



# INQUIRY INTO HOUSING AFFORDABILITY AND SUPPLY IN AUSTRALIA 2021

September 2021

## **Terms of Reference:**

The House of Representatives Standing Committee on Tax and Revenue will inquire into and report on the contribution of tax and regulation on housing affordability and supply, that is:

- Examine the impact of current taxes, charges and regulatory settings at a Federal, State and Local Government level on housing supply;
- Identify and assess the factors that promote or impede responsive housing supply at the Federal, State and Local Government level; and
- Examine the effectiveness of initiatives to improve housing supply in other jurisdictions and their appropriateness in an Australian context.

The House of Representatives Standing Committee on Tax and Revenue

Dear Mr Falinski MP,

In response to repeated calls for supply-side policy interventions, especially planning deregulation and buyer subsidies, Prosper Australia has been trying to ‘get under the hood’ of the supply/demand dynamics in the Australian Housing markets for at least a decade.

Along with many other think tanks, we have looked at the relationship between housing affordability and housing supply. Our contribution has focused on better **understanding vacancy rates**<sup>1</sup> as a measure of housing capacity, and the **rate of dwelling supply**<sup>2</sup> in greenfield precincts zoned for urban growth. We have also investigated land value uplifts due to rezonings<sup>3</sup>, and non-market housing options.<sup>4</sup>

Our research effort has been to expose common misconceptions about the relationship between zoned land supply, taxation, and the rate of housing build-out. Regrettably, the public political-economic discourse has often, incorrectly, attributed ‘housing unaffordability’ to environmental regulation, built-form controls, and property taxation. The litany has been that planning systems need to get ‘out of the way’ and that governments need to stop adding taxes to the sticker price of housing.

These ill-conceived messages have continued, in part, due to the absence of easily parsed metrics for the volume of additional dwellings allowed by planning but not yet built (zoned capacity). But also because it has been expedient to scapegoat planning systems and state taxes rather than deal with the distributional issue at the heart of Australia’s housing affordability problem: one man’s unaffordable rental is another woman’s capital gains attracting, wealth producing asset. This inquiry will not find the solution to expensive housing within the remit of overzealous State planning authorities.

A further complication is inadequate taxation of the value uplift that occurs when land is rezoned. Because upzoning land, deregulating land and/or removing tax burdens off land can dramatically increase the value of land, these policies often disproportionately benefit existing landholders. The recent boom in short term rentals also warrants consideration.

Summary of key points:

- Density and land supply are not the key factors that influence the build-out rate.

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<sup>1</sup> Fitzgerald, K (Nov 2019) *Speculative Vacancies 10* Prosper Australia Research Institute: Melbourne <https://www.prosper.org.au/wp-content/uploads/2020/12/Speculative-Vacancies-10-November-2020.pdf>

<sup>2</sup> Murray, C.K & Fitzgerald, K, Staged Releases (working title) *Forthcoming*

<sup>3</sup> Sims, E., & Hermans, J. (2021). *The rezoning honeypot: evidence from Fishermans Bend*. Prosper Australia Research Institute [https://www.prosper.org.au/wp-content/uploads/2021/06/The-Rezoning-Honeypot\\_ProspersAustralia\\_final.pdf](https://www.prosper.org.au/wp-content/uploads/2021/06/The-Rezoning-Honeypot_ProspersAustralia_final.pdf)

<sup>4</sup> Murray, C.K. (Sep 2018) *Unspoken Alternatives To Expensive Housing* Prosper Australia Research Institute & The Australia Institute: Melbourne <https://www.prosper.org.au/2018/09/housing-unspoken-alternatives/>

- Build-out rates are determined by economic factors that maximise returns on developer assets. Developments are not constructed nor priced on a cost + margin approach.
- There is a financial return to varying build-out rates to maximise the profitability of development over time. For the developer this is rational, but comes at the expense of higher house prices for homebuyers. In one large estate we investigated this amounted to a premium of \$137 million off 2,131 dwellings over 6 years.
- Property taxes and regulations generally do not have detrimental impacts on housing supply or affordability, although it depends on the market context. States should be supported to broaden the base of land taxes.
- Land supply does not appear to be a significant factor constraining completions, which have more than matched population growth.
- ABS' work on 'dwelling capacity' indicator is in the right direction.
- Escalating prices and affordability issues stem more from housing as an asset market than supply shortages and increased housing consumption costs.
- Affordability at the lower end of the market is compromised by the private development favouring upmarket dwellings, increasing income inequality, and lack of income contingent affordable/social housing stock.
- Housing supply is undermined by poor utilisation of the stock for speculative vacancies and short term rentals, which artificially reduces available dwelling supply.

Warm regards,

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## WHAT DETERMINES HOUSING SUPPLY *OVER TIME*?

### Density vs build-out rates

Housing supply is determined both by the total number of development sites available (which is influenced by zoning and permitted density), and by the number of dwellings *actually* built. The former only constrains the maximum *potential* number of dwellings which can be built in aggregate, as well as *where* they are built.

Most analysis of housing supply conflates density (dwellings per unit of land) and the rate of new housing supply (new dwellings per period of time across all sites). This is because the time dimension of the investment decision facing a landowner is typically ignored in the economic analysis of housing supply.

The *optimal intertemporal choice* (when to develop) of landowners is hugely important for understanding the rate of new housing investment in property markets. Just as there is an optimal mix of use and density that maximises the value of a site, there is also an optimal rate of sales of new dwellings per period that maximises the value of the site.

Across all candidate development sites in a region, the rate of new housing development (new dwellings per period of time) is known as the *market saturation rate* or *build-out rate*. Regardless of planning or zoning, this rate is the result of many landowners making individually-optimal choices about when and how fast to develop.

The *market saturation rate* is independent of feasible sites. We may have 100,000 feasible development sites, or 1,000,000 feasible sites, if the average *market saturation rate* is 1,000 dwellings p.a., both cases will receive the same supply of 10,000 dwellings after 10 years.

### Determining the build-out rate

#### Housing supply and development models

The structure of the development market has significant bearing on how housing supply increases.

The prevailing private-sector development model is *build-to-order* with sales driving production rates. Initially developers need to acquire feasible sites and obtain approval. Here, planning has a role: to ensure that there is a pipeline of developable sites.

New houses don't get built on these zoned sites unless buyers order them, which ties housing supply to housing demand. This means the key limiting factor of new housing production is how fast developers sell orders and lots to prospective buyers, which is determined by the price developers set in the market.

