



IMPEDING THE MARKET

Speculative Vacancies 9

Since 2007 Prosper Australia has investigated the role of vacant land and housing on housing affordability.

About

Prosper Australia

Prosper Australia is an independent, not-for-profit organisation campaigning for economic justice. Prosper's mission is educate policy makers and the general public in the economics of locational advantage. We advocate for the taxation of the economic rents arising from property rights in land and natural resources, including government created monopolies.

Please support our work by making a tax-deductible donation to the Prosper Australia Research Institute - prosper.org.au/pari

About the Author

Karl Fitzgerald created the Speculative Vacancies report in 2007 when as a cyclist he noticed a disparity between media headlines decrying a 'record low land supply' and the dozens of vacant homes he passed on his daily commute. Karl is the author of the Total Resource Rents of Australia report, producer of the documentary Real Estate 4 Ransom and a broadcaster on 3CR. He holds a B(Ec.) from Monash University.

He would like to thank Emily Sims and Jesse Hermans for their assistance.



Executive Summary

Since 2007 Prosper Australia has investigated the role of vacant land and housing on housing affordability in Melbourne.

Water data indicates 60,901 residential properties were vacant in 2017. This equated to a speculative vacancy rate of 3.9% for all residential property. Absolute vacancies using zero litres of water revealed 21,326 residential properties at 1.3%.

The absolute vacancy finding of 21,326 using zero litres per day (LpD) demonstrates that more than \$20 billion in vacant property existed at the height of Melbourne's property boom.

As a percentage of investor-owned rental properties, a deeper vacancy analysis would see an increase from the advertised 3.3% vacancy rate¹ to 7.8% (for 0LpD properties). If this was extended to include those properties using less than 50LpD, the vacancy rate could reach a disturbing 16.2% of all rental properties.²

An unemployed labour rate of 7.8% would make headlines. So should it for the underutilisation of land during extended periods of unaffordability.

Abnormally low water consumption is used as a proxy for vacant land, housing and commercial premises. Fifty litres per day (LpD) has been identified as our threshold for a speculative vacancy (SV). In 2017 residents used on average 161 LpD per person.³

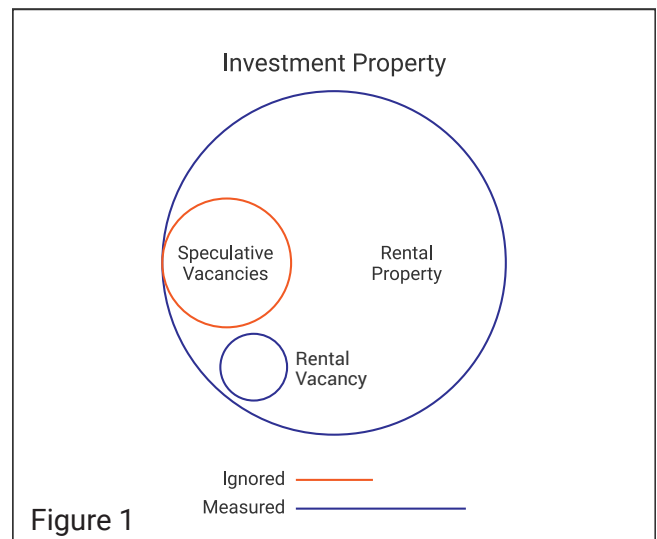
Data is analysed from Yarra Valley Water (YVW), South-East Water (SEW) and City West Water (CWW). The 2017 data is averaged over 12 months of consumption on a postcode by postcode basis.

Over our decade of analysis, we have seen improvements in vacancy measures. We welcome the evolution of the headline vacancy metric from a voluntary survey submitted by real estate agents (the REIV vacancy measure) to data scraped from online real estate ads promoted for longer than three weeks (the SQM vacancy measure).

However, both measures still exclude a key segment of the property market. Neither metric captures properties that are held vacant off-market.

A truly useful vacancy measure must include these vacancies. Without off-market properties, 'vacancy' statistics can provide only surface level analysis.

Residential land & housing



1 SQM Research

2 This excludes public housing.

3 Target 155, DELWP, accessed February 15, 2019, <https://www.water.vic.gov.au/liveable-cities-and-towns/using-water-wisely/target-155-target-your-water-use>

If supply side issues are held to be the core issue in housing affordability, effective use should be a measurement criterion. It therefore follows that all land usage must be measured in terms of its effective use. A more thorough and meaningful measure must be recorded by an objective government body.

This Speculative Vacancies report is timely in its analysis of vacancy at the peak of the Melbourne property cycle. During the period of this study, vacancy taxes had not been enacted at a state level.

The Speculative Vacancies analysis for 2017 includes 1,579,906 residential properties across 258 of Melbourne's suburbs. This constitutes 95.1% of total properties available.⁴

For commercial property, our analysis reveals a 9.1% vacancy with 10,693 properties consuming zero LpD. This occurred during a time of tightly advertised commercial vacancies.⁵ Low vacancies encourage higher prices, and thus rents. As rents increase, the margin for profit and wages falls. Higher rents mean less reinvestment, less jobs, and lower wages. The figure represents a significant increase of 34.7% since our 2015 report.

Underutilised and vacant property is a community blight. Vacancies affect property values and increase the tax burden upon family homes.

As in previous reports, we hypothesise that many lettable or developable properties are held vacant to augment capital gains. By impeding the market, land hoarders economise their efforts - earning more by doing less. For the rest of society, the term economise demands that we produce more with less inputs. This inversion puts the public interest directly against the interest of property speculators. Inaccurate and often highly expensive property data effectively hides this from proper analysis.

With investors constituting 40% of all housing loans in recent years,⁶ we need to be alert to the fiscal and monetary policies that make it a viable investment strategy to hold property vacant - to impede the market. If Government is serious about housing all Victorians, it should avoid policy that encourages further commodification of the place we call 'home'.

In 2017, 123,469 Victorian property sales occurred.⁷ If the 21,326 speculative vacancies were recognised as a supply-side issue and encouraged onto the market, a 17.3% increase of auctionable properties could result.

The Victorian government recognised this issue by announcing a vacant residential property tax in March 2017. The report recommends further policy reforms to reduce the hoarding of vacant property. Land Value Tax is the most appropriate policy as it acts as a holding tax penalising poor land use.

Prosper Australia contends that current property tax settings are too low, inaccurately targeted, and encourage lightly taxed windfall gains. This has encouraged record high housing prices and undermines the state's financial stability.⁸

4 ABS (2016) Census of Population and Housing, Greater Melbourne, http://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/2GMEL?opendocument

5 Melbourne suburban office rents rise as vacancies fall, <https://www.commercialrealestate.com.au/news/melbourne-suburban-office-rents-rise-vacancies-fall-knight-frank/>

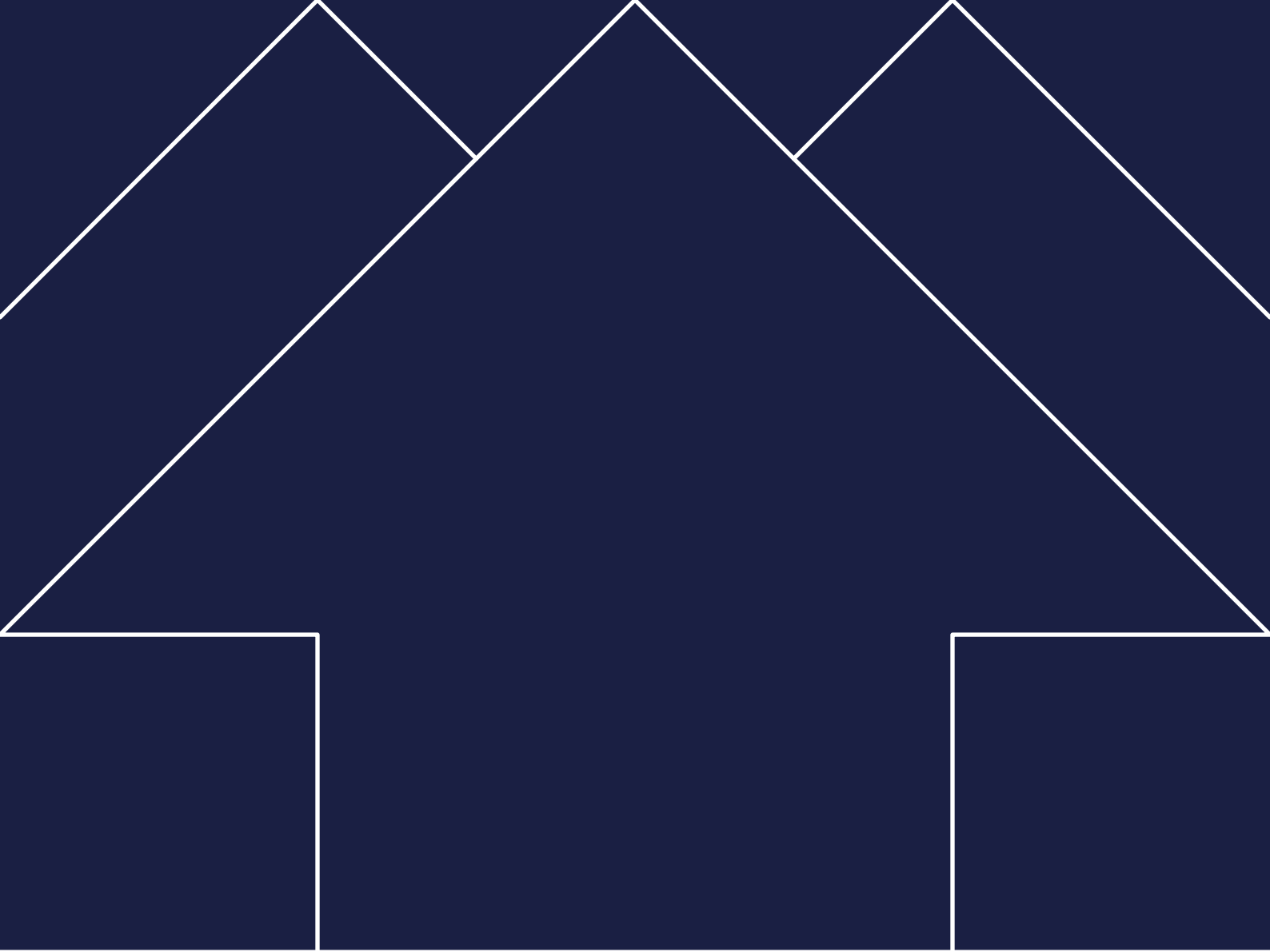
6 ABS (November 2018) Housing Finance, Australia cat. No. 5609.0, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/5609.0?OpenDocument>

7 RP Data, 2017 Victorian sales, accessed Nov 7, 2018.

8 Kavanagh, B (December 2018) "The Truth about High Land Prices" Progress Magazine, <https://www.prosper.org.au/wp-content/uploads/2019/01/Progress-Dec-2018.pdf>

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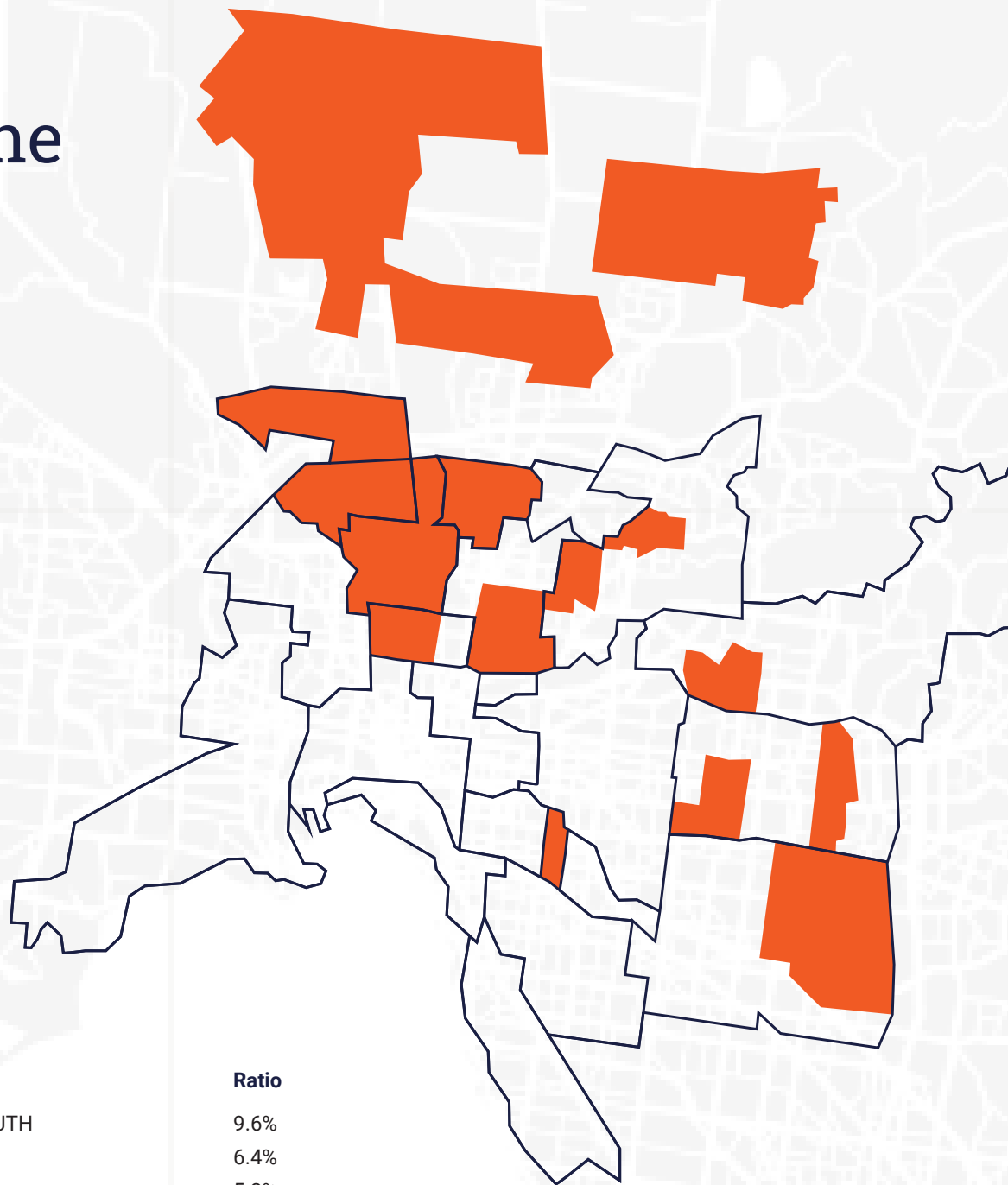


Chapter 1: Key Findings

Chapter 1: Key Findings

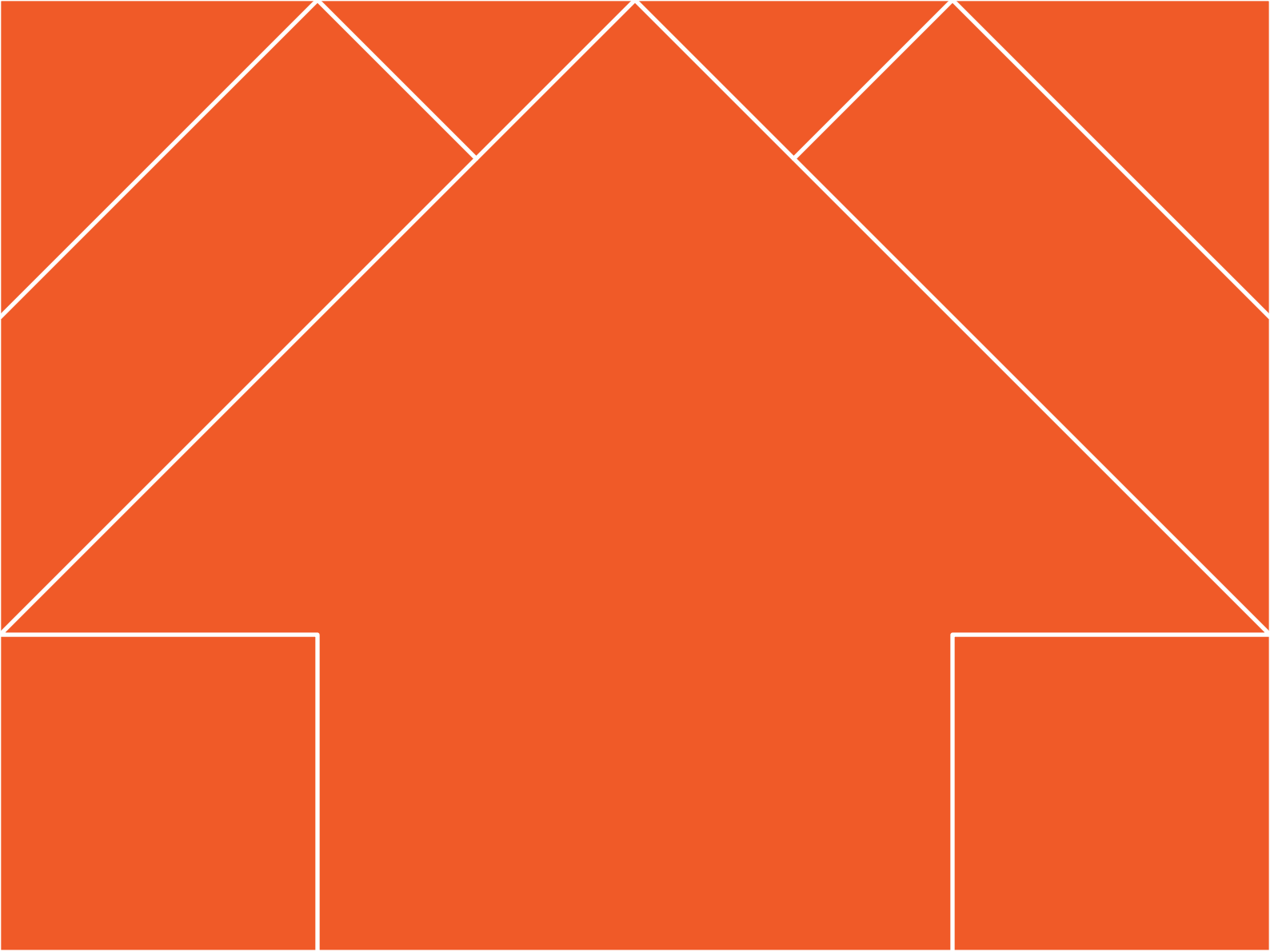
1. Water data indicates 60,901 residential properties were vacant in 2017 at a rate of 3.9%.
2. Absolute vacancies using zero litres of water revealed 21,326 residential properties at 4.6% of the total rental market.
3. The short term vacancy rate of 3.3% (SQM Research) could equate to 7.8% of investment properties if absolute vacancies were added.
4. Up to 16.2% of investor owned rental properties were potentially vacant.
5. Absolute vacancies had the potential to add 17.3% to housing for auction in 2017.
6. The Australian Bureau of Statistics must take a more active role in measuring vacancy.
7. The top 20 commercial vacancies (based on OLpD) averaged 13.6%.
 - a. Such vacancy placed undue pressure on small business, curbing their ability to compete, to provide wage increases.
8. With a three year lag since our last report, we note that speculative vacancy numbers were down 35.1%. This is commensurate with profit taking at the peak of the property cycle.
 - a. Vacancy is expected to increase over the coming years as speculators behave in a classic counter-cyclical fashion to snap up properties at the bottom of the market.
 - b. Speculative vacancies increased by 49% during the 2010 -11 low point.
9. Historical evidence points to the repeated occurrence of housing supply being turned off just at the point it could deliver affordability ie just as the market corrects.
10. Land speculators impede the market to economise their efforts - earning more by doing less. Enforcing scarcity adds additional pricing pressure to the market. This inversion puts the public interest directly against the interest of land speculators.
11. Speculative Vacancies are unethical and should not be encouraged. An urgent review of policy that contributes to increasing land and housing commodification is needed at both State and Federal levels.
12. Vacancies detected fall into three cohorts:
 - a. Gentrification patterns
 - b. Cultural attractors
 - c. Land banking 'in the path of development'
13. Land supply is a fundamentally flawed affordability strategy unless a counterweight to the market power of land banking is enacted.
14. A number of international policy responses have been implemented due to the pressure property speculation places on the wider community.
 - a. Many of these have focused on the taxation of foreign investment, which inadvertently protects local investors. Public education must continue to broaden such imposts.
15. Victoria's Vacant Residential Property Tax should be reformed to include:
 - a. All vacant land within the UGB
 - b. Charges on Site Value for non-strata titled sites
 - c. An escalating, sliding tax scale over time: the longer vacant, the higher the charge
 - d. Significant fines introduced for investors who fail to self-declare
16. A reformed State Land Value Tax (LVT) must be broadened to replace Stamp Duties. This is a more holistic technique to discourage vacancy that actively counters the market power land bankers enjoy. Such a policy switch will signal that both lazy land use and property flipping are no longer valid market activities.

