WALKABILITY
&
GREENERY

IMPACTS ON PROPERTY VALUE AND DESIRABILITY

Walkability and Greneery

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Secret Agent has intensively investigated the impact that location and environment has on property value in the past.

In this report we are going to summarise our research on two of the most important factors which influence what a good location is: walkability and greenery.

We are in an interesting time in terms of property in Australia. The market has changed a lot compared to what it was 18 months ago. Clearance rates have fallen, prices have stalled in some areas and deteriorated rapidly in many parts of Melbourne.

At the same time, we are seeing urbanisation continue with more and more people wanting to live closer to the city and closer to amenity. In addition to this, population growth is continuing to rise rapidly. With limited supply it can be expected that the locational benefits of inner city properties would help them be more robust to economic forces.

On the ground we are finding this to be the case. If we break up the market into generic buckets of A, B and C grade properties; A grade is defined as having a good structure in an amenity rich location, B grade as having one of these characteristics, and C grade as not really making the mark on either structure or location. A grade property, in which location and walkability generally takes up a greater importance than structure, is still strongly in demand while B graders are struggling and C grade demand is almost non existent.

Defining a good location can be extremely complicated because it depends on the needs of the individuals living in certain locations. Secret Agent would increasingly define a good location as one which gives the resident the ability to be within walkable proximity to employment or study destinations, and/ or, a range of quality shops such as supermarkets or smaller village providers such as greengrocers, fishmongers, butchers, cafes, restaurants and transportation options. Many Eastern suburbs will be strongly in demand because of Melbourne's elite schooling precincts and the lifestyle that is offered in those suburbs.

A good location could also be a particular housing style and surrounding green environment. For example, a suburb such as Toorak is likely to be more expensive than a more walkable location such as Fitzroy, but this is not the norm. The term "leafy green suburbs" is often a positive benefit seen in real estate advertisements. We can understand why this would be the case. Humans are a product of biology and infinite years of evolution have created certain preferences for environments which generally the wealthy people of society are more able to achieve. The great evolutionary biologist, E.O. Wilson claims that we have a genetic disposition favouring savanna environments such as open areas, scattered trees, water views and uniform grassiness compared to arid treeless conditions or environments that are too complex.

It seems walkability and greenery are factors that would have a positive influence on property prices, which we have seen in the past and would predict that we will continue to see into the future.

This report is going to provide a summary of our findings so far on these factors, as well as provide a discussion as to how they might influence value in different market conditions, like the downturn we are currently experiencing.

WALKABILITY IN A GROWING MARKET

Back in 2013, when the property market in Melbourne was growing strongly, Secret Agent did our first study on walkability. Many of our clients were wanting to buy closer to work, which often meant being closer to the city. Being located close to a strip of cafes and shops as well as public transport was highly desirable. We wanted to see what the price premium was for being located in a walkable area.

First of all we compared the median sales price in each suburb in greater metropolitan Melbourne to their Walkscore value. We found that there is in fact a positive correlation between a suburbs walk score and sales price. That is, the more walkable the suburb the higher the median sales price for that suburb overall.

Next we wanted to control for land size, number of bedrooms and property type so we took the sales price per square metre of over 2000 inner Melbourne properties and compared these to their Walkscore value. We found that this correlation between walkability and house price still exists. In fact, for every 5 point increase in Walkscore value between 60 and 100, you can expect to gain an extra $298 per square metre for your house. So for example, if you owned a house on 400 square metres you could expect about a $120,000 premium for each 5 point increase in walks score as you moved beyond 60 points.

WALKABILITY IN THE CURRENT MARKET

Recently Secret Agent undertook a new study looking at walkability and its impact on prices in select suburbs of inner Melbourne. The aim was to see if the relationship still existed and what the annual growth rates were for select walkable and less walkable regions of inner Melbourne.

To see if the relationship still existed, we analysed the Walkscore value and median price per square metre for each suburb for the 12 months between February 2018 and February 2019.

> **The results indicate that a positive correlation still exists between walkability and house prices. Walkability explained as much as 60% of the variability in price.**

However, this study did not separate factors like distance to the city or public transport which are intertwined with walkability and may have contributed to a lot of this variance.