As has been shown by recent AHURI research, the private sector is constrained in its capacity to supply low-cost homes to rent.<sup>5</sup> Other development models that do not face the same constraints, could be more widely used in the market.

### Non-market and alternative approaches to housing development

Our research supports findings by AHURI that private sector build-out rates have a ‘speed limit’. AHURI further finds that market forces are strongly determinative of the distribution and diversity of housing supply. That is to say, despite the best efforts of planners, private sector developers can’t always make projects stack up in the locations and typologies that are socially, environmentally, and economically (from an infrastructure perspective) optimal. Ideally, our housing supply would be responsive to demographic shifts rather than codependent with favourable market conditions.

### Balance sheet model of optimally timed development

Some key elements in the *market saturation rate* are important to clarify:<sup>6</sup>

- Owners of the property where a new home can be built already possess an asset on their balance sheet worth exactly the market value of the land.
- Developing that land with a new dwelling is a *balance sheet reallocation*.
- If developed for immediate sale, the property owner is swapping an undeveloped site asset for a cash asset (with the buyer funding the dwelling construction).
- If developed for rental, the owner has swapped an undeveloped land and cash asset (to fund construction) for a dwelling asset.

Whether these asset swaps are economically viable depends on the relative returns to each. Only in a market where demand is rising does it make economic sense to increase the rate at which undeveloped land assets are swapped for cash assets. When market demand is falling and very “thin” (few buyers at current prices), it makes sense to slow the rate of new housing development.

Other factors that affect this rate include:

- Interest rates - the return on cash after sale
- Taxes on land ownership that reduce the return to retaining ownership of undeveloped land, and
- Potential to vary the density of development in the future. A flexible planning system can make delay more profitable by allowing higher density in the future, increasing the return to delay.

### New build-out rate metrics

In order to test the theory about build-out rates Prosper, in partnership with the Henry Halloran Trust as Sydney University and Dr. Cameron Murray, have been looking at sales

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<sup>5</sup> Hulse, K., Reynolds, M., Nygaard, C., Parkinson, S. and Yates, J. (2019) *The supply of affordable private rental housing in Australian cities: short-term and longer-term changes*, AHURI Final Report No. 323, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/323>, doi:10.18408/ahuri-5120101

<sup>6</sup> The economic logic behind the market saturation rate is described in Murray, C. K. (2021). A housing supply absorption rate equation. *The Journal of Real Estate Finance and Economics*, 1-19. <https://doi.org/10.1007/s11146-020-09815-z>

data over time for a sample of large, greenfield housing subdivisions in outer Sydney and Melbourne. At present we have findings for one of these subdivisions: Jordan Springs, Penrith.

Here we are applying some new metrics to large housing developments to demonstrate the degree to which varying the rate of sales *as a rational response to market conditions* can increase the total economic returns from developing a site.

These metrics demonstrate that, independent of any planning controls on density, there is a “*speed limit*” on the supply of new housing in the form of the market saturation rate.

#### Development speed metrics

*How fast did the subdivision develop compared to how fast it could have if the maximum observed rate of sales was sustained?*

Housing developers often argue that new housing is being built as fast as the planning system allows. Indeed, quite a deal of economic analysis also makes this assumption. However, once a subdivision or apartment building is approved by the planning system, the private choices of the developer determine how fast the approved new housing is developed. This includes how fast they sell, which is the key limiting factor of the build-to-order model of new housing production.

To demonstrate the degree to which these private choices limit the potential rate of new housing supply we generate the first metric on development speed, the *Development Rate Ratio (DRR)*.

$$\text{Development Rate Ratio} = \frac{\text{Average monthly rate of sale across all months}}{\text{Average monthly rate of sales of fastest 3 month period}}$$

The DRR shows the average speed of development as a ratio of the maximum speed, using the average monthly rate in the fastest 3-month window.

A lower number indicates that the new housing development proceeded much slower than was physically possible. The physical possibility simply being the maximum rate observed (even higher rates than this are likely to be physically possible).

A second metric is *Development Rate Variability (DRV)*. DRV is the ratio of the fastest speed of monthly sales to the slowest monthly sales during a development. This shows how sensitive to market conditions the choice of sales can be.

A higher DRV shows how much the private choices/ optimal release rate of housing developers can vary the rate of new housing supply.

$$\text{Development Rate Variability} = \frac{\text{Average monthly rate of sales of fastest 3 month period}}{\text{Average monthly rate of sales of slowest 3 month period}}$$

It may be argued that it is impossible to sell fast in a depressed market, but this is only true if prices are held constant. The heart of the housing supply debate is whether

planning deregulation could enable private sector housing developers to build faster at *lower prices*.

To complement these development speed metrics we also create new metrics of the economic returns available in housing development by varying the rate of supply in response to market conditions.

### Economic return metrics

**What is the gain from varying the rate of supply of new housing to “meet the market”?**

To answer this question a sensible counterfactual must be established. The counterfactual implied in most economic analysis of housing is that housing is supplied once the market price gets above the feasible price for development. In other words, the developer fixes the price of all housing (or land lots) at the beginning of the project (a fixed point in time) then varies only the speed of sales to match market demand at that initial feasible price.

The dynamic approach recognises an economic return to varying both the rate of supply and the price. This is then the difference in revenue between the following two approaches.

- a. Setting a price at the beginning of the project and selling as much as possible at that price until the project was completed.
- b. Varying both the rate of supply and price to capture some market price gains.

The first economic return metric that helps identify the gains to delay is the *Delay Premium (DP)*. The DP is the share of total revenue that was made by varying price as well as quantity (ignoring discounting), and is calculated as follows.

$$\text{Delay Premium} = \frac{\text{Total revenue} - (\text{minimum sold land price} \times \text{total sold area})}{\text{Total revenue}}$$

Two parts of this equation need some explanation. First, when applied to detached housing subdivisions the total revenue is for land only, not for homes. This is because the additional gain from building the home comes with added construction costs leaving the land value as the net income. Second, the reason for including the minimum land price rather than the initial price is because the lowest price in the sequence of sales indicates the minimum willingness to sell.

A higher DP means that a larger share of the total revenue came from actively varying both price and quantity during the selling period.

