (Table D2)

11 Who Gets the Credit? And Does It Matter? Household vs. Firm Lending Across Countries – Beck et al. 2008

12 The Role of Speculation in Real Estate Cycles - Malpezzi/Wachter 2002

13 Renovating Housing Policy – Grattan Institute - 2013



Negative gearing coupled with the 50 per cent capital gains tax (CGT) discount for property held in excess of 12 months, have ensured high-income individuals are the main beneficiaries of rising land values. The top 40 per cent of income earners hold nearly 80 per cent of all investor mortgage debt.<sup>14</sup>

First home buyer grants and other state incentives such as stamp duty waivers, owner-occupier exemptions from CGT and state land tax (SLT), changes to the superannuation laws enabling leverage into real estate (2007) – typify the commodification of property as a tool for profit seeking gain, advantaging existing owners vis-à-vis the young and the poor.

These incentives strip away any hope of a market aspiring to house people, rather than encouraging speculative greed.

Policies that foster land price inflation and reward rent-seeking behaviour cannot deliver positive economic outcomes.

The IMF finds more than two-thirds of the world's recent 50 systemic banking crises were caused by patterns of accelerating real estate prices relative to GDP.<sup>15</sup>



**Yet, it is not the recession that damages the economy. The damage arises from mounting levels of leveraged debt extended for the purpose of land speculation.**



A comprehensive analysis of historical data demonstrates a clear pattern of repeating real estate and construction cycles topping-out some 24-48 months prior to the world's major economic downturns.<sup>16</sup>

This cyclical top has been a precursor to all of Australia's economic recessions.<sup>17</sup>

Yet, it is not the recession that damages the economy. The damage arises from mounting levels of leveraged debt extended for the purpose of land speculation.

In a little over two decades, the share of investment property loans as a proportion of total debt has tripled from one-tenth to three-tenths.<sup>18</sup> Investors now account for 40 per cent of total housing loans outstanding.<sup>19</sup>

Australia is the third most indebted household sector relative to GDP in the OECD.<sup>20</sup> At just over \$2 trillion,<sup>21</sup> the unconsolidated household debt to GDP ratio sits at an eye-watering 121.5 per cent.<sup>22</sup>

The burden of diverting an ever-increasing proportion of incomes to debt-servicing by both business and buyers has progressively undermined the health and competitiveness of the Australian economy.

The long-term risks to our financial system are precarious. The economic impacts for low- to middle-income Australian's are disastrous.

Ownership for 15-34 year olds has been in a downward trend since the mid 1970s.<sup>23</sup> For 35-44 year olds, since the mid 1980s.<sup>24</sup>

14 RBA submission to the House of Representative's Inquiry into Home Ownership (2014)

15 Housing markets, Financial Stability and the Economy – IMF 2014.

16 Secret Life of Real Estate and Banking - Anderson 2013. Power in The Land - Harrison (1983) etc

17 Data sourced from LF Economics – Soos/David (The trend is traceable prior to the 1890s, 1930s, 1974–1975, 1982–1983, and 1990–1991 Recessions)

18 Beyond Our Means? Household Savings and Debt in Australia - by R Cassells - 2015

19 RBA – Philip Lowe 2015

20 Data sourced from LF Economics – Soos/David

21 Beyond Our Means? Household Savings and Debt in Australia – Bankwest Curtin Economics Centre - 2015. (Household debt over \$2 Trillion.)

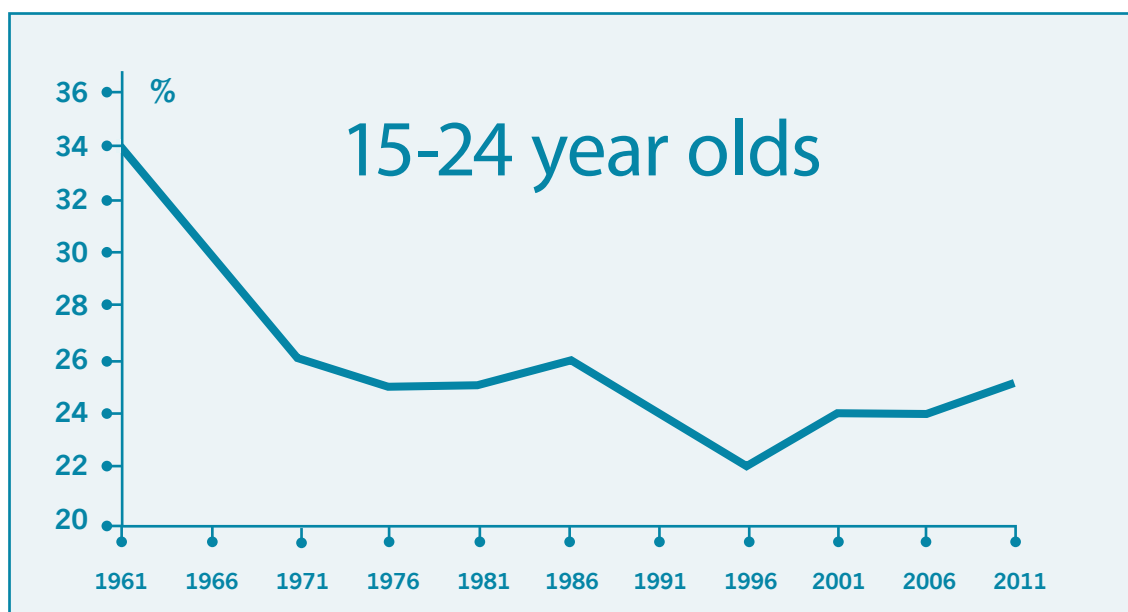
22 Data sourced from LF Economics – Soos/David

23 The edges of home ownership – AHURI – Wood 2013. The rates have fallen from 60 per cent to 47 per cent between 1976 and 2011.

24 Submission to the Standing Committee on Economics Inquiry into Home Ownership - Yates 2015. Rates falling from 74 per cent in 1986 to 64 per cent in 2011.



Figure 1.1 – Home-ownership 15 – 24 year olds <sup>25</sup>



Even those able to step onto the fabled property ladder, long-term security of tenure is not guaranteed. Significant numbers are 'churning' on the edges of owner occupation.<sup>26</sup>

Between 2001 and 2010, one in five homeowners (22 per cent) dropped out of home ownership - for 9 per cent, this move was enduring. For those that do purchase, there is a spike in the chances of a termination back into rental housing after just one year.<sup>27</sup>

Importantly, the trend is accompanied with episodes of poor health, unemployment and financial stress.<sup>28</sup> After exiting homeownership, 34 per cent of Australian ex-home owners require access to housing assistance.<sup>29</sup> Additionally, one in 10 Australians has been homeless at least once in their lives.<sup>30</sup>

The incidence of housing stress for owner-occupiers declines with age, however, for long-term tenants and those under 35 years, it remains stubbornly high.<sup>31</sup> Current policy cements this demographic at the bottom of the pile.

Ineffective use of residential and commercial sites further stimulates the volatility and inequity of the real estate cycle.

Land's locational supply cannot be increased to accommodate rising demand. Buildings banked and withheld from use exacerbate this disparity.

<sup>25</sup> Saul Eslake 2015

<sup>26</sup> Churners are those who leave and return to owner occupation at least once during the period of study. – Wood 2013

<sup>27</sup> Approximately 20 per cent of homeowners in Australia cycled out of home ownership at some point between 2001 and 2010. Of the 61 per cent that did, 7 per cent did this more than once over a decade. The incidence of leaving in Australia (9 per cent) is almost double that of the UK (5 per cent). The incidence of churning is even higher in Australia (13 per cent) compared to the UK (4 per cent). (Wood 2013)

<sup>28</sup> Leavers spend the least amount of their time in excellent health (compared with other groups) and the most in poor health. (Wood 2013)

<sup>29</sup> Wood 2013

<sup>30</sup> RMIT 2015

<sup>31</sup> Ibid



As such, the SV rate can be likened to the unemployment rate for land.

It results in the productive capacity of the economy being ruthlessly compromised as citizens and businesses are forced to pay higher prices and commute greater distances for employment and lifestyle needs.



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Prosper Australia's Speculative Vacancies report gives a unique insight into the impact of current housing policy. The report identifies 82,724 residential dwellings and 30,085 commercial properties in Greater Melbourne likely vacant for a period of 12-months or more.

As government and real estate industry vacancy statistics are neither impartial nor comprehensive, this report adds a valuable dimension to understanding the divergence between real estate industry short term vacancy rates (the percentage of properties

available for rent as a proportion of the total rental stock) and the number of potentially vacant properties exacerbating Australia's housing crisis.

We advocate these figures should correlated along side our Speculative Vacancy findings to produce the widest and clearest measure of vacant housing supply to guide policy makers.



# Methodology – How do you assess if a property is vacant?

## Water Data – Melbourne

Speculative Vacancies (SVs) are assessed as properties using abnormally low water usage of less than 50 litres per day (LpD) over a full 12-month period. In addition, the 0LpD reading is also referenced.

Average water usage in Melbourne per person, per day, is currently 183 LpD. The benchmark is therefore considered a conservative measure that allows for leaks and property maintenance.<sup>32</sup>

There are many reasons why owners may choose to leave properties idle. However, due to large divergences between property prices and rental income, property investors not concerned with attracting long-term tenancy have every incentive to hold a property off the market for little more than speculative gain.

Because they are not for rent, these properties are not revealed by current short-term vacancy measures reported by real estate firms based on 'available for rent' advertised dwellings as a percentage of total rental properties within a given area.<sup>33</sup>

## International Studies:

Since the Global Financial Crisis in 2008, there has been increasing international interest in properly assessing the number of vacant properties being held out of use.

## Census Data

The vast majority of jurisdictions rely on Census data. However, this is an imperfect measure that overstates the number of vacancies, as it also includes the Census undercount – those absent or avoiding Census enumeration. Nonetheless, these surveys suggest there are more than 11 million homes vacant across Europe - 300,000 in Greece, 400,000 in Ireland, and up to 3.4 million in Spain.<sup>34</sup>

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32 Daily average water usage per person, per day is currently 183 litres – Melbourne Water – retrieved 28/11/2015.

33 SQM Research, a real estate research firm, calculates vacancy rates using online listings for rental properties that have been advertised for three weeks or more and compares them to the total number of established rental properties by area, extrapolated from ABS Census and post census data. This report also references the REIV vacancy rate, which is used for the greater metropolitan area.

34 The Scandal of Europe's 11m Empty Homes Feb 2014, The Guardian, Neate



## UK Empty Homes Campaign

The 'Empty Homes' campaign in the UK obtains vacancy data from council tax information and annually published statistics. UK councils offer a range of exemptions and discounts from the council tax for empty homes. In some areas, they charge a higher level of council tax ('premiums'). The number of empty dwellings is then estimated from the sum of exemptions, premiums and discounts.

There are currently 635,127 empty homes in England according to the 2013 Empty Homes Statistics report. However, this figure is conservative considering the categories of homes absent from the data: flats above shops, and uninhabitable homes in very poor condition or those awaiting demolition that can be excluded from the council tax.

<http://www.emptyhomes.com/>

## France – Analysis of Electricity Use

In France, records from the EDF, the country's national electricity company, suggest around 40,000 homes and offices in Paris, have been disconnected from the grid for an extended period of time. <http://bit.ly/1WU67Ra>

## USA – Vacant Home Programs

The United States Federal Reserve identifies long-term vacancies of two years or more using community census data and information collected from the United States Postal Service (USPS), that tracks the addresses of dwellings have been “vacant”, or “No-Stat” each quarter. By this measure, there are currently more than 14 million long-term vacancies in America not for rent, or sale. <http://1.usa.gov/1Ou7Oih>

“**They hint at the future with their use of geo-spatial analysis to identify vacant property sites facing tax foreclosure and the extent of blight. This has awoken policy makers to the burden of vacancy upon infrastructure maintenance.**”

The most innovative vacant home analysis is by Detroit's Loveland Technologies. They hint at the future with their use of geo-spatial analysis to identify vacant property sites facing tax foreclosure and the extent of blight. This has awoken policy makers to the burden of vacancy upon infrastructure maintenance. A vacancy rate of 13.5 per cent was found in 2014 using on the ground surveying and the innovative Blexting app where photos of sites are uploaded and then cross-referenced with available municipal data. <http://bit.ly/1MWefuL>

## China

Students from The Survey and Research Centre for China Household Finance (based at the Southwestern University of Finance and Economics) conduct a quarterly survey of households in 262 counties in 29 provinces across China via a combination of telephone and face-to-face to interviews.

Current statistics estimate that in these areas, China has 3.5 million homes that remain vacant, untenanted or unsold. <http://on.wsj.com/1yV5TSM>



# Melbourne's Speculative Vacancies report – Water Data Analysis

Over 2014, long-term Speculative Vacancies (SVs) were assessed using consumption figures from Melbourne's three major metropolitan water providers - City West Water, Yarra Valley Water and South East Water. Very low water consumption is used as a proxy for identifying under-utilised residential and commercial properties across the city.

Unlike electricity and gas supply, Melbourne households are not able to change their water retailer within the metropolitan area. This prevents fragmentation of the data, further assisting the consistency of the results. There is some minor overlap in servicing to suburbs that sit on the boundaries between retailers, although this has negligible impact on the aggregate data.

A property using no water for 12 months (0LpD) is clearly vacant. However other factors need to be taken into account that can positively or negatively bias the results, such as leaks, watering of gardens etc.

For this reason, a criterion of 50 litres or less per day (LpD) over a 12-month period has been chosen as the benchmark for assessing potential long term SVs and under-utilised dwellings.

Latest figures show current residential water use on a per person was 160LpD (2014) and total water use – residential, non-residential and non-revenue water – is 251LpD, including the loss of water to leaks.<sup>35</sup>

Meter readings taken once every quarter are averaged to derive daily water consumption.

According to studies taken across the metropolitan region, only 3 per cent of households use less than 50 LpD, yet one slowly dripping tap can consume 5,000 litres of water over a three-month period - an amount that can add up to approximately 55 litres per day. Leaks constitute almost 6 per cent of all residential water usage and notably, many go unnoticed.<sup>36</sup>

Melbourne's total water usage can be separated into its constituent categories: residential purposes - 65 per cent, non-residential - 25 per cent, and non-revenue water (unpaid water supplies) - 10 per cent.

Research shows that as the number of people in each household increases, the pattern of water use falls on a per capita basis.<sup>37</sup>

According to the 2011 Census data, the average number of people per household for the greater Melbourne region is 2.6.

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35 Information sourced from Melbourne Water- [www.melbournewater.com.au](http://www.melbournewater.com.au), 'Water Outlook For Melbourne' December 2014

36 Yarra Valley Water Appliance and Usage Statistics' - Paul Roberts - 2012

37 Residential Water Use Studies' - Roberts, Athuraliya, & Brown - 2012



As a percentage of all households, 23.3 per cent are single person households, 32 per cent two person households, 17 per cent three person households, 17.4 per cent four person households, 7.2 per cent 5 person households, and 3.2 per cent are households with six persons or more.<sup>38</sup>

Research undertaken on behalf of all three water providers, City West Water, South East Water and Yarra Valley Water show average daily use per household per day over a winter period as 353LpD. This is more than 7 times the 50LpD benchmark.

The same study identified average daily usage for a two-person household as 320LpD – more than 6 times the 50LpD benchmark, while a single person household's average daily usage is 157LpD, more than 3 times the 50LpD benchmark.<sup>39</sup>

There are several variables, which can slightly obscure the data. For instance, older units (those generally constructed prior to 1997) may have only one water meter servicing the apartment block. This acts to conceal vacancies as the water bill is split between existing tenants who are likely to exceed the cut-off point of 50 LpD. This is a significant data quality problem in other cities such as Sydney.



**The data suggests that households with tanks installed do not significantly reduce their water consumption compared to those without a tank.**

Speculative Vacancies 8 obtained the water data for Sydney, but effective analysis was prevented, as most apartment blocks are single metered reducing the number of recorded vacancies.

Individual metering in Melbourne is generally used in all new complexes since 1997. Following legislative changes introduced by the Victorian government last year, all newly constructed buildings are now required to install individual water meters, while the retrofitting of separate water meters in older flats where practicable is encouraged.<sup>40</sup>

Another issue relevant to our methodology is water tanks. Households that have water tanks plumbed into the mains can theoretically reduce their consumption to very low levels. Available evidence suggests that, unlike the widespread desire to take electricity consumption 'off-grid', this behaviour is very rare.