Melbourne Top 20 Vacancy Map



#	Suburb	Ratio
1	BOX HILL/BOX HILL SOUTH	9.6%
2	BURWOOD	6.4%
3	BRUNSWICK WEST	5.3%
4	BELLFIELD (GREATER MELBOURNE) / HEIDELBERG HEIGHTS / HEIDELBERG WEST/	5.0%
5	FOREST HILL/NUNAWADING	4.6%
6	NORTHCOTE	4.4%
7	MACLEOD/YALLAMBIE	4.1%
8	DONCASTER	4.0%
9	BROADMEADOWS/DALLAS/JACANA	3.9%
10	ALPHINGTON/FAIRFIELD	3.3%
11	THORNBURY	3.2%
12	KOOYONG/MALVERN	2.9%
13	RESERVOIR	2.9%
14	EPPING	2.9%
15	DOREEN/MERENDA	2.7%
16	ATTWOOD/WESTMEADOWS	2.7%
17	GLENROY/HADFIELD/OAK PARK	2.7%
18	CRAIGIEBURN/MICKLEHAM/ROXBURGH PARK	2.6%
19	BRUNSWICK	2.6%
20	GLEN WAVERLEY/WHEELERS HILL	2.5%

■ Absolute vacancies
 Vacant Residential
 Property Tax boundary



Chapter 2: Methodology

Assessing if a property is vacant

What is a speculative vacancy?

Speculative Vacancies (SVs) are determined when sites are found to have abnormally low water consumption over a full twelve month period. We set the threshold for a SV at 50 LpD.

Absolute vacancies use 0LpD averaged over 12 months.

Residential water use averaged 161LpD per person per day over 2016-17.¹

Total water usage, including commercial property, averaged 252LpD.²

Data was compiled for 2017 by Melbourne's three water retailers Yarra Valley Water, South East Water and City West Water.

Abnormally low levels of water consumption are seen as a proxy for vacant land and housing. The measure isn't perfect, but it is the best indicator available, providing a useful measure of underutilisation. When we consider how important secure housing is to society, understanding changes in the use of housing stock should be a priority. The growing commodification of housing as an investment class has acted to compound 'hold-out' vacancies in a rising market.

Water consumption is a valid indicator of vacancy because, quite simply, nobody can survive without it. Importantly, consumers cannot change water providers mid-billing cycle like they can with electricity. This curtails data fragmentation, ensuring a consistent data set.

Our analysis over the entire 12 months gives detail on 1,579,906 dwellings out of a total possible 1,741,984.³ The report covers 95.1% of all dwellings within the Urban Growth Boundary.

The benchmarks

The 50LpD threshold was chosen because significant water use can be due to leaking pipes and taps. Sydney Water's website claims: "You can lose a few litres of water an hour from a slow dripping tap and thousands of litres a day from a constantly running toilet."⁴ There is also leaking from ageing underground pipes. Melbourne Water does not publicise the amount of such water loss, called "non revenue water". This could be calculated by comparing the difference between the volume of water purchased from Melbourne Water and the volume of water recorded on all customer meters. However, significant improvements have been made in reducing such leakages.⁵ Areas with leakages can be identified via excessive night time flows and acoustic equipment used to identify leaks.⁶

1 Melbourne Water Outlook 2018, <https://www.melbournewater.com.au/media/3791/download> (accessed Dec 18, 2018)

2 ibid

3 Op cit, ABS (2016)

4 Using water wisely, Sydney Water, <https://www.sydneywater.com.au/SW/your-home/using-water-wisely/leak-prevention/index.htm>

5 Annual water outlook, Melbourne Water, <https://www.melbournewater.com.au/sites/default/files/2017-12/Annual-Water-Outlook-2018.docx>

6 Leakage - more than smoke and mirrors, Hill, M, 2003, https://www.wioa.org.au/conference_papers/2003/pdf/6wioa2003.pdf

The report's benchmark of 50LpD sits at less than one third of average per capita consumption. If we multiply this by the average number of 2.6 people per household,⁷ the majority of households potentially consumed some 434 litres per day on average.

Some sites that may appear to be occupied are shown via water consumption analysis to be actually empty.

The study period is over the entire calendar year. If a property is vacant for a partial period due to renovation or rental vacancy, it will likely fall outside the the 50LpD threshold averaged over the 12 months.

In this light, our SV threshold looks very conservative, at more than one eighth of the average daily consumption.

As governments become more attentive to the problems of vacancy, water analysis could be improved with granular analysis of water consumption per day. This will assist in the identification of automated water consumption. Water authorities have this capability, including the ability to monitor the 'flush factor' during AFL Grand Finals.⁸

Due to privacy laws, we do not identify specific sites. If more granular data became available, a longitudinal study of particular sites would be a worthy avenue for further research. The impact of vacant sites on neighboring property values, community development rates and the returns to land banking could be quantified.

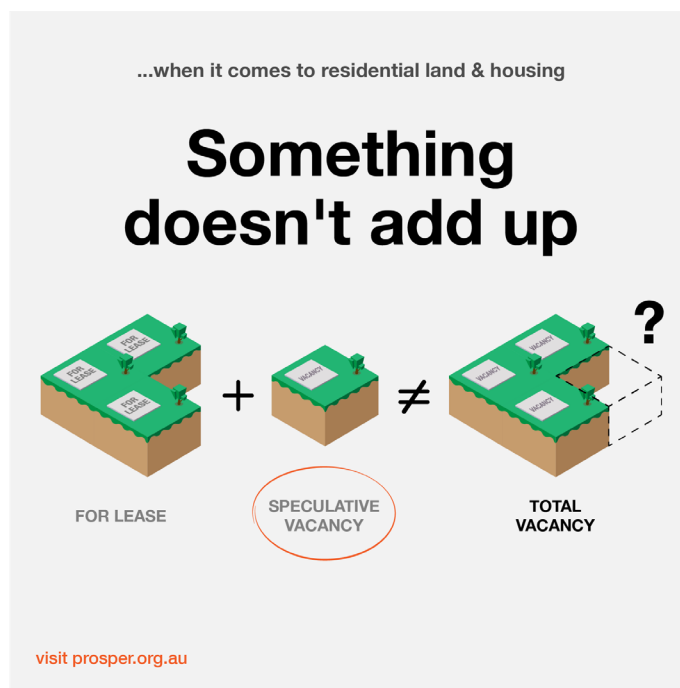
We accept that properties may be vacant for reasons beyond the landholder's ability to control. We have listed these biases accordingly:

See Table 1 (next page)

Variation in methodology from previous reports

The datasets provided by South East Water and City West Water now exclude body corporate sites with a single water meter. For example, the dataset we received from City West Water surveyed 79,325 fewer properties compared with our last report. City West Water services 18.2% of Melbourne's water market.

In respect to the situation that 'Greater Melbourne' includes regions where holiday homes may distort findings, these areas have been removed from the study. This reduces the total number of households analysed by 76,089 and reduces the absolute vacancy rate by 0.1%.



7 ABS Census 2016, Victoria, http://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/2?opendocument

8 Melbourne water spikes used to rank greatest afl grand finals, <https://utilitymagazine.com.au/melbourne-water-spikes-used-to-rank-greatest-afl-grand-finals/>

Table 1

Factor	Bias	Notes
Large development sites	↓	A number of zero litre sites could be suitable for a medium to large redevelopment, resulting in three or more potential dwellings.
Fly in Fly out workers	↑	Low water usage may result
Air BnB	↓	5.4% of Melbourne CBD's rental stock is now a dedicated Air BnB rental.
Deceased estates	↑	26,829 deaths occurred in Melbourne, 2017. Settlement times can push sites over the 12 month threshold, particularly for those early in the year. ¹
Land banks	↓	Evidence shows that larger development companies bank land in advance of development. ²
Development delays	↑	Whilst most councils can respond to a development application within three months, other issues may delay a site over the 12 month time period including finance, architectural design and attaining a builder. ³
Detection from point of sale only	↓	Most large estates do not turn water metres on until the point of sale. Due to this, large undeveloped land banks are not covered by this report.
Water leaks	↓	Water leaks rise above the cut-off point and are thus excluded as a speculative vacancy ⁴ .
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 ⁵ .
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) ⁶ .
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 ⁷

1. ABS 3302, Deaths, <https://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0>

2. Englobo report, <https://www.prosper.org.au/2014/10/31/land-banking-profits-during-a-housing-supply-crisis-englobo-2014/>

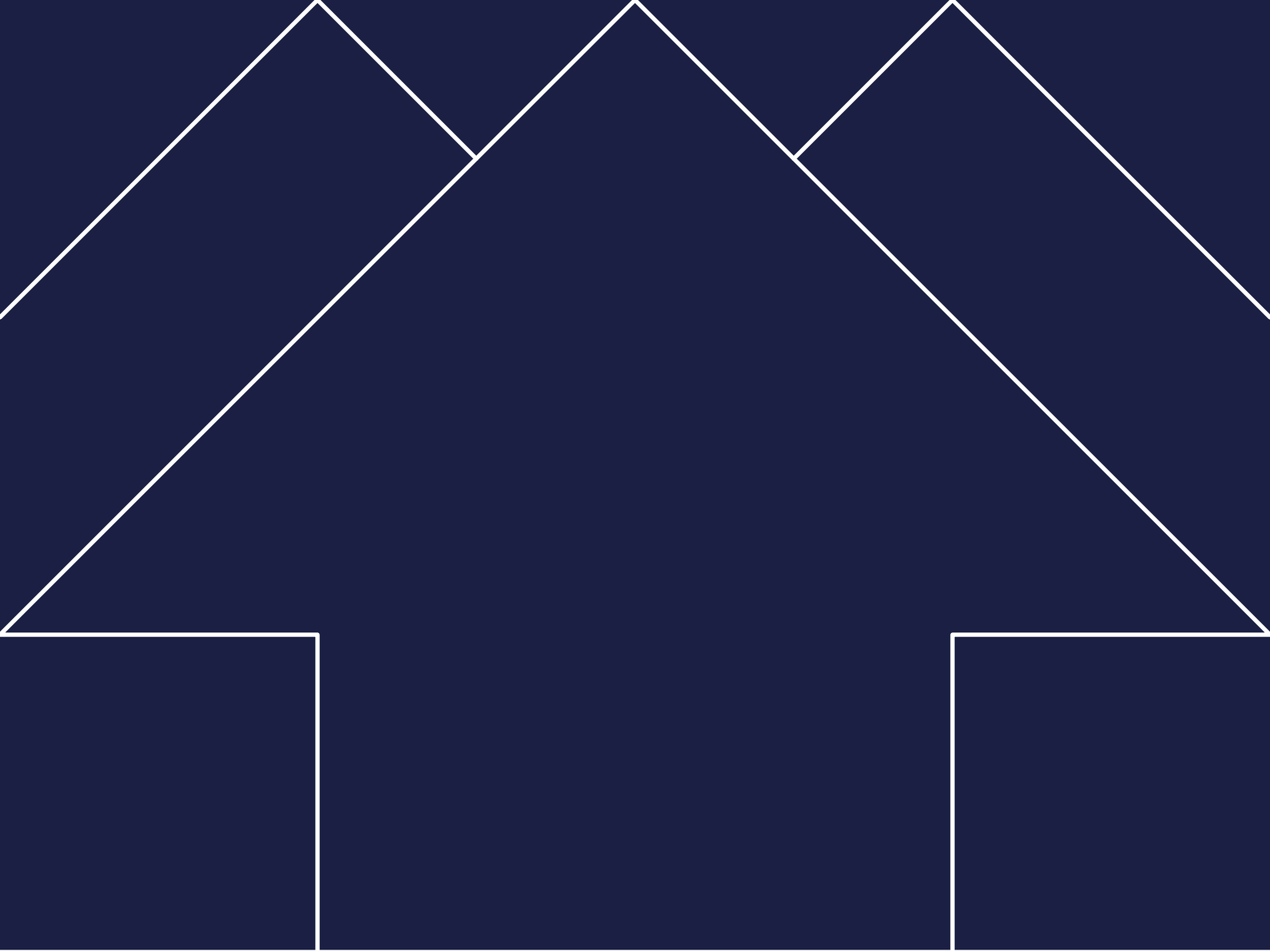
3. Building permits - the fastest and slowest councils in Victoria, <https://www.domain.com.au/news/building-permits-the-fastest-and-slowest-victorian-councils-for-processing-20171110-gzi07n/>

4. 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).

5. 2 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.

6. 3 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.

7. 4 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



Chapter 3: Findings & Analysis

Water analysis from Victoria's three main suppliers Yarra Valley Water, South Eastern Water and City West Water covered 95.1% of residential areas across 258 suburbs.

The headline numbers include 21,326 residential properties using zero litres of water at a 1.3% SV rate. This is a 16.7% reduction from our 2015 report. For the 50LpD threshold, 60,091 sites were detected over the 12 month period at a rate of 3.9%. This constituted a 35.1% fall - commensurate with the state of the property cycle in 2017.

Analysis of non-residential property found a 9.1% vacancy rate, with 10,693 properties demonstrably vacant - consuming zero LpD. As there are approximately 25,000 commercial auctions conducted nationally per annum, vacancies clearly signify additional pressure on productive business.

We expect that many of these vacancies will re-enter the market during the 2019-20 property cycle downturn, further accentuating the correction in prices. This is the inherent risk of vacancy hold-outs - they broadcast prices upwards during boom times and weigh them down in the correction phase.

If absolute residential vacancies were expressed as a share of the rental market (arguably a more accurate measure), Melbourne's vacancy rate would reach 7.8%.

With 123,469 auctions occurring during the year, another 17.3% of supply could have been available if the absolute vacancies were placed on the market. It must be noted that many of these sites will be subdivided, inferring dormant supply could in fact be two to three times greater.

Something doesn't add up when \$20 billion (21,326 @ \$900,000) in residential property is held vacant during the peak of the Melbourne property bubble. Yearly capital gains regularly exceed rental incomes. Under these conditions, some property investors prefer to keep sites empty.

Total residential water consumption by water retailer.

Table 2

Water Retailer/ Property Type	Total	OL/day	Ratio	<=50L/day	Ratio
City West Water - Residential	300,317	2,083	0.7%	9,258	3.1%
South East Water - Residential	614,483	4,015	0.7%	16,376	2.7%
Yarra Valley Water - Residential	665,106	15,228	2.3%	35,267	5.3%
Total Residential	1,579,906	21,326	1.3%	60,901	3.9%

Total commercial water consumption by water retailer.

Table 3

Water Retailer/ Property Type	Total	OL/day	Ratio	<=50L/day	Ratio
City West Water - Residential	20,105	822	4.1%	4,151	20.6%
South East Water - Residential	48,386	2,696	5.6%	11,324	23.4%
Yarra Valley Water - Residential	49,228	7,175	14.6%	16,370	33.3%
Total Commercial	117,719	10,693	9.1%	31,845	27.1%

Table 4

No.	Postcode	Suburb(s)	Total	OL/day	Ratio	<=50L/day	Ratio
1	3128	BOX HILL/BOX HILL SOUTH	9,863	943	9.6%	1,521	15.4%
2	3125	BURWOOD	6,369	409	6.4%	758	11.9%
3	3055	BRUNSWICK WEST	7,421	396	5.3%	715	9.6%
4	3081	BELLFIELD (GREATER MELBOURNE) /HEIDELBERG HEIGHTS/HEIDELBERG WEST/	6,321	314	5.0%	581	9.2%
5	3131	FOREST HILL/NUNAWADING	9,339	428	4.6%	731	7.8%
6	3070	NORTHCOTE	11,273	499	4.4%	956	8.5%
7	3085	MACLEOD/YALLAMBIE	5,339	221	4.1%	298	5.6%
8	3108	DONCASTER	10,398	419	4.0%	1,173	11.3%
9	3047	BROADMEADOWS/DALLAS/JACANA	7,47	294	3.9%	484	6.5%
10	3078	ALPHINGTON/FAIRFIELD	5,201	172	3.3%	338	6.5%
11	3071	THORNBURY	8,82	282	3.2%	590	6.7%
12	3144	KOOYONG/MALVERN	4,863	142	2.9%	255	5.2%
13	3073	RESERVOIR	21,839	629	2.9%	1,249	5.7%
14	3076	EPPING	11,524	330	2.9%	524	4.5%
15	3754	DOREEN/MERENDA	15,573	426	2.7%	1,053	6.8%
16	3049	ATTWOOD/WESTMEADOWS	3,599	97	2.7%	187	5.2%
17	3046	GLENROY/HADFIELD/OAK PARK	14,743	395	2.7%	882	6.0%
18	3064	CRAIGIEBURN/MICKLEHAM/ROXBUR GH PARK	27,227	714	2.6%	2,004	7.4%
19	3056	BRUNSWICK	11,89	311	2.6%	820	6.9%
20	3150	GLEN WAVERLEY/WHEELERS HILL	22,922	583	2.5%	1,069	4.7%

Residential

The twenty suburbs with the highest absolute vacancy rates are listed in Table 4. Only suburbs with total dwelling numbers greater than 1000 were included. Box Hill was ranked at number one for the first time in the history of our study, with a 50LpD SV rate of 15.4%. Absolute vacancies were at 9.6%, suggesting significant underutilisation in this real estate hot spot. An analysis of the Top 20 suburbs reflects a number of investor strategies designed to maximise speculative profits with the least effort.

Speculative vacancies in Brunswick West, Northcote, Fairfield, Thornbury, Reservoir and Macleod/Yallambie may reflect an investment strategy leveraging demographic change and cultural attractors. Investors purchase in areas where, as one property spruiker recently explained, 'we wait for the cool crew to turn up with their fancy pizza shops, cafes and bars'.⁹ The art of speculation is to hold land and wait as demographic change gentrifies the area. This is consistent with the 'rent gap' theory of gentrification.¹⁰

9 Tax Minimisation for Lawyers seminar, November 13, 2018, 1 Collins St Melb

10 Smith, Neil. "Gentrification and the Rent Gap." *Annals of the Association of American Geographers*, vol. 77, no. 3, 1987, pp. 462–465. JSTOR, www.jstor.org/stable/2563279.