The second metric is the *Available Delay Premium (ADP)*. It measures the maximum difference in sales price over the life of a project. The peak price per sqm often occurs at the end of a project and the lowest sale price usually occurs near the beginning. This difference is multiplied by the total sold land area as a proportion of actual revenue. This metric indicates a theoretical maximum degree to which revenue could have varied (as a proportion of actual revenue) if all sales were made at the highest price compared to all sales being made at the lowest price.



$$\text{Available Delay Premium} = \frac{(\text{Maximum land price per sqm} - \text{Minimum land price per sqm}) \times \text{total sold land area}}{\text{Total revenue}}$$

The interpretation of the ADP is to show how important choosing the timing of sales can be to the final returns of a project. A higher ADP indicates that varying sales rates due to changes in demand, and hence price, will have a higher economic payoff. These metrics are now calculated for a large case study subdivision in Sydney.

### Jordan Springs study

Jordan Springs is a 900 hectare residential subdivision located in Penrith (53km west of Sydney's CBD) and was approved for development in 2009 with the first residents moving in during 2011.

By 2012 the development was owned by Lendlease, which published in its annual report that year that the area would ultimately provide over 2,000 detached dwellings and 200 apartment dwellings, with an expected 10 year development timeline. The subdivision master plan is in Figure 1.



Figure 1: Jordan Springs masterplan

Available data on all land lot and house sales in the subdivision from **1st October 2015 to 8th October 2021**, providing an estimated **2,131** land lot and dwelling sales in this subdivision. When more complete and longer term sales information is available, further analysis of this and many other large dwelling subdivisions will be completed.

### Summary of absorption rate metrics

The four absorption rate metrics for the available data on this large subdivision project are summarised in Table 1. The mean monthly observed land price per square metre is applied to all land and house sales in that month to generate the revenue estimates, and different prices per square metre applied to generate the economic return metrics.

Table 1: Absorption rate metrics for Jordan Springs housing subdivision in Sydney

Metric	Value	Interpretation
Development rate ratio	0.45	The average speed of sales was slightly less than half the peak speed (at 45%)
Development rate variability	0.12	The minimum speed of sales was only 12% of the peak speed.
Delay Premium	0.13	13% additional revenue was gained by varying price
Available Delay Premium	0.31	Revenue could have varied 31% given the price ranges observed during the project

In this data the total revenue was around \$1 billion. The 0.13 Delay Premium represents about **\$137million** of value that was gained by varying prices during the project rather than setting a minimum profitable price and selling all lots at that price.

This is a significant finding that should be a major focal point for housing supply analysts. The build out rate is determined by the profitability at that point in time. The incoming community at Jordan Spring's faced a combined price premium of \$137million above what was feasible for the developer to supply.

Further, the difference in revenue between selling all lots at the lowest per square metre price and the highest price was **\$310million**. These figures also provide insight into the variability and risk involved in land and housing development.

#### Further analysis and detail

It is also worth looking at the variation in sales and prices over the available data for the Jordan Springs project.

In Figure 2 is the smoothed monthly rate of land and house sales for new dwellings (orange), alongside the repeat sales (dashed black) over time. Minimum, maximum and mean sales rates are marked (which are used to generate the Development rate ratio and Development rate variability metrics). Notice that in the quiet housing market of 2019 that sales were much slower than in the busy 2016-17 market period.

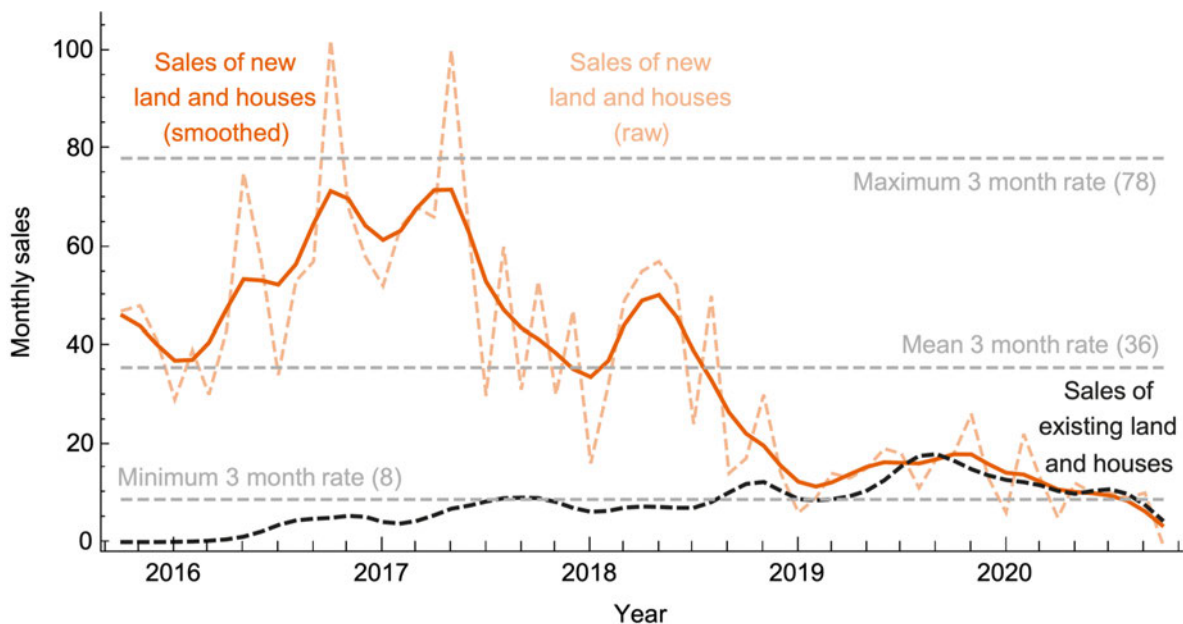


Figure 2: Monthly sales (houses and land lots) in Jordan Springs

In Figure 3 is the land price per square metre observed in the sales data over the same time period, with maximum, minimum and mean prices market (which inform the Delay Premium and Available Delay Premium metrics). During this five year window, land prices varied by around 30% (the ADP metric) but had noticeable peaks and troughs that coincided with macroeconomic conditions.