In Melbourne, energy requirements stipulate that new homes must install either a 2000Lt rainwater tank or solar hot water service.

ABS data for 2013 (the latest available) reveals that 31 per cent of Melbourne households living in a dwelling suitable for a rainwater tank had one installed. This has risen from 11 per cent in 2007 to 28 per cent in 2010. Previous studies show the highest proportions of rainwater tanks in Melbourne are found on properties in the Mornington Peninsula (40 per cent).<sup>41</sup>

Water savings from rain tanks are highly variable due to a number of factors influencing their efficiency and operation. These include: rainfall and location, tank capacity, seasonal demands, and whether or not the tank is plumbed into the dwelling's water system.

Nevertheless, the data suggests that households with tanks installed do not significantly reduce their water consumption compared to those without a tank. A two-year study undertaken during government imposed water restrictions found households using a rainwater tank reduced their consumption by 10.3 per cent, compared to a 10.8 per cent fall in consumption for those without a tank. Most households appear to install water saving devices to achieve desired levels of consumption (e.g. upkeep of a garden), rather than as a means to reduce overall consumption.<sup>42</sup>

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38 ABS Census data

39 Smart Water Fund Melbourne Residential Water End Uses 2013, Michael Redhead

40 Herald Sun, 'Savings Fear on Water Metre Scheme' March 2013, Michelle Ainsworth

41 ABS: 4602.0.55.003 Environmental Issues: Water use and Conservation March 2013, ABS 4602 Household Water and Energy Use, Victoria 2011

42 Rainwater Tank Households: Water Savers or Water Users? Volume 50, Issue 2, p.204–216, May 2012, Moy



Serviced apartments and holiday homes, which can sit vacant for extended periods of time, may also bias the results.

According to Tourism Victoria, Melbourne occupancy rates for serviced apartments have remained high over the 2014 calendar year – peaking at of 79.6 per cent in the March quarter of 2014.<sup>43</sup>

Holiday homes have less of an impact as they are not commonly located within the city. Analyses of vacancy data from the census shows most unoccupied dwellings are situated in regional areas and coastal towns. Further, a higher number would likely be tenanted for periods of non-use by the owner.

Other relevant factors include: the settlement of deceased estates, homes undergoing renovation, properties for sale, or rental units struggling to attract a tenant. Vacancies in fringe suburbs can also be obscured depending on when the developer or purchaser arranges connection to a water meter.

These variables are fully discussed in the 2012 Speculative Vacancy report and summarised in the table below.

**Table 2.1**

Factor	Bias	Notes
Water leaks	↓	Water leaks rise above the cut-off point and are thus excluded as a speculative vacancy <sup>1</sup> .
Single water meters in apartment blocks	↓	One or more vacant properties in a large apartment or unit block may not be flagged as a SV given the average aggregate consumption of the block may be greater than the cut-off point if there is only one meter.
Very low water use	↑	Some households may be outliers and consume less than 50L/d <sup>2</sup> .
Properties for sale	↑	Homes for sale may not be occupied for extended periods, particularly investment properties.
Properties for rent	↑	Tenants may be difficult to find in depressed or over-supplied suburbs.
Serviced apartments	↑	Long periods of vacancy may occur between outgoing and incoming tenants.
Property renovation	–	Renovation vacancies may cause readings to drop below the cut-off point, but could be balanced by tradespersons' water usage.
Holiday homes	–	Due to infrequent use, these properties will register low usage, though few would be located within the metropolitan area.
Sole person households	↑	Those frequently travelling abroad may register less water consumption than the cut-off (fly in-fly out workers) <sup>3</sup> .
Water tanks attached to the home	–	Water usage between households with or without rain water tanks is similar due to unmodified water consumption patterns and failure to plumb water tanks into the property <sup>4</sup> .

<sup>1</sup> A slowly leaking tap can waste an average of 29LpD and an internal leak equivalent to a tap on full can result in 28,000LpD (YVW 2013). Leakage accounts for 2 per cent of total usage by households (Roberts 2012b: 36).

<sup>2</sup> Roberts (2012a: 8) notes approximately 3 per cent of households' average water consumption is less than 50LpD and at the other extreme around 3 per cent have an average usage of over 1000LpD.

<sup>3</sup> ABS (2010: Table 1.6) notes Melbourne has a projected 388,817 sole person households for 2012 or 24.9 per cent of all households. It is unlikely more than a small fraction fall into this category.

<sup>4</sup> Moy (2011). ABS (2012b: Table 3a) notes that in 2011, only 27.1 per cent of all Melbourne properties had a water tank installed but only 8.2 per cent of all properties have a water tank plumbed into the property.





Data can assist government policymakers identify the phenomenon of vacant dwellings and design policies to increase affordability via more efficient utilisation of our urban land.



In conclusion, while only a physical enumeration will give an exact measurement of long-term SVs, this water data can assist government policymakers identify the phenomenon of vacant dwellings and design policies to increase affordability via more efficient utilisation of our urban land.

The value of this measure was demonstrated recently in relation to a First Home Buyer grant given to a purchaser in Mildura on the premise that the property would serve as her principal place of residence for at least 6 months.

Authorities used average utility use as a benchmark to assess if the home was occupied. One of the requirements was water usage of at least 118 LpD – a much higher benchmark than employed in this report. The home buyer has been ordered to repay the \$30,000+ grant.<sup>44</sup>

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44 Mildura home owner forced to return First Home Buyer Grant – Mildura Weekly - Nov 2015



# Findings and Analysis

A complete dataset of Melbourne's residential and commercial properties was sourced from all three of Melbourne's water retailers, City West Water (CWW), Yarra Valley Water (YVW) and South East Water (SEW). Data covered 1,707,140 residential properties and 130,610 commercial properties across 257 postcodes, for the calendar year 2014.

Findings uncover 24,872 residential vacancies using 0LpD over the 12 months to 2014. This is a 70 per cent jump between the December 2013 and December 2014 measures.

Additionally, there are a total 82,724 using minimal water usage of less than 50LpD - indicating vacancy or deep underutilisation over the 12-months to December 2014. This is a 22 per cent rise between December 2013 and December 2014.

**If the total number of residential dwellings using 0LpD were added to the present stock of available housing advertised for rent, it would increase Melbourne's publicised vacancy rate to an estimated 8.3 per cent. This is a significant number that would put considerable downward pressure on rents.**

Additional analysis of 130,610 non-residential properties in the commercial sector indicates 7,941 are currently vacant using 0LpD over the 12 months to 2014. Additionally, there are a total 30,085 with minimal water usage of less than 50LpD – indicating vacancy or underutilisation. This is a 30 per cent jump between the calendar years 2013 and 2014.

Vacancies to this extent are not usually revealed until there is a significant downturn in market activity forcing empty dwellings onto the market.

If the total number of residential dwellings using 0LpD were added to the present stock of available housing advertised for rent, it would increase Melbourne's publicised vacancy rate to an estimated 8.3 per cent.<sup>45</sup> This is a significant number that would put considerable downward pressure on rents.

To put the results in context, over the course of 2014 there were a total 113,739 sales in Metropolitan Melbourne. This is only 37 per cent more than the total number of residential and SVs evidenced in this report.<sup>46</sup>

When viewed this way, 63 per cent of a year's supply of housing turnover lay dormant during a housing "supply crisis." Many of the 24,872 sites using 0LpD could be suitable for subdivision, furthering the supply potential.

It is beyond the scope of this report to calculate how far prices would drop if the current latent supply were utilised. Nevertheless, unless we employ strategies to use this surplus now, it will magnify a period of future economic instability, compounding the elevated number of rental vacancies and unsold homes in a crisis.<sup>47</sup>

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<sup>45</sup> SQM Research - as a percentage of investor owned stock – see Conclusion

<sup>46</sup> Using less than <50LpD

<sup>47</sup> VG data



**Table 3.1: Total residential water consumption by water retailer**

Residential Water Retailer	Total	0LpD	Ratio	<50LpD	Ratio
City West Water	367,909	9,444	2.6%	22,102	6.0%
South East Water	656,530	15,174	2.3%	39,600	6.0%
Yarra Valley Water	682,701	254	0.0%	21,022	3.1%
<b>Total</b>	<b>1,707,140</b>	<b>24,872</b>	<b>1.5%</b>	<b>82,724</b>	<b>4.8%</b>

**Table 3.2: Total commercial water consumption by water retailer**

Commercial Water Retailer	Total	0LpD	Ratio	<50LpD	Ratio
City West Water	34,532	3,496	10.1%	7,937	23.0%
South East Water	50,714	4,185	8.3%	12,958	25.6%
Yarra Valley Water	45,364	260	0.6%	9,190	20.3%
<b>Total</b>	<b>130,610</b>	<b>7,941</b>	<b>6.1%</b>	<b>30,085</b>	<b>23.0%</b>

The twenty suburbs with the highest SV rate are shown in Table 3.3. Suburbs with less than a total 1,000 residential properties are not included to eliminate statistical anomalies.

Carlton ranked top of the list, with a 7.6 per cent 0LpD SV rate over calendar 2014 and an overall 14.5 per cent using less than the 50LpD threshold. As with last year's results, SVs are scattered across all areas of the broader metropolitan region. A statistical analysis of the findings is explored further the next section of this chapter.

**Table 3.3 - Top 20 residential postcodes by vacancy rate (0L/day) with >= 1,000 properties**

No.	Postcode	Suburb	Total	0LpD	Ratio	<50LpD	Ratio
1	3053	Carlton/Carlton South	7,837	597	<b>7.6%</b>	1,136	14.5%
2	3000	Melbourne (CBD)	16,632	1,109	<b>6.7%</b>	2,478	14.9%
3	3067	Abbotsford	4,041	269	<b>6.7%</b>	675	16.7%
4	3191	Sandringham	4,165	238	<b>5.7%</b>	365	8.8%
5	3978	Clyde/Clyde North/	2,364	129	<b>5.5%</b>	543	23.0%
6	3052	Melbourne University/ Parkville	2,251	116	<b>5.2%</b>	230	10.2%



No.	Postcode	Suburb	Total	OLpD	Ratio	<50LpD	Ratio
7	3184	Elwood	8,788	409	<b>4.7%</b>	685	7.8%
8	3040	Essendon	11,354	527	<b>4.6%</b>	919	8.1%
9	3190	Highett	4,729	214	<b>4.5%</b>	380	8.0%
10	3018	Altona /Seaholme	6,244	275	<b>4.4%</b>	572	9.2%
11	3809	Officer	1,901	82	<b>4.3%</b>	428	22.5%
12	3163	Carnegie/Glen Huntly/ Murrumbeena	15,646	615	<b>3.9%</b>	1,231	7.9%
13	3162	Caulfield	7,405	283	<b>3.8%</b>	542	7.3%
14	3004	St Kilda Rd Business District	5,886	224	<b>3.8%</b>	615	10.4%
15	3042	Niddrie/Airport West/ Keilor Park	7,211	267	<b>3.7%</b>	560	7.8%
16	3181	Windsor/Prahran	10,606	392	<b>3.7%</b>	981	9.2%
17	3161	Caulfield North	6,832	248	<b>3.6%</b>	460	6.7%
18	3196	Chelsea/Bonbeach	11,059	400	<b>3.6%</b>	768	6.9%
19	3011	Seddon/Footscray	9,541	329	<b>3.4%</b>	816	8.6%
20	3032	Maribyrnong/Ascot Vale	12,515	420	<b>3.4%</b>	874	7.0%

For the third consecutive year, an estimated SV rate for Greater Melbourne's commercial sector is also provided. The commercial SV rate for the top twenty suburbs is shown in Table 3.4.

Last year, the top 20 was calculated using postcodes containing 100 commercial properties or more. This year we have raised the assessment criteria to postcodes containing 1000 or more in order to capture and highlight Melbourne's major commercial centres with an elevated number of SVs.

For the prior two years, the Caroline Springs' postcode (3023) has ranked top of the list of commercial SVs, with an astounding 50 per cent of commercial properties consuming OLpD over the 12-month period of 2013. This year that figure has halved, with 26 per cent of commercial properties in Caroline Springs using OLpD.

A 26 per cent SV rate is still high enough to place Caroline Springs above most other postcodes in Melbourne. However with a total of 924 commercial properties in the district, it just misses the criteria, placing it below the 1,000 benchmark.

Instead, Seaford comes first in the list of top 20 commercial SVs in 2014, with an OLpD SV rate of 12.8 per cent.

A statistical analysis of the findings is explored further in the final section of this chapter.



Table 3.4 - Top 20 commercial postcodes by vacancy rate (OL/day) with >= 1,000 properties

No.	Postcode	Suburb	Total	OLpD	Ratio	<50LpD	Ratio
1	3198	Seaford	1,097	140	<b>12.8%</b>	383	34.9%
2	3810	Pakenham	1,070	127	<b>11.9%</b>	368	34.4%
3	3030	Werribee South/Werribee	2,201	237	<b>10.8%</b>	604	27.4%
4	3201	Carrum Downs	1,265	136	<b>10.8%</b>	512	40.5%
5	3029	Hoppers Crossing/Tarneit/ Truganina	1,340	142	<b>10.6%</b>	401	29.9%
6	3931	Mornington	1,183	123	<b>10.4%</b>	380	32.1%
7	3011	Seddon/Footscray	1,319	126	<b>9.6%</b>	289	21.9%
8	3042	Niddrie/Airport West/ Keilor Park	1,045	95	<b>9.1%</b>	284	27.2%
9	3199	Frankston	1,050	92	<b>8.8%</b>	248	23.6%
10	3043	Gladstone Park/Tullamarine	1,190	103	<b>8.7%</b>	349	29.3%
11	3141	South Yarra	1,061	91	<b>8.6%</b>	258	24.3%
12	3171	Springvale	1,312	111	<b>8.5%</b>	398	30.3%
13	3977	Cranbourne	1,107	93	<b>8.4%</b>	217	19.6%
14	3121	Richmond	2,278	191	<b>8.4%</b>	493	21.6%
15	3020	Sunshine	2,166	180	<b>8.3%</b>	534	24.7%
16	3175	Dandenong	5,421	435	<b>8.0%</b>	1,289	23.8%
17	3065	Fitzroy	1,109	84	<b>7.6%</b>	183	16.5%
18	3195	Aspendale/Parkdale/ Mordialloc	2,088	156	<b>7.5%</b>	531	25.4%
19	3192	Cheltenham	1,364	101	<b>7.4%</b>	413	30.3%
20	3066	Collingwood	1,054	76	<b>7.2%</b>	211	20.0%



## Analysis of Residential SVs

The top 20 list of residential SVs has been ordered based **on each postcode's 0LpD SV rate**. However, for the purposes of this chapter, the <50LpD is examined. Reasons for this are fully explained in Chapter Two.

**Table 3.5 – Change in top 20 residential SVs between 2013 and 2014 reports**

No.	Postcode	Suburb	SV rate 2013 0LpD	SV rate 2014 0LpD	SV rate 2013 <50LpD	SV rate 2014 <50LpD
1	3053	Carlton/Carlton South	3.8%	7.6%	12.7%	14.5%
2	3000	Melbourne (CBD)	2.7%	6.7%	9%	14.9%
3	3067	Abbotsford	4.6%	6.7%	12.6%	16.7%
4	3191	Sandringham	0.7%	5.7%	3.1%	8.8%
5	3978	Clyde/Clyde North	12.4%	5.5%	46.7%	25%
6	3052	Melbourne University/ Parkville	1.7%	5.2%	3.8%	7.8%
7	3184	Elwood	0.9%	4.7%	8.9%	8.1%
8	3040	Essendon	4.6%	4.6%	9.3%	8%
9	3190	Highett	3.8%	4.5%	9.9%	9.2%
10	3018	Altona /Seaholme	3.8%	4.4%	26.9%	22.5%
11	3809	Officer	6.6%	4.3%	3.6%	7.9%
12	3163	Carnegie/Glen Huntly/ Murrumbeena	0.6%	3.9%	3.9%	7.3%
13	3162	Caulfield	1.3%	3.8%	3%	10.4%
14	3004	St Kilda Rd Business District	0.0%	3.8%	9.2%	7.8%
15	3042	Niddrie/Airport West	3.7%	3.7%	7.6%	9.2%
16	3181	Windsor/Prahran	2%	3.7%	4.3%	6.7%
17	3161	Caulfield North	1.4%	3.6%	3.5%	6.9%
18	3196	Chelsea/Bonbeach	0.9%	3.6%	7.1%	8.6%
19	3011	Seddon/Footscray	2.3%	3.4%	6.2%	7%
20	3032	Maribyrnong/Ascot Vale	2.6%	3.4%	3.8%	7.8%



## SVs in the inner suburbs of Melbourne

Mirroring the trend in previous reports, a large proportion of speculative vacancies can be found in the City of Melbourne and its immediate surrounds.