Gentrification theory works something like:

- Property investor researches areas where artists searching for cheap rents are most likely to move to next.
- Buy and wait
- Potentially offer cheap rent to artists
- Lobby local council to engage in cultural festivals.
- Lobby state government for infrastructure upgrades, late night licensing in the locale.
- Aspirationalists move in.
- Land prices increase.
- Rents increase over time.
- Apply for Development Approval (DA)
- Sell with rezoning potential for a sizeable profit.
- Artists move further out... And so the cycle repeats.

One could reasonably deduce that the suburbs of Brunswick West (9.6%), Reservoir (5.7%), Heidelberg (9.2%) and Macleod/ Yallambie (5.6%) are locations where this cultural development is in play. They are emerging markets.

Brunswick (6.9%), Northcote (8.5%), Fairfield (6.5%) and Thornbury (6.7%) are mature demographic holdings which over time will deliver “unearned incomes” (income derived from passively holding an appreciating monopoly asset; income that requires no productive economic contribution) due to their scarcity.

For the eastern suburbs of Box Hill (15.4%), Glen Waverley (4.7%), Burwood (11.9%), Nunawading (7.8%) and Doncaster (11.8%), it is possible SVs are being held by families hoping to attain permanent residency.

SVs in these suburbs may also be held as part of an investment portfolio for those who understand this particular niche in the housing market. Box Hill has a large proportion of residents born in the People’s Republic of China, 35.4%, Doncaster 26.6% and Burwood 22.1%.¹¹

Strategic holdings in peri-urban locations Broadmeadows (6.5%), Craigieburn (7.4%), Mernda (6.8%) and Epping (4.5%) all fit the profile for land holdings ‘in the path of development’.¹² Under current policy settings, it is perfectly rational to purchase sites with the primary intention of land banking. This strategy withholds land supply from the market in order to accentuate higher prices. No other industry allows such an abuse of market power.

Yarra Glen (6.6%), Wallan (6.8%) and Warburton (10.2%) were additional areas where hoarding in the path of development appeared in our findings.

11 Op cit, ABS (2016)

12 <http://www.landbankinginca.com/>

Our prudential regulators do not go so far as to promote land banking, but they do not condemn the practice. ASIC warns: "Land banking is a real estate investment scheme that involves buying large blocks of undeveloped land with a view to selling the land at a profit when it has been approved for development. You may think land banking is a way to expand an existing investment portfolio or get into the property market, however, there are some things you should be aware of before you hand over your money."¹³ They warn about the dangers of property spruikers massaging headline numbers and emphasise the need for potential investors to exercise due diligence. According to our macroprudential overseers, while land banking can be risky, it is not problematic. While much attention is paid to systemic risks in the banking system, who is guarding against the systemic risks posed to orderly development by land bankers?

The Consumer Law Act provides "[a] general ban on unconscionable conduct in trade or commerce and specific bans on unconscionable conduct in consumer and some business transactions".¹⁴ "Conduct may be unconscionable if it is particularly harsh or oppressive. To be considered unconscionable, conduct must be more than simply unfair—it must be against conscience as judged against the norms of society."¹⁵

At this point in time, the excessive profits delivered by rezoning windfalls are not seen as a driver of 'harsh' mortgages against the norms of society. Neither ASIC nor APRA have the mandate to investigate this practice, unless financial products such as property options are offered.¹⁶ Therefore land banking falls outside the scope of regulation. For an industry representing a \$5 trillion asset class, the property sector are in urgent need of further oversight.

13 <https://www.moneysmart.gov.au/investing/investment-warnings/land-banking>

14 <http://consumerlaw.gov.au/the-australian-consumer-law/legislation/>

15 *ibid*

16 ASIC acts against 21st century group and Jamie McIntyre land banking schemes
<https://asic.gov.au/about-asic/news-centre/find-a-media-release/2015-releases/15-214mr-asic-acts-against-21st-century-group-and-jamie-mcintyre-land-banking-schemes/>

The strategy of buying in the path of development underlines the monopolistic nature of property markets.¹⁷

This is fundamentally why we ask policy makers to look at speculative hoarding as a root cause to the ensuing affordability issue. The Speculative Vacancies report advocates such behaviour is unethical and should not be encouraged. A reformed land tax could make hold-outs engage in a more competitive property market.

It is this process that makes 'more land supply' an unsatisfactory answer to housing affordability pressures.

In the case of growth area land banks, properties may not have been water metered at all. Once rezoned and developed, they may have thousands of water meters. The vast majority of land banks that are rezoned and characterised as "development ready" do not appear within our water consumption data. Water meters are not turned on for new lots until the 'point of sale'. Lots are slowly released to the market in what is known as 'staged releases'. Prosper Australia sees the use of 'staged releases' to drip-feed lots to the market at ever higher prices as a key concern.

Interestingly, the 2013 Speculative Vacancies report revealed SV rates of 46.7% reported over the 12 months in the Clyde region. This level of vacancy has not been recorded in any greenfields growth area in any subsequent report.

This outlier may be due to an error in the data. Such high vacancies may also have been caused by the developer inadvertently turning on the water meters too early.¹⁸

The blue-ribbon suburb of Kooyong/Malvern is the only postcode that does not fit into the speculative cohorts listed above - of demographic, cultural or land banking strategies. With its prime location close to the city, beautiful parks and wealthy neighbors, landholdings here simply fit the classic 'buy and wait' real estate strategy.

Commercial Vacancies

Vacancies in the commercial sector are categorised as non-residential property, the analysis covering both industrial and commercial sites.

Commercial consumers are significant beneficiaries of water. In 2016-17, manufacturing and other industries consumed 24.2% of water in Victoria.¹⁹ Residential accounted for 38.5% with sewerage and drainage services accounting for most of the remainder.

According to Savills, 2017 began with "Melbourne's CBD retail leasing market remains as tight as ever, with just 39 vacancies among 1181 shops, according to new data."²⁰ However, water consumption revealed more than double the 'advertised' vacancy rate, with 90 CBD properties consuming no water over the year.

A number of suburbs in the top 20 commercial vacancies also appear in the top 20 residential vacancies list. Box Hill (36%), Glen Waverley (31.3%) and Brunswick (8.6%) are three such examples. This reflects strategic land hoarding for the integration of residential and commercial precincts.

The twenty suburbs with the highest vacancy were: **See Table 5 (next page)**

17 <http://www.proland.com/land-banking-success/>

18 Speculative Vacancies 7, https://www.prosper.org.au/wp-content/uploads/2014/11/Speculative_Vacancies-2014_final.pdf

19 ABS, 4610, (of urban water consumption, excluding agricultural, forestry, fishing and mining).

20 No room to move in tight Melbourne retail scene, <https://www.realcommercial.com.au/news/no-room-to-move-in-tight-melbourne-cbd-retail-scene>

Table 5

No.	Postcode	Suburb(s)	Total	0L/day	Ratio	<=50L/day	Ratio
1	3128	BOX HILL/BOX HILL SOUTH	1,084	390	36.0%	499	46.0%
2	3150	WHEELERS HILL/GLEN WAVERLEY	1,093	342	31.3%	507	46.4%
3	3122	HAWTHORN	1,205	313	26.0%	451	37.4%
4	3134	RINGWOOD NORTH/RINGWOOD/WARRANTYTE SOUTH/WARRANWOOD	1,274	299	23.5%	565	44.3%
5	3072	PRESTON	1,646	326	19.8%	611	37.1%
6	3136	CROYDON SOUTH/CROYDON/CROYDON HILLS/CROYDON NORTH	1,005	171	17.0%	346	34.4%
7	3149	MOUNT WAVERLEY	1,107	169	15.3%	405	36.6%
8	3058	COBURG/COBURG NORTH	1,814	236	13.0%	622	34.3%
9	3189	Wishart/Moorabbin/Moorabbin East	1,763	174	9.9%	606	34.4%
10	3166	Oakleigh/Oakleigh East/Hughesdale/Huntingdale	1,176	116	9.9%	325	27.6%
11	3073	RESERVOIR	1,033	94	9.1%	288	27.9%
12	3168	Notting Hill/Clayton	1,294	113	8.7%	309	23.9%
13	3056	BRUNSWICK	1,354	116	8.6%	349	25.8%
14	3810	Rythdale/Pakenham Upper/Pakenham South/Pakenham	1,076	91	8.5%	353	32.8%
15	3074	THOMASTOWN	2,135	142	6.7%	682	31.9%
16	3201	Carrum Downs	1,282	81	6.3%	424	33.1%
17	3198	Seaford	1,008	57	5.7%	279	27.7%
18	3171	Sandown Village/Springvale	1,242	67	5.4%	335	27.0%
19	3192	Cheltenham East/Southland Centre/Cheltenham	1,373	71	5.2%	397	28.9%
20	3142	Hawksburn/Toorak	1,044	53	5.1%	328	31.4%

The top 10 commercial localities average a notable 20.2% vacancy rate.

Extending to the top 20 commercial listings, there was an average 13.5% vacancy rate. These are locations that use zero litres of water over 12 months. This has an impact on commercial prices and rents, particularly considering the 3,421 properties quantified in the top 20 account for some 14% of all commercial properties sold - nationally.²¹

With the Federal government expecting wage rises to support GDP growth, the pressure vacancy places on industrial and commercial rents (and prices) leaves small business with little headroom to support their employees. The productive sector needs to recognise that every vacant site they pass each day raises the likelihood of a rent rise. Likewise, every extra dollar spent on higher property prices is a dollar less to be spent within small business.

An urgent investigation is needed into the commodification of industrial and commercial property. How is it a valid market outcome for such high vacancy to exist in vibrant commercial hubs such as Box Hill (36%) or Hawthorn (26%)?

²¹ <https://www.corelogic.com.au/products/property-information-monitor>



Chapter 4:
Housing Affordability,
Speculation, and Vacancy

2017 saw the first hints of a changing Australian property market. Melbourne's auction clearance rates started to fall in the spring of 2017. Median prices had risen above \$900,000 for the first time.²²

As an indication of the heat in the market, national land prices increased by \$660.3 billion in the financial year to June 2017. Victorian land values increased by \$189.4 billion over this same period.²³ In comparison, total national EBITDA banking profits summed \$53.7bn.²⁴ Despite this, not one news outlet reported the near-record increase in land values.²⁵

For many First Home Buyers, the pressures continued with first home buyer mortgages increasing on average from \$329,800 to \$353,400 over the year.²⁶ Wage growth remained flat.

The property market moves rapidly. But memories fade. Consider the concern if in 2012 forecasters had predicted Melbourne's housing prices were to increase 55% in just the next 6 years?²⁷ Such foresight may well have driven policy makers to prioritise effective land reform after the real estate inspired Global Financial Crisis.²⁸ Despite the long list of housing inquiries and policy busywork,²⁹ housing policy at the Federal level remained poorly targeted.

At the state level Victoria enacted the Homes for Victorians³⁰ policy suite that was criticised for:

- A shared equity program - enabling purchasers greater buying power leads to higher prices.
- A vacancy tax that sidestepped vacant land.³¹
- A doubling of the regional first home buyers grant, leading to regional prices outstripping urban.³²

As prices accelerated and policy makers continued to pursue ineffective reforms, speculators could afford to sit still as immigration boomed and infrastructure was built around their investment. One such example was a vacant property in Port Melbourne that was sold for the first time in 112 years for a record \$2.055 million.³³

To exemplify, land taxes on a once affordable landholding in Sunshine barely cost \$1,000 per annum. Estimating council rates at \$1,700, the \$2,700 in total holding costs pales in comparison to the \$30,000 - \$50,000 in capital gains such a landholder enjoyed each year. A higher land tax would, of course, discourage the hoarding of vacant land.

22 Domain house price report, <https://www.domain.com.au/product/domain-house-price-report-december-2017/>

23 ABS, 5204061, 2016-17 (land values were revised upwards from \$594bn)

24 APRA, The Quarterly Authorised Deposit-taking Institution Property Exposures Statistics, June 2018 <https://www.apra.gov.au/publications/quarterly-authorised-deposit-taking-institution-property-exposures>

25 National land prices up \$594 billion, <https://www.prosper.org.au/2017/10/28/national-land-prices-up-594-billion/>

26 ABS, 5609, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5609.0Main+Features1September%202018?OpenDocument>

27 Securitisation and the Housing Market, Christopher Kent, RBA, <https://www.rba.gov.au/speeches/2018/sp-ag-2018-11-26.html>

28 The Total Resource Rents of Australia report, http://www.prosper.org.au/wp-content/uploads/2013/12/TRRA_2013_final.pdf

29 Are Governments Really Interested in Fixing the Housing Problem? Policy Capture and Busy Work in Australia. Nicole Gurran & Peter Phibbs <https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F02673037.2015.1044948>

30 Homes for Victorians, <https://www.premier.vic.gov.au/homes-for-victorians/>

31 Pitfalls loom for vacancy taxes, <https://www.prosper.org.au/2017/05/15/pitfalls-loom-for-vacancy-taxes/>

32 Regional Victorian house prices steadily rises, <https://www.smartpropertyinvestment.com.au/research/17978-regional-victoria-house-prices-steadily-rises-according-to-new-data>

33 Small vacant block in Port Melbourne sells for more than 2 million and sets a suburb record, <https://www.domain.com.au/news/small-vacant-block-in-port-melbourne-sells-for-more-than-2-million-and-set-a-suburb-record-20160910-grde3n/>

Table 6

Year	Number of SVs using <50LpD	Percentage of SVs using <50LpD	Mainstream 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	2.3
2014	82,724	4.8	3.0
2017	60,901	3.9	3.3

Cyclical Analysis

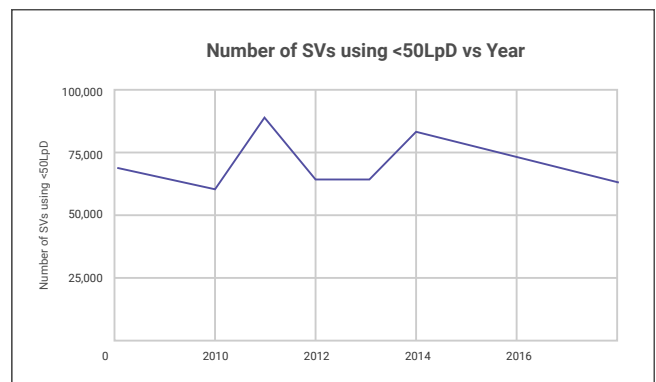
Speculative Vacancy findings since 2008 provide an opportunity to investigate how investor incentives align with oscillations in vacancy. Potential landholders should be aware of these market drivers.

The state of the economic cycle has seen SV's fall by 35.1% since our previous report.

A minor aspect to this decrease is due to the noted changes in methodology. The fall in vacancy numbers could be more generally seen as akin to profit-taking in the sharemarket. Many investors holding prime locations for speculative gains rather than rental returns may have cashed out at the peak of the market, while the new buyers have a longer-term focus on rental returns.

As the land and housing correction unfolds, we expect speculative vacancies to rise over the next 12-24 months. Savvy investors can be expected to buy in a classic counter-cyclical manner. Their strategy - to patiently wait for land price inflation to deliver substantial windfalls with very little effort. During the last downturn, SVs jumped by a sizeable 49% between 2010-11 as investors bought at the low point.

Figure 3



This is contrary to standard static economic theory, where higher prices are expected to result in greater supply. In the light of land's monopolistic nature, Dr Cameron Murray challenges such a simplistic approach. "Instead of housing supply responding to prices, it responds to the rate of return of different asset classes."³⁴ Dr Murray has demonstrated how in a rising market rational investors maximise returns not only by facilitating additional housing supply but augmenting this with additional land banking. There is no motive to sell in the short term when prices increase over time. Then when conditions change, and higher rates of return can be earned in other fields, the market is flooded with property, accentuating the correction.

Fiscal policy has the potential to flatten the peaks and troughs in the property cycle by removing the potential for capital gains. The preferred tool is a land value tax, which not only taxes away potential windfalls but also improves behaviour by making it uneconomic to hold property vacant.

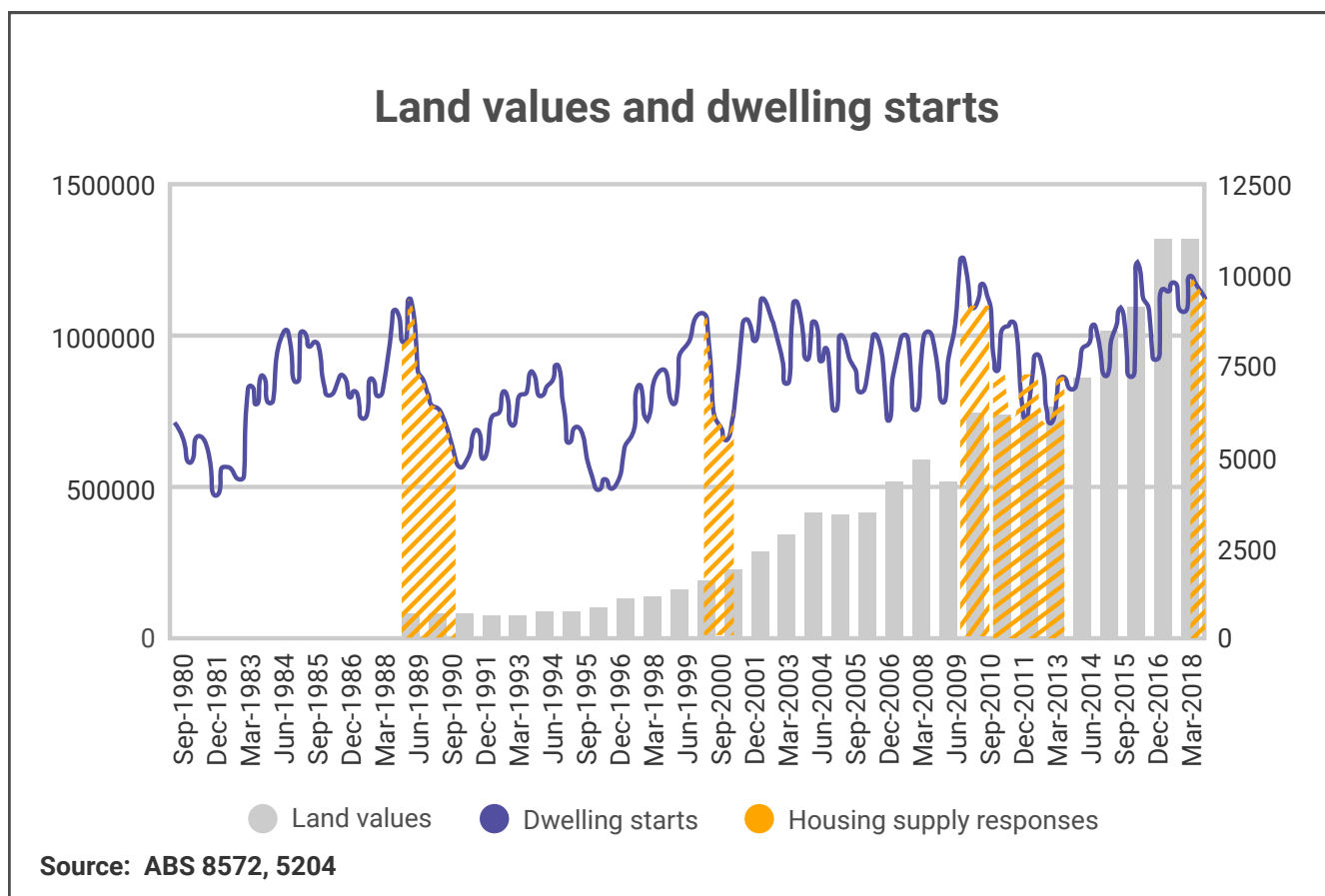
34 <https://www.fresheconomicthinking.com/2018/12/solving-housing-supply-mystery.html>

With interest-only loans set to roll over in extraordinary numbers in the next few years,³⁵ we might expect downward pressure on prices. Macroprudential reforms which tightened interest-only lending in March 2017 are widely cited as a cause of the property market downturn. These reforms were expected to continue, but with the December 2018 announcement that ASIC will loosen the 30% cap on interest-only loans,³⁶ the ability for investors to buy and hold at minimal cost may well remain.