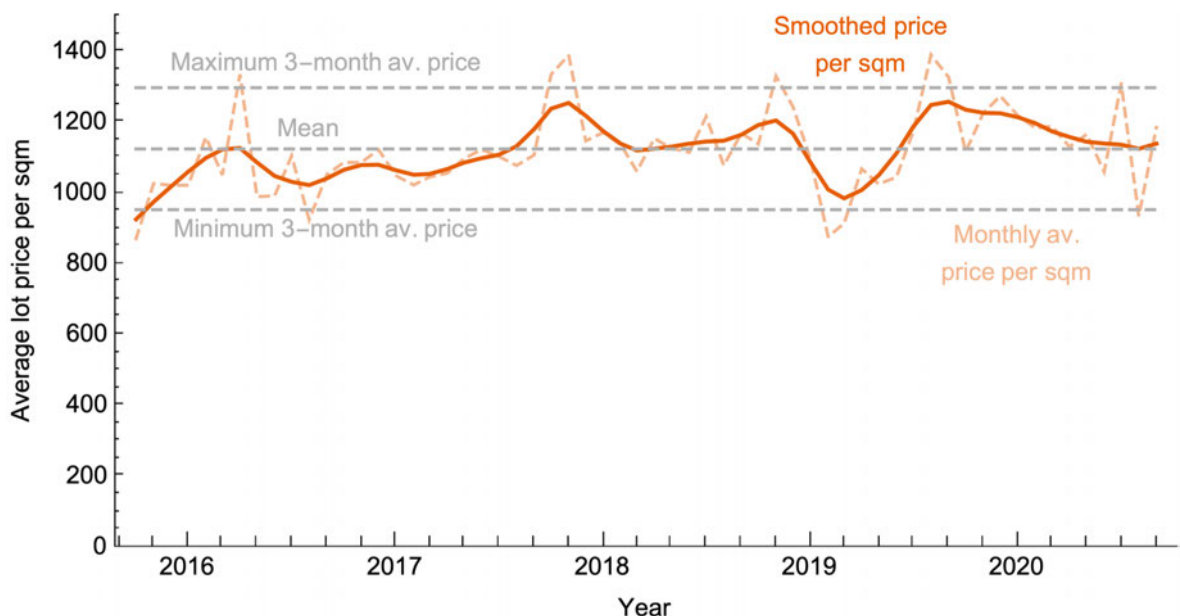


Figure 3: Monthly lot prices per sqm in Jordan Springs

Finally we can look at the relationship between price growth and the rate of supply in Figure 4. Although these data points do not generate a statistically significant relationship, visual inspection shows clearly that *periods of price growth also saw faster new supply*,

as expected if the developer is optimising sales rates and price to maximise their revenue (as predicted by the logic of the market saturation rate).

The enormous variation in the rate of supply in large projects such as Jordan Springs, with thousands of approved dwellings, is a clear indication of macroeconomic and market conditions being the main determinant of the rate of new housing supply.

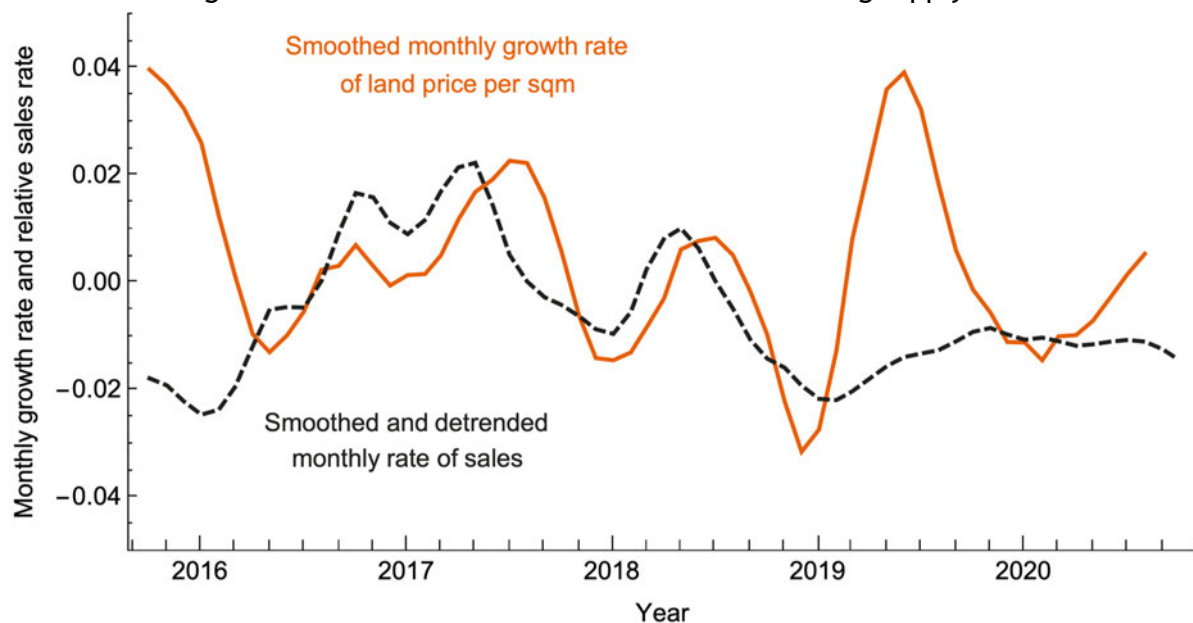


Figure 4: Relationship between sales rates and price growth rate

### Interaction of tax and regulation with housing supply

Tax and regulation can influence the *market saturation rate*, but can also influence supply issues further upstream for developers obtaining feasible sites. However these effects are contextually dependent on the wider property market developers are operating in.

As previously mentioned, holding charges can influence the timing decisions for development once development sites are acquired. There is empirical evidence to demonstrate that higher holding costs reduce the returns to holding undeveloped land and bring forward development as discussed in Murray & Hermans (2019).<sup>7</sup> The *market saturation rate can be accelerated through the use of holding charges* such as:

- broad based land taxes
- council rates with a focus on Site Value Rating
- escalating vacant land taxes over time.<sup>8</sup>

<sup>7</sup> Murray, C., & Hermans, J. B. (2021). Land value is a progressive and efficient property tax base: Evidence from Victoria. *Australian Tax Forum*, 243-266. Preprint available: <https://osf.io/mxg3j/>

<sup>8</sup> A surtax on vacant land is levied in Seoul, Korea. Land left vacant for 2+ years is taxed at an increasing marginal rate over time. The highest rate is 10% after 10 years. Hass, A., & Kopanyi, M. (2017). Taxation of Vacant Urban Land: From Theory to Practice. *International Growth Center*, London School of Economic and Political Science: London [https://www.theigc.org/wp-content/uploads/2017/07/201707TaxationVacantLandPolicyNote\\_Final.pdf](https://www.theigc.org/wp-content/uploads/2017/07/201707TaxationVacantLandPolicyNote_Final.pdf)

### Narrow base of state land taxes

Prior to development sites being acquired, taxation can also affect the feasibility of developing land. However this is totally dependent on market context, competing buyers, and the taxes they are required to pay.