Five of the City of Melbourne's suburbs feature in the top 40 residential SVs. However, Carlton, Melbourne and Parkville are in the top 10 and exhibit a substantial increase in SVs between 2013 and 2014.

Across the municipality as a whole, 8,638 properties have been potentially vacant for a period of 12 months or more. This equates to an SV rate of 11 per cent.

The vacancy rate can be likened to an unemployment rate for land. If there were an 11 per cent unemployment rate in a municipality, politicians would be under substantial pressure to rectify the situation. Yet in an alleged housing supply crisis these empty dwellings are largely ignored.

When the SV rate is added to the short-term vacancy rate of advertised listings, it lifts the total proportion of potential vacancies in the City of Melbourne to a remarkable 13.2 per cent. It is hard to entertain talk of a property "shortage" when faced with such figures.

In 'Speculative Vacancies 7', Dockland's was number 1 on the list of top 20 residential SVs. This year its 50LpD SV rate has reduced to 8.5 per cent and it's been overtaken by Carlton, which has an elevated SV rate of 14.5 per cent. Carlton was third on the list of residential SVs last year.



**Clearly, a significant proportion of foreign owned real estate is vacant and withheld from use, inflating accommodation costs.**

Small apartments and student accommodation dominate the suburb and naturally have a high turnover.

The publicised vacancy rate of available rental dwellings in Carlton and Carlton South is a tight 1.4 per cent indicating a shortage, where there is in fact a surplus.

There are an estimated 41,762 students living in the City of Melbourne.<sup>48</sup> Carlton contains the highest concentration, with 35 per cent of its population (approximately 4938 people) in higher education.<sup>49</sup>

With international students facing increasing tuition fees and higher rental costs due to the elevated number of SVs, this is a poor reflection of how we treat Victoria's leading export industry.

Unsurprisingly, inner city apartments are primarily marketed to the investment sector. Tight lending restrictions banks impose on first-home buyers for high-density accommodation limits this demographics' involvement.

Additional cost pressures arising from body corporate fees for the servicing of lifts and on-site facilities are another impediment. These can amount to many thousands of dollars per dwelling per year.

An estimated 1 in 5 new homes in Melbourne and Sydney are sold to offshore buyers.<sup>50</sup> The majority are high-rise off-the-plan apartments marketed almost exclusively to foreign buyers.

Foreign ownership of new real estate has been permitted in Australia without restriction. It is justified solely on the notion that the housing stock is being increased, thereby aiding affordability.

However, unless the purchase of new dwellings actually increases the supply available for occupation, the community derives no benefit

48 Melbourne City Research City of Melbourne Student and Education Profile 2014 [www.melbourne.vic.gov.au](http://www.melbourne.vic.gov.au)

49 Carlton Small Area Demographic Profile – Council Data 2013

50 Credit Suisse May 2015



Clearly, a significant proportion of foreign owned real estate is vacant and withheld from use, inflating accommodation costs.

Between 2013 and 2014, 20,850 water-metered residential dwellings were added in the municipality of Melbourne.

Many speculated that the building boom would drive down both rents and prices. However, the volume of latent vacancies acts as a counterweight to this argument – reducing both competition and available stock volumes.

The median purchase price for a 2-bedroom apartment in the City of Melbourne is \$532,000.<sup>51</sup> Despite the uplift in supply, prices have increased 5.1 per cent in the 12 months ending July 2015.<sup>52</sup> This is obviously aided by the high number of SVs.

The 2015 Anglicare “Rental Affordability Snapshot” identified the City of Melbourne as one of the least affordable Local Government Areas (LGAs) in Victoria.<sup>53</sup> Only one advertised property in the City of Melbourne was deemed “affordable” for a person living on the minimum wage.

Low-income earners are no less deserving of shelter than those on the highest. Yet government policy treats them as if they were.

Due to policies that foster speculation there is nothing to encourage investors to accept a tenant at any cost - thereby aiding affordability. Most are investing for “capital gain” rather than rental income and with generous tax benefits, budget accordingly.<sup>54</sup>

Looking at the water based analysis, it is easy to see how changes to investor incentives coincide with sharp spikes in the number of SVs.

**Table 3.6 – SV Historical Summary table 2008-2014**

Year	Number of SVs using <50LpD	Percentage of SVs using <50LpD	REIV Vacancy Rate
2008	18,070*	7.0	1.4
2009	69,636†	7.0	1.7
2010	61,000†	4.9	1.7
2011	90,700†	5.9	2.3
2012	64,465	4.4	2.3
2013	64,386	4.4	2.5
2014	82,724	4.8	3.0

\* Water sourced from CWW only

† Rounded up from sample to 100% residential

Between 2010 and 2011 the SV rate jumped a remarkable 33 per cent.

This came on the back of changes then-Prime Minister Kevin Rudd employed to prevent the economy crashing during the GFC.<sup>55</sup>

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51 [REIV data - year ending June 2015](#)

52 [Ibid](#)

53 [Anglicare Victoria 2015 Rental Affordability Snapshot Metropolitan Melbourne and regional Victoria](#)

54 [Motivations of investors in the private rental market – AHURI - Seelig et al \(2006\)](#)

55 [Australian term for the 2008 “Global Financial Crisis”](#)



Strict rules on foreign investment were lifted, allowing temporary residents to purchase established real estate without approval or restriction. First home buyers were extended grants in excess of \$30,000 in some instances, and millions were poured into infrastructure upgrades, which inevitably fed into land prices.

This year there has been a 28 per cent jump in SVs. It's followed a period of record low lending rates with a marked increase in the number of Chinese nationals targeting the central areas of our major capitals.

Offshore investors currently purchase up to 40 per cent Sydney and Melbourne's new supply.<sup>56</sup>

## Land values have skyrocketed an estimated 500 per cent at Fishermans Bend since rezoning occurred.

Asian developers dominate the inner-city skyline. This is especially true in Melbourne where zoning is less restrictive than Sydney and height-limits have been surpassed.

Foreign developers are not subject to the same checks and balances that Australian banks demand from locals. For example, they do not need to meet pre-sell targets before funding is secured and are best placed to market to Asian buyers.

This has prompted a flood of speculation into commercial and residential development sites in the central regions, generating the biggest construction boom since the 1980's. All of it is high-density development.

In Melbourne's CBD during the period of study, land over 1000 square metres was trading for approximately \$20,000 per square metre – double the \$10,000 recorded in 2009.<sup>57</sup> The weight of money chasing assets in central Melbourne reached historic heights, exceeding the \$3 billion threshold in the second half of 2014.<sup>68</sup>

Fishermans Bend along with areas of Port Melbourne and South Melbourne have been rezoned 'capital city'. It effectively means they have the liberty to build to even greater heights – in excess of 200 metres.

This has gifted windfall gains to existing owners - including a slew of Liberal Party activists and donors who either bought into the renewal precinct before it was rezoned, or were long-term property owners that pressed for redevelopment of the area.<sup>59</sup>

Land values have skyrocketed an estimated 500 per cent at Fishermans Bend since rezoning occurred.<sup>60</sup>

Because CBD zoning makes little distinction between commercial and residential land, the majority of these sites will end up as high-rise apartment blocks rather than office space.

The time it takes for high-density supply to reach the market is anywhere between 3-6 years. Therefore, large volumes of stock are typically released in clusters, leading to an inevitable overhang of advertised vacancies and SVs.

According to the City of Melbourne's development monitor, there are currently 8,785 residential apartments under construction in the municipality. Based on the data in this report, a significant proportion are destined to become residential SVs.

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56 UBS Australia – November 2014

57 Charter Keck Cramer - September 2014

58 Colliers International

59 Liberals profit at Fishermans Bend - The Age Nov 2015

60 Report slams Matthew Guy on rezoning of Fisherman's Bend – The Age Oct 2015



Notwithstanding, the challenge of keeping apartment prices low is problematic for a number of reasons:

- **Zoning Laws** – “Plan Melbourne’s” zoning regulations sterilise a large percentage of primary neighborhoods from dense development. “Neighbourhood Residential Zones” (NRZs) are spread across many affluent suburbs, restricting development to dual subdivisions of no more than two stories. Additional design constraints enforced by some municipalities add to the complexity of the system - extending the time it takes for developers to gain planning approval.

In the limited areas where high-density development is permitted, 4 story plus apartment blocks have been densely packed into streets where family homes previously dominated. This tightly limits land supply where high-density construction is possible and further elevates the already inflated values in the areas deemed suitable.<sup>61</sup>

- **Construction costs** - Development levies and lumpy infrastructure contributions are a prerequisite to construction and naturally passed to the buyer in the form of higher prices. Additionally, the physical impediments of building residential towers raises efficiency costs relative to low rise considerably, with increased floor areas required for structural supports, elevators, service ducts and so forth. Even if building costs were to reduce, the value would simply devolve to higher land prices.
- **Supply elasticity** - Many developers currently gain funding offshore. However, financing can require up to 100 per cent debt coverage from pre sales. Projects take a number of years from concept to ‘lock up’ before supply can filter onto the market - a 3-6 year window not being unusual. Hence, supply cannot immediately cater to increased demand.
- **Inflated Commissions and Rental Guarantees** - Buyers typically purchase the stock through financial intermediaries who receive inflated commissions to achieve necessary pre-sale targets. Meanwhile, investors are commonly ‘lured in’ with rental guarantees that promise a return that exceeds current market yields.



The type of housing Melbourne is crying out for is accommodation suited to our biggest buyer demographic – families with children. However, with unit construction outpacing housing construction by a significant margin, it’s clear we have an over supply of poor quality dwellings and SVs that will not become visible until an economic crisis hits.



The type of housing Melbourne is crying out for is accommodation suited to our biggest buyer demographic – families with children. However, with unit construction outpacing housing construction by a significant margin, it’s clear we have an over supply of poor quality dwellings and SVs that will not become visible until an economic crisis hits.

This trend of widespread vacancies is also noticeable in Europe.

In Spain for example, 15 per cent of the dwelling stock is permanently vacant.<sup>62</sup> Studies have labelled it the ‘Mediterranean Paradox’ in which high vacancy rates and high house prices go hand in hand. As with Australia, dwellings are constructed and bought for speculation rather than housing need. With a large proportion of the new housing stock left unoccupied, increases in housing construction have not produced the expected surge in supply to aid future demand.<sup>63</sup>

61 Glen Eira has applied NRZ to 78 per cent of its land - Boroondara, Yarra, Brimbank and Whitehorse are petitioning to apply it to up to 80 per cent. (Kohler 2013)

62 High vacancy rates and high prices of housing: A Mediterranean paradox - Hoekstra (2006)

63 Ibid

64 Elwood: 2013 = 174, 2014 = 685 St Kilda 2013 = 156, 2014 = 678



Dramatic rates of high-density construction and the inevitable increase in SVs, is not limited to the CBD. Other inner city suburbs highlighted in the top 20 include Elwood and St Kilda in the City of Port Philip. Both suburbs more than doubled their stock of water-metered residential dwellings in the 12-month period - Elwood's supply increased by a remarkable 4,184 dwellings.

In addition, the raw number of SVs in both suburbs has also escalated - rising by over 5,000 per cent on St Kilda Rd, and almost 300 per cent in Elwood.<sup>66</sup>

St Kilda Rd is one of 5 precincts in Melbourne recently assessed by National Australia Bank exposed to future deterioration in credit risk due to rapid house price growth, leveraged borrowing by property investors, and low rental yields.<sup>67</sup> A 10.4 per cent SV rate can only add weight to that analysis.

The municipality of Port Philip contains the second highest concentration of community housing in Victoria at 7.5 per cent. Almost 8 per cent of residents in Port Philip currently live in community housing. Additionally, there are over 9,000 people on the waiting list for community housing in the Southern Metropolitan Region.<sup>68</sup>

Most wait approximately 7 years before accessing shelter. Yet privately owned SVs and million dollar mansions on large estates surround them.

The suburb of St Kilda boasted the biggest median house price rises in Melbourne in the year to December 2014 - an increase of 28.5 per cent.

In a Tale of Two Cities - multi-million dollar homes and affluent households reap the gains from escalating land prices. Yet they sit side by side with mounting rates of poverty and overcrowded boarding houses.

## SVs in the middle ring suburbs of Melbourne

Melbourne's boom in apartment construction has also spread into the middle ring suburbs.

Elsternwick has added 2,262 water-metered dwellings to its stock between December 2013 and December 2014, Caulfield North an additional 2448, Carnegie 7000 and Caulfield South 2001 - a total of 13,711 dwellings.

Yet in Carnegie alone, 1,231 homes are sitting potentially vacant, compared to 313 in last year's report.

While weekly rental prices for apartments have tracked the rate of inflation at best, tenants looking for family sized accommodation are facing diminishing supply and rising prices.

In Highett, weekly median rents for 3 bedroom homes have increased by 22.5 per cent over the 12 months to October 2015. In Chelsea, Edithvale and Bonbeach, by 14.7 per cent and Sandringham's weekly rental price for 4 bedroom homes has increased by 8.7 per cent.<sup>67</sup>

SV data does not distinguish between property types, therefore it is impossible to assess if the withheld stock would make a difference to the number of renters looking for family sized accommodation. However, the situation is indicative of market failure.

North of the CBD in Niddrie and Essendon, approvals for units have outpaced housing construction approvals by over 75 per cent.

In Niddrie, post-census figures show a rise in the LGAs population between the 2013 and 2014 financial year of 1,449 residents. Yet comparing the total number of water-metered dwellings in 2013, with 2014, there has been a disproportionate increase of 6,338 residential homes in just these two postcodes alone. Of these, a total of 1,479 are recorded, as SVs.<sup>68</sup>

The evidence suggests Melbourne faces a massive oversupply of 1 and 2 bedroom apartments.

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65 NAB names inner city suburbs at risk of mortgage default – AFR – Sep 2015

66 City of Port Phillip Municipal Public Health and Wellbeing Plan (2013 – 2017)

67 REIV Sep 2015

68 Using <50LpD



## SV's in the outer suburbs of Melbourne

Assessing if there is an over supply of outer suburban new residential dwellings using SV data alone can be obscured depending on installation and connection to a water meter.

In Melbourne's outer suburban regions, Cardinia, Clyde and Clyde North, in the City of Casey 48 kilometres south-east of Melbourne's CBD, comes fifth on the list of the Top 20 Residential SVs

The City of Casey is the eighth fastest growing urban corridor in Australia and the third fastest in Melbourne. Its population is increasing on average by 7,300 people per year. Although it should be noted that, a large proportion of Casey's annual growth is due to natural increase (43.9 per cent), relative to incoming residents looking for new housing.

The total stock of housing in Clyde more than doubled between December 2013 and December 2014. However, while there has been a substantial drop in the proportion of SVs relative to the total building stock over a 12-month period, there has only been a small drop in the raw number of residential SVs – decreasing by 45 properties.

The advertised vacancy rate in Clyde closely matches the SV vacancy rate, sitting at an elevated 28.2 per cent.

Yet, despite the surplus of rental accommodation in Clyde, the incidence of housing and rental stress in The City of Casey is escalating.<sup>69</sup>

Approximately 71 per cent of private rental households in the City of Casey are reliant on Commonwealth Rent Assistance, with a significant proportion living in poor quality rooming houses.<sup>70</sup>

With this in mind, it is important to re-emphasise how supply policy on the fringes of the city keeps the price of both new and established accommodation elevated.

