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Challenging the Discourse around the Impacts of Airbnb through Suburbs Not Cities: Lessons from Australia and COVID-19

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Abstract: *Supporters of short-term rental (STR) platforms state that STRs represent a small fraction of the housing market of major cities and therefore have little impact on rents. However, there is emerging evidence that suggests that STRs have highly localised impacts. In this article, we use the natural experiment of the pause in tourism caused by the COVID-19 pandemic to highlight the impact of a decrease in STR listings on rental markets in the case study city of Hobart, Australia. We find that rental affordability has improved in Hobart's STR-dense suburbs with the increased vacancies from the underutilised STR properties. These results provide evidence of the impact of STRs on local housing markets when analysed on a finer scale than the whole-of-city approach. The focus on local housing markets helps local communities and city governments build an argument for the impact of STRs on tight housing markets.*

Keywords: short-term rental; Airbnb; Hobart; COVID-19; rental market.

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Introduction

STR (short-term rental) listings have risen drastically in the last few years due to sharing platforms such as Airbnb and HomeAway (Gurran and Phibbs 2017; Crommelin et al. 2018a). These platforms provide a means for homeowners of properties that are not managed as regulated STR modes (such as hotels, motels, holiday parks and bed and breakfasts) to list their properties as STRs, converting potential permanent rental housing into the STR sector (Crommelin et al. 2018b). This is a concern in major cities and high tourist areas with tight rental markets experiencing pre-existing rental pressures, such as London (Ferreri and Sanyal 2018), Paris (Ayouba et al. 2019), New York (Wachsmuth and Weisler 2018), Dublin (Lima 2019), and Barcelona (Garcia-López et al. 2020). City or local councils and community activists, such as Neighbours Not Strangers (NeighboursNotStrangers.com) and Share Better (ShareBetter.org), argue that the rise in STRs impacts rental and housing affordability in their local areas.

However, the quantifiable impact that the rise in STR listings has had on local rental affordability is highly contested. STR platforms dispute the claims and question the methodologies that suggest that they have a disproportionate impact on housing and rental markets. In a New York City example, a report by the Office of the Comptroller found that 9% of the rise in rents across the city from 2009-2016 can be attributed to the major STR platform, Airbnb, and in specific neighbourhoods, such as Williamsburg and Chelsea, this figure can be up to 20% (Stringer 2018). In response to the report, a policy manager at Airbnb stated that the methodology made 'elementary methodological mistakes' and that 'the effect on rents was insignificant because listings represent less than 1% of apartments in the city' (Ferré-Sadurní 2018). A similar stance has been taken in the city of Hobart, Australia, which is the case study area for this paper. The manager of public affairs for Airbnb stated:

> *short-term rentals represent just a tiny fraction of the housing market. Non-primary home listings with planning permits account for less than 1 per cent of the housing market in Greater Hobart …a very small change to the number of listings that make up this tiny percentage is extremely unlikely to have a significant impact. (Nolan 2020: n.p).*

By looking at STRs as a proportion of the housing market of an entire city, STR platforms make an argument that they could not significantly impact rental or housing affordability. These claims are often supported by research which the platforms themselves fund (see, for example, SGS 2018).

Evidence of the impact of Airbnb on rental markets has been emerging across the globe through investigations of local housing markets at a finer scale than whole-of-city measures in corroboration with the New York City report (see, for example, Gurran and Phibbs 2017; Crommelin et al. 2018a; Wachsmuth and Weisler 2018). Whilst confirming that the median ratio of Airbnb stock as a proportion of total stock in US zip codes was small (0.18%), Barron et al. (2020: 9-10) argue that by looking at vacancies the impact could be significant:

> *Perhaps the most salient comparison—at least from the perspective of a potential renter—is the number of Airbnb listings relative to the stock of homes listed as vacant and for rent (which are part of the long-term rental supply). This statistic reaches 11.77% in the median zipcode in 2016 and 121% in the 90th*

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> *percentile zipcode. This implies that in the median zipcode, a local resident looking for a long-term rental unit will find that about 1 in 9 of the potentially available homes are being placed on Airbnb instead of being made available to long-term residents. Framed in this way, concerns about the effect of Airbnb on the housing market do not appear unfounded.*

This is the central claim of this paper: changes in housing market rents are driven by changes in local vacancy rates – not by fractions of the total housing market. Australia's central bank in a study of the Australian housing market noted that 'the dominant influence on real rents is the vacancy rate' (Saunders and Tulip 2019). Using this relationship, in any housing market where the shifts to or from the STR market can move the rental market vacancy rate, rental levels will be impacted. If some landlords switch from supplying the market for long-term rentals to supplying the market for STRs, rents will increase, and when the opposite occurs, rents will decrease. These market changes will occur despite STR markets being a small fraction of total housing markets. Supporters of STRs who use the small fraction argument are engaged in 'strategic misrepresentation' (Flyvbjerg et al. 2002).