For development to be feasible, two things must align:

1. Developers must be able to outbid all other potential land buyers for a site, and thus qualify to make development the highest and best use of the site.
2. Price for dwellings sold after development must cover the developer's costs and margins.

If all buyers face the same tax, the developers are equally disadvantaged along with all buyers. This means the tax is shifted back to the landowner, as all land buyers have a reduced willingness to pay for land. This can be observed with Stamp Duties and council rates (on unimproved land). In turn, these taxes do not affect development feasibility. ***In cases of developer charges and state land taxes, developers are discriminated against compared to owner-occupiers.***

In a greenfield context this is usually irrelevant as developers face competition only from farm uses for vacant lots. The value of these sites is substantially more for developers compared to farmers, meaning there is a significant premium above farm value for a change of use.

Developer charges, where consistently applied, can be passed back from the developer to the landholder in a lower willingness to pay for land, but since this still remains the highest bid, developers still acquire these sites at feasible prices. This means developer charges have no impact on housing supply or affordability.

***The foregoing suggests that the Federal Parliament should be supporting State governments in their efforts to broaden the base of state land taxes.*** As highlighted by NSW's recent review of Federal Financial Relations, States need assurance from the Commonwealth that they will not be disadvantaged with a lower GST share as a result of undertaking major productivity-enhancing tax reforms such as replacing stamp duties with a broad-based land tax.<sup>9</sup>

### Developer charges

In cases where developer charges exceed the development premium, developers must wait until the price of residential housing rises relative to their land acquisition cost (which is current use value + developer charges). This can delay development until housing prices rise.

In an infill context, developers face competition from additional existing land uses. In cases where current land users generate higher *after-tax* returns than developers e.g. premium developed industrial sites, existing residential use etc. developers will not be

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<sup>9</sup> NSW Treasury (August 2020) NSW Review of Federal Financial Relations - Final Report <https://www.treasury.nsw.gov.au/sites/default/files/2020-10/FFR%20Final%20Report%20-%20200828%20%281%29.pdf>

able to acquire the sites at feasible prices. Private developers need to achieve a feasible hurdle margin. This will mean developers must wait until the price for their product (dwellings) increases relative to the site acquisition and remediation cost (including developer specific charges).

Developer chargers still remain efficient so long as these charges are internalising external costs of development. That is to say if the price reflects a cost that would otherwise be borne by the community at large e.g. site services, infrastructure provision.

### Taxes on property investors

Taxes on property investors interact with market demand for dwellings in a limited sense. Commonwealth tax concessions on existing properties e.g. Capital Gains Tax discounts and Negative Gearing, have no effect on increasing housing supply. Rather they skew the ownership of the existing dwelling stock in favour of investors over potential owner-occupiers, by increasing the willingness of investors to pay for existing property as a financial asset. This inflates the price of established dwellings, as wealthier tax advantaged investors outbid homebuyers.

These same tax concessions, if restricted to new dwellings only, would reduce the value of undeveloped land and established dwellings, but still provide a premium value to new dwellings. This would potentially skew the *market saturation rate* in favour of more housing supply, as the returns to owning undeveloped land fall relative to the returns of selling developed land to tax advantaged investors. Developing land would still remain financially attractive and tax advantaged.

### Planning Regulations

Planning regulations can have a number of effects on dwelling supply:

- constrain the maximum number of developable sites,
- constrain the potential use and value of individual sites, and
- influence where development occurs.

Often zoning regulations are viewed as constraining developable land supply and thus increase land prices. However, on the best available metrics (more below) aggregate land supply is adequate, for example, 20-28 years in Melbourne's greenfields alone. This suggests available developable land is not a constraint on the quantity of dwelling completions or a driver of price growth.

Continuous increases in the amount of zoned supply does not appear to have increased the rate of aggregate supply built. Rather it influences the location of where that supply is built, and thus only affects supply in the highly localised context of sub-markets. For example, the consistent building of strata supply in Melbourne has suppressed aggregate rental and price growth in apartments for some time, while detached dwelling values and rents have increased relatively more. ***Zoning can constrain supply in a sub-market, but that is also a purpose of planning: to direct growth.*** So long as the wider market is not constrained, there is no supply issue.



A further complication is the inadequate taxation of the value uplift that occurs when land is rezoned. ***Upzoning land, deregulating land and/or removing tax burdens off land can dramatically increase the value of land, and subsequently these policies often disproportionately benefit existing landholders.***<sup>10</sup> Because there is a once-off windfall gain to land values from a change in zoning or taxation, there is an in-built reason to seek them. Only an interceding taxation mechanism e.g. ACT's Lease Variation Charge can reverse this incentive.

Conversely, regulations on land use function like developer contributions and usually suppress land prices e.g. car parking requirements, inclusionary zoning, building regulations. Like developer contributions, whether these regulatory costs are passed back to the landowner or render sites infeasible until prices rise, depends on the market. If consistently applied, with sufficient warning, these mandatory standards and inclusions positively shape housing markets.

Other regulations on property buyers can also have impacts on housing supply:

- Regulations on financing and buyer restrictions for studio apartments (typically under 40m<sup>2</sup> gross floor area) can inhibit market depth, liquidity and reallocation of this type of housing stock (e.g. in inner Melbourne CBD).
- Restrictions on investors e.g. foreign investors, that only allow investment in new dwellings can increase supply by redirecting demand from existing assets.

## ARE THERE ENOUGH DWELLINGS BEING BUILT?

### Aggregate supply and dwelling stock measures

Aggregate measures suggest that ongoing dwelling supply appears to be adequate. However, the property market is made up of overlapping submarkets that are highly heterogeneous, so aggregate supply metrics can be misleading. A more granular approach is required to determine whether highly localised supply constraints are relevant within a larger market.

On a national level, it is clear in Figure 5 that we are building bigger homes for similar sized households. Data on spare bedrooms per household also suggests aggregate dwelling supply has matched population growth.

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<sup>10</sup> Sims, E., & Hermans, J. (2021). *The rezoning honeypot: evidence from Fishermans Bend*. Prosper Australia Research Institute  
[https://www.prosper.org.au/wp-content/uploads/2021/06/The-Rezoning-Honeypot\\_ProspersAustralia\\_final.pdf](https://www.prosper.org.au/wp-content/uploads/2021/06/The-Rezoning-Honeypot_ProspersAustralia_final.pdf)



Figure 5. Average number of persons and bedrooms

Source: ABS, Housing Occupancy and Costs 2017-18 financial year

Figure 6 shows that we are building more homes per person too. The picture is more nuanced at the state level.