Will the continuation of cheap, interest only loans place additional pressure on vacancy levels? This will be determined by the extent of the expected fall in housing construction. After decades of lobbying, industry advocates have made much of 'record land supply shortages'.³⁷ Planning delays and other supply-side obstacles such as environmental regulation were emphatically linked to the affordability crisis. Industry peak bodies such as the Property Council of Australia, the Urban Development Institute and the Housing Industry Association repeatedly lobbied for government to rezone and deregulate.³⁸ It is worth noting, however, that as soon as housing headwinds are felt, the private sector supply spigot is turned off and scarcity reinforced. This reflects the fundamental imbalance in urban development and housing policy. The private sector has few incentives to supply housing if that supply erodes the profitability of their product.

Figure 4 demonstrates in orange how Victorian housing supply is affected by the constraints and interests of private housing providers. In 1989-90 dwelling starts were nearly halved as the recession accelerated. We can't blame the property industry for doing this - it makes perfect economic sense. In 2000 supply was again significantly impacted due to the GST on housing and the resultant house price uncertainty. National land prices soon accelerated on the back of the 1999 Capital Gains Tax discount.

Figure 4



35 SMH does interest only loans, <http://digitalfinanceanalytics.com/blog/smh-does-interest-only-loans/>

36 Banking and finance regulator moves to scrap limit on interest only home loans, <https://www.smh.com.au/business/banking-and-finance/banking-regulator-moves-to-scrap-limit-on-interest-only-home-loans-20181219-p50n49.html>

37 REIV submission to the Outer Suburban/Interface Services and Development Committee inquiry into the impact of the State Government's decision to change the Urban Growth Boundary, https://www.parliament.vic.gov.au/images/stories/committees/osisdv/iugb/OSISDC_UGB_sub90_REIV_12.10.09.pdf

38 <https://hia.com.au/IndustryPolicy/MediaCentre>

In 2008-09 supply was wound back in response to the Global Financial Crisis. The Federal stimulus package included the First Home Owners Boost, the Christmas bonus of \$900, the ability of Self Managed Super Funds to invest in residential real estate, and a record jump in immigration. This was the result of a government acting aggressively to stave off recession. Accompanying this was the \$14.7 billion Building the Education Revolution package for new school halls³⁹ and extensive 'nation-building' infrastructure projects. These factors acted to underpin construction activity and bolster housing market confidence. Additionally, interest rates were pushed to record lows. Once these property handouts were digested, supply was quickly ramped up.



By 2011-12, as the Australian economy faced its post-GFC hangover and land values fell, housing supply levels also fell.

By mid-2013 the windback had its desired result and Victorian land prices boomed all the way through to late 2017. This turning point was highlighted by a slowing of the rate of credit growth as prudential reforms tightened amidst the looming Financial Services Royal Commission. Foreign investment reforms also started to take effect. Somewhere in the psyche of the Australian home buyer sat the recognition that the housing bubble had run its race. Accordingly, housing commencements were again wound back. This supply roll-back occurred despite thousands of cumulatively rezoned sites by obliging state governments.

Record low interest rates, immigration, the Chinese economic boom, SMSF residential investment and foreign investment controls were all contributing factors to prices on the way up. However, policy makers ought to look more closely at the dynamics of private sector supply when market conditions waver. Specifically, the constraints and incentives that manufacture scarcity: drip feeding developable lots onto the market or otherwise managing supply.

Greater analysis is paramount when housing affordability policy focuses almost exclusively on supply side remediation. Expecting developers to keep building in order to reduce house prices is irrational. Policy makers should not rely on industry to act in a pro-cyclical manner during boom times and a counter-cyclical manner during corrections.

Developers cannot afford to behave altruistically.

Developers cannot announce price reductions at will. Heavily leveraged developers are also heavily constrained. Banks are quick to lean on developers who discount prices, calling in the difference of the margin loan. Revaluation of the land assets on a financiers balance sheet can bankrupt a project. It also presents important credit constraining implications for the bank, which can no longer lend as much without the benefit of land price inflation. For this reason developers willingly offer free landscaping, kitchen fitouts or a cash cheque, but not a drop in price during a market correction.

39 Building education revolution, <https://ministers.jobs.gov.au/gillard/building-education-revolution-new-and-upgraded-buildings-every-australian-school>

Return on Public Policy

For the past 40 years, the Victorian government's approach to housing has consisted largely of enabling private, market-based home ownership. This approach is confluent with housing policy at the Federal level.

Examples of this kind of policy direction include:

- Direct subsidies to households to enable market participation including Commonwealth Rental Assistance and First Home Buyers Grants.
- The Stamp Duty waiver for first home buyers for properties under \$600,000
- Land release and rezoning

Most recently, Homes for Victorians⁴⁰ included:

- A residential vacancy tax that sidestepped vacant land.
- Precinct Structure Plans for another 100,000 lots predominantly on the peri-urban fringe.
- Additional resources and processes to increase 'as of right' planning permission.
- A doubling of the regional first home buyers grant.⁴¹
- Funds to support the social housing sector.
- Improved residential tenancy regulations to give private renters more power.
- New pilot projects:
 - i. A private shared equity program - enabling purchasers greater buying power leads to higher prices.
 - ii. Inclusionary zoning for affordable housing on government-owned land.

Demand-side measures such as the Vacancy Tax and the stamp duty surcharge for foreign investors⁴² also exist.

In 2015 Victoria had an asset base of 64,811 public housing dwellings. This represents 2.6% of total housing stock, which is significantly lower than other states.⁴³

At the Federal level, the major levers for increasing housing affordability are fiscal and macroprudential. Often cited reforms include increasing the capital gains tax on residential property and abolishing negative gearing. The March 2017 cap on interest-only loans⁴⁴ triggered a market contraction, with auction clearance rates softening by the spring quarter.⁴⁵ Reduced investor demand positively impacted housing affordability.

Public policy emphasis aims to grease the wheels of private sector development.

40 Homes for Victorians, https://www.vic.gov.au/system/user_files/Documents/housing/FINAL%20PDF%20DTF046_Q_housing01.pdf

41 Regional Victorian house prices steadily rise, <https://www.smartpropertyinvestment.com.au/research/17978-regional-victoria-house-prices-steadily-rises-according-to-new-data>

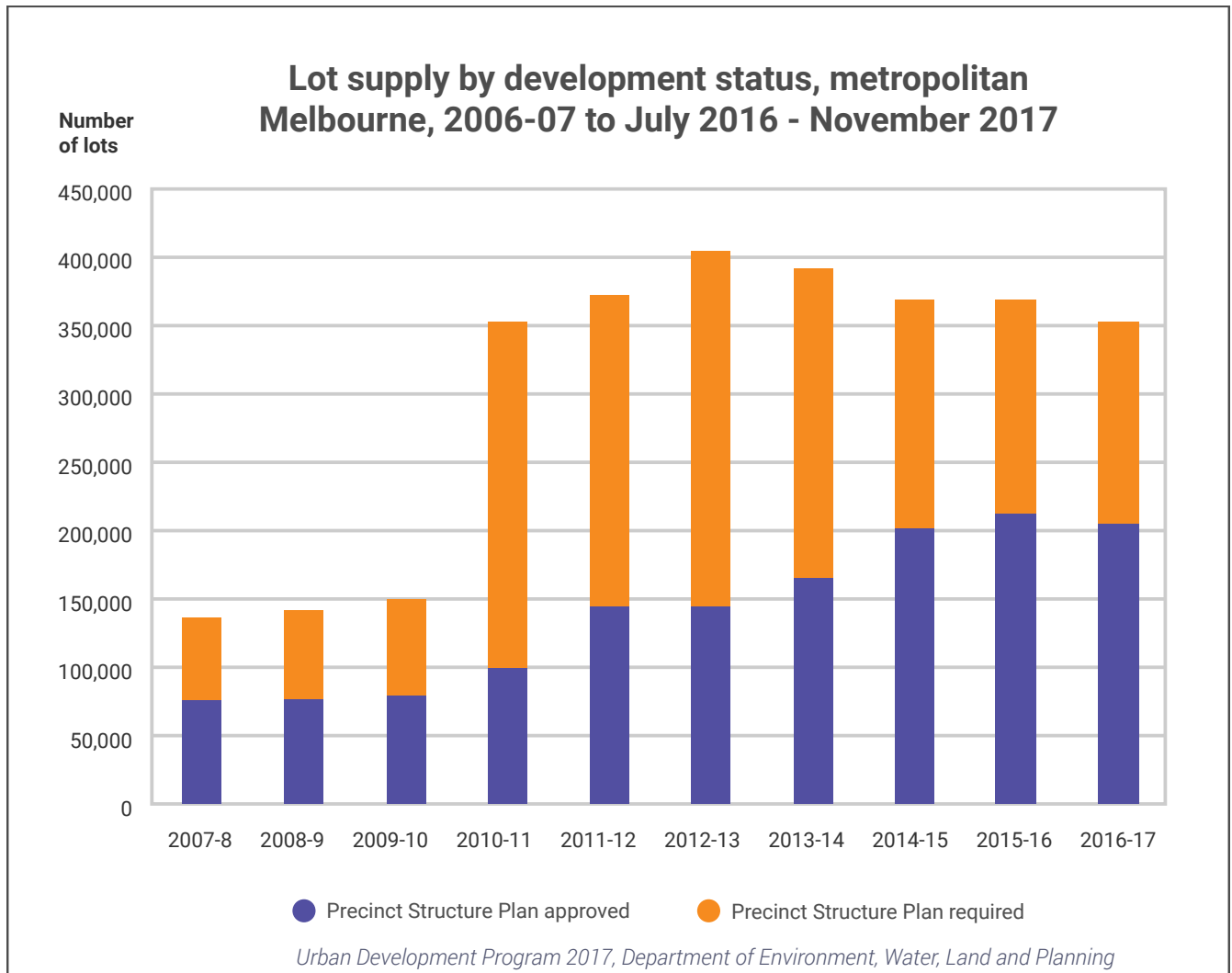
42 Foreign stamp duty liability, <https://www.sro.vic.gov.au/node/1658>

43 Transforming housing, University of Melbourne, <https://msd.unimelb.edu.au/research/projects/current/transforming-housing#research-and-publications>

44 Interest-only lending plunges amid APRA crackdown, bank rises, <https://www.abc.net.au/news/2017-12-05/interest-only-lending-plunges-apra-crackdown-bank-rate-rises/9227906>

45 Auction clearance rates drop in Melbourne and Sydney, <https://thenewdaily.com.au/money/property/2017/09/18/auction-clearance-rates-drop-melbourne-sydney/>

Figure 5



If housing supply was the critical factor, then a much greater return on public policy should be anticipated. After all, Victoria has pursued an aggressive rezoning agenda under successive governments. None was so enthusiastic as former Planning Minister Matthew Guy - dubbed “Mr Skyscraper”.⁴⁶

Minister Guy rezoned an entire industrial area of Melbourne (Fisherman’s Bend) overnight, with the 250 hectare ‘Fishermans Bend Urban Renewal Area’ declared a ‘site of State significance and rezoned as part of an expanded Capital City Zone’.⁴⁷ A number of insiders made millions from the bureaucratic ‘golden pen tick’.⁴⁸

Commentators struggled to keep up with the number of skyscrapers Guy approved, with some quantifying 30 developments, ranging between 19 to 71 storeys high.⁴⁹

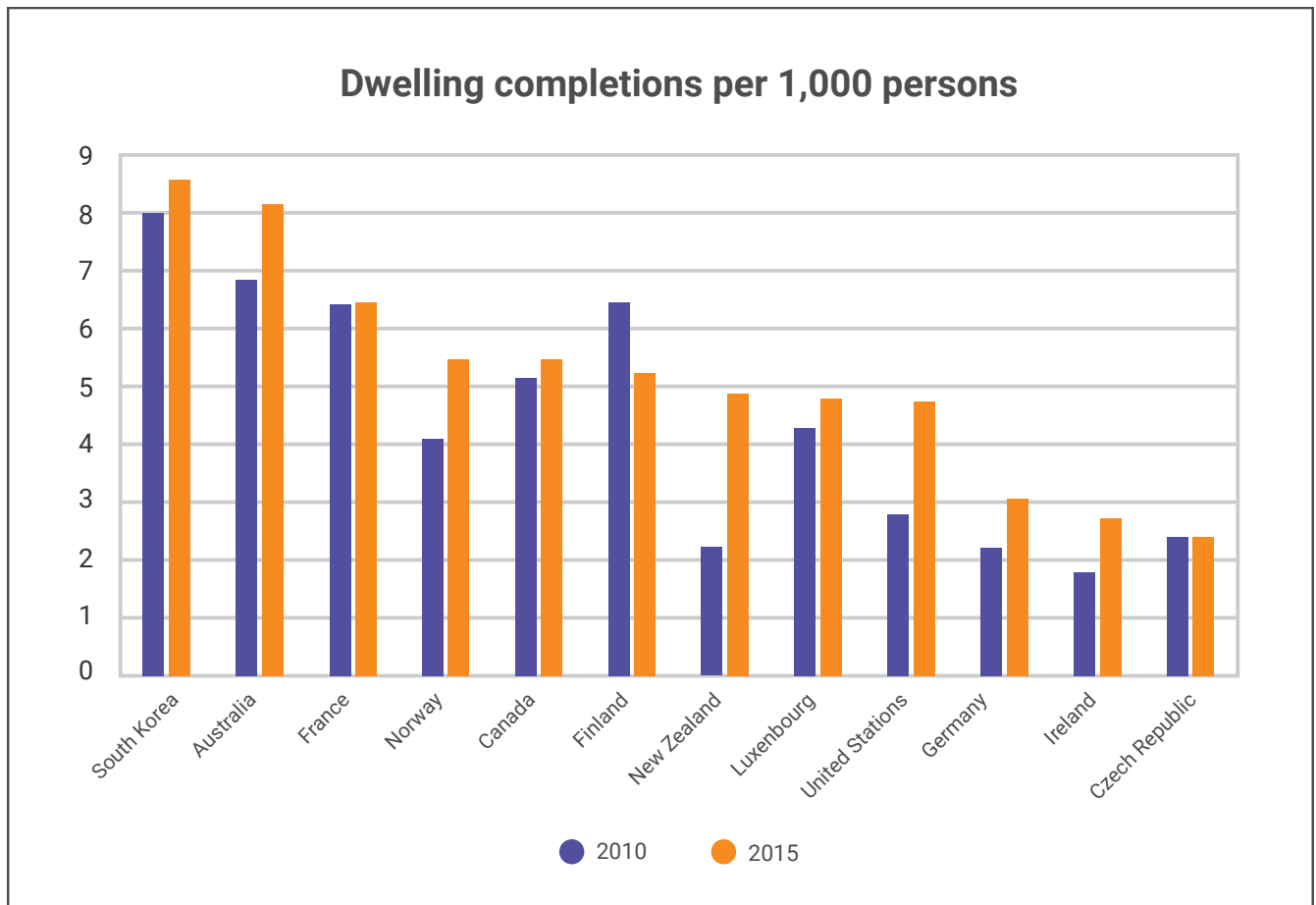
46 Planning expert blasts legacy of Mr Skyscraper, <https://www.theage.com.au/national/victoria/planning-expert-blasts-legacy-of-mr-skyscraper-20130318-2gb1x.html>

47 Growth Area Framework, Melbourne Planning Scheme, https://www.planning.vic.gov.au/__data/assets/word_doc/0016/80152/SH6-09.a.-Clause-21_mss04_melb_2308.doc

48 Liberals profit at Fishermans Bend, <https://www.theage.com.au/national/victoria/liberals-profit-at-fishermans-bend-20151031-gknlaj.html>

49 Matthew Guy approves thousands more apartments for Melbourne CBD, <https://www.theage.com.au/national/victoria/matthew-guy-approves-thousands-more-apartments-for-melbourne-cbd-20140626-zsm1p.html>

Figure 6



Rowley, S., Gurrán, N. and Phibbs, P. Data source: World Bank/OECD data

As at July 2017, there were 234,100 dwellings in major residential redevelopment projects that were either under construction or in the development pipeline. The vast majority of these dwellings are 1-2 bedroom apartments in inner-city buildings of four storeys or more.⁵⁰

As at November 2017, there were 348,000 broadhectare lots within the Urban Growth Boundary. Of those, 206,500 lots fall within gazetted precincts and are development-ready.⁵¹

According to AHURI research, Australia is a world leader in building completion rates. Only the South Koreans build homes faster than Australia’s humming construction industry.⁵² When new population growth is taken into account, Australia builds 0.5 dwellings per head of new population compared to more than 2 in South Korea. Yet, the completion rate suggests that home completions are well paced with population growth

The question still remains. Why have the accumulated rezonings resulted in Melbourne house prices increasing 55% in just the last six years?

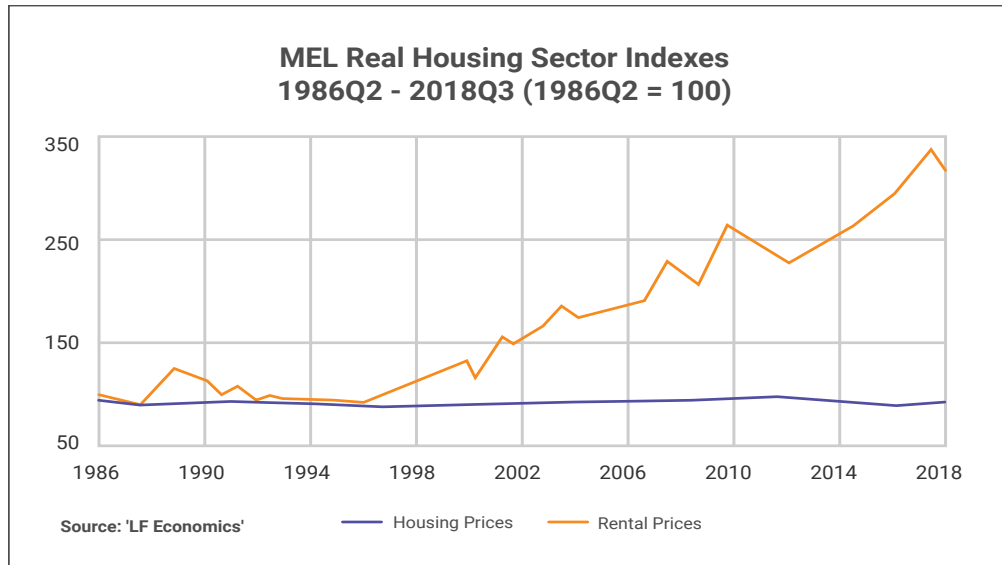
50 DEWLP (2018) Urban Development Program - Metropolitan Melbourne Redevelopment 2017, https://www.planning.vic.gov.au/__data/assets/pdf_file/0020/116291/Final_2017_Redevelopment_UDP_Report_Web.pdf

51 DEWLP 2018 Urban Development Program - Metropolitan Melbourne Broadhectare 2017, https://www.planning.vic.gov.au/__data/assets/pdf_file/0029/214895/Final_2017_-Broadhectare_UDP_report.pdf

52 Australia’s almost a world leader in home building - so isn’t that a fix for affordability? <https://theconversation.com/australias-almost-a-world-leader-in-home-building-so-that-isnt-a-fix-for-affordability-73514>

Immigration and foreign investment are certainly factors, but if housing shortages really were the issue, rents should have significantly increased. Whilst record low interest rates supported the house (read: land) price inflation, rents should have tracked prices to some degree.