In this article, we present research that highlights the relationship between STRs, vacancy rates, and rents using the natural experiment provided by COVID-19. Due to the pause on tourism activities, the coronavirus pandemic has provided a rare opportunity to track the relationship between the STR sector and permanent rental stock and affordability. There is evidence that dwelling stock previously listed on STR platforms like Airbnb transferred to the permanent or longer-term rental sector due to extensive holiday travel restrictions (Kadi et al. 2020). This one-off shock to the STR sector provides an opportunity to show how a change in the supply of Airbnb stock will impact the rental market and provides an opportunity to reflect on the reliability of the methods used to measure this impact. As a case study city, we have selected Hobart, a regional city with a high number of STRs. In the following sections we present the Hobart case study and context, looking at Airbnb listings, which is by far the largest STR platform operating in that city.

Hobart context

Hobart is a small regional city, which is the capital of Australia's smallest State, Tasmania. Greater Hobart had an estimated resident population of 236,000 persons at the end of June 2019 (ABS 2020). However, Hobart rental prices in recent years have risen sharply, rising at an annual rate of over 10% at the end of 2019 (Tenants Union of Tasmania (TUTAS) 2020b). Vacancy rates in Hobart are the lowest of all Australian capital cities, with a sustained period of vacancy rates being less than 2% (Domain 2020). These low vacancy rates have been partly generated by a recent increase in population growth rates, largely from domestic migration and an increase in international students at Hobart's only university, the University of Tasmania (ABS, 2020).

Hobart has a high proportion of STRs in particular suburbs. Whole dwellings available for more than 60 days make up a small proportion of the total dwellings in Greater Hobart (about 1.4% in March 2020). However, as a proportion of the total private rental market (PRM), the numbers increase, particularly when we look at the parts of Hobart with significant Airbnb stock. For example, in the LGA of Hobart City Airbnb listings make up 12% of the total PRM. Using the Barron et al. (2020) measure, the whole dwelling highly available stock for [the

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highly available whole dwelling stock in] Greater Hobart represented 270% of the total vacant rental dwellings in Hobart in March 2020. This result would suggest that changes in the amount of STR stock in the Hobart market could significantly change rents in the Hobart housing market.

Hobart is a good case study area to examine the impact of a reduction in Airbnb caused by COVID-19. Airbnb has a large presence in the Hobart housing market, and the reduction in Airbnb listings as a result of COVID-19 was larger in Hobart than in other Australian cities (Buckle et al. 2020). In addition, demand and supply changes to Hobart's PRM are easier to quantify than other case study areas for a number of reasons. The small size of the city makes the patterns in the housing market easier to identify. Net overseas migration (NOM) into Hobart is almost exclusively made up of international students, which makes the changes in demand from NOM easier to estimate. Finally, the amount of new housing supply directly entering the rental market from housing construction is relatively low. Hobart residents are also less likely to be affected by reductions in purchasing power as a result COVID-19 than residents of other Australian cities, as Hobart has a larger proportion of welfare recipients, retired households, and low-income earners. Additional income support offered by the Australian government during the height of the pandemic would have supplemented most Hobart residents' income sufficiently to be closer to the residents' pre-pandemic wages than in other Australian cities, thereby keeping the ability of renters to pay rent stable.

Impacts of the pandemic on Hobart's PRM

Holiday travel in Australia was heavily restricted and stopped in some places from March due to the COVID-19 pandemic, resulting in the sudden contraction of Airbnb listings. This disruptive event provides an opportunity to examine the impact of the STR market on rental supply and therefore vacancy rates. However, due to the various other social and economic impacts of the COVID-19 pandemic, the change in vacancy rates as a result of increased supply from Airbnb needed to be isolated from the increase in vacancies due to any changes in rental demand.

Table 1 presents a variety of rental market and Airbnb data for Hobart LGAs to show the interaction between Airbnb listings, vacancy rates, and median rental prices (Buckle et al. 2020). The Airbnb tracking site, Inside Airbnb, was used to estimate the change in Airbnb listings in Hobart that occurred after COVID-19 restrictions emerged. There has been anecdotal evidence that Airbnb listings removed from the Airbnb market ended up in the PRM, as reported in the media and elsewhere (Reserve Bank of Australia 2020; Bevan 2020; Chalmers 2020; Owen 2020; Watson 2020). However, it is possible that Airbnb owners removed their properties from the STR market and left them vacant. To estimate how many STR providers were moving their properties into the permanent rental market, the changes in vacancies in Hobart over time were examined (Table 1). In Hobart, vacancies increased by 204 properties, while Airbnb listings decreased by 287 in April 2020 (SQM 2020). The following month Airbnb listings increased by 90, and vacancies decreased by 56, suggesting that the vacancy figures and Airbnb listing changes are closely matched (SQM 2020). It would be reasonable to assume that the majority of properties no longer listed on Airbnb are moving to the PRM. The number of Airbnb properties moving into the PRM in Table 1 we estimate to be 70% of the total reduction in Airbnb listings.