- Post-mining boom, NT and WA have seen dwellings increased relative to population.
- In population growth states like VIC, dwellings roughly matched population growth over the long term. Initially supply did lag behind.
- Tasmania appears to have had increasing people per dwelling until the borders closed during COVID. This indicates a potential sustained dwelling shortage.



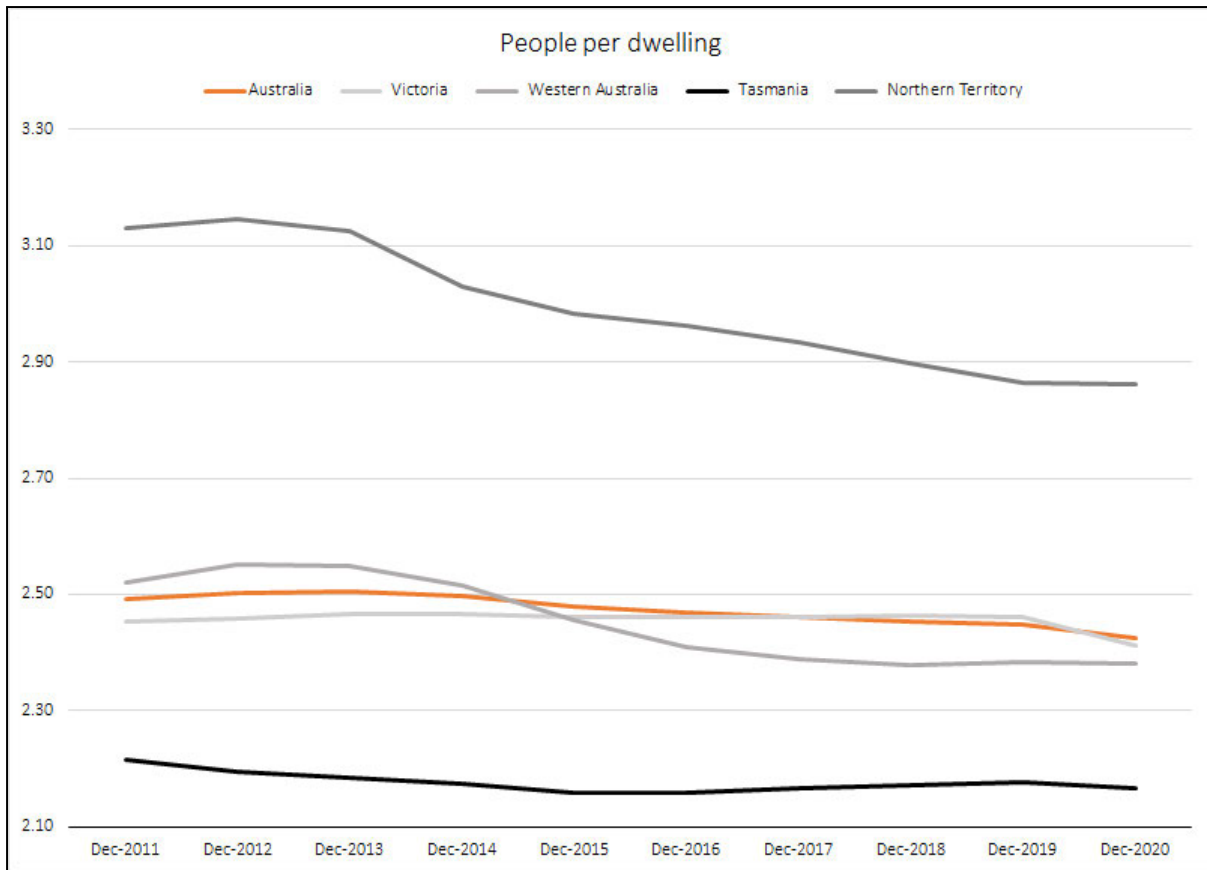


Figure 6. People per dwelling source: ABS: Residential Dwellings: Values, Mean Price and Number by State and Territories; ABS 3101.0 National, state and territory population Table 4.

On aggregate we are building enough houses per head of population.

### Relationship of housing supply on prices and affordability

Housing affordability needs to be carefully defined. Housing is a consumption good, but property is an asset class. For this reason, land values are not counted in CPI.

The consumption cost of housing and “affordability” is best measured using a rental price index and construction costs. Whereas property prices (driven by underlying land value) reflect their capacity to earn a return, similar to shares and bonds. Property prices are influenced by rents, but can also be influenced by rates of return of other asset classes e.g. interest rates.

In Australia, rental markets and owner-occupier markets are largely interlinked and fluid (with a few exceptions). The adequacy of supply can therefore be inferred, to some degree through, rental prices. ***Housing stock shortages show up as higher rents.***

Purchase price of housing has largely been influenced by asset markets and interest rates. While mortgage servicing costs are at historic lows, housing is less accessible to first time buyers due to the increasing size of deposits, as well as lower returns to savings required

to accumulate those deposits.<sup>11</sup> These price influences are unrelated to the supply and demand equilibrium of housing.

### Rental prices

Most rental indices seem to indicate no substantial trend above incomes over the last 10 years nationally and across capital cities, including in booming Melbourne and Sydney.<sup>12</sup>

Recent large increases in rental prices have occurred nationally in many markets. This is driven by internal migration and remote employment trends brought about by COVID.

These regional trends contrast with inner city rental markets in Sydney and Melbourne which have (which traditionally are closer to employment opportunities) declined with the collapse of student and tourist demand.

Hobart has had sustained substantial real rental growth over the past 5 years. This would be the most likely indicator of an actual supply shortage, and it matches growth in people per dwelling in Figure 6.

It is not clear why Hobart has had a persistent supply shortage compared to Melbourne or Sydney, given the latter experienced far greater migration and population growth than Tasmania. The *market saturation formula* suggests that the lag in supply is due to a shallower market, which entails a slower rate of sales and thus slower build-out of supply. Hobart is also overrepresented with short-term rentals.

Regional markets are likely to suffer the same issue as Tasmania.