Figure 7



LF Economics

Why hasn't public policy delivered a fairer affordability outcome?

Economic participants are encouraged to economise, to do more with less. They are also told to work harder to be successful. But property owners don't have to work. They receive income whether they are awake or asleep, in the country or out of it. For investors with sizeable portfolios, a vacant property or two increases the so-called scarcity of land. With property being held out of the market, land prices increase. Over time, so too do rents. For property investors, the word 'economise' means to earn more by doing less.

Social welfare recipients have been demonised as leakers whilst landlords are praised as lifters. Australia's 2016-17 welfare budget reached \$158.6 billion.⁵³ Social security and welfare was highlighted as a 35.2% budgetary spend. However, only 6.5% or \$10.45 billion of that spend went to the unemployed and sick. Family tax payments, often criticised as middle-class welfare,⁵⁴ equated to \$37.6 billion. These welfare benefits paled in comparison to land prices, which increased in the year by \$660 billion (16-17).⁵⁵

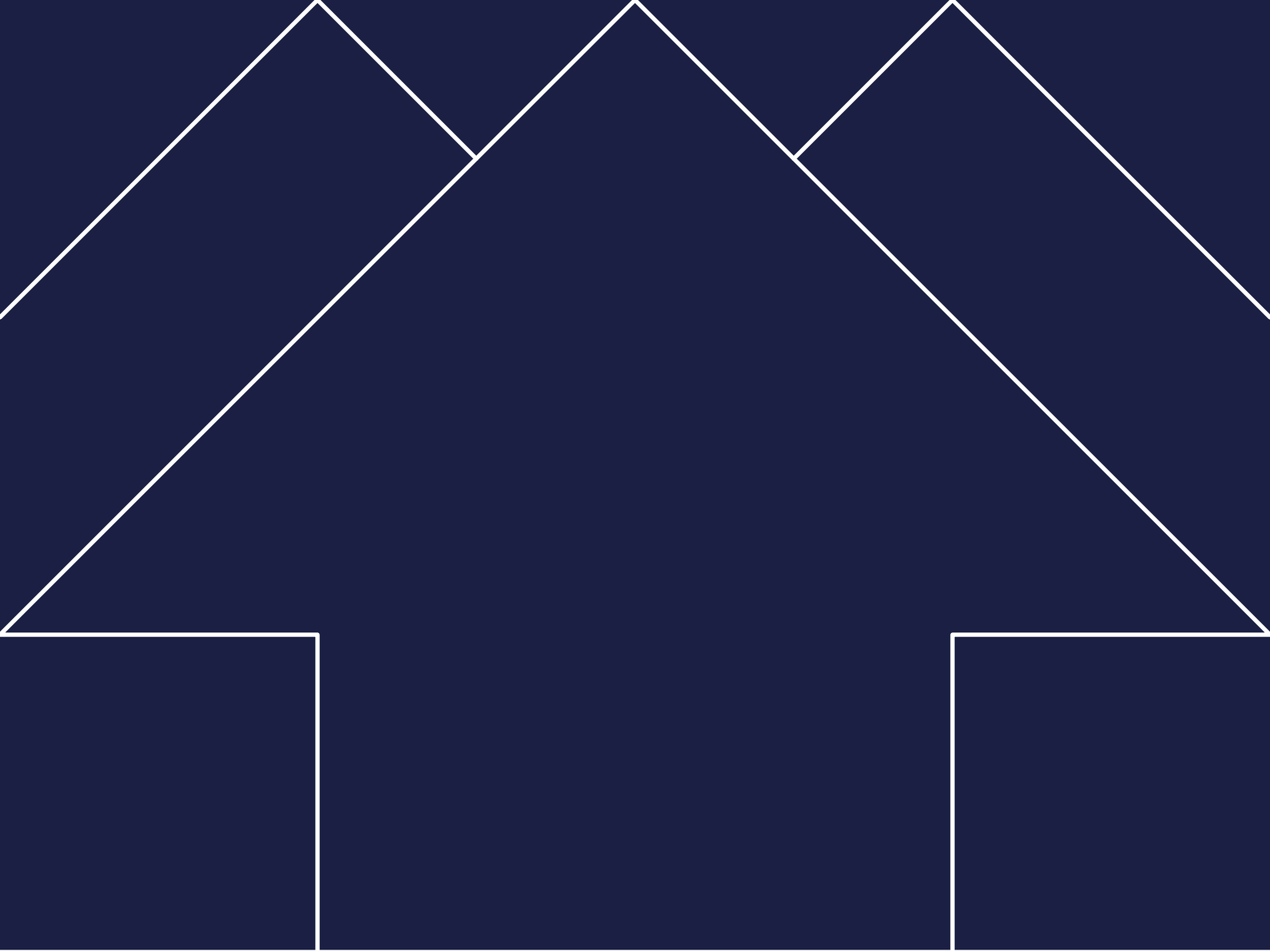
With significant recent investments by the Victorian government in public housing still only netting some 6,000 new social houses, the 82,000 people on the public housing waiting list are a long term challenge. With 500 people placing their names on the waiting list each month,⁵⁶ preventative policy demands the pressure on mainstream Australians be urgently addressed.

53 Federal budget, 2016-17, <https://www.budget.gov.au/2016-17/content/bp1/download/bp1.pdf>

54 Middle class welfare - are we hitting the target, <https://theconversation.com/middle-class-welfare-are-we-hitting-the-target-14257>

55 ABS 5204, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/5204.0>

56 Victoria's public housing waiting list growing by 500 a week, <https://www.abc.net.au/news/2018-06-06/victorias-public-housing-waiting-list-growing-by-500-a-week/9837934>



Chapter 5: Federal and State Vacancy Taxes

In March 2017, the Victorian government announced the implementation of a tax on vacant property. This was a 1% charge based on the Capital Improved Valuation (CIV) of residential property, commencing January 2018. Importantly, it was limited to property in the inner and middle rings of Melbourne.

Prosper Australia was immediately concerned that:

- Levying the charge on Capital Improved Valuation (CIV) ensured the tax would hit vacant apartment holders more extensively than vacant land holdings.
- The tax would redirect speculative hoarding out of the CBD and towards the fringes.
- This was a voluntary measure, with no stated fines for non-disclosure.

With land prices up 41% in the year to March 2018,⁵⁷ the inner ring vacancy targeting has been a contributing factor to additional land speculation pressures on the fringe. Domestic investors with large land banks on the urban fringe were the big winners from these vacancy tax announcements.

The federal government's vacancy tax is a flat fee determined by the Foreign Investment Review Board. It increased from \$5,000 to \$5,600 in the last year for properties valued up to \$1 million.⁵⁸

Flat fees are regressive and do not reflect the locational value of a site. A flat fee does not recognise the locational benefits one landholder has over another. Prosper recommends the utilisation of Land Value Tax as both a much fairer and more efficient way to tackle vacancy.

57 Residential greenfield land speculators predicted to lose big as market softens, <https://www.afr.com/real-estate/commercial/development/residential-greenfield-land-speculators-predicted-to-lose-big-as-market-softens-20181207-h18vkn>

58 Foreign Investment Review Board foreign investment fee schedule, <https://firb.gov.au/resources/guidance/gn29/>

A white line-art outline of a house with a gabled roof and two rectangular windows, set against a solid orange background.

Chapter 6: International Studies and Campaign Responses to Empty Homes

The following case studies highlight the systemic risk property speculation and vacant properties place on the market by pushing prices higher than wages can afford.

CHINA

Recent findings highlight some 65 million vacant apartments - equivalent to a 20% vacancy rate in China.⁵⁹ "There is no other single country with such a high vacancy rate," said Professor Gan Li, who is in charge of the study at Chengdu's Southwestern University. "Should any crack emerge in the property market, the homes to be offloaded will hit China like a flood."⁶⁰

USA

The Empty Home Next Door report investigates the extent of vacancy via a number of methods including the US census, US Postal Surveys and local initiatives.⁶¹ This report quotes the Detroit Mapping project, revealing a 44% vacancy rate via an on-the-ground survey conducted by 150 people.⁶² Report author Mallach continues with commentary on cities throughout America, including:

*A study of vacant properties in Toledo found that they cost the city \$3.8 million per year in direct costs, \$2.7 million per year in lost tax revenues from the vacant properties themselves, \$98.7 million in lost property values, and \$2.68 million in lost tax revenues from adjacent properties whose value was diminished by the presence of vacant properties (Immergluck 2016).*⁶³

In Las Vegas, a group calling themselves Report Squatters offers advice on how to spot squatters and remove them.⁶⁴

Advocates in Washington DC are calling for banks to be penalised for lending to vacant property investors. This revenue could be used to fund the fire and rescue services that vacant lots impose on the neighborhood.⁶⁵

VANCOUVER, CANADA

The city was the first in North America to enact a tax on empty homes. A 1% charge on the assessed taxable value was enacted in January 2018, with sizeable daily fines for those who do not register their investment as vacant. Public education for property owners was enhanced through public libraries, information in multiple languages and via an online platform, where 92% of vacancies were registered. The City's *Empty Homes Tax Annual Report* found some \$38m will be raised in its' first year.⁶⁶

Administrators had enacted an outreach program prior to the imposition of the vacancy tax, enlisting the public's spending priorities for the funds raised. Affordable housing projects featured in the feedback. Community support was a key tactic in building momentum to counter the ever-powerful property lobby.

59 China's urban housing vacancy analysis, <https://chfs.swufe.edu.cn/Upload>

60 ibid

61 The Empty House Next Door, Mallach A, Lincoln Institute, 2018, <https://www.lincolnst.edu/sites/default/files/pubfiles/empty-house-next-door-full.pdf>

62 <https://motorcitymapping.org/#t=overview&s=detroit&f=all>

63 Op cit, Mallach

64 Report squatters, https://reportsquatters.com/about_us/

65 DC will have even fewer vacant properties if a new law makes these changes, <https://ggwash.org/view/42263/dc-will-have-even-fewer-vacant-properties-if-a-new-law-makes-these-changes>

66 Empty homes tax annual report, <https://vancouver.ca/files/cov/empty-homes-tax-annual-report.pdf>

Market signals at the local level have been reinforced with the district of British Columbia imposing a Speculation and Vacancy Tax of their own. It starts at 0.5% in 2018 and will increase to 2.0% for foreign owners in 2019.⁶⁷ Recent findings reveal a 15% fall in the number of vacant properties in Vancouver after the first year of operation for the vacancy tax.⁶⁸

PARIS, FRANCE

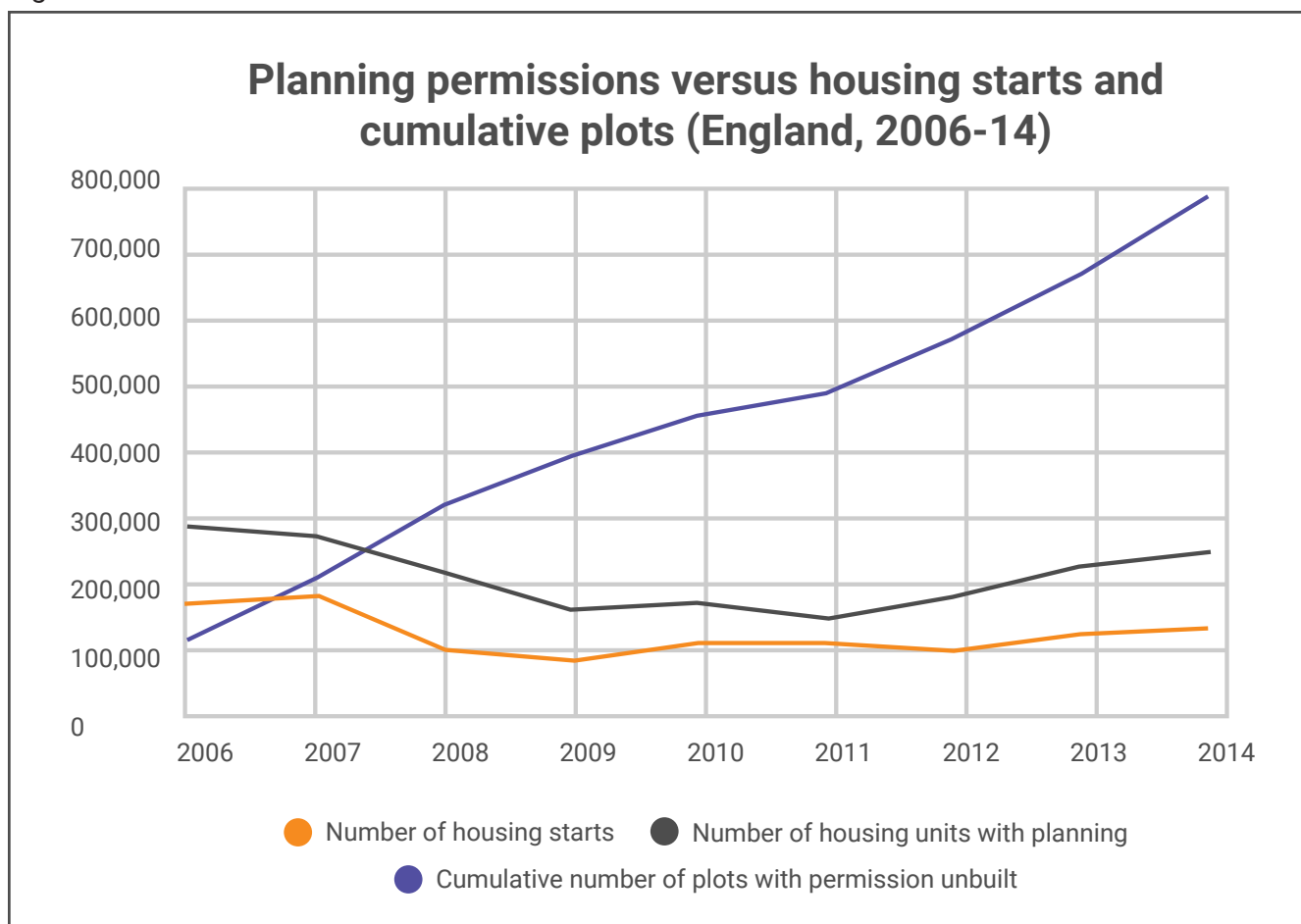
The number of non-resident owned homes in Paris rose by 43 percent over the last 15 years, to constitute 10 percent of the 1.1 million homes in Paris. That’s equivalent to around 107,000 residences. The Paris City Council has tripled the current 20 percent premium that non-resident owners have to pay in council tax, or *taxe d’habitation*, to 60 percent.⁶⁹

Deputy Mayor Ian Brossat told *Le Monde* “In a city as dense as Paris, where it is very difficult to build, controlling the occupancy of housing is strategic.”⁷⁰

IRELAND

The establishment of a dedicated Empty Homes Unit within their Department’s Housing Delivery Office follows years of lobbying by NGOs. They will ‘drive and coordinate actions at central and local government levels and support local authorities in their actions’.⁷¹

Figure 8



Centre for Progressive Capitalism

67 Speculation and the vacancy tax, <https://www2.gov.bc.ca/gov/content/taxes/property-taxes/speculation-and-vacancy-tax>

68 Taxing empty apartments could ease the housing crisis, <https://www.fastcompany.com/90305242/taxing-empty-apartments-could-ease-the-housing-crisis>

69 Vacant homes are a global epidemic and Paris is fighting it with a 60% tax, <https://betterdwelling.com/vacant-homes-global-epidemic-paris-fighting-60-tax/>

70 In Paris, the surtax on second homes will go from 20% to 60%, https://www.lemonde.fr/argent/article/2017/01/25/a-paris-la-surtaxe-sur-les-residences-secondaires-va-passer-de-20-a-60_5068843_1657007.html

71 Minister Murphy announces actions underway on vacant homes, <http://rebuildingireland.ie/news/minister-murphy-announces-ac->

This was in part due to pressure by NFP Space Engagers, who developed an app for the public to report on vacant homes.⁷²

HONG KONG

This vibrant city has an empty homes tax at twice the annual rental value (about 5%) for homes that have been vacant for greater than 6 months.⁷³ It is targeted at high-rise developers who drip-feed property to the market after completion.

JAPAN

Due to demographic change, the growth of vacancy is such that various local governments are giving away vacant homes for those who meet the right criteria.⁷⁴

ENGLAND

The UK government announced a review into land banking strategies entitled the Independent Review of Build Out Rates.⁷⁵ This inquiry was announced after years of responding to land supply warnings. There was a large disparity between the total number of rezonings compared to housing starts. This graph summarises the issue:

The inquiry led by Hon Sir Oliver Letwin found that the build out rate averaged just 6.5% of total land holdings per large estate. Despite this, Sir Letwin stated:

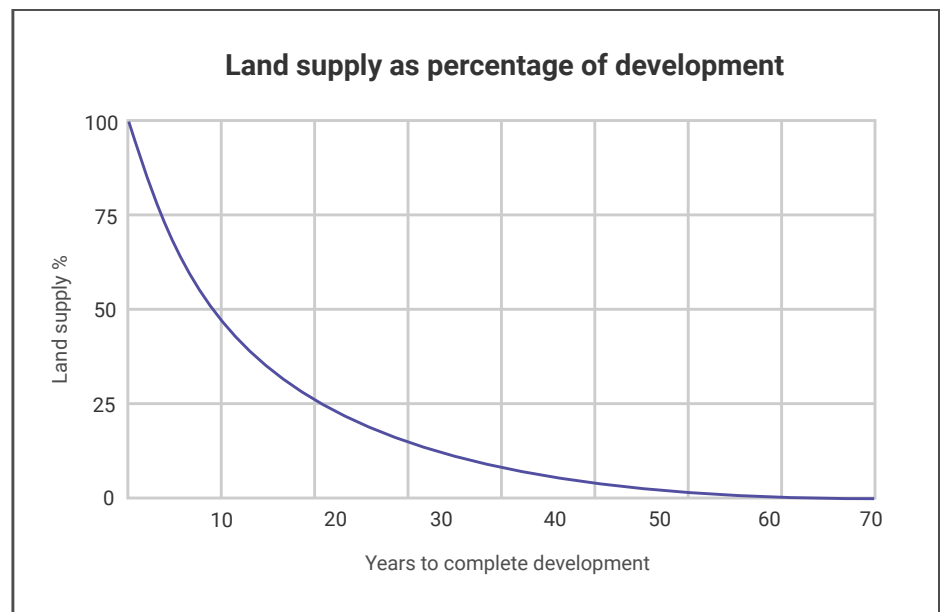
Turning first to the question of value, I have concluded that it would not be sensible to attempt to solve the problem of market absorption rates by forcing the major house builders to reduce the prices at which they sell their current, relatively homogenous products. This would, in my view, create very serious problems not only for the major house builders but also, potentially, for the housing market and hence the economy as a whole.