Recent annual growth rates are a topic of interest to many, especially to see what the growth rates have been like for walkable locations against their less walkable counterparts. So next we decided to take each suburb and divide it into walkable and non walkable regions which were defined on our expert knowledge of each suburb. Annual growth rates were calculated for each year from the start of 2013 to the start of 2019. We used the price per square metre to control for things like land size and number of bedrooms.

It was found that average growth increased by 0.9% in walkable zones compared to less walkable zones. The walkable zones only outperformed the less walkable ones in some cases but not in all suburbs.

This shows that walkability may have a small impact on house growth rates overall but isn't the only factor at play. One explanation for this is the fact that we were looking at suburbs which are generally walkable overall (for example Collingwood, Footscray, North Melbourne) and comparing walkable and less walkable regions within these. The effect would have been more significant if we looked at outer suburbs (which generally don't rate as highly on Walkscore) and compared the growth rates of these with inner suburbs (which are more walkable).

What we actually feel could be happening is a "rising tide lifts all boats" scenario. The past decade has seen a substantial run up in private household debt as people have scrambled to get into the market. This has meant that inferior, less walkable properties, have actually performed quite well as the lower price has attracted more competition to bid up those very assets to simply get in whilst interest rates are low. The saying "only when the tide goes out, that you know who has been swimming naked" describes our thoughts here.

WALKABILTY IN A HOUSING DOWNTURN

It will be interesting to repeat our studies on walkability again in a few years time to see what impact walkability has in Melbourne during the current downturn. It is too soon to investigate this now as we don't know if we have experienced the worst of it.

However, we can hypothesise that walkability will likely have a protective effect on property value in a similar way to what has been seen in America. There hasn't been a lot of studies done in this area, but there was an appropriate one in Dallas and one in LA that we can look at.

The Dallas study (Xu et al, 2018) looked at the resilience of house prices in walkable versus non walkable neighbourhoods during the economic downturn of 2008-2012. Dallas experienced a drop of 15% in median sales prices during this recession.

Almost 3000 homes were categorised into walkable and non walkable groups. Those homes with a Walkscore equal to or over 50 were in the walkable category. The walkable homes were then matched with the closest identical un-walkable
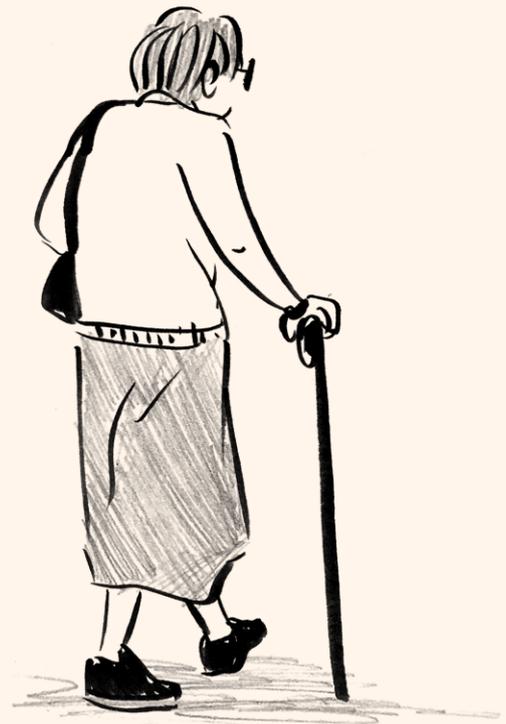
home. They found that on average homes in walkable neighbourhoods held their value by $4566 more, or by about 2%, than their un-walkable counterpart. In other words, a typical house in a un-walkable neighbourhood could be expected to lose $4566 more in value than an equivalent one located in a walkable neighbourhood.

What can be concluded from this is that walkability can protect house prices from falling during a downturn which has significant economic benefit for homeowners.

A 2017 study of the Los Angeles property market (Won and Li, 2017) looked at the impact walkable neighbourhoods had on the price spillover effects of foreclosures in the economic downturn of 2010 and the recovery period in 2013. Foreclosures happen to a greater extent during economic downturns and on average it has been found that for each neighbouring foreclosure, there is a 1-2% decrease in a property value.

It was thought that walkability would interact with the negative pricing effects of foreclosures by mitigating some of these effects. To investigate this, the spillover effects of foreclosures on LA property values during the housing market crash of 2010 and the recovery period of 2013 were compared. There were over 500,000 foreclosures in California during 2010 which was the highest number of foreclosures out of all

U.S. states and allowed for a large sample size for their study. Walkscore was used to estimate the walkability of a particular property.