### Private rental supply composition and distributional consequences

Another key factor on affordability is the composition of new housing stock relative to household incomes. While a rental index can indicate movements of averages, the greater issue for affordability is movements within the distribution of those averages. There is a clear undersupply of affordable rentals near employment in Australia's major centres.<sup>13</sup>

Over the past couple of decades private rental supply has largely consisted of middle and higher cost rental stock, at the expense of cheaper rental stock. The market has failed to develop for the lower end of the market, instead preferring luxury dwellings to appeal to investors looking for a financial product that targets "better quality" higher income tenants. This coincides with increasing income inequality, where middle and higher incomes continue to experience faster income growth than lower incomes.

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<sup>11</sup> Daley, J., Coates, B., & Wiltshire, T. (2018). *Housing affordability: re-imagining the Australian dream*. Grattan Institute.

<sup>12</sup> See for example *SQM Weekly Rent - National*  
<https://sqmresearch.com.au/weekly-rents.php?national=1&t=1>

<sup>13</sup> Gurran, N., Hulse, K., Dodson, J., Pill, M., Dowling, R., Reynolds, M. and Maalsen, S. (2021) *Urban productivity and affordable rental housing supply in Australian cities and regions*, AHURI Final Report No. 353, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/353>, doi:10.18408/ahuri5323001.

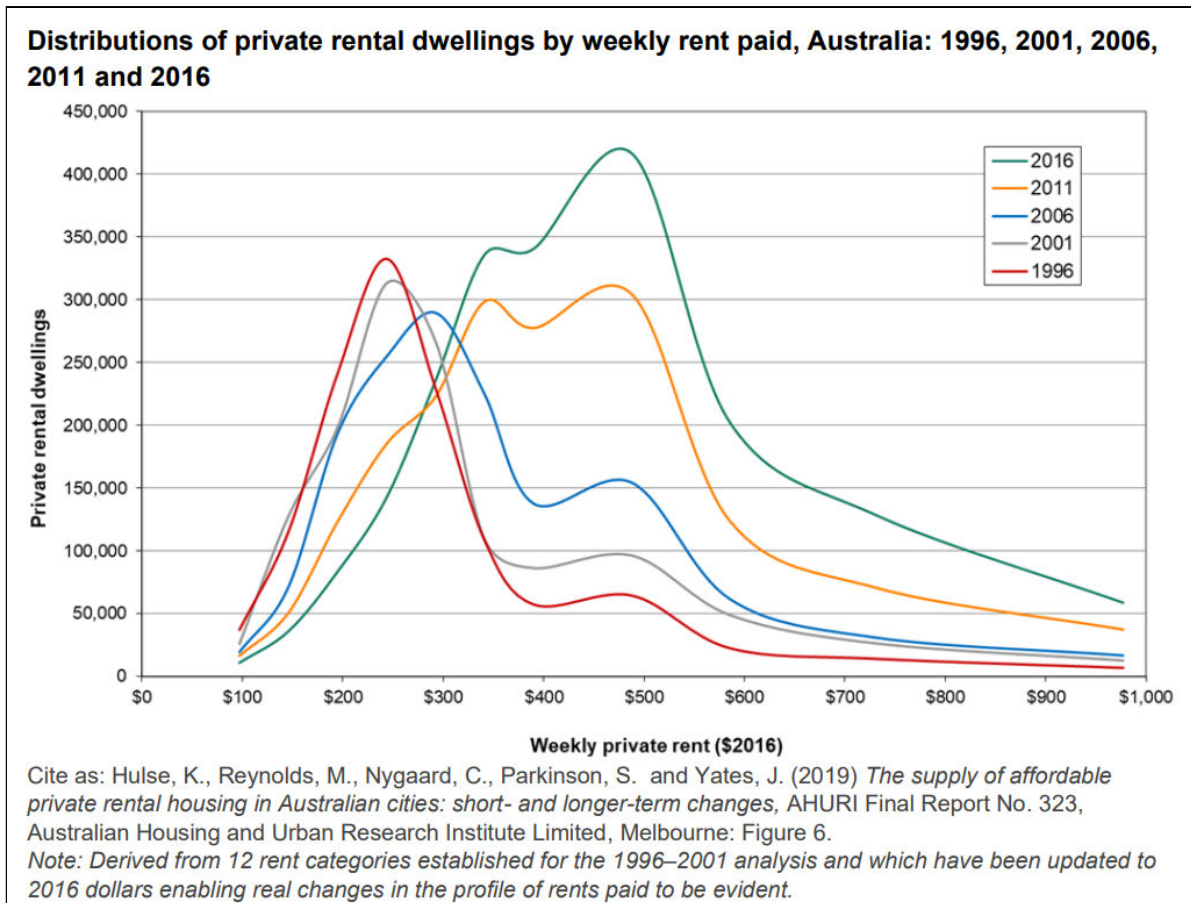


Figure 7: Distributions of private rental dwellings by weekly rental paid. Source: Hulse et al. (2019) AHURI Final Report No. 323

This issue is magnified when cheaper rental stock is occupied by middle and high income households, which pushes lower income households into less affordable housing, down or off the rental ladder. AHURI, Grattan and others are unified in their calls for more social and affordable housing for lower income households to correct this failure.<sup>14</sup>

Public intervention must ensure not only that affordable supply is developed, but also that lower income households get priority access to cheaper rental housing.

## Adequacy of metrics for ‘dwelling capacity’ or zoned supply

What volume of housing *could* be built given the existing supply of zoned, developable land? Zoning regulations may dictate the maximum potential supply of dwellings across an area, but there is no easily parsed metric for that potential supply.

We note that the ABS was charged with producing a “dwelling capacity indicators” series. It is our understanding that to date no series has been produced and made available. The Bureau’s preliminary report circulated for feedback (Nov 2020) demonstrated that building a new indicator has been a daunting task. The ABS ought to be resourced to continue this work.

<sup>14</sup> Gurran et al. (2021) *Urban productivity and affordable rental housing supply in Australian cities and regions*; Daley, J., Coates, B., & Wiltshire, T. (2018). *Housing affordability: re-imagining the Australian dream*. Grattan Institute.