According to the Inquiry, a 6.5% build rate over time results in the following land release schedule:

As this simple graph demonstrates, Sir Letwin's analysis validates large developers taking 70 years to complete an estate. Is this the best home buyers can look forward to?

Communities need people and people need homes.

Figure 9



Based on data from the Independent Review of Build Out Rates

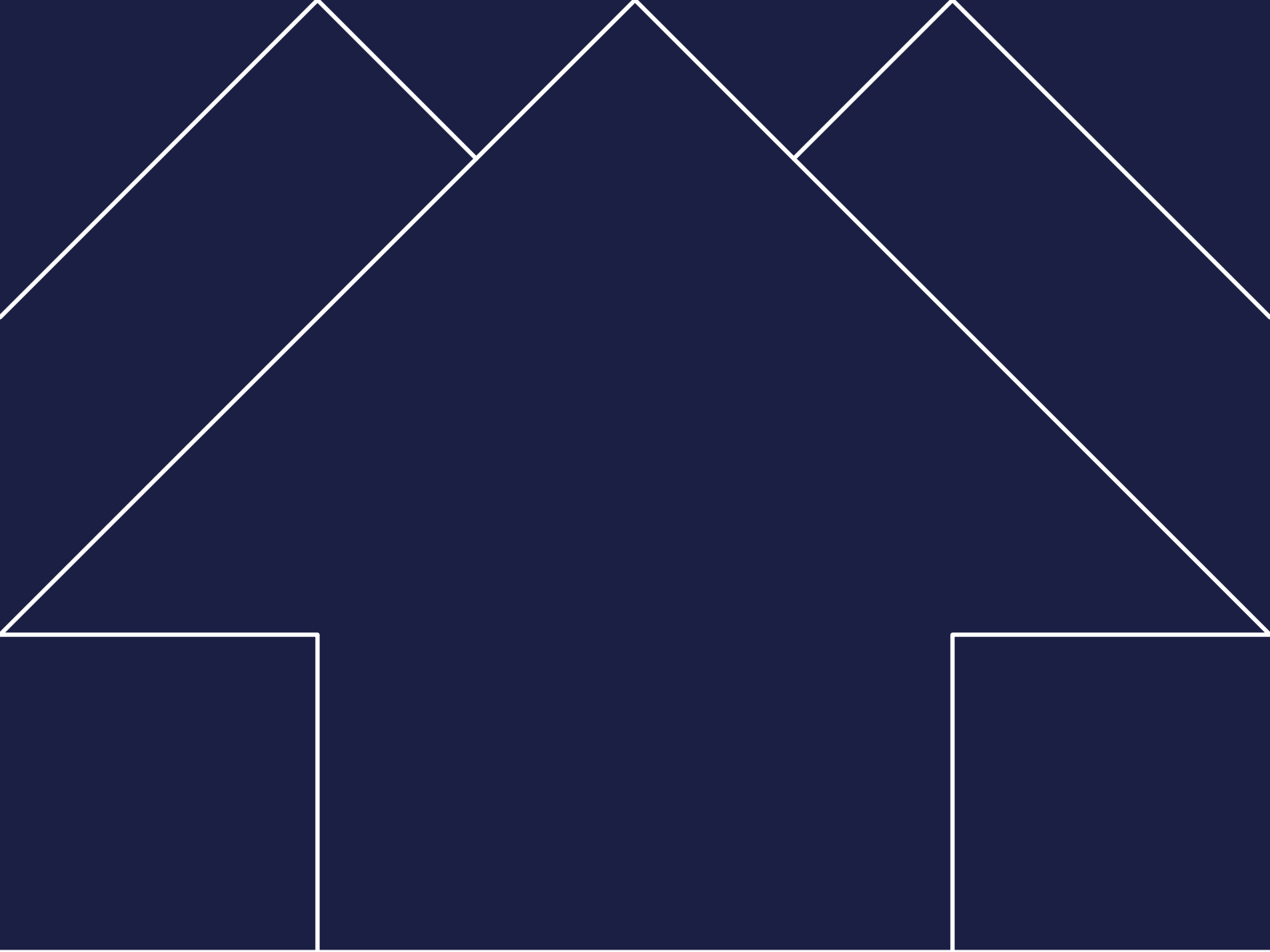
tions-underway-on-vacant-homes/

72 Space Engagers, <https://spaceengagers.org/>

73 Don't expect Hong Kong's empty home tax to cool property prices, <https://www.bloomberg.com/news/articles/2018-07-04/don-t-expect-hong-kong-s-empty-home-tax-to-cool-property-prices>

74 "Free" houses in Japan, <https://www.rethinktokyo.com/free-houses-japan-countryside>

75 Independent review of build out rates, <https://www.gov.uk/government/publications/independent-review-of-build-out-final-report>



Chapter 7: Recommendations

Prosper recommends the following policies:

1. That the Australian Bureau of Statistics (ABS) takes a greater interest in measuring underutilised land.
 - a. A national vacancy measure to be produced by a respected authority with the mandate to include all land usage, including speculative vacancies.
 - b. Census surveyors should have the ability to qualify 'vacant land' and 'vacant housing'. Currently there is no capacity for surveyors to document this behaviour. The U.S. Census Bureau distinguishes between seven different categories of vacant housing units:
 - Vacant for rent,
 - Rented, but not yet occupied
 - Vacant for sale
 - Sold, but not yet occupied
 - Maintained for seasonal, recreational and occasional use
 - Maintained for migrant workers
 - Other vacant ⁷⁶

The Australian census does not record and publish vacant land and housing locations. This should change. When this improvement is made, the ABS should go further in the 'Other vacant' category, which is rapidly growing in the US context. Categories such as 'vacant land', 'derelict land' and 'derelict house' are significant descriptors for public policy. An historical record should be kept to study the longitudinal effect of vacancy over time, its impact on communities and on affordability.

2. The Vacant Residential Property Tax should be reformed to include:
 - a. All vacant land within the UGB
 - b. Charges on Site Value for non-strata titled sites
 - c. An escalating, sliding tax scale over time: the longer vacant, the higher the charge
 - d. Significant fines introduced for investors who fail to self-declare
3. That Victoria expands its use of betterment levies to incorporate all forms of land rezoning. Instruments like the Growth Areas Infrastructure Contribution remove the incentive to lobby for speculative rezonings. Taxing rezoning windfalls removes perverse incentives for 'leapfrog' development.
4. A reformed State Land Value Tax (LVT) to replace Stamp Duties. This is a more holistic technique to discourage vacancy. There are no loopholes, no invasions of privacy, no distortions and all land-uses are treated equally. A voluntary vacancy tax does not go far enough to correct the overriding trend towards real estate commodification. More powerful tools are needed. Mechanisms such as LVT provide a consistent prompt to the 'highest and best use' of real estate. This tax has additional benefits in encouraging the more efficient use of large, under-utilised sites. The tax encourages more intensive land use and urban development, as landholders are incentivised to build up rather than out.

The cost to the community of property hoarding must be acknowledged. Current land taxes equate to about \$1000 per year in once affordable suburbs like Sunshine. Combined with municipal rates, landholders pay about \$2,700 a year to government.⁷⁷ However, over the last decade, property owners have often enjoyed \$20,000 - \$40,000 capital gains in a single year. Adopting this policy may well motivate empty nesters to downsize. For too long working families have been forced to commute an hour each way, past hundreds of speculative vacancies and thousands of rattling homes. Replacing stamp duties with an LVT will assist this downsizing transition.

⁷⁶ Op cit, Mallarch

⁷⁷ Vacancy taxes of some \$7,000 are not liable for suburbs such as Sunshine, which sits outside the vacancy tax boundary.

5. That government reports on the number of cumulative properties rezoned versus the number of housing completions, as in the UK (figure 9). At present, DELWP's Urban Development Report looks only at cumulative rezonings. Failure to analyse the difference between housing starts and rezonings allows the private sector practice of "staged releases" to escape public scrutiny. The Victorian Government must ensure such a comparison is made.⁷⁸
6. Leverage government-owned land for community shared equity schemes. Under the Victorian Government Landholding Policy and Guidelines 2015,⁷⁹ departments and agencies must now review surplus land assets. This is a prime opportunity for government to encourage greater utilisation of government land lease models as per the Canberra Land Rent initiative.⁸⁰ The state should not be privatising critical locations for further freehold housing, or 'build to rent' programs initiated by corporate institutional investors. Land lease programs based on annual valuations can quickly become financially self-sufficient. Melbourne University's *Transforming Housing* found that 30,000 social and affordable homes could be built on 'lazy' government land.⁸¹
7. Flexible vacant land policy should be encouraged. We welcome the recent agreement struck between Launch Housing and VicRoads for portable, temporary housing on Ballarat Rd, Footscray.⁸² Government has a role in enabling similar agreements on privately held land banks or vacant buildings. Aside from providing immediate access to housing, a key virtue of the Launch Housing-VicRoads agreement is to draw attention to the social cost of vacant land hoarding.
8. Property purchases in cash must be banned. If a bank accepts cash deposits above \$10,000, this must be declared. So too should property purchases. Any investor who arrives with a million dollars to buy a property is highly likely to use the property as an investment vehicle or worse, a money laundering strategy.⁸³ Rental incomes are rarely worth the bother for these investors, so it could be expected to lead to further speculative vacancies. The Federal government must take decisive action.⁸⁴
9. Penalise banks who lend to vacant property holders. Apportion a percentage of any such vacancy tax to the banks. Due diligence on speculative vacancies requires owners to be put on notice by both the government and the financial sector. Vacancy is a poor market outcome.
10. A commitment by social housing providers to reduce vacancy. Anecdotal evidence of vacancy amidst the precious few social housing locations keeps surfacing and it is up to those providers to monitor vacancy with all the tools of the modern era.⁸⁵ This is paramount as large social housing transfers occur from state governments to the social housing sector.⁸⁶ Resourcing of this added housing capacity is crucial to building support for a larger social and community housing sector.

78 Urban Development Program, <https://www.planning.vic.gov.au/land-use-and-population-research/urban-development-program>

79 https://www.planning.vic.gov.au/__data/assets/pdf_file/0021/72714/FTGLS-T8-FT58-Surplus-Statement-Fact-Sheet-Final.pdf

80 Unspoken Alternatives to Expensive Housing, https://www.prosper.org.au/wp-content/uploads/2018/09/Unspoken-Alternatives-final_print_web.pdf

81 Producing Social and Affordable Housing on Government Land, *Transforming Housing*, https://msd.unimelb.edu.au/__data/assets/pdf_file/0004/2876008/Project-3000-Producing-Social-and-Affordable-Housing-on-Government-Land.pdf

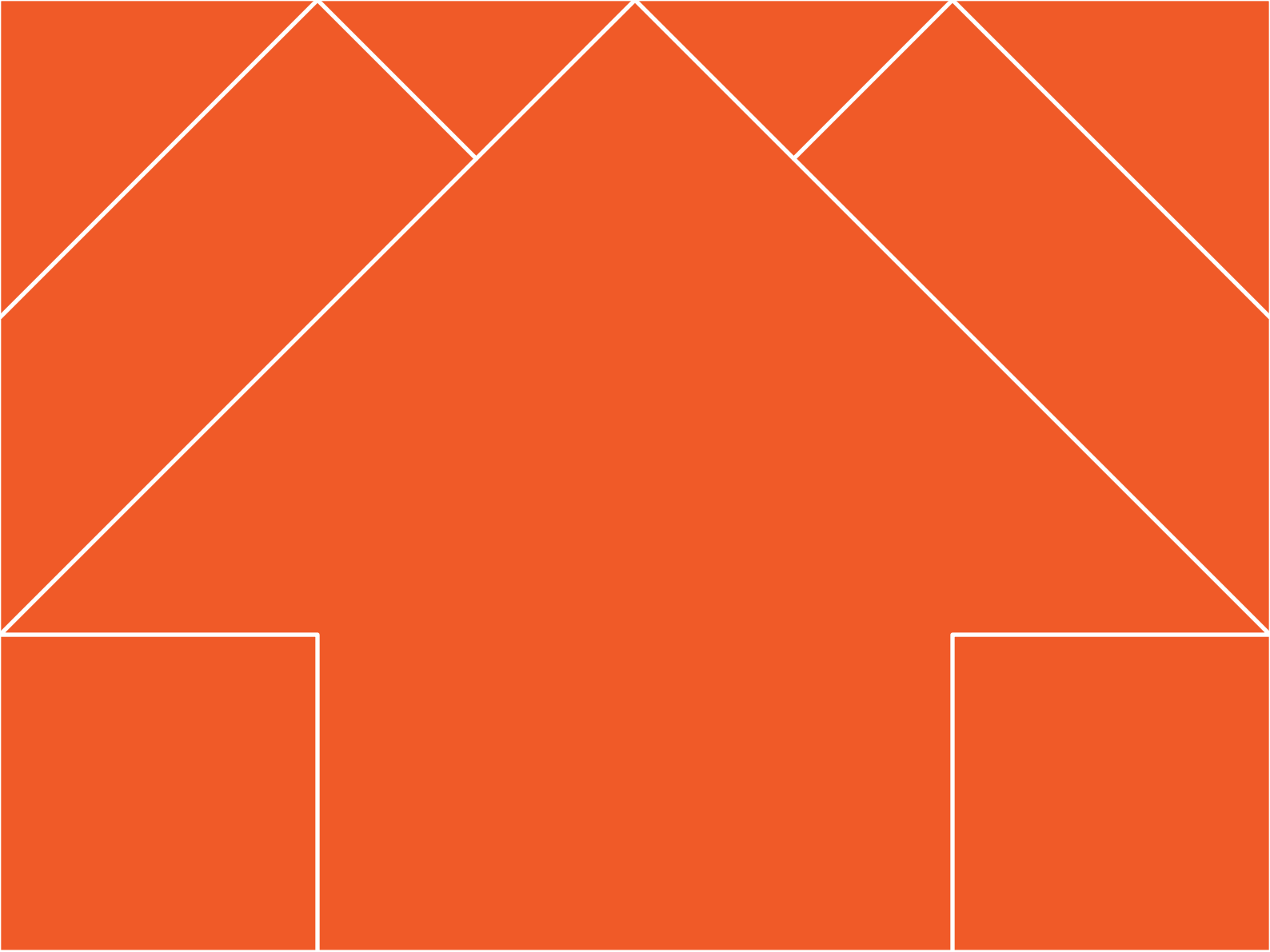
82 Moveable houses and vacant blocks - a new way to tackle homelessness, <https://www.abc.net.au/news/2017-11-13/moveable-houses-vacant-blocks-new-way-tackle-homelessness/9139418>

83 70% of Chinese pay cash to buy Australian homes sparking money laundry worry, <https://www.afr.com/real-estate/residential/70pc-of-chinese-pay-cash-to-buy-australian-homes-sparking-moneylaundry-worry-20170403-gvc5vv>

84 Money laundering reforms thwarted by vested interests, <https://www.macrobusiness.com.au/2019/02/money-laundering-reforms-thwarted-property-vested-interests/>

85 Three cities in the US have ended chronic homelessness, <https://www.fastcompany.com/90316607/3-cities-in-the-u-s-have-ended-chronic-homelessness-heres-how-they-did-it?fbclid=IwAR0zHrGkkJOFqG061kgWOhvJjFUFsLMBzkoPewGkrVWE4grSVXc2EVIIMssc>

86 Pawson, H., Martin, C., Flanagan, K. and Phillips, R. (2016) Recent housing transfer experience in Australia: implications for affordable housing industry development, AHURI Final Report No. 273, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/273>, doi:10.18408/ahuri-7108101.



Chapter 8: Conclusion

Something doesn't add up. Melbourne house prices increased by 15.7% in 2017 but national inflation barely reached 2%.

Something doesn't add up. \$20 billion in real estate lay dormant during the peak of the Melbourne housing market but we are told vacancy rates are in equilibrium at 3.3%.⁸⁷

Underutilised land is akin to underutilised labour. It imposes an economic cost on us all. If we treated underutilised land like we treat underutilised labour, vacant landholders would be compelled to seek out 20 possible buyers per week. That is what job seekers must do.

Despite access to land being a key component to a property-owning democracy, despite housing being a human right, we do not adequately seek to repair the damaging practice of land hoarding.

We report a potential 49.3% increase in auctionable supply currently held off the market. The fact is these vacancy figures are understated. The 60,091 vacancies might easily triple if the land banks on the sprawl were included.

The incentive for 60,091 vacant properties to exist during the height of the housing boom is hard-baked into the economic system. The accepted premise that more land supply is a panacea for rising house prices must be more thoroughly questioned. Policy makers cannot rely on private interests to build enough houses to push down prices. This does not pass economic scrutiny. Developers cannot be expected to act in a pro-cyclical manner in the good times and then turn counter-cyclical just at the point such behaviour jeopardises their financial prospects.

To rebalance the advantages of property ownership, a comprehensive vacancy measure must be adopted. A reformed land value tax is essential to providing a competitive spur to landholders. By doing this, the cost of housing will more accurately reflect earning capacity rather than a gamble on expected future capital gains.

...when it comes to residential land & housing

Something doesn't add up

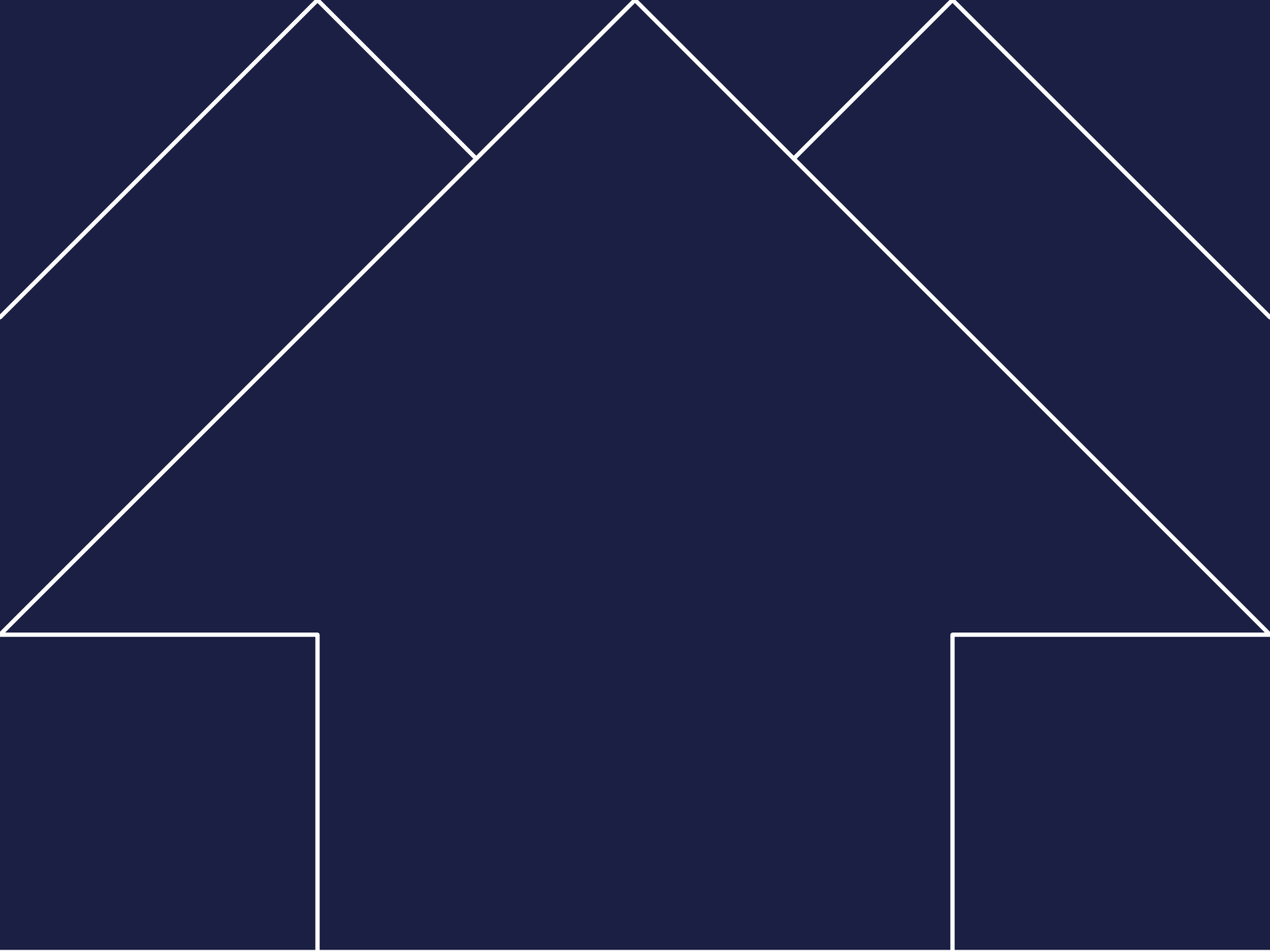
VACANCY

For Lease (Measured) Speculative Vacancy (Ignored)

Learn more at prosper.org.au

The infographic features the word 'VACANCY' in large orange letters. 'VACA' is solid, while 'NCY' is dashed. A pair of orange scissors is positioned above the 'Y'. Brackets below the word group 'VACA' as 'For Lease (Measured)' and 'NCY' as 'Speculative Vacancy (Ignored)'. The background is dark blue.