- **Precinct Structure Plans** - Although an area may be zoned for residential development, building cannot commence until a precinct structure plan (PSP) has been completed.
- **Supply Elasticity** – The PSP takes a lengthy 3 to 4 years from start to completion – during which time, speculation builds and land prices naturally increase.
- **Withheld land within PSPs** - Once the process has been finalised, it does not guarantee housing will be constructed. For example, upwards of 50 per cent of a completed PSP can be held by existing landowners who have no intention of building, and until they do are excluded from making contributions toward infrastructure financing. This leaves active buyers paying the passed on premium without receiving the associated amenities - perhaps for years.<sup>71</sup>

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69 Definition defined by NATSEM paper "Housing stress today: estimates for statistical local areas in 2005" Housing or rental stress is defined as households in the lowest 40 per cent of equivalised incomes (income adjusted using equivalence factors to remove the effect of household size and composition on income), who are paying more than 30 per cent of their usual gross weekly income on rent."

70 "Poverty Hits Closer to Home" – 2015, Cranbourne News, Star Community

71 End of Affordable housing in Melbourne 2012, Birrell



- **Development Levies** - Total development levies and taxes on a house and land package can be partially passed onto the home buyer, in the form of higher prices. This would be alleviated by the infrastructure financing reforms in the recommendations of this report.
- **Staged Releases** - When land is developed, plots are released onto the market in limited numbers to ensure supply does not exceed demand and owners receive a healthy return on profit. The drip-feeding is a form of price manipulation – ignored by State Government. In the process, land sizes (not land prices) are cut to maximise yield.<sup>72</sup>

The motivation behind the process is clear and the system is self-feeding.

Property is valued against recent sales with land used as collateral to extend additional debt to new home buyers who are left shouldering the speculative premium. Reducing values without risking financial instability is therefore not easy.

While it may seem reasonable to assume extra supply equates to lower prices, policy prevents this outcome.

Property is valued against recent sales with land used as collateral to extend additional debt to new home buyers who are left shouldering the speculative premium.

For example, the common practice of “land-banking” is promoted unashamedly within the property industry as a way of achieving vast unearned gains.”<sup>73</sup>

It involves the speculative buying of large parcels of land that are currently unsuitable for development in the hope of future development potential.

Developers have turned it into a business, with success coming from political favours through rezoning windfalls and the public provision of infrastructure.<sup>74</sup>

Under current legislation, ‘well-connected’ developers have made immeasurably more from the re-zoning windfalls of their land banks than they could ever have been achieved by building homes alone.<sup>75</sup>

During a recent conversation with a strategic planner for one of the Growth Area Councils, it was disclosed that – “areas that might be considered logical urban extensions will not be re-zoned if they are not controlled by cashed-up developers.” Government employees are obliged to put the focus on, “whether the developer will pay their wages or not, and whether developers will fund the background studies that are required to inform the planning process.”<sup>76</sup>

Fringe land is the safety valve for families on modest means looking for affordable housing. Yet, while it is in the hands of private operators who are able to bank it for increased gain, values will never reduce enough to “price in” rather than “price out” those on the lowest incomes. The high SV rate reflects this outcome.

<sup>72</sup> RP Data/HIA - median lot sizes have reduced from 615sqm in 2003 to 448sqm in 2014.

<sup>73</sup> For example, in one advert from realestate.com.au, land buyers searching in Clyde are told to “Take note!” of the “perfect opportunity for land banking approximately 9.2 ha (22 acres Website realestate.com.au – accessed Oct 2015 – property id 118735359

<sup>74</sup> Clean Money in a Dirty System: Relationship Networks and Land Rezoning in Queensland - April 2015 Murray et al.

<sup>75</sup> Ibid

<sup>76</sup> Personal correspondence 2015 – source requested anonymity



## Analysis of Commercial SVs

Commercial listings are likely to have a lower litre per day (LpD) meter reading than residential, therefore for the purposes of this analysis, the 0LpD readings are used as the default. As outlined in the methodology, a dripping tap can easily consume 50 LpD and this should be taken into account when viewing the results.

Additionally, commercial buildings and shopping centres commonly share water facilities – (e.g. toilets and kitchens). Therefore single water metering can obscure a higher proportion of long-term vacancies relative to premises that are billed separately.

It should also be noted that the data provided for this report classifies commercial listings as anything non-residential, which once again can affect results for buildings with mixed uses.

Land banking is a waste that makes no productive contribution to the economy or employment. Such a distinction is important in recognising that with no productive role, land-banking incomes are unearned and should not be prioritised by the tax system.

Compared to the residential sector, commercial properties may be withheld from the market for slightly different reasons. In the retail sector for example, location is a core determinant of rental yield.

Mason Gaffney, Professor of Economics at the University of California Riverside, writes:

*"Massed control of land is the most natural base for monopolising markets because land is limited. Buying land always does double duty: when A expands he ipso facto pre-empts opportunities from B. For example, a chain of service stations with most of the best corners in a town has market power..."*<sup>77</sup>

It is therefore no surprise to hear of large retail chains amassing substantial land banks not so much for 'future development' but also as a tool to exclude the competition from gaining market share, driving up rents and prices on existing sites.<sup>78</sup>

The consumer may not consider this important, however ever increasing land prices have a flow on effect to the economy by forcing smaller traders out the market. This reduces business competition and employment options for residents in the surrounding community.

Land banking is a waste that makes no productive contribution to the economy or employment. Such a distinction is important in recognising that with no productive role, land-banking incomes are unearned and should not be prioritised by the tax system.

There can be many reasons commercial sites are left vacant aside from the reasons pointed out above. Demolition and renovation for example, industrial-zoning constraints that restrict certain commercial activities from taking place, as well as recent robust building activity coupled with subdued tenant demand.

Zoning constraints can also play a role. For example, commercial zoning laws that came into effect across Melbourne in 2013 work on a 'one size fits all policy' with new rules on some activities not previously permitted. This includes allowing supermarkets up to 1,800 square meters in size to open close to residential areas without requiring a planning permit.<sup>79</sup>

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<sup>77</sup> Land as a Distinctive Factor of Production 2004, Mason Gaffney

<sup>78</sup> For example, in October 2012 a Fairfax investigation found a company majority owned by Woolworths and joint-venture partner Lowe's, had accumulated a land bank of 'future' development sites worth over \$840 million. Twelve months later, ASIC documents revealed that value had increased to in-excess of \$1.1 Billion - Eli Greenblat The Sydney Morning Herald: Woolies' \$1b land bank for hardware Nov 2013

<sup>79</sup> Media Release – Kingston Council - July 2013



This can potentially affect the viability of certain smaller-established retailers who are unable to compete effectively. It also increases development opportunities for supermarkets to hoard land under the guise of 'future expansion'.

In such a scenario, commercial SVs would see their land values rise but with no incentive to sell, stifle other industries from moving in to benefit from the increase in economic activity.

**Table 3.7 – Change in top 20 commercial SVs between 2013 and 2014 reports**

No.	Postcode	Suburb	SV rate 2013 OLpD	SV rate 2014 OLpD
1	3198	Seaford	4.7%	12.8%
2	3810	Pakenham	10.4%	11.9%
3	3030	Werribee South/Werribee	9.5%	10.8%
4	3201	Carrum Downs	6.6%	10.8%
5	3029	Hoppers Crossing/Tarneit/ Truganina	10.3%	10.6%
6	3931	Mornington	4.2%	10.4%
7	3011	Seddon /Footscray	8.5%	9.6%
8	3042	Niddrie North/Niddrie/Airport West/ Keilor Park	9%	9.1%
9	3199	Frankston	3.5%	8.8%
10	3043	Gladstone Park/Tullamarine	0.0%	8.7%
11	3141	South Yarra	4.7%	8.6%
12	3171	Springvale	5.3%	8.5%
13	3043	Cranbourne	5.2%	8.4%
14	3977	Richmond	8.3%	8.4%
15	3121	Sunshine	5.2%	8.4%
16	3020	Dandenong	4.8%	8%
17	3175	Fitzroy	7.6%	7.6%
18	3065	Aspendale/Parkdale/Mordialloc	4.7%	7.4%
19	3195	Cheltenham	8.2%	7.2%
20	3192	Collingwood	6.9%	7.1%



## Commercial SVs in the inner suburbs of Melbourne

In central Melbourne, vacancy rates have eased in some circumstances, as land has been progressively rezoned for different uses, retiring stock from the commercial leasing market.

This is represented in Melbourne's commercial SV rate. While the raw number of SVs has increased marginally,<sup>80</sup> the sharp rise in the proportion of SVs from 4.7 per cent to 12.8 per cent can be partially explained by the drop in the total number of commercial water-metered properties falling from 5,027 to 4,901.

Other inner city suburbs are going through similar transformations. The neighbouring suburbs of Richmond, Collingwood, and Fitzroy have experienced marginal changes in the proportion of vacancies between December 2013 and December 2014. This is partly due to the overall supply of non-residential listings dropping in both Collingwood and Fitzroy.

“When rezoning does occur however, the uplifts in land value are privately appropriated.”

When rezoning does occur however, the uplifts in land value are privately appropriated.<sup>81</sup>

The high proportion of empty commercial space withheld from the market in Melbourne has inevitable consequences for smaller industries such as CBD cafes and retail trade. Fewer people occupying local offices means fewer people using the surrounding facilities with a resulting rise in unemployment.

It is impossible to ignore the large number of “for let” signs along Richmond's Bridge Road shopping strip.

In August 2014, the advertised number of short-term vacancies as a proportion of total stock on Bridge Rd was 19.3 per cent.<sup>84</sup> If added to the supply of latent long term SVs, it takes the percentage of vacancies in Richmond to an alarming 27.7 per cent.

Playing into the statistics is the quality of the building stock available for the knowledge-based service industries clustered in the city.

Approximately 41 per cent of Melbourne's office stock is B, C or D graded, which broadly speaking categorises buildings in terms of size, age and use.

Lower grades are generally concentrated in older buildings built between 1960 and 1999, commonly in need of a major retrofit and rating low in measures of environmental sustainability.

‘A’ grade listings attract a higher level of demand and enjoy lower vacancies.<sup>83</sup>

Office buildings are likely to be owned by trusts and companies, rather than individuals or owner-occupiers. Therefore tax strategies to encourage sustainable up-grading of aged stock and better utilisation of premium urban land should be encouraged.

There is no better way to do this, than to change the rating system to Site-Value Rating (SVR) rather than Capital Improved Rating (CIV). The former rates the land only, exempting improvements to the building.

Empirical evidence taken over a period during different municipalities in Melbourne employed different methods of rating shows SV rating can produce uplifts in building activity and improvements of up to 50 times the average.<sup>84</sup> This is discussed further in the ‘Recommendations’ section of this report.

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80 From 338 to 348 between December 2013 and December 2014.

81 Report slams Matthew Guy on rezoning of Fisherman's Bend – The Age Oct 2015

82 Bridge Road builds business as vacancies fall in suburban retail streets – The Age, Sep 2015

83 Sustainability Victoria ‘The Next Wave: Retrofitting Victoria's Office Buildings’ The City of Melbourne Property, Market Digest Sep 2013, Langdon

84 Incentive Taxation in Australia, American Journal of Economics and Sociology, vol.26, no.4, (October 1967) Brown, H.G.



A change in the rating system would also benefit community organisations.

Seddon and Footscray have undergone significant urban renewal and gentrification over the last 5 years. This has resulted in rising land prices and rents in both the residential and commercial sectors.

The resident workforce in Seddon is generally aligned with the business and finance sectors – young professionals that commute into the CBD. However, Footscray still contains a high concentration of disadvantage highlighted by low education skills and income. As such, there are many small community and social organisations in Footscray existing on limited budgets and facing rising rents. A high proportion of SVs increases the risk of losing these organisations and the support they provide to low-income residents.

## Commercial SVs in the middle ring suburbs of Melbourne

In the middle ring suburbs of Melbourne, both Cheltenham and Aspendale in the City of Kingston have seen major uplifts in the number and proportion of SVs.

“Due to a dearth of land value capture policies, residential land prices within walking distance of the shopping centre and the rents within the shopping centre will soak up the gains of the massive expenditure.”

Cheltenham's major shopping centre is Westfield Southland.

The area is easily accessible via Cheltenham train station on Charman Road. However, as part of Plan Melbourne, \$21 million has been dedicated to construction of a new rail station running directly into Southland Shopping Centre - due for completion in 2017.

The station has been designed as a 'destination station' to channel shoppers directly into Southland with no additional facilities for car parking commuters.

However, the move will inevitably pull away business from the smaller traders located on Charman Rd.

Due to a dearth of land value capture policies, residential land prices within walking distance of the shopping centre and the rents within the shopping centre will soak up the gains of the massive expenditure.

## Commercial SVs in the outer suburbs of Melbourne

Some of Melbourne's major retail centres feature in the top 20, including three suburbs in the City of Frankston (Seaford, Carrum Downs and Frankston). The municipality advertises itself as the "major employment hub for the southeast corridor of Melbourne."

It is estimated 36,631 people work in Frankston City, just over 2 per cent of the total number of people working in Greater Melbourne.

The Carrum Downs/Seaford precinct alone produces 40 per cent of the City's gross revenue, 22 per cent of its employment and 57 per cent of its regional exports. In addition, the Port of Hastings situated only 22 kilometres from the City is projected to produce a further 5,700 jobs in the southeast region of Melbourne by 2030.<sup>85</sup>

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85 City of Frankston Council Data



Yet despite its rosy economic prospectus, the City of Frankston currently holds a 15-year high unemployment rate of 8.3 per cent.<sup>86</sup>

The suburb of Frankston is the largest major commercial centre in the municipality.

As a significant centre of employment, the council has sought to have Frankston rezoned as an emerging National Employment Cluster (NEC). Yet Frankston has at least an 8.8 per cent unemployment rate in its commercial land market – properties sitting long-term vacant using OLpD over a 12-month period.

Dandenong is also a major employment centre in the South East corridor. It has been the recipient of government grants of around \$360 million as part of the Revitalising Central Dandenong project - Australia's second biggest urban renewal program after Melbourne's Docklands.

The idea is to rejuvenate Dandenong as the “capital” of south-east Melbourne. Most of the funds have been channelled into the central precinct, transforming Lonsdale Street into a tree-lined boulevard with priority pedestrian crossings and projects like a new ATO office and the Salvation Army regional headquarters.

Despite the investment, Dandenong's unemployment rate remains stubbornly high at 20.8 per cent.<sup>87</sup>

Commercial water-metered stock in Dandenong has increased by 376, however its commercial SV rate has almost doubled from 4.8 per cent to 8 per cent. In addition, the raw number of SVs has increased by 191 properties.



**The high SV rate is evidence of an urban land market rife with speculation that has forced a process of social polarisation in our sprawling suburbs.**

Only a few suburbs away from Frankston, Cranbourne's commercial SVs have almost doubled over the 12-month interim, from 42 to 93.

The Cranbourne Town Centre is one of five centres across Melbourne announced as a “Designated Activity Centre.”<sup>88</sup>

Activity Centre Zones (ACZs) are intended to merge existing zones into just one, assisting business growth, while maximising the use of infrastructure and public transport.

City of Casey Mayor Mick Morland recently commented that: *“The State Government rezoning, together with council's Cranbourne Town Centre plan, will help Cranbourne to develop into one of the most attractive, active and accessible areas of Melbourne.”*<sup>89</sup>

However, this is simply not possible whilst there remains a significant proportion of un-used commercial property within the municipality.

West of the city, the City of Wyndham Vale has a remarkable 9 suburbs in the top 20 Commercial SVs – grouped by postcode.

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86 Frankston City Council – Latest News September 2015

87 As at October 2014 - Federal estimates

98 Sourced from council website March 2015

89 'Activity' status for Cranny - 12 March 2015, Bridget Scott



It is estimated that 42,953 people work in Wyndham. Yet, in tune with all the outer suburbs of Melbourne, the City is crippled by high unemployment.

During the 12-months to December 2014, Werribee had the third-highest number of unemployed residents in Victoria (just behind Corio and Dandenong, which also feature in the top 20 commercial SVs). As of December 2014, the suburb's jobless rate was 11 per cent.<sup>90</sup>

At the root of the problem lie poorly planned municipalities suffering a lack of essential infrastructure and inefficient transport services.

Wyndham Vale attracts a financially constrained demographic priced out of the better-established middle ring suburbs with good employment opportunities and education services.

The high SV rate is evidence of an urban land market rife with speculation that has forced a process of social polarisation in our sprawling suburbs.

Well-serviced urban land in Victoria is a valuable, scarce and therefore, precious resource.

It is vital that these vacant sites be utilised for the greater benefit of the community rather than land speculators. As vacant land lots, they produce an unnecessary burden on the local economy. Other local businesses are thus forced to 'hop' over the vacancies to lesser sites.