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Table 1: Examining rental markets and Airbnb interactions in Hobart

LGA	Glenorchy	Clarence	Hobart City	Kingsborough	Total
Private rental dwellings 2016 census*	4,804	3,726	6,397	2,434	17,361
Estimated number of Airbnb properties moving to the PRM from March to June	13	36	113	38	200
Airbnb density March	2%	6%	12%	11%	
Estimated addition to vacancy rate from reduction in Airbnb stock	0.3%	1.0%	1.8%	1.6%	1.1%
Estimated addition to vacancy rate from demand reduction**	0.2%	0.8%	0.8%	1.4%	0.7%
Change in median rents March to June Quarter#	-2%	-7%	-9%	-9%	
Estimated Airbnb share of rent change	46%	55%	65%	65%	58%

*Notes: *ABS (2016) figures inflated at 1% per annum to provide a 2020 estimate*
***Based on loss of demand for 125 dwellings*
 # Sourced from (TUTAS 2020b) 3-bedroom dwellings
Source: Buckle et al. 2020

To isolate the impact on vacancy rates caused by additional supply from Airbnb, the impact on vacancy rates due to a change in demand was calculated. The reductions in new rental bonds[1] lodged in the June quarter was used as a surrogate for the decrease in housing demand, as no estimates of total rental properties are available for Hobart.[2] Reduced NOM to Hobart in 2020 meant fewer new bonds were lodged than in previous years. The total drop in demand estimate approximates a 30% drop in NOM, and assuming that 65% of overseas migrants stay in rental housing at an occupancy rate of 2.8, this is equivalent to a reduction in demand of about 125 dwellings. As NOM is almost exclusively from international students, this reduction in demand was allocated across the four council areas in Table 1 where most international students were located (based on a University of Tasmania report by Lyth et al. (2019) and the change in new bonds listings by council area from TUTAS (2020a)). For all four LGAs, the estimated change vacancy rates attributed to the reduction in Airbnb listings during COVID-19 was higher than the estimated change in vacancy rates attributed to changes in rental demand.[3]

[1] In Hobart and most of Australia, tenants pay a rental bond or deposit when they lease a property managed by a government authority.
[2] For detailed information on the bonds data used, see Buckle et al. (2020)
[3] A potential weakness of the analysis in Table 1 might be that a much larger proportion of the rental change could be attributable to a reduction in demand rather than supply changes from Airbnb. When ABS provide estimates

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The last row of Table 1 shows the ratio of the reduction in demand in dwellings compared to the increase in rental dwelling supply resulting from a drop in Airbnb listings. If these two numbers are the same, the row value is 50%. The strong relationship between the rent changes and the Airbnb density in each LGA suggest that much of the change in rents is attributable to changes in Airbnb listings. The data highlight that relatively small changes in vacancy rates, and therefore the availability of dwellings, can have very significant impacts on rents. Rents will decrease if a change in supply can increase the vacancy rate. This mechanism is not related to the ratio of STR stock to total dwellings in an area, as claimed by supporters of STRs. Small changes in supply within local markets can make a significant difference to the PRM.

Conclusion

This article presented a suburb and finer-scale housing market investigation as a method to quantify the impacts of STRs. There are flaws to a whole-of-city approach, as STRs tend to be concentrated in specific suburbs or communities, which are most desirable for tourists and also highly unaffordable for local residents. The COVID-19 pandemic offered an opportunity for a natural experiment, as the supply of STRs decreased drastically and revealed the impact of STRs on rental markets. Our case study of Hobart showed that a reduction in the supply of Airbnbs, the most popular platform offering STRs, impacted the rental market through changing vacancy rates and causing a subsequent reduction in rents. Community groups, activists and city councils can make the case of the disproportionate impact of STRs on their communities through this housing market model, which reveals the link between STRs and local vacancy rates, and therefore rental affordability in a suburb or community scale rather than a whole-of-city scale.

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of both household income and the estimated resident population of the Hobart LGAs and total active bonds for the time period become available the change attributable to demand versus supply can be better estimated.

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