87 Private correspondence, January 29, 2019, Louis Christopher, SQM Research



Appendices

Appendices:

Victoria: All Residential

Postcode	Suburb(s)	Total	OL/day	Ratio	<=50L/day	Ratio
3000	MELBOURNE (CBD)	12,752	90	0.7%	841	6.6%
3002	EAST MELBOURNE	1,525	4	0.3%	96	6.3%
3003	WEST MELBOURNE	1,765	23	1.3%	93	5.3%
3004	St Kilda Rd Business District (Melbourne)	6,308	64	1.0%	481	7.6%
3006	Southbank/South Wharf	12,364	176	1.4%	906	7.3%
3008	Docklands	5,174	41	0.8%	453	8.8%
3011	SEDDON /SEDDON WEST/FOOTSCRAY	7,073	84	1.2%	331	4.7%
3012	TOTTENHAM/WEST FOOTSCRAY/KINGSVILLE/MAIDSTONE/BROOKLYN	8,604	77	0.9%	266	3.1%
3013	YARRAVILLE/YARRAVILLE WEST	5,159	41	0.8%	142	2.8%
3015	SPOTSWOOD/NEWPORT/SOUTH KINGSVILLE	5,897	56	0.9%	195	3.3%
3016	WILLIAMSTOWN NORTH/WILLIAMSTOWN	5,188	30	0.6%	151	2.9%
3018	ALTONA /SEAHOLME	4,534	40	0.9%	191	4.2%
3019	ROBINSON/BRAYBROOK	2,660	26	1.0%	69	2.6%
3020	SUNSHINE/SUNSHINE WEST/SUNSHINE NORTH/GLENGALA/ALBION	13,536	105	0.8%	410	3.0%
3021	KEALBA/ALBANVALE/ST ALBANS/KINGS PARK	16,253	124	0.8%	372	2.3%
3022	DEER PARK EAST/ARDEER	1,076	19	1.8%	44	4.1%
3023	RAVENHALL/BURNSIDE HEIGHTS/BURNSIDE/CAROLINE SPRINGS/CAIRNLEA/DEER PARK NORTH/DEER PARK	17,954	85	0.5%	259	1.4%
3024	MAMBOURIN/MOUNT COTTRELL/WYNDHAM VALE	6,991	36	0.5%	127	1.8%
3025	ALTONA EAST/ALTONA GATE/ALTONA NORTH	4,083	21	0.5%	105	2.6%
3027	WILLIAMS LANDING	1,968	10	0.5%	53	2.7%
3028	ALTONA MEADOWS/LAVERTON/SEABROOK	9,681	35	0.4%	154	1.6%
3029	HOPPERS CROSSING/TARNEIT/TRUGANINA	26,676	114	0.4%	432	1.6%
3030	WERRIBEE SOUTH/WERRIBEE/QUANDONG/POINT	30,063	161	0.5%	702	2.3%
3031	KENSINGTON/FLEMINGTON	5,388	33	0.6%	172	3.2%
3032	TRAVANCORE/MARIBYRNONG/HIGHPOINT CITY/ASCOT VALE	9,369	85	0.9%	316	3.4%
3033	KEILOR EAST	5,080	34	0.7%	105	2.1%
3034	AVONDALE HEIGHTS	4,076	23	0.6%	93	2.3%
3036	KEILOR NORTH/KEILOR	1,941	11	0.6%	41	2.1%
3037	SYDENHAM/TAYLORS HILL/DELAHEY/HILLSIDE/CALDER PARK	14,463	108	0.7%	220	1.5%
3038	TAYLORS LAKES/WATERGARDENS/KEILOR DOWNS/KEILOR LODGE	8,584	49	0.6%	116	1.4%
3039	MOONEE PONDS	4,594	38	0.8%	150	3.3%
3040	ESSENDON/ESSENDON WEST/ABERFELDIE	8,295	82	1.0%	281	3.4%
3041	STRATHMORE/STRATHMORE HEIGHTS/ESSENDON NORTH/ESSENDON FIELDS/CROSS KEYS	4,121	28	0.7%	119	2.9%
3042	NIDDRIE NORTH/NIDDRIE/AIRPORT WEST/KEILOR PARK	5,840	38	0.7%	139	2.4%
3043	GLADSTONE PARK/GOWANBRAE/TULLAMARINE	8,505	76	0.9%	196	2.3%
3044	PASCOE VALE/PASCOE VALE SOUTH	11,901	290	2.4%	709	6.0%
3046	GLENROY/HADFIELD/OAK PARK	14,743	395	2.7%	882	6.0%
3047	BROADMEADOWS/DALLAS/JACANA	7,470	294	3.9%	484	6.5%
3048	COOLAROO/MEADOW HEIGHTS	5,598	62	1.1%	122	2.2%
3049	ATTWOOD/WESTMEADOWS	3,599	97	2.7%	187	5.2%
3051	HOTHAM HILL/NORTH MELBOURNE	4,303	37	0.9%	262	6.1%
3052	MELBOURNE UNIVERSITY/PARKVILLE	1,360	10	0.7%	56	4.1%
3053	CARLTON/CARLTON SOUTH	4,598	33	0.7%	361	7.9%
3054	CARLTON NORTH/PRINCES HILL	2,771	25	0.9%	123	4.4%
3055	BRUNSWICK WEST	7,421	396	5.3%	715	9.6%
3056	BRUNSWICK	11,890	311	2.6%	820	6.9%
3057	BRUNSWICK EAST	6,176	150	2.4%	495	8.0%
3058	COBURG/COBURG NORTH	14,661	269	1.8%	835	5.7%

3073	RESERVOIR	21,839	629	2.9%	1,249	5.7%
3074	THOMASTOWN	8,010	102	1.3%	285	3.6%
3075	LALOR	8,472	71	0.8%	208	2.5%
3076	EPPING	11,524	330	2.9%	524	4.5%
3078	ALPHINGTON/FAIRFIELD	5,201	172	3.3%	338	6.5%
3079	IVANHOE/IVANHOE EAST	7,237	141	1.9%	460	6.4%
3081	BELLFIELD (GREATER MELBOURNE)/HEIDELBERG HEIGHTS/HEIDELBERG WEST/	6,321	314	5.0%	581	9.2%
3082	MILL PARK	10,620	100	0.9%	209	2.0%
3083	BUNDOORA/KINGSBURY	12,361	134	1.1%	686	5.5%
3084	EAGLEMONT/HEIDELBERG/ROSANNA/VIEWBANK	10,860	230	2.1%	521	4.8%
3085	MACLEOD/YALLAMBIE	5,339	221	4.1%	298	5.6%
3087	WATSONIA/WATSONIA NORTH	3,691	33	0.9%	83	2.2%
3088	BRIAR HILL/GREENSBOROUGH/ST HELENA	10,517	93	0.9%	231	2.2%
3089	DIAMOND CREEK	4,193	97	2.3%	169	4.0%
3093	LOWER PLENTY	1,574	19	1.2%	51	3.2%
3094	MONTMORENCY	3,707	38	1.0%	87	2.3%
3095	ELTHAM/ELTHAM NORTH/RESEARCH	9,998	92	0.9%	221	2.2%
3099	ARTHURS CREEK/COTTLES BRIDGE/HURSTBRIDGE/NUTFIELD	1,303	21	1.6%	58	4.5%
3101	KEW	10,413	179	1.7%	450	4.3%
3102	KEW EAST	2,607	48	1.8%	102	3.9%
3103	BALWYN/DEEPPENE	6,730	136	2.0%	388	5.8%
3104	BALWYN NORTH	7,920	133	1.7%	392	4.9%
3105	BULLEEN	4,552	104	2.3%	234	5.1%
3106	TEMPLESTOWE	6,222	104	1.7%	246	4.0%
3107	TEMPLESTOWE LOWER	5,421	69	1.3%	173	3.2%
3108	DONCASTER	10,398	419	4.0%	1,173	11.3%
3109	DONCASTER EAST	11,183	194	1.7%	505	4.5%
3111	DONVALE	4,659	50	1.1%	111	2.4%
3113	NORTH WARRANTYTE/WARRANTYTE	2,914	61	2.1%	104	3.6%
3115	WONGA PARK	1,250	16	1.3%	37	3.0%
3116	CHIRNSIDE PARK	4,018	66	1.6%	233	5.8%
3121	RICHMOND/RICHMOND NORTH/RICHMOND EAST/RICHMOND SOUTH/BURNLEY/BURNLEY NORTH/CREMORNE	10,231	76	0.7%	448	4.4%
3122	HAWTHORN	11,709	266	2.3%	740	6.3%
3123	HAWTHORN EAST	6,866	136	2.0%	406	5.9%
3124	CAMBERWELL	9,005	138	1.5%	388	4.3%
3125	BURWOOD	6,369	409	6.4%	758	11.9%
3126	CANTERBURY	3,195	42	1.3%	124	3.9%
3127	MONT ALBERT/SURREY HILLS	7,592	161	2.1%	385	5.1%
3128	BOX HILL/BOX HILL SOUTH	9,863	943	9.6%	1,521	15.4%
3129	BOX HILL NORTH/MONT ALBERT NORTH	7,211	122	1.7%	356	4.9%
3130	BLACKBURN/BLACKBURN NORTH/BLACKBURN SOUTH	12,776	238	1.9%	595	4.7%
3131	FOREST HILL/NUNAWADING	9,339	428	4.6%	731	7.8%
3132	MITCHAM	6,898	111	1.6%	324	4.7%
3133	VERMONT/VERMONT SOUTH	8,368	78	0.9%	202	2.4%
3134	RINGWOOD/RINGWOOD NORTH/WARRANTYTE SOUTH/WARRANWOOD	13,233	285	2.2%	578	4.4%
3135	HEATHMONT/RINGWOOD EAST	8,013	98	1.2%	230	2.9%
3136	CROYDON/CROYDON HILLS/CROYDON NORTH/CROYDON SOUTH	18,592	318	1.7%	682	3.7%
3137	KILSYTH/KILSYTH SOUTH	5,669	99	1.7%	229	4.0%
3138	MOOROOLBARK	8,360	90	1.1%	225	2.7%
3139	DON VALLEY/HODDLES CREEK/LAUNCHING PLACE/SEVILLE/SEVILLE EAST/WANDIN EAST/WANDIN NORTH/WOORI YALLOCK/YELLINGBO	4,111	112	2.7%	242	5.9%
3140	LILYDALE	6,659	116	1.7%	250	3.8%
3141	South Yarra	15,102	168	1.1%	724	4.8%
3142	Hawksburn/Toorak	6,971	101	1.4%	253	3.6%
3143	Armadale/Armadale North	4,573	81	1.8%	184	4.0%
3144	KOOYONG/MALVERN	4,863	142	2.9%	255	5.2%
3145	Darling/Central Park/Malvern East/Darling South/Wattletree Rd PO/Caulfield East	9,704	167	1.7%	508	5.2%
3146	GLEN IRIS	10,601	263	2.5%	562	5.3%
3147	ASHBURTON/ASHWOOD	5,987	125	2.1%	355	5.9%

3148	CHADSTONE	3,932	89	2.3%	318	8.1%
3149	MOUNT WAVERLEY	13,474	191	1.4%	544	4.0%
3150	GLEN WAVERLEY/WHEELERS HILL	22,922	583	2.5%	1,069	4.7%
3151	BURWOOD EAST	3,972	31	0.8%	114	2.9%
3152	Wantirna South/Knox City Centre/Studfield/Wantirna	11,991	21	0.2%	179	1.5%
3153	Bayswater/Bayswater North	8,527	83	1.0%	253	3.0%
3154	The Basin	1,524	6	0.4%	27	1.8%
3155	Boronia	9,497	62	0.7%	254	2.7%
3156	Ferntree Gully/Lysterfield	13,944	64	0.5%	285	2.0%
3158	Upwey	2,494	18	0.7%	56	2.2%
3159	Menzies Creek/Selby	180	1	0.6%	4	2.2%
3160	Tecoma/Belgrave South/Belgrave Heights/Belgrave	3,057	27	0.9%	96	3.1%
3161	Caulfield North/Caulfield Junction	7,160	76	1.1%	230	3.2%
3162	Caulfield/Hopetoun Gardens/Caulfield South - Glen Hunly	7,293	60	0.8%	190	2.6%
3163	Carnegie/Booran Rd PO/Glen Huntly/Murrumbeena	14,451	118	0.8%	439	3.0%
3165	Bentleigh East	10,902	70	0.6%	269	2.5%
3166	Oakleigh/Oakleigh East/Hughesdale/Huntingdale	9,601	103	1.1%	363	3.8%
3167	Oakleigh South	3,792	19	0.5%	68	1.8%
3168	Notting Hill/Clayton	8,183	128	1.6%	375	4.6%
3169	Clarinda/Clayton South	7,158	30	0.4%	128	1.8%
3170	MULGRAVE	7,196	46	0.6%	166	2.3%
3171	Sandown Village/Springvale	7,027	59	0.8%	188	2.7%
3172	Dingley Village/Springvale South	7,953	29	0.4%	108	1.4%
3173	Keysborough	8,689	34	0.4%	163	1.9%
3174	Noble Park/Noble Park North	14,475	87	0.6%	388	2.7%
3175	Bangholme/Dandenong/Dandenong East/Dandenong North/Dandenong South/Dunearn	19,220	165	0.9%	546	2.8%
3177	Doveton/Eumemmerring	4,155	50	1.2%	140	3.4%
3178	Rowville	11,398	18	0.2%	93	0.8%
3179	Scoresby	2,156	4	0.2%	25	1.2%
3180	Knoxfield	2,710	10	0.4%	37	1.4%
3181	Windsor/Prahran East/Prahran	10,832	77	0.7%	474	4.4%
3182	St Kilda/St Kilda West/St Kilda South	14,049	120	0.9%	555	4.0%
3183	St Kilda East/Balaclava	9,017	105	1.2%	255	2.8%
3184	Elwood/Brighton Rd	8,283	88	1.1%	230	2.8%
3185	Gardenvale/Elsternwick/Ripponlea	5,896	41	0.7%	203	3.4%
3186	Brighton/Were St PO/Brighton North/Dendy - Brighton East	10,024	87	0.9%	334	3.3%
3187	North Road/Brighton East	6,499	31	0.5%	159	2.4%
3188	Hampton East/Hampton North/Hampton	7,323	65	0.9%	247	3.4%
3189	Wishart/Moorabbin/Moorabbin East - Highett	2,601	22	0.8%	89	3.4%
3190	Highett	4,625	49	1.1%	163	3.5%
3191	Sandringham	4,360	19	0.4%	119	2.7%
3192	Cheltenham East/Southland Centre/Cheltenham - Highett	9,496	46	0.5%	185	1.9%
3193	Cromer/Black Rock North/Black Rock/Beaumaris	8,001	57	0.7%	180	2.2%
3194	Moorabbin Airport - Mentone	6,226	51	0.8%	196	3.1%
3195	Aspendale/Waterways/Parkdale/Mordialloc/Braeside/Aspedale Gardens - Mentone	13,635	79	0.6%	281	2.1%
3196	Edithvale/Chelsea Heights/Chelsea/Bonbeach	10,713	77	0.7%	295	2.8%
3197	Carrum/Patterson Lakes	5,297	26	0.5%	106	2.0%
3198	Seaford	7,603	56	0.7%	196	2.6%
3199	Frankston/Frankston East/Frankston Heights/Frankston South/Karingal/Karingal Centre/	23,533	123	0.5%	564	2.4%
3200	Frankston North/Pines Forest - Frankston	2,542	18	0.7%	69	2.7%
3201	Carrum Downs	7,876	28	0.4%	110	1.4%
3202	Heatherton	1,005	7	0.7%	17	1.7%
3204	Bentleigh/McKinnon/Patterson/Ormond	12,248	87	0.7%	329	2.7%
3205	South Melbourne	5,620	44	0.8%	273	4.9%
3206	Albert Park/Middle Park	4,859	43	0.9%	168	3.5%
3207	Garden City/Port Melbourne	8,442	92	1.1%	451	5.3%
3211	LITTLE RIVER	216	4	1.9%	13	6.0%
3336	FRASER RISE/DEANSIDE/AINTREE	1,655	8	0.5%	41	2.5%
3752	SOUTH MORANG	8,312	74	0.9%	198	2.4%
3754	DOREEN/MERENDA	15,573	426	2.7%	1,053	6.8%
3756	WALLAN	4,363	146	3.3%	296	6.8%
3757	EDEN PARK/WHITTLESEA	2,034	43	2.1%	88	4.3%
3765	MONTROSE	2,314	29	1.3%	55	2.4%