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90 Jobless stress hits hard as Werribee reaches 10.2% unemployment – April 2015 (unemployment figures from Dec 2013-2014.), Star Weekly



# Conclusion

## Overview of the Results and their Effect on the Real Estate Market

Melbourne has an oversupply of dwellings. Meanwhile, there is a dearth of available, affordable, well-facilitated accommodation for low and middle-income families needing shelter.

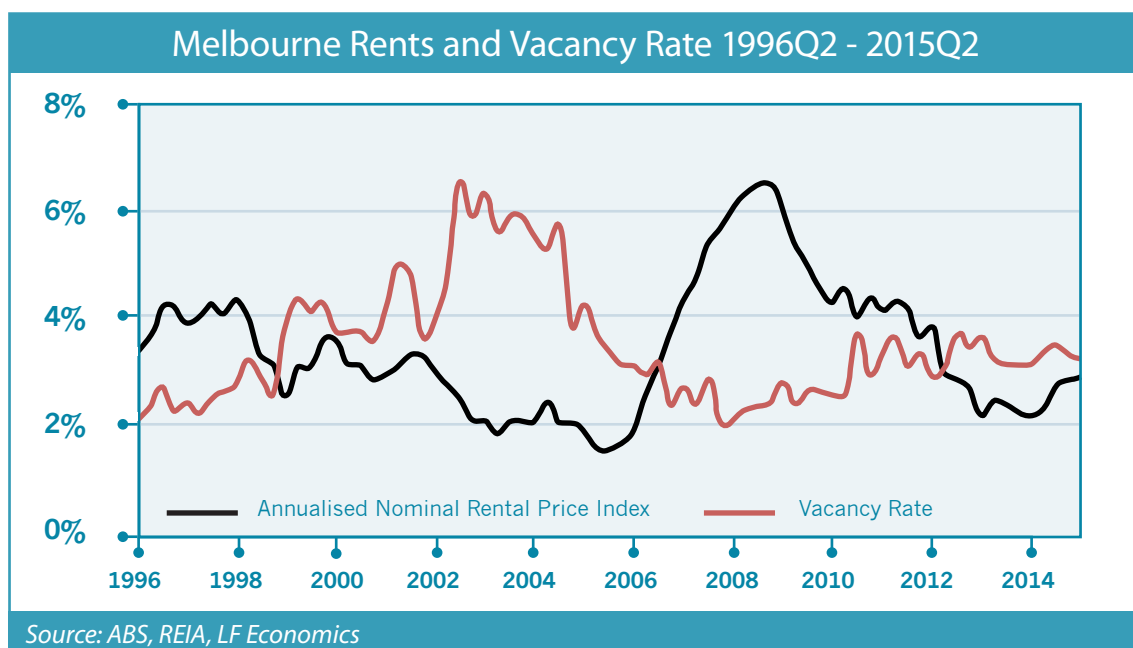
In 2013, 4.4 per cent of the housing stock in Greater Melbourne was assessed potentially vacant for a 12-month period or more – a total of 64,386 dwellings.

Water-data for 2014 shows a substantial increase in both the proportion and number of SVs - the second largest jump in the 8-year history of Speculative Vacancies.

A potential 82,724 homes lay idle across Greater Melbourne – 4.8 per cent of the total stock of water-metered residential dwellings.

A vacancy rate serves as an important measure of the health of the real estate market. There is a close correlation between vacancy rates and rental prices with rents rising strongly during periods of low supply.<sup>91</sup>

**Figure 4.1 Melbourne rents and vacancy rate 1996Q2 – 2015Q2<sup>94</sup>**



### What would 24,872 Speculative Vacancies using 0LpD do to rental prices if utilised?

Taking mid-2014 as a benchmark for assessment, we can start to get a closer appreciation of what would occur should these homes be placed onto the rental market. As a conservative measure, only those properties using 0LpD are referenced.

In the second quarter of 2014 the advertised SQM vacancy rate for Melbourne was 2.7 per cent.<sup>92</sup> This is calculated based on online rental listings advertised for 3 weeks or more compared to the total number of established rental properties owned by investors.<sup>93</sup>

91 Investment Returns From Rental Housing In Melbourne 1998-2009 Department of Human Services Victoria

92 LF Economics – Soos/David

93 SQM Research



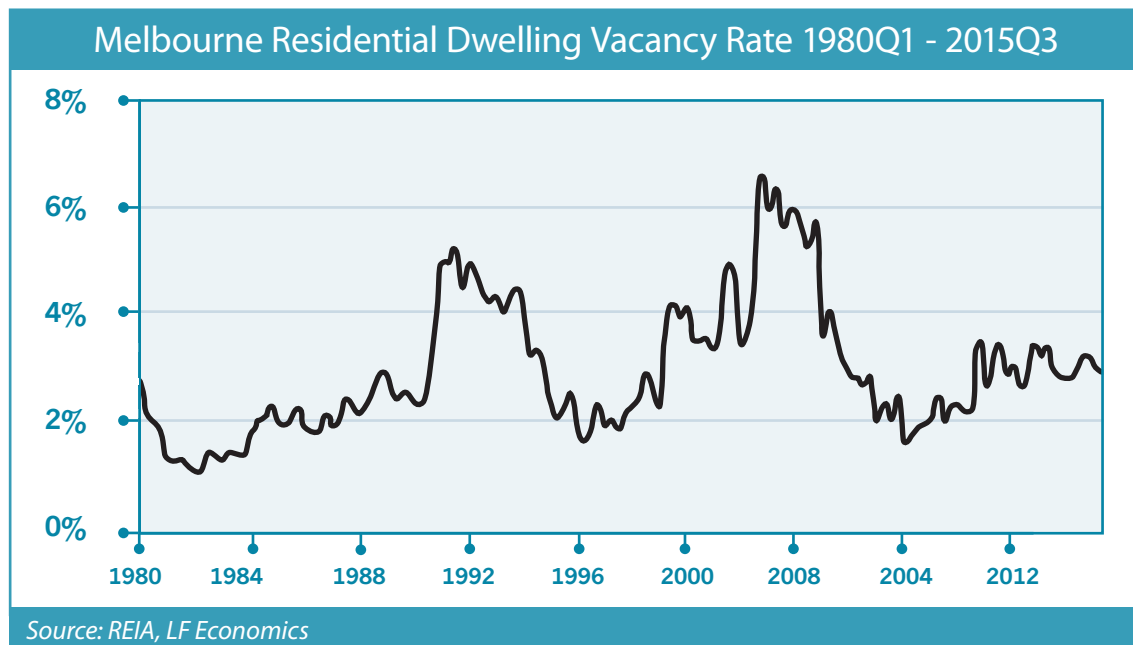
According to SQM Research, there were 12,073 dwellings advertised for rent in the second quarter of 2014.<sup>94</sup>

If these rentals are added to the 24,872 dwellings using 0LpD, it implies at least 36,945 vacancies. This lifts the 2.7 per cent vacancy rate recorded in 2014 to an alarming 8.3 per cent.<sup>95</sup> If 82,724 properties using under 50LpD were advertised for rent, the vacancy rate could potentially rise to an alarming 18.9%.

A 3 per cent vacancy rate is generally considered to represent a market in equilibrium, where nominal rent growth tracks the rate of inflation.

As demonstrated in the chart below, the peak of vacancies in Melbourne occurred in the early 1990s and mid-2000s. Over this period, rents were pushed into negative territory in real terms.<sup>96</sup>

**Figure – 4.2 Melbourne residential dwellings vacancy rate 1980Q1-2015Q3** <sup>97</sup>



The 8.3 per cent real vacancy rate would demolish rental growth in Melbourne. The revelation of the latent supply would severely exacerbate a future period of economic instability. The volatility is frustrated by speculation and high prices, as investors attempt to generate income from an inescapable oversupply of unused stock.

As such, the blinkered analysis promoted by the property lobby of a 'housing supply crisis' does not stand up to scrutiny. This report gives ample evidence of an unused surplus, which indicates oversupply, rather than undersupply. Falling rents and rising prices are indicative of this trend.

Unlike capital prices, rents are tied to wages and are not subject to leverage or generous rent-seeking tax incentives.

Tenants cannot rent above their capacity to pay. Investors seeking long-term tenancy are therefore subject to the laws of supply and demand. If there were a genuine housing shortage, we would see rising real net rents. Falling or stagnating rents indicate the opposite.

Hence, the rise in dwelling prices cannot be used to infer the existence of a housing shortage. When falling rents are viewed in context of the number of SVs, it is clear that there is a surplus of vacant accommodation.

<sup>94</sup> SQM Research Vacancy Rates Media Release Wednesday 16th July 2014

<sup>95</sup> Rounded to 1dp.

<sup>96</sup> LF Economics – Philip Soos

<sup>97</sup> Ibid



The situation is a dire demonstration of a culture built on the self-interest of property owners in pursuit of windfall gains.

Yet the economic impact of under-utilised housing has on the entire economy should not be overlooked.

Recent simulation modelling in the US undertaken by the Office of Economic Analysis in San Francisco, assessed removal of just one rental property from the market to deduct approximately \$250,000 to \$300,000 per year from the city's economy.<sup>98</sup>

This puts the potential losses in Melbourne into the billions. Yet government has paid little more than lip service to reform. Like a game of Monopoly, successive governments have viewed rising land prices as a desirable political outcome.

Recent simulation modelling in the US undertaken by the Office of Economic Analysis in San Francisco, assessed removal of just one rental property from the market to deduct approximately \$250,000 to \$300,000 per year from the city's economy.

Increasing property prices have been promoted as a magical driver to the economy – stimulating consumption, construction, and infrastructure investment. Scant concern has been given to the mounting burden of private debt needed to maintain the upward momentum.

As a result, parents looking to boost their retirement incomes with unearned land price gains must bet against the future potential of their children who teeter on the edges of homeownership, struggling to raise enough for a deposit.

It demonstrates how illusionary the “wealth effect” really is. In truth, high land prices impoverish us all.

To aid the injustice, the highest concentration of SVs are predominantly located in the suburbs bounded by City West Water and the growth areas of Melbourne's southeastern corridor.

The fringe suburbs of Melbourne currently capture the bulk of Melbourne and Australia's population growth – principally low-middle income families seeking inexpensive shelter. Yet, due to lower holding costs, they also contain a higher concentration of speculative investor activity.

This is encouraged by a tax system that attracts predatory behaviour to what should be thriving communities of affordable housing - accelerating both social stratification and inequity.

There are a couple of reasons that this may be the case. Firstly, they contain a larger proportion of stock fitting the typical investor budget of around \$450,000-\$650,000.<sup>99</sup>

Additionally, Victoria makes ineffective use of the State Land Tax (SLT), with a zero rate levied below an assessed value of \$250,000. Land valued at \$450,000 will only be liable for a \$675 annual SLT bill and approximately \$900 per year in council rates.

The \$1600 total is nothing in comparison to the \$50,000 plus in capital gains Melbourne homeowners have been gifted by the community over the past 12 months - further stimulated by proposed upgrades to state infrastructure.<sup>100</sup> Rental incomes, at typically no more than \$18,000 to \$19,000 per annum are a mere trifle in comparison.

98 Amending the Regulation of Short-Term Residential Rentals: Economic Impact Report Office of Economic Analysis – Office of Economic Analysis, San Francisco - May 2015

99 Many years personal experience as a buyer advocate

100 REIV median price data year ending July 2015



The SLT's progressive schedule is also inequitably generous to larger wealthy landowners. Between 2004 and 2009 the marginal tax rate was reduced to 2.25 per cent for properties of \$3 million or more in assessed value – this gifted land bankers \$1,000 million over five years.<sup>101</sup>

The minimum tax threshold for Victoria's SLT increased by \$25,000 every year between 2001 - 09.

Policy makers who dress-up such reforms under the guise of assisting affordability never mention that lower land taxes inevitably lead to higher land prices. Nor is any mention made of the encouragement it gives to land bankers to hold plots vacant for gain.

In contrast to the areas serviced by City West Water, the established middle ring suburbs serviced by Yarra Valley Water have a much lower rate of SVs.

Nevertheless, vacancies in these regions are theoretically more damaging, as supply can only come from infill development - a problem further hampered due to Melbourne's new zoning laws that protect 'blue-ribbon' areas from sub-division, while 'poorer suburbs' are given the green light.

For example, Boroondara council has recently banned new buildings of more than three stories in 31 shopping strips in Melbourne's eastern suburbs.

“Policy makers who dress-up such reforms under the guise of assisting affordability never mention that lower land taxes inevitably lead to higher land prices. Nor is any mention made of the encouragement it gives to land bankers to hold plots vacant for gain.”

Glen Eira council has zoned approximately 80 per cent of their residential land to restrict growth in housing. And in Bayside council, 83 per cent of residential land has been zoned to prohibit building higher than two stories.<sup>102</sup>

This is particularly detrimental to both buyers and renters, as the eastern regions of Melbourne are currently experiencing high levels of speculative price growth and increased demand from a growing influx of new Chinese migrants that have established communities within their LGAs.

As a result, increases to the median house price in the eastern suburbs have outstripped the Melbourne average by a significant margin. For example, Mount Waverley's median house price escalated 39.3 per cent over the past financial year, rising to a record \$1.2 million.<sup>103</sup>

The sharp price rises have attracted a heightened level of speculative activity.

To illustrate, there are 465 long-term speculative vacancies in Glen Waverley, 508 in Mount Waverley, and 203 in Balwyn North – all popular school zones where demand is strong and available supply low.

Top performing government schools in Melbourne do not reserve places for children showing merit. Instead, residents able to support the 20-50 per cent premium to secure housing in the tightly banded school catchment precincts buy the privilege of better education. Meanwhile we battle to fund the Gonski education reforms.<sup>104</sup>

The inevitable outcome is a slow and painful process of social polarisation.

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101 [Bad Taxes Blight our Land – Prosper Australia – Collyer 2013](#)

102 [The selfishness that's tearing Melbourne apart – The Age - April 2015 Paul Donegan](#)

103 [Melbourne's hottest suburbs for house price growth Aug 23, 2015 Christina Zhou](#)

104 [Gonski funding is designed to ensure that every Australian child, no matter what their background, can get a high quality education.](#)



Poorer households are crowded into fringe areas lacking essential facilities and crippled by inadequate transport mobility. Higher-income residents reap the economic and social benefits of communities rich in taxpayer-funded infrastructure. The disparity is further intensified by large transfers of wealth creamed off in the form of unearned 'capital gains.'

The strategy for 'Plan Melbourne' released in 2014 as a "vision" for Melbourne's growth into the year 2050 cannot be overlooked in this conclusion.

The document decrees the existing Urban Growth Boundary as permanent.

This has caused a significant upward trajectory on the urban region's land prices.<sup>105</sup>

Advocates of this policy may consider the area within the boundary more than adequate for Melbourne's future population growth. However, it is important not to confuse the "supply" of land with the absolute quantity of developable land within the boundary – most of which is being banked.<sup>106</sup>



**Needless to say, with a broad based land value tax, holding land off market would be unprofitable. Land hoarding would be discouraged, and there would be little advantage in land-banking large volumes in advance of development.**



Land banking is an especially damaging form of rent-seeking. Urban growth boundaries reduce contestability and the ability of competition (or the threat of competition) to hold down prices. They effectively allow oligopolistic returns by conferring market power upon landowners who reap the gains they did not sow.<sup>107</sup>

The only statistic that matters for affordability is the volume of vacant land current owners plan to release onto market in the immediate future.

Under current policy, large developers have every incentive to drip-feed sites onto the market to keep prices elevated.

The process results in a type of 'preventative speculation.' Developers buy large land banks in advance of rezoning to protect and increase their profit margins.

There is no incentive to release this land in Victoria. The previous Victorian Planning Minister Matthew Guy issued a blanket exemption from State Land Tax for all land within Melbourne's Urban Growth Boundary, even 'shovel ready' land in completed Precinct Structure Zones.<sup>108</sup>

The huge economic burden is borne by citizens of modest means who are obliged to take on a greater proportion of mortgage debt for fringe land that should be dirt-cheap.

Families with children are Melbourne's biggest demographic. They require inexpensive well-facilitated family housing, not high-density apartment blocks with thousands upon thousands of SVs.