Most States monitor their land supply to ensure adequate pipelines of developable land. For example, Victoria produces annual reports on the land supply pipeline for Metropolitan Melbourne as per Figure 8 below.<sup>15</sup> Similar data is not available for regional LGAs (except for 2012) making it difficult to assess the ‘zoned capacity’ in regional Victoria. Nonetheless, Melbourne reports zoned supply spanning well past 10 years in both greenfield and redevelopment contexts. Similarly, South East Queensland reports over 15 years supply<sup>16</sup>, Perth reports 31 years supply.<sup>17</sup>

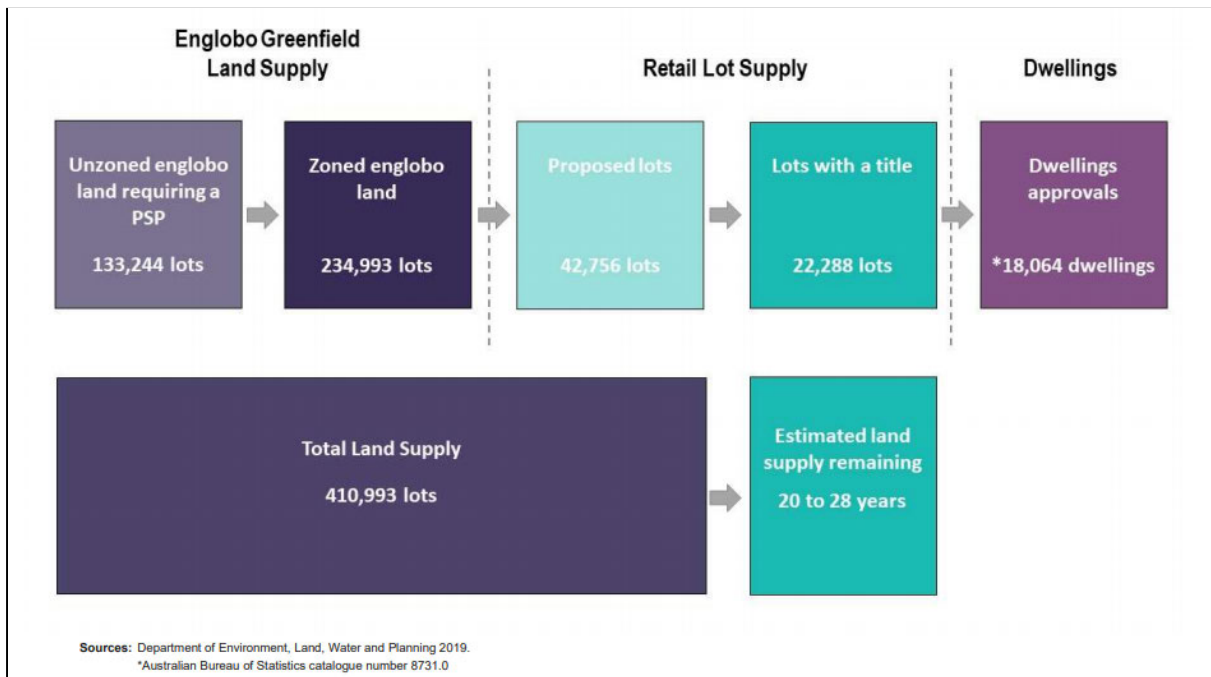


Figure 8: taken from DELWP’s annual report on Urban Development Program Land Supply summary, growth areas, 2019.

Figure 8 demonstrates that approvals have not been constrained by inadequate zoned englobo supply. This strengthens the evidence that private developers ration supply by delaying development when demand softens, and this shows up as a low number of annual approvals. Whether these approvals are also translated into completions is another question. ***Surely, taking the measure of existing zoned supply- where the state government monitors are deemed to be insufficient- is prerequisite to any claim that ‘restrictive zoning chokes supply’.***

<sup>15</sup> The State of Victoria Department of Environment, Land, Water and Planning (2020) *Urban Development Program - Metropolitan Melbourne Redevelopment 2019 & Metropolitan Melbourne Greenfield 2019*

<sup>16</sup> State of Queensland (2020) *Land Supply and Development Monitoring Report*  
<https://planning.dsdmip.qld.gov.au/report/lrdm?release=2020>

<sup>17</sup> Western Australian Planning Commission (March 2021) *Urban Growth Monitor 12*  
<https://www.wa.gov.au/sites/default/files/2021-07/UGM-12-Exec-Summary.pdf>

## Dwelling stock utilisation

Regardless of how much supply is built, it is important that dwellings are available and occupied. The misallocation of dwelling stock can undermine affordability, and efforts to increase housing supply.

### Speculative vacancies

Claims of undersupply need to be tested against stock utilisation. Since 2008, we have investigated the vacancy rate in Greater Melbourne using water usage data as a proxy metric. We have consistently reported a higher vacancy rate than advertised. For example, in 2019 we found 69,004 properties using less than 50L of water per day.<sup>18</sup>

If made available, these dwellings would augment Melbourne's supply significantly. This research highlights that despite hot property markets, significant portions of dwelling stock are withheld from the market. Victoria has instituted a Vacant Residential Property Tax to discourage this behaviour.

### Short-term rentals

Further investigation is needed of the effect of short term lets on rental prices. COVID disruption provided an opportunity to examine the impact of AirBNB style short-term rental on the supply of the long-term private rental market. AHURI research demonstrated AirBnB has a greater impact in tight markets, even when the amount of stock that is moved into the long-term private rental market is small.<sup>19</sup>

Hobart has one of the highest densities of AirBnB's in the world.<sup>20</sup> AHURI recommends that the proportion of AirBnB style rentals be reduced from 12% of total rentals to 5%. It is clear that the COVID induced supply shock of moving AirBnB rentals into the long-term rental market had significant impacts on improving housing affordability. While ongoing dwelling supply is needed in Hobart, it is clear that competition from the short-term rental market is also undermining increases in supply. Tax or regulation of short-term rentals is necessary in these circumstances to maximise long-term rental supply.

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<sup>18</sup> Fitzgerald, K (Nov 2019) *Speculative Vacancies 10* Prosper Australia Research Institute: Melbourne <https://www.prosper.org.au/wp-content/uploads/2020/12/Speculative-Vacancies-10-November-2020.pdf>

<sup>19</sup> Buckle, C., Gurrán, N., Phibbs, P., Harris, P., Lea, T. and Shrivastava, R. (2020) *Marginal housing during COVID-19*, AHURI Final Report No. 348, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/348>, doi:10.18408/ahuri7325501.

<sup>20</sup> Glaetzer, S (Dec 7, 2020) New push to limit Airbnb permits in Hobart as data reveals the high density of short-stay properties in the capital *Hobart Mercury* <https://www.themercury.com.au/realestate/new-push-to-limit-airbnb-permits-in-hobart-as-data-reveals-the-high-density-of-shortstay-properties-in-the-capital/news-story/419674634b93f17d070803cb990cec75>,