3770	COLDSTREAM/GRUYERE/YERING	739	9	1.2%	18	2.4%
3775	DIXONS CREEK/YARRA GLEN	1,040	48	4.6%	69	6.6%
3777	BADGER CREEK/CHUM CREEK/HEALESVILLE	3,984	136	3.4%	263	6.6%
3782	AVONSLEIGH/CLEMATIS/EMERALD/MACCLESFIELD	2,556	27	1.1%	90	3.5%
3783	Gembrook	613	17	2.8%	48	7.8%
3788	OLINDA	594	17	2.9%	42	7.1%
3793	MONBULK	1,112	16	1.4%	47	4.2%
3795	SILVAN	231	15	6.5%	24	10.4%
3796	MOUNT EVELYN	3,371	39	1.2%	111	3.3%
3797	YARRA JUNCTION	1,024	51	5.0%	92	9.0%
3799	EAST WARBURTON/MCMAHONS	2,521	82	3.3%	256	10.2%
3802	Endeavour Hills	8,408	20	0.2%	104	1.2%
3803	Hallam	3,564	9	0.3%	34	1.0%
3804	Narre Warren East/Narre Warren North	2,586	26	1.0%	49	1.9%
3805	Narre Warren/Narre Warren South - Berwick	17,973	34	0.2%	161	0.9%
3806	Berwick/Harkaway	16,430	55	0.3%	179	1.1%
3807	Beaconsfield/Guys Hill	2,197	17	0.8%	42	1.9%
3808	Beaconsfield Upper/Dewhurst	673	13	1.9%	29	4.3%
3809	Officer/Officer South - Pakenham	3,176	22	0.7%	136	4.3%
3810	Rythdale/Pakenham Upper/Pakenham South/Pakenham	16,581	58	0.3%	274	1.7%
3812	Nar Nar Goon North/Nar Nar Goon/Maryknoll	298	4	1.3%	19	6.4%
3813	Tynong/Tynong North	132	3	2.3%	7	5.3%
3814	Garfield North/Garfield/Cora Lynn/Vervale	527	7	1.3%	21	4.0%
3815	Tonimbuk/Iona/Bunyip North/Bunyip	792	22	2.8%	42	5.3%
3816	Modella/Longwarry North/Longwarry/Labertouche	658	12	1.8%	32	4.9%
3910	Langwarrin	8,388	32	0.4%	85	1.0%
3911	Langwarrin South/Baxter	1,214	14	1.2%	40	3.3%
3912	Somerville/Pearcedale	5,133	26	0.5%	74	1.4%
3913	Tyabb	1,112	2	0.2%	15	1.3%
3915	Hastings/Tuerong	3,786	18	0.5%	96	2.5%
3916	Shoreham/Point Leo/Merricks	533	6	1.1%	52	9.8%
3918	Bittern	1,252	7	0.6%	25	2.0%
3919	Crib Point	1,362	6	0.4%	33	2.4%
3926	Balnarring/Merricks North/Balnarring Beach/Merricks Beach	1,288	5	0.4%	85	6.6%
3927	Somers	1,139	13	1.1%	102	9.0%
3929	Flinders	754	12	1.6%	73	9.7%
3930	Mount Eliza/Kunying	6,691	40	0.6%	108	1.6%
3931	Mornington	10,986	49	0.4%	261	2.4%
3934	Mount Martha	7,900	41	0.5%	255	3.2%
3936	Safety Beach/Dromana/Arthurs Seat	7,584	116	1.5%	900	11.9%
3938	McCrae	2,091	29	1.4%	197	9.4%
3939	Boneo/Fingal/Cape Schanck/Rosebud/Rosebud Plaza - Rye	8,551	101	1.2%	743	8.7%
3940	Rosebud West	2,899	26	0.9%	341	11.8%
3941	Rye/St Andrews Beach/Tootgarook	11,647	161	1.4%	1,652	14.2%
3942	Blairgowrie	3,559	39	1.1%	463	13.0%
3943	Sorrento	3,058	45	1.5%	336	11.0%
3944	Portsea	1,421	13	0.9%	93	6.5%
3975	Lynbrook/Lyndhurst - Hampton Park	4,028	7	0.2%	55	1.4%
3976	Hampton Park	8,149	20	0.2%	81	1.0%
3977	Cannons Creek/Bontanic Ridge/Cranbourne East/Cranbourne/Cranbourne South/Cranbourne North/Junction Village/Sandhurst/Cranbourne West/Devon Meadows/Skye	31,719	169	0.5%	649	2.0%
3978	Clyde/Clyde North/Cardinia - (Cranbourne South)	4,437	42	0.9%	228	5.1%
3980	Blind Bight/Tooradin/Warneet	1,123	5	0.4%	39	3.5%
3981	Koo Wee Rup North/Koo Wee Rup/Heath Hill/Dalmore/Yannathan/Bayles/Catani	1,121	6	0.5%	34	3.0%
3984	Tenby Point/The Gurdies/Corinella/Caldermeade/Adams Esta	539	6	1.1%	26	4.8%
	Greater Melbourne	1,655,995	22,705	1.4%	67,815	4.1%
	Excluded areas	76,089	1,379	1.8%	6,914	9.1%
	Included areas	1,579,906	21,326	1.3%	60,901	3.9%

Appendices:

Victoria: Non Residential

Postcode	Suburb(s)	Total	OL/day	Ratio
3116	CHIRNSIDE PARK	262	131	50,0%
3027	WILLIAMS LANDING	48	19	39,6%
3128	BOX HILL/BOX HILL SOUTH	1.084	390	36,0%
3088	GREENSBOROUGH/BRIAR HILL/ST HELENA	607	213	35,1%
3150	WHEELERS HILL/GLEN WAVERLEY	1.093	342	31,3%
3047	BROADMEADOWS/DALLAS/JACANA	609	189	31,0%
3008	DOCKLANDS	222	61	27,5%
3122	HAWTHORN	1.205	313	26,0%
3131	FOREST HILL/NUNAWADING	901	223	24,8%
3170	MULGRAVE	715	175	24,5%
3109	DONCASTER EAST	537	129	24,0%
3059	GREENVALE	75	18	24,0%
3134	RINGWOOD NORTH/RINGWOOD/WARRANTYTE SOUTH/WARRANWOOD	1.274	299	23,5%
3752	SOUTH MORANG	233	54	23,2%
3102	KEW EAST	243	55	22,6%
3143	Armadale/Armadale North	456	94	20,6%
3151	BURWOOD EAST	187	38	20,3%
3072	PRESTON	1.646	326	19,8%
3101	KEW	882	173	19,6%
3084	ROSANNA/HEIDELBERG/EAGLEMONT/VIEWBANK	557	104	18,7%
3756	WALLAN	159	28	17,6%
3144	MALVERN/KOOYONG	762	132	17,3%
3148	CHADSTONE	99	17	17,2%
3046	HADFIELD/OAK PARK/GLENROY	542	93	17,2%
3136	CROYDON SOUTH/CROYDON/CROYDON HILLS/CROYDON NORTH	1.005	171	17,0%
3111	DONVALE	66	11	16,7%
3126	CANTERBURY	257	42	16,3%
3127	MONT ALBERT/SURREY HILLS	507	81	16,0%
3130	BLACKBURN NORTH/BLACKBURN SOUTH/BLACKBURN	855	136	15,9%
3048	COOLAROO/MEADOW HEIGHTS	299	47	15,7%
3146	GLEN IRIS	407	63	15,5%
3149	MOUNT WAVERLEY	1.107	169	15,3%
3929	Flinders	59	9	15,3%
3085	MACLEOD/YALLAMBIE	117	17	14,5%
3099	HURSTBRIDGE/ARTHURS CREEK/COTTLES BRIDGE/NUTFIELD	117	17	14,5%
3064	CRAIGIEBURN/MICKLEHAM/ROXBURGH PARK	617	88	14,3%
3076	EPPING	893	126	14,1%
3044	PASCOE VALE SOUTH/PASCOE VALE	436	61	14,0%

3809	Officer/Officer South - Pakenham	95	12	12,6%
3079	IVANHOE/IVANHOE EAST	499	63	12,6%
3754	MERENDA/DOREEN	223	28	12,6%
3115	WONGA PARK	56	7	12,5%
3202	Heatherton	202	24	11,9%
3135	HEATHMONT/RINGWOOD EAST	323	38	11,8%
3138	MOOROOLBARK	261	30	11,5%
3757	WHITTLESEA	173	19	11,0%
3083	BUNDOORA/KINGSBURY	695	75	10,8%
3788	OLINDA	93	10	10,8%
3094	MONTMORENCY	122	13	10,7%
3775	DIXONS CREEK/TARRAWARRA/YARRA GLEN	123	13	10,6%
3049	WESTMEADOWS/ATTWOOD	172	18	10,5%
3057	BRUNSWICK EAST	574	60	10,5%
3082	MILL PARK	259	27	10,4%
3124	CAMBERWELL	973	101	10,4%
3981	Koo Wee Rup North/Koo Wee Rup/Heath Hill/Dalmore/Yannathan/Bayles/Catani	107	11	10,3%
3139	WOORI YALLOCK/DON VALLEY/LAUNCHING PLACE/SEVILLE/SEVILLE EAST/WANDIN EAST/WANDIN NORTH/YELLINGBO	430	44	10,2%
3103	BALWYN/DEEPDENE	405	41	10,1%
3943	Sorrento	119	12	10,1%
3070	NORTHCOTE	757	76	10,0%
3123	HAWTHORN EAST	521	52	10,0%
3133	VERMONT/VERMONT SOUTH	363	36	9,9%
3189	Wishart/Moorabbin/Moorabbin East - Highett	1.763	174	9,9%
3166	Oakleigh/Oakleigh East/Hughesdale/Huntingdale	1.176	116	9,9%
3006	Southbank/South Wharf	287	28	9,8%
3078	ALPHINGTON/FAIRFIELD	558	54	9,7%
3196	Edithvale/Chelsea Heights/Chelsea/Bonbeach	339	32	9,4%
3980	Blind Bight/Tooradin/Warneet	64	6	9,4%
3106	TEMPLESTOWE	173	16	9,2%
3140	LILYDALE	814	75	9,2%
3113	WARRANTYTE	152	14	9,2%
3060	FAWKNER	294	27	9,2%
3073	RESERVOIR	1.033	94	9,1%
3172	Dingley Village/Springvale South	327	29	8,9%
3104	BALWYN NORTH	295	26	8,8%
3168	Notting Hill/Clayton	1.294	113	8,7%
3197	Carrum/Patterson Lakes	128	11	8,6%
3056	BRUNSWICK	1.354	116	8,6%
3799	REEFTON/EAST WARBURTON/MCMAHONS CREEK/MILLGROVE/WARBURTON/WESBURN	152	13	8,6%
3105	BULLEEN	269	23	8,6%
3913	Tyabb	141	12	8,5%
3107	TEMPLESTOWE LOWER	153	13	8,5%
3810	Rythdale/Pakenham Upper/Pakenham South/Pakenham	1.076	91	8,5%
3765	MONTROSE	143	12	8,4%
3071	THORNBURY	617	51	8,3%
3915	Hastings/Tuerong	453	37	8,2%

3184	Elwood/Brighton Rd	184	15	8,2%
3125	BURWOOD	480	39	8,1%
3188	Hampton East/Hampton North/Hampton	389	31	8,0%
3977	Cannons Creek/Bontanic Ridge/Cranbourne East/Cranbourne/Cranbourne/Cranbourne South/Cranbourne North/Junction Village/Sandhurst/Cranbourne West/Devon Meadows/Skye	891	71	8,0%
3137	KILSYTH/KILSYTH SOUTH	645	51	7,9%
3093	LOWER PLENTY	64	5	7,8%
3770	GRUYERE/COLDSTREAM/YERING	141	11	7,8%
3087	WATSONIA/WATSONIA NORTH	129	10	7,8%
3806	Berwick/Harkaway	518	40	7,7%
3797	YARRA JUNCTION	118	9	7,6%
3037	SYDENHAM/TAYLORS HILL/DELAHEY/HILLSIDE/CALDER PARK	145	11	7,6%
3147	ASHWOOD/ASHBURTON	356	27	7,6%
3910	Langwarrin	134	10	7,5%
3976	Hampton Park	148	11	7,4%
3939	Boneo/Fingal/Cape Schanck/Rosebud/Rosebud Plaza - Rye	324	24	7,4%
3141	South Yarra	947	69	7,3%
3055	BRUNSWICK WEST	237	17	7,2%
3941	Rye/St Andrews Beach/Tootgarook	225	16	7,1%
3081	HEIDELBERG HEIGHTS/BELLFIELD (GREATER MELBOURNE) /HEIDELBERG WEST/	910	64	7,0%
3190	Highett	388	27	7,0%
3782	AVONSLEIGH/CLEMATIS/EMERALD/MACCLESFIELD	195	13	6,7%
3074	THOMASTOWN	2.135	142	6,7%
3815	Tonimbuk/Iona/Bunyip North/Bunyip	76	5	6,6%
3163	Carnegie/Booran Rd PO/Glen Huntly/Murrumbeena	566	36	6,4%
3796	MOUNT EVELYN	189	12	6,3%
3201	Carrum Downs	1.282	81	6,3%
3204	Bentleigh/McKinnon/Patterson/Ormond	715	45	6,3%
3187	North Road/Brighton East	96	6	6,3%
3940	Rosebud West	257	16	6,2%
3805	Narre Warren/Narre Warren South - Berwick	485	30	6,2%
3075	LALOR	260	16	6,2%
3182	St Kilda/St Kilda West/St Kilda South	843	51	6,0%
3165	Bentleigh East	338	20	5,9%
3936	Safety Beach/Dromana/Arthurs Seat	342	20	5,8%
3194	Morrabbin Airport - Mentone	531	31	5,8%
3042	NIDDRIE NORTH/NIDDRIE/AIRPORT WEST/KEILOR PARK	712	41	5,8%
3132	MITCHAM	556	32	5,8%
3984	Tenby Point/The Gurdies/Corinella/Caldermeade/Adams Estate/Lang Lang/Jam Jerrup/Grantville/Coronet Bay/Queensferry/Pioneer Bay/Monomeith/Lang Lang East	87	5	5,7%
3793	MONBULK	157	9	5,7%
3169	Clarinda/Clayton South	701	40	5,7%
3199	Frankston/Frankston East/Frankston Heights/Frankston South/Karingal/Karingal Centre/	999	57	5,7%
3198	Seaford	1.008	57	5,7%
3181	Windsor/Prahran East/Prahran	996	56	5,6%
3015	SPOTSWOOD/NEWPORT/SOUTH KINGSVILLE	236	13	5,5%
3089	DIAMOND CREEK	200	11	5,5%

3179	Scoresby	276	15	5,4%
3171	Sandown Village/Springvale	1.242	67	5,4%
3160	Tecoma/Belgrave South/Belgrave Heights/Belgrave	187	10	5,3%
3031	KENSINGTON/FLEMINGTON	366	19	5,2%
3167	Oakleigh South	425	22	5,2%
3192	Cheltenham East/Southland Centre/Cheltenham - Highett	1.373	71	5,2%
3051	HOTHAM HILL/NORTH MELBOURNE	542	28	5,2%
3023	RAVENHALL/BURNSIDE HEIGHTS/BURNSIDE/CAROLINE SPRINGS/CAIRNLEA/DEER PARK NORTH/DEER PARK	681	35	5,1%
3142	Hawksburn/Toorak	1.044	53	5,1%
3156	Ferntree Gully/Lysterfield	810	41	5,1%
3162	Caulfield/Hopetoun Gardens/Caulfield South - Glen Hunly	337	17	5,0%
3061	CAMPBELLFIELD	2.582	128	5,0%
3173	Keysborough	768	38	4,9%
3175	Bangholme/Dandenong/Dandenong East/Dandenong North/Dandenong South/Dunearn	5.243	256	4,9%
3807	Beaconsfield/Guys Hill	148	7	4,7%
3011	SEDDON /SEDDON WEST/FOOTSCRAY	677	32	4,7%
3912	Somerville/Pearcedale	512	24	4,7%
3207	Garden City/Port Melbourne	1.283	60	4,7%
3025	ALTONA EAST/ALTONA GATE/ALTONA NORTH	365	17	4,7%
3193	Cromer/Black Rock North/Black Rock/Beaumaris	302	14	4,6%
3013	YARRAVILLE/YARRAVILLE WEST	264	12	4,5%
3026	LAVERTON NORTH	620	28	4,5%
3195	Aspendale/Waterways/Parkdale/Mordialloc/Braeside/Aspedale Gardens - Mentone	1.988	89	4,5%
3040	ESSENDON/ESSENDON WEST/ABERFELDIE	362	16	4,4%
3186	Brighton/Were St PO/Brighton North/Dendy - Brighton East	724	32	4,4%
3019	ROBINSON/BRAYBROOK	250	11	4,4%
3183	St Kilda East/Balaclava	275	12	4,4%
3161	Caulfield North/Caulfield Junction	232	10	4,3%
3012	TOTTENHAM/WEST FOOTSCRAY/KINGSVILLE/MAIDSTONE/BROOKLYN	632	27	4,3%
3191	Sandringham	235	10	4,3%
3931	Mornington	1.110	46	4,1%
3053	CARLTON/CARLTON SOUTH	488	20	4,1%
3205	South Melbourne	1.267	51	4,0%
3153	Bayswater/Bayswater North	2.288	91	4,0%
3177	Doveton/Eumemmerring	202	8	4,0%
3152	Wantirna South/Knox City Centre/Studfield/Wantirna	430	17	4,0%
3030	WERRIBEE SOUTH/WERRIBEE/QUANDONG/POINT COOK/DERRIMUT/COCOROC	1.523	60	3,9%
3174	Noble Park/Noble Park North	534	21	3,9%
3016	WILLIAMSTOWN NORTH/WILLIAMSTOWN	573	22	3,8%
3043	GLADSTONE PARK/TULLAMARINE/GOWANBRAE	2.048	78	3,8%
3185	Gardenvale/Elsternwick/Ripponlea	475	18	3,8%
3206	Albert Park/Middle Park	293	11	3,8%
3000	MELBOURNE (CBD)	1.718	64	3,7%
3020	SUNSHINE/SUNSHINE WEST/SUNSHINE NORTH/GLENGALA/ALBION	1.575	57	3,6%
3930	Mount Eliza/Kunyang	198	7	3,5%
3911	Langwarrin South/Baxter	85	3	3,5%
3178	Rowville	543	19	3,5%

3033	KEILOR EAST	385	13	3,4%
3121	RICHMOND/RICHMOND NORTH/RICHMOND EAST/RICHMOND SOUTH/BURNLEY/BURNLEY NORTH/CREMORNE	1.484	50	3,4%
3039	MOONEE PONDS	387	13	3,4%
3158	Upwey	61	2	3,3%
3018	ALTONA /SEAHOLME	249	8	3,2%
3803	Hallam	1.059	34	3,2%
3029	HOPPERS CROSSING/TARNEIT/TRUGANINA	942	30	3,2%
3021	KEALBA/ALBANVALE/ST ALBANS/KINGS PARK	318	10	3,1%
3036	KEILOR NORTH/KEILOR	64	2	3,1%
3038	TAYLORS LAKES/WATERGARDENS/KEILOR DOWNS/KEILOR LODGE	65	2	3,1%
3180	Knoxfield	390	12	3,1%
3155	Boronia	787	24	3,0%
3022	DEER PARK EAST/ARDEER	33	1	3,0%
3041	STRATHMORE/STRATHMORE HEIGHTS/ESSENDON NORTH/ESSENDON FIELDS/CROSS KEYS	132	4	3,0%
3054	CARLTON NORTH/PRINCES HILL	169	5	3,0%
3066	COLLINGWOOD NORTH/COLLINGWOOD	778	23	3,0%
3812	Nar Nar Goon North/Nar Nar Goon/Maryknoll	70	2	2,9%
3926	Balnarring/Merricks North/Balnarring Beach/Merricks Beach	71	2	2,8%
3004	St Kilda Rd Business District (Melbourne)	486	13	2,7%
3032	TRAVANCORE/MARIBYRNONG/HIGHPOINT CITY/ASCOT VALE	306	8	2,6%
3067	ABBOTSFORD	445	11	2,5%
3003	WEST MELBOURNE	328	8	2,4%
3934	Mount Martha	97	2	2,1%
3068	CLIFTON HILL/FITZROY NORTH	343	7	2,0%
3028	ALTONA MEADOWS/LAVERTON/SEABROOK	154	3	1,9%
3065	FITZROY	619	12	1,9%
3802	Endeavour Hills	76	1	1,3%
3002	EAST MELBOURNE	95	-	0,0%
3783	GEMBROOK	54	-	0,0%