Needless to say, with a broad based land value tax, holding land off market would be unprofitable. Land hoarding would be discouraged, and there would be little advantage in land-banking large volumes in advance of development.

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<sup>105</sup> Urban Growth Boundaries and their Impact on Land Prices – RMIT - Ball et al 2013

<sup>106</sup> Land Banking Profits during a Housing Supply Crisis - Englobo 2014 -

<sup>107</sup> Ibid

<sup>108</sup> 'No Land for You, Melbourne' – Victoria's State Revenue Office announced the exemption from State Land Tax for all broadacre landowners within Melbourne's Urban Growth Boundary - Prosper Australia (D. Collyer).



However, while land tax can encourage vacant sites to be put to use, it can do little in the face of constrictive zoning policies designed to profit owners.

The projects currently underway to invigorate Melbourne's growth corridors are fruitless, unless we ensure the benefits are captured by the community, not privately appropriated by land owners that grow rich on the back of other resident's efforts.

With better land value-capture mechanisms we can finance desperately needed infrastructure in these regions, without inequitably profiting a small proportion of landowners and exacerbating the intergenerational wealth gap.

Only by removing the accelerants that encourage rent-seeking behaviour – contained in government tax, supply and monetary policies – can we start to address the housing affordability crisis that impoverishes us as a nation.

A more effective vacancy measure is an important first step to educating the public, by exposing a significant component to Australia's housing supply crisis.



# Key Recommendations

## 1. Improved State Land Tax (SLT) and Rating System

The centre-piece of any future reforms to the land market is a broad-based nil-exemption SLT calculated on a per square meter basis. The current SLT arrangements are littered with exemptions and thresholds introduced to curry favour with vested interests.

It would provide a modest but insistent incentive to put land to its best and highest use. A broad based SLT cannot be passed onto tenants. Rather it increases the supply of all forms of accommodation and puts downward pressure on rents. It additionally stunts the size of speculative capital gains, while lowering after-tax rents.

The removal of owner-occupier concessions – the largest segment of the market – would help stimulate building activity and improve the responsiveness of supply.

A SLT would further encourage decentralisation. Inexpensive land carries lower taxes and attracts activity. New residences prompt enhanced infrastructure spending to peri urban areas - effectively acting as a 'betterment levy'.

The unimproved value of land is not a cost of production; rather it is a surplus - accurately termed unearned income. Therefore, while taxes on productive activity increase the price of labour and goods beyond their economic cost (producing a deadweight loss), land's economic rent can be appropriated for public revenue without impeding production, or raising prices.

Because land is an inelastic base (fixed in location), all else being equal, the effect of the tax is to reduce the amount buyers are willing to pay - thereby compensating the future purchaser.

For those struggling to understand how land tax can reduce land values, a similar concept is recognised by owners of apartments. When buyers purchase a unit, they expect to pay a yearly corporation fee for maintenance and improvement of the site's services.

In doing so, it reduces the upfront price consumers are willing to pay as they configure the fee into their budget - yet it is also recognised as an investment, as the benefits and any subsequent improvements help to attract future purchasers.

A broad based land value tax is essentially no different.

In other words, other than the owner of land at the time of implementation, land value taxation is not an economic burden. A well-designed land tax levied on the unimproved value of land results in no deadweight loss to the economy.

Recent analysis by Federal Treasury finds a broad-based land value tax can actually have a negative excess burden. This is due to the level of foreign ownership in the Australian real estate market. Under a broad based land value tax, revenue collected from foreign landowners would be spent entirely on local households. This could potentially generate a windfall gain to domestic residents of 10 cents for every extra dollar of tax revenue collected.<sup>109</sup>

## 2. Replace the Capital Improved Rating (CIV) system with superior Site Value Rating (SV) system

The Capital Improved Value (CIV) rating system should be replaced with the superior Site-Value Rating system (SVR).

The former penalises building activity by taxing homes and their improvements, while the latter rates only the land. This leads to higher construction and employment levels, whilst broadly advantaging family homeowners and tenants.

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109 Treasury submission to the federal Tax White Paper – March 2015



Empirical evidence taken when different municipalities in Melbourne changed their rating methods shows uplifts in building activity and improvements of up to 50 times the average with SVR.<sup>110</sup>

Further, a cross sectional analysis of 53 Victorian communities undertaken in the 1990s found the use of SVR stimulated significantly higher development. Importantly, the uplift in development followed implementation of a switch in the tax base from CIV to SVR.<sup>111</sup>

### **3. Abolition of Transfer Taxes**

The Treasury document Australia's Future Tax System recommended an enhanced SLT to replace conveyance Stamp Duties (SD), which reduces the ability of current homeowners to change dwellings.

Revenue derived from an enhanced SLT is more predictable and less volatile than stamp duties, which depend on the volume of housing transfers as well as to the transacted price.

Only a very small percentage of the total housing stock transfers annually. Therefore under current policy, tax revenue is derived from a small proportion of home buyers who want to either upsize or downsize into accommodation better suited to their needs.

Some state governments have chosen to reduce the rate of SD for first home buyers. For example, Victoria has phased in a 50 per cent stamp duty reduction for first home buyers over 4 years – capped at \$600,000 purchase price.<sup>112</sup>

While this may appear good policy, it should be noted that the economic incidence of stamp duty falls wholly upon the vendor – not the purchaser.

Limiting the reduction to a low income demographic can assist in levelling the playing field between first home buyers and investors. However, it still risks inflating land prices as it enables purchasers to use a greater proportion of their income to bid up the price of land. For this same reason, an increase in the GST is not a suitable substitute.

A change from SD to SLT would see the upfront cost of land fall, with the higher tax base blunting potential capital gains from speculation.

### **4. Better funding for infrastructure in new estates**

The development of new communities is essential in periods of population growth.

One barrier to this is the high capital cost of extending existing municipal services, such as water, sewerage, drainage, roads, energy distribution and telecommunications.

This is mainly financed by hefty development levies payable when fringe land is subdivided for construction, increasing the cost of land and discouraging supply.

This system of infrastructure financing is questionable in terms of equity, as the initial buyer shoulders the bulk of the infrastructure costs in the upfront price.

In areas of America, these demands have been successfully met with a system of bond financing called MUDs – Municipal Utility Districts. The simple idea is that those who derive the greatest benefit of the infrastructure are responsible for the debt financing of it.

The advantage of MUD bond financing is that it reduces the developer's upfront costs. This aids competition within the industry, assisting smaller players. Additionally, the time it takes to construct is reduced. The result is lower land prices and more elasticity in periods of high demand.

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110 Incentive Taxation in Australia, *American Journal of Economics and Sociology*, vol.26, no.4, (October 1967) Brown, H.G.

111 Victoria's Municipal Rating System (Australian Institute of Urban Studies), Anderson, P. 1996.

112 Deduction applies to both new and established homes, additionally buyers must reside in the property for a continuous period of 12 months commencing within 12 months of settlement.



The process works as follows:

- The developer finances the first stage of construction for a typical area of around 500 acres.
- Once the first 100 acres has been developed, the MUD issues bonds to reimburse the developer's costs. This enables the next stage of development to commence promptly.
- The MUD taxes the residents within the estate, to support the bonds. These should be tied to the value of each site.<sup>113</sup>

Assessments of land values, existing improvements, and projected improvements should be undertaken to ensure a reasonable tax rate can be serviced whilst maintaining competitive utility rates. This ensures the bonds can be repaid and confidence in the system continues.

In Texas, a publicly elected Board of Directors – residents within the community - manage and control all of the affairs of the MUD subject to the continuing supervision of the Commission of Environmental Quality. Residents therefore control decisions relating to the facilities they need and the tax rates they are able to service.<sup>114</sup>

Bond financing has proven a very successful strategy for developments in the USA.

Further, established suburbs in need of infrastructure upgrades or regeneration can employ a similar idea through the use of betterment taxes and land value capture taxes. Beneficiary pays, rather than user pays.

It is recommended that state governments investigate comparable reforms in Australia to assist both the elasticity of supply and affordability constraints.<sup>115</sup>

## **5. Public Housing**

While the above reforms will aid affordability, there is an urgent need to dramatically increase the availability of public housing to ameliorate household budget stress for thousands of families living in want.

The current system of taxation encourages Governments to speculate on crown land – 'selling off the commons'. Rather, a much greater proportion of this land should be used for public housing. This is preferable to current rental assistance packages that enable landlords to charge more than the market would otherwise bear. A Community Land Trust model could successfully meet the challenge of providing long term affordable housing at minimum cost.

## **6. Accurate collection and publication of property related data**

The multi-trillion dollar property market is the largest tangible market in Australia, with almost everyone a stakeholder. It is vital we ensure accurate and timely property data are made publicly available given the importance of peoples' decisions regarding housing. Currently vested interest groups provide potentially incorrect and misleading information and dominate reporting in the mass media. The ABS is the obvious agency for this important task. Property-related and SV data can be made publicly available without infringing upon right to privacy. Policy makers responsible for the provision of affordable housing can no longer ignore the high number of SVs. The extensive costs of access for privatised property data is an impingement on public analysis. Collection and publication of the data is a vital first step in educating the public of the need for reform.

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<sup>113</sup> Texas Municipality Utility Districts – An Infrastructure Financing System. Allan, J.B. Oliver, D.M.

<sup>114</sup> Ibid

<sup>115</sup> Prosper Australia submission to the Select Committee into the Scrutiny of Government Budget Measures, 2015



# Appendices

## Appendix A: Residential Properties

Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Abbotsford	4,041	269	6.7%	675	16.7%
Albert Park/Middle Park	4,961	82	1.7%	200	4.0%
Alphington/Fairfield	5,024	3	0.1%	184	3.7%
Altona /Seaholme	6,244	275	4.4%	572	9.2%
Altona East/Altona Gate/Altona North	4,963	108	2.2%	290	5.8%
Altona Meadows/Laverton/Seabrook	11,769	241	2.0%	518	4.4%
Armadale/Armadale North	4,664	66	1.4%	197	4.2%
Arthurs Creek/Cottles Bridge/Hurstbridge/Nutfield	1,289	1	0.1%	26	2.0%
Ashburton/Ashwood	5,877	3	0.1%	263	4.5%
Aspendale/Waterways/Parkdale/Mordialloc/ Braeside/Aspedale Gardens	13,827	353	2.6%	661	4.8%
Attwood/Westmeadows	3,375	1	0.0%	73	2.2%
Avondale Heights	4,609	69	1.5%	183	4.0%
Avonsleigh/Clematis/Emerald/Macclesfield	2,523	-	0.0%	58	2.3%
Badger Creek/Chum Creek/Healesville	3,853	2	0.1%	129	3.3%
Balnarring/Merricks North/Balnarring Beach/ Merricks Beach	1,350	15	1.1%	105	7.8%
Balwyn North	7,842	1	0.0%	203	2.6%
Balwyn/Deepdene	6,566	-	0.0%	312	4.8%
Bangholme/Dandenong/Dandenong East/ Dandenong North/Dandenong South/Dunearn	19,603	533	2.7%	1,222	6.2%
Bayswater/Bayswater North	8,725	159	1.8%	493	5.7%
Beaconsfield Upper/Dewhurst	687	13	1.9%	24	3.5%
Beaconsfield/Guys Hill	2,184	26	1.2%	65	3.0%
Bellfield (Greater Melbourne)/Heidelberg Heights/ Heidelberg West/	6,161	1	0.0%	280	4.5%
Bentleigh East	10,559	263	2.5%	512	4.8%
Bentleigh/Mckinnon/Patterson/Ormond	11,801	332	2.8%	661	5.6%
Berwick/Harkaway	15,983	155	1.0%	407	2.5%
Beveridge	352	-	0.0%	4	1.1%
Bittern	1,243	13	1.0%	40	3.2%
Blackburn/Blackburn North/ Blackburn South	12,567	6	0.0%	402	3.2%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Blairgowrie	3,496	54	1.5%	454	13.0%
Blind Bight/Tooradin/Warneet	1,133	13	1.1%	60	5.3%
Boneo/Fingal/Cape Schanck/Rosebud/Rosebud Plaza	8,928	265	3.0%	1,014	11.4%
Boronia	9,777	299	3.1%	678	6.9%
Box Hill North/Mont Albert North	7,193	-	0.0%	330	4.6%
Box Hill/Box Hill South	8,358	3	0.0%	442	5.3%
Briar Hill/Greensborough/St Helena	10,615	5	0.0%	263	2.5%
Brighton/Were St Po/Brighton North/Dendy	10,134	310	3.1%	649	6.4%
Broadmeadows/Dallas/Jacana	7,205	1	0.0%	270	3.7%
Brunswick	11,168	8	0.1%	434	3.9%
Brunswick East	5,118	1	0.0%	256	5.0%
Brunswick West	6,937	3	0.0%	261	3.8%
Bulleen	4,497	-	0.0%	102	2.3%
Bundoora/Kingsbury	11,642	6	0.1%	213	1.8%
Burwood	5,855	3	0.1%	268	4.6%
Burwood East	3,955	-	0.0%	67	1.7%
Camberwell	8,754	7	0.1%	278	3.2%
Campbellfield	1,769	20	1.1%	100	5.7%
Cannons Creek/Bontanic Ridge/Cranbourne East/ Cranbourne/Cranbourne/Cranbourne South/ Cranbourne North/Junction Village/Sandhurst/ Cranbourne West/Devon Meadows/Skye	29,620	460	1.6%	1,559	5.3%
Canterbury	3,194	-	0.0%	86	2.7%
Carlton North/Princes Hill	4,001	86	2.1%	195	4.9%
Carlton/Carlton South	7,837	597	7.6%	1,136	14.5%
Carnegie/Booran Rd Po/Glen Huntly/ Murrumbeena	15,646	615	3.9%	1,231	7.9%
Carrum Downs	7,795	46	0.6%	160	2.1%
Carrum/Patterson Lakes	5,745	127	2.2%	276	4.8%
Caulfield North/Caulfield Junction	6,832	248	3.6%	460	6.7%
Caulfield/Hopetoun Gardens/Caulfield South	7,405	283	3.8%	542	7.3%
Chadstone	3,648	-	0.0%	183	5.0%
Cheltenham East/Southland Centre/Cheltenham	9,491	292	3.1%	579	6.1%
Chirnside Park	3,590	1	0.0%	59	1.6%
Clarinda/Clayton South	7,437	153	2.1%	378	5.1%
Clifton Hill/Fitzroy North	8,387	168	2.0%	418	5.0%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Clyde/Clyde North/Cardinia	2,364	129	5.5%	543	23.0%
Coburg/Coburg North	14,080	10	0.1%	492	3.5%
Cockatoo	1,432	1	0.1%	48	3.4%
Coldstream/Gruyere/Yering	722	2	0.3%	19	2.6%
Collingwood North/Collingwood	2,648	53	2.0%	201	7.6%
Coolaroo/Meadow Heights	5,745	-	0.0%	86	1.5%
Craigieburn/Mickleham/Roxburgh Park	20,752	2	0.0%	403	1.9%
Crib Point	1,395	23	1.6%	69	4.9%
Cromer/Black Rock North/Black Rock/Beaumaris	8,346	255	3.1%	443	5.3%
Croydon/Croydon Hills/Croydon North/ Croydon South	18,233	2	0.0%	603	3.3%
Darling/Central Park/Malvern East/Darling South/Wattletree Rd Po/Caulfield East/	9,371	30	0.3%	324	3.5%
Deer Park East/Ardeer	1,349	43	3.2%	89	6.6%
Diamond Creek	4,034	1	0.0%	60	1.5%
Dingley Village/Springvale South	8,093	99	1.2%	202	2.5%
Dixons Creek/Yarra Glen	949	-	0.0%	17	1.8%
Docklands	3,762	27	0.7%	318	8.5%
Don Valley/Hoddles Creek/Launching Place/ Seville/Seville East/Wandin East/Wandin North/ Woori Yallock/Yellingbo	3,986	1	0.0%	92	2.3%
Doncaster	8,925	3	0.0%	315	3.5%
Doncaster East	10,998	1	0.0%	356	3.2%
Donvale	4,667	1	0.0%	93	2.0%
Doreen/Mernda	11,330	2	0.0%	218	1.9%
Doveton/Eumemmerring	4,168	63	1.5%	197	4.7%
Eaglemont/Heidelberg/Rosanna/Viewbank	10,623	4	0.0%	307	2.9%
East Melbourne	3,071	85	2.8%	175	5.7%
East Warburton/Mcmahons Creek/Millgrove/ Reefton/Warburton/Wesburn	2,419	1	0.0%	139	5.7%
Eden Park/Whittlesea	1,819	-	0.0%	54	3.0%
Edithvale/Chelsea Heights/Chelsea/Bonbeach	11,059	400	3.6%	768	6.9%
Eltham/Eltham North/Research	9,993	3	0.0%	167	1.7%
Elwood/Brighton Rd	8,788	409	4.7%	685	7.8%
Endeavour Hills	8,436	30	0.4%	103	1.2%
Epping	10,745	3	0.0%	252	2.3%
Essendon/Essendon West/Aberfeldie	11,354	527	4.6%	919	8.1%