The study found that for each additional foreclosure in an area, there was a 0.73% reduction in sales price for neighbouring property in 2010. This intensified to a 1.13% reduction in value in 2013. It is thought that during the actual recession of 2010, foreclosures had less of an effect because the overall market was in decline. In terms of walkability, the price premium for a house with a higher Walkscore was found to be 0.19% in 2010. This increased to 0.23% in the 2013 recovery period. The interaction between walkability and foreclosure spillover effects was found to be positive and statistically significant in both 2010 and 2013. The negative spillover effects of a foreclosure on a 'very walkable' property were reduced by approximately 55-70% in 2010 and 65-90% in 2013.

It seems that the effects of walkability on property value can be divided into three areas based on the different stages of the economic cycle.

In the Boom period walkability does well but so does the rest of the market. In the second stage, the Bust period, walkability provides defence to those asset owners. In the final Recovery stage, walkability performs more strongly than less walkable areas. Recessions are a normal part of the economy and it seems that walkable neighbourhoods are highly beneficial to property owners. They can help create a more resilient community and also enable neighbourhoods to recover more quickly.

GREENERY

Closely overlapping with walkability is green space. The more greenery on a street the more it promotes walking. Green space is good for us, not just in terms of physical health as a result of increased walkability, but also for our mental health.

A study in Adelaide (Sugiyama et al, 2008) looked at the relationship between greenery and health. This study was interesting because they separated health into physical and mental components and looked at the effect of green space on each.

They found that greenness was associated with both physical and mental health, as well as walking for recreation, social cohesion and local social interaction, but greenness was not associated with walking for transport. Those who perceived

their neighbourhoods to have the most greenness had a 40% higher odds of belonging to the better physical health group compared to those who reported the lowest level of greenness. However, the association between greenness and physical health became non significant when walking was adjusted for showing that walking probably mediates the relationship between greenness and physical health.

Those who perceived their neighbourhood to have the most greenness had almost twice the odds of being in the better mental health category compared to those who perceived little greenness in their neighbourhood.

This remained significant even after adjusting for walking and social interaction.

Their results show that greenery does influence our mental state. It would make sense that greenery would have an influence on property value. If the character in a green street makes us feel nicer, then we are probably going to be wiling to pay more for our home. We might not think it at the time but our perceptions can influence us subconsciously. I'm sure you have experienced a time when something just felt right or felt worth it, even if you couldn't fully justify it with logic. We don't know if this is actually why greenery adds value to property but we have found that greenery does in fact have an influence on price.

Secret Agent studied greenery and its impact on property price in 2013. 2100 inner Melbourne property sales were categorised into three different groups according to the type of street they were located on. The street types were rated according to the amount of greenery; they either had dense vegetation, sparse vegetation or no vegetation.

The analysis showed that when compared to houses on streets with no vegetation, those on streets with dense vegetation sold for $340000 more on average. In comparison to houses on streets with sparse vegetation, those houses on streets with dense vegetation yielded an extra $135,000 on average.

If we switch the perspective and look at prices first, the effect is even more dramatic. Houses priced over $900,000 were more likely to have dense street vegetation. Houses between $400,000 and $700000 were more likely to have sparsely vegetated streets, or no vegetation at all.

CONCLUSION

There are many overlapping issues when it comes to making predictions on how certain variables will influence one another. However we can make a few observations, remembering that observations are just that and there are always exceptions.

Based on our research as well as our intuitive feel of the property space, we feel that it is likely that highly walkable areas will continue gaining further demand by would be property owners. This demand will continue increasing their prices. While a downturn may stunt or even see these properties fall in value due to the economic conditions, we expect long term demand to continue to push ahead of supply. This will continue pushing up rents and real estate values in these proximity rich locations.

People's incomes determine what they can borrow and spend on property. The biggest incomes are likely to be within our major city centres, therefore property within close distance to the CBD is likely to attract the most interest from these high income earners. This will contribute to the demand for walkable property in good locations.

Lastly, we are biological creatures created over millions of iterations of evolution. Our preferences are shaped by this. Green environments are deeply desired and will continue to attract those who are resource rich to those very areas. ◈

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INSIDE PERSPECTIVE

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**Walkability and Greenery
Vol.79 Apr 2018**

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