Suburb(s)	Total	0LpD	Ratio	<50LpD	Ratio
Fawkner	5,130	3	0.1%	136	2.7%
Ferntree Gully/Lysterfield	14,175	231	1.6%	540	3.8%
Ferny Creek	561	-	0.0%	18	3.2%
Fitzroy	4,188	122	2.9%	303	7.2%
Flinders	746	15	2.0%	100	13.4%
Forest Hill/Nunawading	8,925	4	0.0%	310	3.5%
Frankston North/Pines Forest	2,602	28	1.1%	90	3.5%
Frankston/Frankston East/Frankston Heights/ Frankston South/Karingal/Karingal Centre/	24,297	619	2.5%	1,384	5.7%
Garden City/Port Melbourne	8,430	141	1.7%	492	5.8%
Gardenvale/Elsternwick/Ripponlea	5,917	188	3.2%	355	6.0%
Garfield North/Garfield/Cora Lynn/Vervale	545	19	3.5%	49	9.0%
Gembrook	578	-	0.0%	27	4.7%
Gladstone Park/Tullamarine/Gowanbrae	7,329	68	0.9%	239	3.3%
Glen Iris	10,416	3	0.0%	306	2.9%
Glen Waverley/Wheelers Hill	22,699	2	0.0%	556	2.4%
Glenroy/Hadfield/Oak Park	14,177	4	0.0%	679	4.8%
Greenvale	4,346	1	0.0%	74	1.7%
Hallam	3,560	34	1.0%	83	2.3%
Hampton East/Hampton North/Hampton	7,295	188	2.6%	422	5.8%
Hampton Park	8,208	75	0.9%	195	2.4%
Hastings/Tuerong	3,816	69	1.8%	200	5.2%
Hawksburn/Toorak	7,392	236	3.2%	430	5.8%
Hawthorn	11,193	2	0.0%	416	3.7%
Hawthorn East	6,150	6	0.1%	195	3.2%
Heathcote Junction	1	-	0.0%	-	0.0%
Heatherton	1,042	19	1.8%	47	4.5%
Heathmont/Ringwood East	8,224	-	0.0%	305	3.7%
Highett	4,729	214	4.5%	380	8.0%
Hoppers Crossing/Tarneit/Truganina	28,519	332	1.2%	924	3.2%
Hotham Hill/North Melbourne	5,621	114	2.0%	441	7.8%
Ivanhoe/Ivanhoe East	6,872	1	0.0%	279	4.1%
Kallista	498	-	0.0%	19	3.8%
Kalorama	352	-	0.0%	12	3.4%
Kangaroo Ground	173	-	0.0%	3	1.7%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Kealba/Albanvale/St Albans/Kings Park	20,062	467	2.3%	1,044	5.2%
Keilor East	5,731	97	1.7%	290	5.1%
Keilor North/Keilor	2,318	33	1.4%	57	2.5%
Kensington/Flemington	7,682	161	2.1%	351	4.6%
Kew	10,314	1	0.0%	323	3.1%
Kew East	2,666	-	0.0%	104	3.9%
Keysborough	7,834	84	1.1%	384	4.9%
Kilsyth/Kilsyth South	5,510	2	0.0%	162	2.9%
Knoxfield	2,745	38	1.4%	92	3.4%
Koo Wee Rup North/Koo Wee Rup/Heath Hill/Dalmore/Yannathan/Bayles/Catani	1,034	20	1.9%	75	7.3%
Kooyong/Malvern	4,669	3	0.1%	118	2.5%
Lalor	8,190	-	0.0%	199	2.4%
Langwarrin	8,410	80	1.0%	230	2.7%
Langwarrin South/Baxter	1,188	18	1.5%	40	3.4%
Lilydale	6,476	4	0.1%	216	3.3%
Little River	233	6	2.6%	11	4.7%
Lower Plenty	1,570	3	0.2%	47	3.0%
Lynbrook/Lyndhurst	4,274	28	0.7%	107	2.5%
Macleod/Yallambie	5,261	-	0.0%	141	2.7%
Mambourin/Mount Cottrell/Wyndham Vale	7,677	61	0.8%	193	2.5%
Mccrae	1,986	48	2.4%	219	11.0%
Melbourne (Cbd)	16,632	1,109	6.7%	2,478	14.9%
Melbourne University/Parkville	2,251	116	5.2%	230	10.2%
Melton/Melton West/Kurunjang/Toolern Vale	13		0.0%	0	0.0%
Menzies Creek/Selby	564	20	3.5%	29	5.1%
Mill Park	10,624	2	0.0%	204	1.9%
Mitcham	6,980	2	0.0%	310	4.4%
Modella/Longwarry North/Longwarry/Labertouche	615	20	3.3%	48	7.8%
Monbulk	1,099	2	0.2%	29	2.6%
Mont Albert/Surrey Hills	7,583	-	0.0%	237	3.1%
Montmorency	3,858	-	0.0%	165	4.3%
Montrose	2,303	-	0.0%	26	1.1%
Moonee Ponds	6,242	203	3.3%	410	6.6%
Moorooduc	30	1	3.3%	3	10.0%



Suburb(s)	Total	0LpD	Ratio	<50LpD	Ratio
Mooroolbark	8,056	3	0.0%	163	2.0%
Mornington	11,361	321	2.8%	689	6.1%
Mount Dandenong	509	-	0.0%	16	3.1%
Mount Eliza/Kunung	6,778	108	1.6%	202	3.0%
Mount Evelyn	3,363	-	0.0%	84	2.5%
Mount Martha	7,725	79	1.0%	307	4.0%
Mount Waverley	13,627	-	0.0%	508	3.7%
Mulgrave	7,173	4	0.1%	112	1.6%
Nar Nar Goon North/Nar Nar Goon/Maryknoll	307	12	3.9%	21	6.8%
Narre Warren East/Narre Warren North	2,954	34	1.2%	87	2.9%
Narre Warren/Narre Warren South/	17,532	114	0.7%	288	1.6%
Niddrie North/Niddrie/Airport West/Keilor Park	7,211	267	3.7%	560	7.8%
Noble Park/Noble Park North	14,956	475	3.2%	988	6.6%
North Road/Brighton East	6,727	151	2.2%	341	5.1%
North Warrandyte/Warrandyte	2,846	3	0.1%	33	1.2%
Northcote	10,268	4	0.0%	334	3.3%
Notting Hill/Clayton	8,032	184	2.3%	698	8.7%
Oakleigh South	4,196	74	1.8%	234	5.6%
Oakleigh/Oakleigh East/Hughesdale/Huntingdale	9,483	231	2.4%	675	7.1%
Officer/Officer South	1,901	82	4.3%	428	22.5%
Olinda	579	-	0.0%	22	3.8%
Panton Hill	265	-	0.0%	6	2.3%
Park Orchards	1,213	-	0.0%	15	1.2%
Pascoe Vale/Pascoe Vale South	11,337	3	0.0%	459	4.0%
Plenty	718	-	0.0%	18	2.5%
Portsea	1,413	21	1.5%	88	6.2%
Preston	13,801	15	0.1%	529	3.8%
Ravenhall/Burnside Heights/Burnside/Caroline Springs/Cairnlea/Deer Park North/Deer Park	20,459	208	1.0%	529	2.6%
Reservoir	21,521	4	0.0%	1,011	4.7%
Richmond/Richmond North/Richmond East/Richmond South/Burnley/Burnley North/Cremorne	14,325	318	2.2%	812	5.7%
Ringwood/Ringwood North/Warrandyte South/Warranwood	13,111	16	0.1%	441	3.4%
Robinson/Braybrook	3,419	101	3.0%	239	7.0%



Suburb(s)	Total	OL/day	Ratio	<50LpD	Ratio
Rockbank/Plumpton	808	12	1.5%	88	10.9%
Rosebud West	2,807	73	2.6%	407	14.5%
Rowville	11,320	74	0.7%	150	1.3%
Rye/St Andrews Beach/Tootgarook	11,753	229	1.9%	1,721	14.6%
Rythdale/Pakenham Upper/Pakenham South/ Pakenham	15,896	248	1.6%	764	4.8%
Safety Beach/Dromana/Arthurs Seat	7,395	182	2.5%	958	13.0%
Sandown Village/Springvale	6,949	161	2.3%	388	5.6%
Sandringham	4,165	238	5.7%	365	8.8%
Sassafras	370	-	0.0%	7	1.9%
Scoresby	2,115	8	0.4%	28	1.3%
Seaford	7,789	210	2.7%	468	6.0%
Seddon /Seddon West/Footscray	9,541	329	3.4%	816	8.6%
Sherbrooke	95	-	0.0%	-	0.0%
Shoreham/Point Leo/Merricks	556	7	1.3%	60	10.8%
Silvan	211	2	0.9%	4	1.9%
Somers	1,156	14	1.2%	118	10.2%
Somerton	20	1	5.0%	9	45.0%
Somerville/Pearcedale	5,213	67	1.3%	155	3.0%
Sorrento	3,152	69	2.2%	342	10.9%
South Melbourne	5,938	80	1.3%	347	5.8%
South Morang	7,887	-	0.0%	115	1.5%
South Yarra	13,894	455	3.3%	1,235	8.9%
Southbank/South Wharf	9,645	221	2.3%	1,318	13.7%
Spotswood/Newport/South Kingsville	7,655	248	3.2%	556	7.3%
St Kilda East/Balaclava	9,638	308	3.2%	678	7.0%
St Kilda Rd Business District (Melbourne)	5,886	224	3.8%	615	10.4%
St Kilda/St Kilda West/St Kilda South	13,977	443	3.2%	1,014	7.3%
Strathmore/Strathmore Heights/Essendon North/ Essendon Fields/Cross Keys	4,978	165	3.3%	332	6.7%
Sunshine/Sunshine West/Sunshine North/ Glengala/Albion	16,656	417	2.5%	998	6.0%
Sydenham/Taylor's Hill/Delahey/Hillside/Calder Park	16,329	193	1.2%	430	2.6%
Taylor's Lakes/Watgardens/Keilor Downs/Keilor Lodge	9,485	61	0.6%	153	1.6%
Tecoma/Belgrave South/Belgrave Heights/ Belgrave	3,191	28	0.9%	97	3.0%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Templestowe	6,185	1	0.0%	125	2.0%
Templestowe Lower	5,370	-	0.0%	136	2.5%
Tenby Point/The Gurdies/Corinella/Caldermeade/ Adams Estate/Lang Lang/Jam Jerrup/Grantville/ Coronet Bay/Queensferry/Pioneer Bay/ Monomeith/Lang Lang East	484	24	5.0%	42	8.7%
The Basin	1,577	14	0.9%	42	2.7%
The Patch	321	-	0.0%	11	3.4%
Thomastown	8,021	10	0.1%	271	3.4%
Thornbury	8,544	7	0.1%	316	3.7%
Tonimbuk/Iona/Bunyip North/Bunyip	797	20	2.5%	59	7.4%
Tottenham/West Footscray/Kingsville/ Maidstone/Brooklyn	11,418	363	3.2%	856	7.5%
Travancore/Maribyrnong/Highpoint City/ Ascot Vale	12,515	420	3.4%	874	7.0%
Tremont	27	-	0.0%	1	3.7%
Tyabb	1,135	13	1.1%	33	2.9%
Tynong/Tynong North	138	-	0.0%	6	4.3%
Upwey	2,554	26	1.0%	66	2.6%
Vermont/Vermont South	8,369	1	0.0%	168	2.0%
Wallan	3,682	1	0.0%	85	2.3%
Wantirna South/Knox City Centre/Studfield/ Wantirna	11,635	74	0.6%	274	2.4%
Watsonia/Watsonia North	3,695	1	0.0%	85	2.3%
Wattle Glen	574	-	0.0%	7	1.2%
Werribee South/Werribee/Quandong/Point Cook/ Derrimut/Cocoroc	34,175	558	1.6%	1,389	4.1%
West Melbourne	2,303	70	3.0%	195	8.5%
Williams Landing	1,953	30	1.5%	137	7.0%
Williamstown North/Williamstown	6,476	140	2.2%	332	5.1%
Windsor/Prahran East/Prahran	10,606	392	3.7%	981	9.2%
Wishart/Moorabbin/Moorabbin East	3,049	88	2.9%	205	6.7%
Wollert	1,974	1	0.1%	112	5.7%
Wonga Park	1,223	-	0.0%	14	1.1%
Yan Yean	66	-	0.0%	3	4.5%
Yarra Junction	968	1	0.1%	57	5.9%
Yarrambat	466	1	0.2%	11	2.4%
Yarraville/Yarraville West	6,397	117	1.8%	310	4.8%



## Appendix B: Commercial Properties

Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Abbotsford	605	29	4.8%	105	17.4%
Albert Park/Middle Park	307	15	4.9%	48	15.6%
Alphington/Fairfield	543	5	0.9%	133	24.5%
Altona /Seaholme	476	49	10.3%	102	21.4%
Altona East/Altona Gate/Altona North	500	41	8.2%	107	21.4%
Altona Meadows/Laverton/Seabrook	352	72	20.5%	120	34.1%
Armadale/Armadale North	401	11	2.7%	103	25.7%
Ashwood/Ashburton	356	1	0.3%	69	19.4%
Aspendale/Waterways/Parkdale/Mordialloc/ Braeside/Aspedale Gardens	2,088	156	7.5%	531	25.4%
Avondale Heights	99	7	7.1%	20	20.2%
Avonsleigh/Clematis/Emerald/Macclesfield	200	-	0.0%	30	15.0%
Badger Creek/Chum Creek/Mount Toolebewong	308	2	0.6%	53	17.2%
Balnarring/Merricks North/Balnarring Beach/ Merricks Beach	103	8	7.8%	20	19.4%
Balwyn North	309	1	0.3%	67	21.7%
Balwyn/Deepdene	395	-	0.0%	75	19.0%
Bangholme/Dandenong/Dandenong East/ Dandenong North/Dandenong South/Dunearn	5,421	435	8.0%	1,289	23.8%
Bayswater/Bayswater North	2,476	145	5.9%	723	29.2%
Beaconsfield Upper/Dewhurst	41	4	9.8%	5	12.2%
Beaconsfield/Guys Hill	172	11	6.4%	34	19.8%
Bentleigh East	315	15	4.8%	72	22.9%
Bentliegh/Mckinnon/Patterson/Ormond	566	38	6.7%	127	22.4%
Berwick/Harkaway	545	57	10.5%	119	21.8%
Beveridge	1		0.0%	-	0.0%
Bittern	48	7	14.6%	14	29.2%
Blackburn North/Blackburn South/Blackburn	796	6	0.8%	162	20.4%
Blairgowrie	65	13	20.0%	24	36.9%
Blind Bight/Tooradin/Warneet	106	6	5.7%	19	17.9%
Boneo/Fingal/Cape Schanck/Rosebud/ Rosebud Plaza	485	79	16.3%	164	33.8%
Boronia	808	57	7.1%	192	23.8%
Box Hill North/Mont Albert North	254	-	0.0%	61	24.0%
Box Hill/Box Hill South	715	3	0.4%	125	17.5%
Brighton/Were St Po/Brighton North/Dendy	728	29	4.0%	142	19.5%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Broadmeadows/Dallas/Jacana	412	1	0.2%	59	14.3%
Brunswick	1,342	8	0.6%	217	16.2%
Brunswick East	561	3	0.5%	86	15.3%
Brunswick West	245	1	0.4%	47	19.2%
Bulleen	262		0.0%	48	18.3%
Bundoora/Kingsbury	615	6	1.0%	165	26.8%
Burwood	444	3	0.7%	95	21.4%
Burwood East	173		0.0%	32	18.5%
Camberwell	953	7	0.7%	191	20.0%
Campbellfield	2,518	20	0.8%	590	23.4%
Cannons Creek/Bontanica Ridge/Cranbourne East/ Cranbourne/Cranbourne/Cranbourne South/ Cranbourne North/Junction Village/Sandhurst/ Cranbourne West/Devon Meadows/Skye	1,107	93	8.4%	217	19.6%
Canterbury	240		0.0%	58	24.2%
Carlton North/Princes Hill	309	42	13.6%	71	23.0%
Carlton/Carlton South	988	98	9.9%	166	16.8%
Carnegie/Booran Rd Po/Glen Huntly/ Murrumbeena	689	45	6.5%	159	23.1%
Carrum Downs	1,265	136	10.8%	512	40.5%
Carrum/Patterson Lakes	145	18	12.4%	47	32.4%
Caulfield North/Caulfield Junction	244	15	6.1%	54	22.1%
Caulfield/Hopetoun Gardens/Caulfield South	344	27	7.8%	83	24.1%
Chadstone	85	-	0.0%	12	14.1%
Cheltenham East/Southland Centre/Cheltenham	1,364	101	7.4%	413	30.3%
Chirnside Park	120	1	0.8%	14	11.7%
Clarinda/Clayton South	709	50	7.1%	229	32.3%
Clyde/Clyde North/Cardinia	129	11	8.5%	15	11.6%
Coburg/Coburg North	1,649	10	0.6%	351	21.3%
Cockatoo	38	1	2.6%	6	15.8%
Collingwood North/Collingwood	1,054	76	7.2%	211	20.0%
Coolaroo/Meadow Heights	250	-	0.0%	48	19.2%
Craigieburn/Mickleham/Roxburgh Park	474	2	0.4%	100	21.1%
Crib Point	35	4	11.4%	10	28.6%
Cromer/Black Rock North/Black Rock/ Beaumaris	340	31	9.1%	92	27.1%
Croydon South/Croydon/Croydon Hills/ Croydon North	912	2	0.2%	202	22.1%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Darling/Central Park/Malvern East/Darling South/Wattletree Rd Po/Caulfield East/	504	6	1.2%	98	19.4%
Deer Park East/Ardeer	75	6	8.0%	6	8.0%
Diamond Creek	214	1	0.5%	38	17.8%
Dingley Village/Springvale South	355	31	8.7%	68	19.2%
Dixons Creek/Tarrawarra/Yarra Glen	119	-	0.0%	31	26.1%
Docklands	296	87	29.4%	127	42.9%
Doncaster	261	3	1.1%	39	14.9%
Doncaster East	432	1	0.2%	79	18.3%
Donvale	61		0.0%	7	11.5%
Doveton/Eumemmerring	213	18	8.5%	53	24.9%
East Melbourne	381	31	8.1%	47	12.3%
Edithvale/Chelsea Heights/Chelsea/Bonbeach	368	37	10.1%	101	27.4%
Eltham/Eltham North/Research	585	3	0.5%	143	24.4%
Elwood/Brighton Rd	204	17	8.3%	40	19.6%
Endeavour Hills	74	3	4.1%	7	9.5%
Epping	693	3	0.4%	137	19.8%
Essendon/Essendon West/Aberfeldie	685	78	11.4%	164	23.9%
Exford/Brookfield/Melton South/Eynesbury	>5			0	
Fawkner	291	3	1.0%	49	16.8%
Ferntree Gully/Lysterfield	883	75	8.5%	251	28.4%
Ferny Creek	14		0.0%	1	7.1%
Fitzroy	1,109	84	7.6%	183	16.5%
Fitzroy North/Fitzroy North	618	80	12.9%	144	23.3%
Flinders	100	8	8.0%	27	27.0%
Forest Hill/Nunawading	728	4	0.5%	170	23.4%
Frankston North/Pines Forest	73	5	6.8%	17	23.3%
Frankston/Frankston East/Frankston Heights/Frankston South/Karingal/Karingal Centre/	1,050	92	8.8%	248	23.6%
Garden City/Port Melbourne	1,356	72	5.3%	316	23.3%
Gardenvale/Elsternwick/Ripponlea	464	40	8.6%	118	25.4%
Garfield North/Garfield/Cora Lynn/Vervale	125	6	4.8%	11	8.8%
Gembrook	55	-	0.0%	4	7.3%
Gladstone Park/Tullamarine/Gowanbrae	1,190	103	8.7%	349	29.3%
Glen Iris	332	3	0.9%	58	17.5%
Greensborough/Briar Hill/St Helena	449	5	1.1%	82	18.3%



Suburb(s)	Total	0LpD	Ratio	<50LpD	Ratio
Greenvale	64	1	1.6%	12	18.8%
Gruyere/Coldstream/Yering	136	2	1.5%	17	12.5%
Hadfield/Oak Park/Glenroy	495	4	0.8%	79	16.0%
Hallam	1,094	52	4.8%	296	27.1%
Hampton East/Hampton North/Hampton	398	19	4.8%	125	31.4%
Hampton Park	184	14	7.6%	33	17.9%
Hastings/Tuerong	531	75	14.1%	180	33.9%
Hawksburn/Toorak	220	7	3.2%	42	19.1%
Hawthorn	1,024	2	0.2%	145	14.2%
Hawthorn East	488	6	1.2%	71	14.5%
Heatherton	163	33	20.2%	40	24.5%
Heathmont/Ringwood East	299	-	0.0%	45	15.1%
Heidelberg Heights/Bellfield (Greater Melbourne)/Heidelberg West/	869	1	0.1%	242	27.8%
Highett	442	30	6.8%	138	31.2%
Hoppers Crossing/Tarneit/Truganina	1,340	142	10.6%	401	29.9%
Hotham Hill/North Melbourne	954	120	12.6%	223	23.4%
Hurstbridge/Arthurs Creek/Cottles Bridge/Nutfield	110	1	0.9%	17	15.5%
Ivanhoe/Ivanhoe East	470	1	0.2%	121	25.7%
Kallista	23		0.0%	2	8.7%
Kalorama	9	-	0.0%	1	11.1%
Kangaroo Ground	32		0.0%	4	12.5%
Kealba/Albanvale/St Albans/Kings Park	599	48	8.0%	90	15.0%
Keilor East	503	47	9.3%	154	30.6%
Keilor North/Keilor	154	22	14.3%	22	14.3%
Kensington/Flemington	648	75	11.6%	165	25.5%
Kew	720	1	0.1%	146	20.3%
Kew East	210		0.0%	26	12.4%
Keysborough	782	69	8.8%	198	25.3%
Kilsyth/Kilsyth South	606	2	0.3%	135	22.3%
Knoxfield	420	35	8.3%	92	21.9%
Koo Wee Rup North/Koo Wee Rup/Heath Hill/Dalmore/Yannathan/Bayles/Catani	126	15	11.9%	41	32.5%
Lalor	249		0.0%	28	11.2%
Langwarrin	141	15	10.6%	31	22.0%
Langwarrin South/Baxter	108	10	9.3%	16	14.8%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Laverton North	814	59	7.2%	219	26.9%
Lilydale	807	4	0.5%	218	27.0%
Little River	38	>5	#VALUE!	7	18.4%
Lower Plenty	232	3	1.3%	14	6.0%
Lynbrook/Lyndhurst	238	31	13.0%	62	26.1%
Macleod/Yallambie	112	-	0.0%	22	19.6%
Malvern/Kooyong	711	3	0.4%	113	15.9%
Mambourin/Mount Cottrell/Wyndham Vale	89	24	27.0%	32	36.0%
Mccrae	26	8	30.8%	12	46.2%
Melbourne (Cbd)	4,901	348	7.1%	595	12.1%
Melbourne Airport	32	>5		0	0.0%
Melbourne University/Parkville	149	25	16.8%	35	23.5%
Menzies Creek/Selby	20	-	0.0%	4	20.0%
Mernda/Doreen	175	2	1.1%	30	17.1%
Mill Park	375	2	0.5%	49	13.1%
Mitcham	533	2	0.4%	122	22.9%
Modella/Longwarry North/Longwarry/ Labertouche	64	6	9.4%	9	14.1%
Monbulk	157	2	1.3%	24	15.3%
Mont Albert/Surrey Hills	468	-	0.0%	88	18.8%
Montmorency	123		0.0%	23	18.7%
Montrose	139	-	0.0%	35	25.2%
Moonee Ponds	693	83	12.0%	179	25.8%
Moorooduc	30	1	3.3%	4	13.3%
Mooroolbark	277	3	1.1%	57	20.6%
Mornington	1,183	123	10.4%	380	32.1%
Morrabbin Airport	536	41	7.6%	137	25.6%
Mount Dandenong	20	-	0.0%	5	25.0%
Mount Eliza/Kunung	213	16	7.5%	36	16.9%
Mount Evelyn	203		0.0%	31	15.3%
Mount Martha	120	7	5.8%	20	16.7%
Mount Waverley	910	-	0.0%	232	25.5%
Mulgrave	577	4	0.7%	83	14.4%
Nar Nar Goon North/Nar Nar Goon/Maryknoll	138	7	5.1%	12	8.7%
Narre Warren East/Narre Warren North	79	9	11.4%	18	22.8%



Suburb(s)	Total	0LpD	Ratio	<50LpD	Ratio
Narre Warren/Narre Warren South/	506	49	9.7%	130	25.7%
Niddrie North/Niddrie/Airport West/Keilor Park	1,045	95	9.1%	284	27.2%
Noble Park/Noble Park North	557	33	5.9%	102	18.3%
North Road/Brighton East	119	10	8.4%	23	19.3%
Northcote	749	4	0.5%	134	17.9%
Notting Hill/Clayton	1,294	32	2.5%	200	15.5%
Oakleigh South	487	36	7.4%	106	21.8%
Oakleigh/Oakleigh East/Hughesdale/Huntingdale	1,115	77	6.9%	293	26.3%
Officer/Officer South	143	20	14.0%	27	18.9%
Olinda	98		0.0%	22	22.4%
Panton Hill	27	-	0.0%	3	11.1%
Park Orchards	47		0.0%	7	14.9%
Pascoe Vale South/Pascoe Vale	415	3	0.7%	70	16.9%
Plenty	39		0.0%	9	23.1%
Portsea	45	15	33.3%	26	57.8%
Preston	1,414	15	1.1%	267	18.9%
Ravenhall/Burnside Heights/Burnside/Caroline Springs/Cairnlea/Deer Park North/Deer Park	924	240	26.0%	417	45.1%
Reefton/East Warburton/Mcmahons Creek/Millgrove/Warburton/Wesburn	158	1	0.6%	28	17.7%
Reservoir	973	4	0.4%	181	18.6%
Richmond/Richmond North/Richmond East/Richmond South/Burnley/Burnley North/Cremorne	2,278	191	8.4%	493	21.6%
Ringwood North/Ringwood/Warrandyte South/Warranwood	1,088	16	1.5%	264	24.3%
Robinson/Braybrook	350	23	6.6%	71	20.3%
Rockbank/Plumpton	>5	>5		0	
Rosanna/Heidelberg/Eaglemont/Viewbank	563	4	0.7%	106	18.8%
Rosebud West	164	23	14.0%	68	41.5%
Rowville	585	53	9.1%	144	24.6%
Rye/St Andrews Beach/Tootgarook	345	78	22.6%	138	40.0%
Rythdale/Pakenham Upper/Pakenham South/Pakenham	1,070	127	11.9%	368	34.4%
Safety Beach/Dromana/Arthurs Seat	434	71	16.4%	170	39.2%
Sandown Village/Springvale	1,312	111	8.5%	398	30.3%
Sandringham	250	18	7.2%	76	30.4%
Sassafras	34		0.0%	12	35.3%



Suburb(s)	Total	OLpD	Ratio	<50LpD	Ratio
Scoresby	293	18	6.1%	56	19.1%
Seaford	1,097	140	12.8%	383	34.9%
Seddon /Seddon West/Footscray	1,319	126	9.6%	289	21.9%
Sherbrooke	14		0.0%	-	0.0%
Shoreham/Point Leo/Merricks	65	7	10.8%	10	15.4%
Silvan	99	2	2.0%	7	7.1%
Somers	29	6	20.7%	8	27.6%
Somerton	255	1	0.4%	39	15.3%
Somerville/Pearcedale	601	32	5.3%	134	22.3%
Sorrento	146	19	13.0%	52	35.6%
South Melbourne	1,268	66	5.2%	220	17.4%
South Morang	178		0.0%	29	16.3%
South Yarra	1,061	91	8.6%	258	24.3%
Southbank/South Wharf	285	26	9.1%	52	18.2%
Spotswood/Newport/South Kingsville	411	68	16.5%	125	30.4%
St Andrews	1		0.0%	-	0.0%
St Kilda East/Balaclava	319	12	3.8%	39	12.2%
St Kilda Rd Business District (Melbourne)	619	19	3.1%	47	7.6%
St Kilda/St Kilda West/St Kilda South	897	73	8.1%	163	18.2%
Strathmore/Strathmore Heights/Essendon North/ Essendon Fields/Cross Keys	296	22	7.4%	109	36.8%
Sunshine/Sunshine West/Sunshine North/ Glengala/Albion	2,166	180	8.3%	534	24.7%
Sydenham/Tailors Hill/Delahey/Hillside/Calder Park	290	83	28.6%	110	37.9%
Tailors Lakes/Watergardens/Keilor Downs/Keilor Lodge	122	20	16.4%	23	18.9%
Tecoma/Belgrave South/Belgrave Heights/ Belgrave	201	12	6.0%	50	24.9%
Templestowe	171	1	0.6%	35	20.5%
Templestowe Lower	145		0.0%	24	16.6%
Tenby Point/The Gurdies/Corinella/Caldermeade/ Adams Estate/Lang Lang/Jam Jerrup/Grantville/ Coronet Bay/Queensferry/Pioneer Bay/ Monomeith/Lang Lang East	131	9	6.9%	32	24.4%
The Basin	34	-	0.0%	8	23.5%
The Patch	21		0.0%	1	4.8%
Thomastown	1,972	10	0.5%	474	24.0%
Thornbury	611	7	1.1%	141	23.1%
Tonimbuk/Iona/Bunyip North/Bunyip	114	7	6.1%	27	23.7%



Suburb(s)	Total	0LpD	Ratio	<50LpD	Ratio
Tottenham/West Footscray/Kingsville/Maidstone/Brooklyn	963	89	9.2%	214	22.2%
Travancore/Maribyrnong/Highpoint City/Ascot Vale	566	70	12.4%	151	26.7%
Tyabb	159	7	4.4%	25	15.7%
Tynong/Tynong North	86	8	9.3%	13	15.1%
Upwey	65	6	9.2%	18	27.7%
Vermont/Vermont South	339	1	0.3%	66	19.5%
Wallan	134	1	0.7%	22	16.4%
Wantirna South/Knox City Centre/Studfield/Wantirna	473	44	9.3%	116	24.5%
Warrandyte	158	3	1.9%	41	25.9%
Watsonia/Watsonia North	132	1	0.8%	25	18.9%
Wattle Glen	12		0.0%	1	8.3%
Werribee South/Werribee/Quandong/Point Cook/Derrimut/Cocoroc	2,201	237	10.8%	604	27.4%
West Melbourne	540	61	11.3%	111	20.6%
Westmeadows/Attwood	170	1	0.6%	22	12.9%
Whealers Hill/Glen Waverley	772	2	0.3%	162	21.0%
Whittlesea	172	-	0.0%	34	19.8%
Williams Landing	20	>5		0	0.0%
Williamstown North/Williamstown	951	88	9.3%	279	29.3%
Windsor/Prahran East/Prahran	1,038	68	6.6%	238	22.9%
Wishart/Moorabbin/Moorabbin East	1,791	127	7.1%	575	32.1%
Wollert	8	1	12.5%	5	62.5%
Wonga Park	59		0.0%	6	10.2%
Woori Yallock/Don Valley/Launching Place/Seville/Seville East/Wandin East/Wandin North/Yellingbo	406	1	0.2%	59	14.5%
Yan Yean	14	-	0.0%	3	21.4%
Yarra Junction	111	1	0.9%	13	11.7%
Yarrambat	42	1	2.4%	4	9.5%
Yarraville/Yarraville West	479	31	6.5%	89	18.6%
Yuroke	7		0.0%	1	14.3%



