

PWA CASE ANALYSIS

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EXECUTIVE SUMMARY

Property Wealth Advisory (PWA) operates in the real estate industry as a consulting firm that targets home-owners and investors looking to diversify their portfolios. This report consists of insights based on existing data to provide information to several groups of investors. These include a look into the current trends in the industry, opportunities for growth, price performances and forecasting.

Through analysis, the main findings were as listed:

- Northern, Southern and Western Metropolitan regions performed best in the market between 2018-2020
- Overall, sales were higher between June-November
- Average property prices increased between 2018-2020
- Land further away from the CBD have lower average prices yet are larger in size.
- Finally, property prices are forecasted to decrease by 2021.

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INTRODUCTION

Property Wealth Advisory (PWA) is an Australian consulting firm that provides advisory services on property investments. The company's target market includes clients looking to be home-owners and those wanting to diversify their property investment portfolios. Due to a strong interest in real estate investing from several groups of investors, this report is produced to obtain some insights on the property market.

For PWA to do this, their existing data on Melbourne's real estate market has been cleaned and prepared for visualisation. An overview of the industry is also given, followed by current trends and potential areas of growth in the market. We identify whether there will be further growth in the market and report on the price performances on the different property types. Further, we provide insights on investing in areas further away or closer to Melbourne's CBD as well as deliver a forecast for house prices in 2020-2021.

BUSINESS OVERVIEW

The real estate business has always attracted a lot of attention from investors and businesses. Industry demand is mainly driven by the number of households that do not own a home, as they must rent properties from industry operators. While owning a traditional home is a priority for many Australians, the growth in house prices over the past five years has made it difficult for them to afford the down payment and expensive mortgage service. This trend has contributed to an increase in industry demand. However, the economic impact of the COVID-19 pandemic has directly affected the industry performance over the past 3 years such as travel restrictions and high unemployment rate.

As a result, demand for residential rental properties has decreased in some areas and limited the ability of some tenants to pay rent. As a result, confidence was shaken and some investors left the industry. To improve industry performance, tight credit regulations could be eased, allowing people to access more home loans. Therefore, housing prices are forecast to continue to increase, boosting demand for rental properties.

Overall, industry-wide revenue is expected to decline 0.5% (to \$50.1 billion) annually over the five years from 2021-22 but is expected to grow 2.6% over the five years to 2026 -27, to \$56.8 billion due to stable demand conditions following the COVID-19 pandemic (Thomson 2021).

As industry demand soars, it's important to offer property selection advice for high returns with minimal risk. They will rely on analysing and reviewing real estate data, thereby providing reports on trends, key forecasts, and useful analysis to make decisions. Therefore, analysing data and illustrating those analyses can enhance decision-making (Roger & Roger 2005).

PREPARING THE DATA

Before analysing and producing insights, the raw dataset was cleaned using Tableau Prep Builder by removing discrepancies in the data and amending other issues. Table 1 lists the issues identified and a brief discussion and solution is provided as well.

Table 1 Issues with the Data

Issue Identified	Discussion and Solution
Null Values	Null values were identified in the following columns: Price, BuildingArea, YearBuilt, Distance, Postcode, bathroom, car, landsize, latitude, longitude, propertycount. These were removed accordingly.
N/A	N/A was found in councilarea and regionname, however as null values were removed these also went away.
Misspelled column name	Lattitude was renamed to Latitude.
Changing data type	Postcode was originally a number data type and with Tableau Prep Builder was changed to postcode data type.

CURRENT TRENDS

Sales performance was greater in the spring/winter and worse in the summer.

Melbourne's monthly home sales trends for 2018 and 2019 are shown in Figure 1 below (2020 will not be analysed as the data is not sufficient for all months).

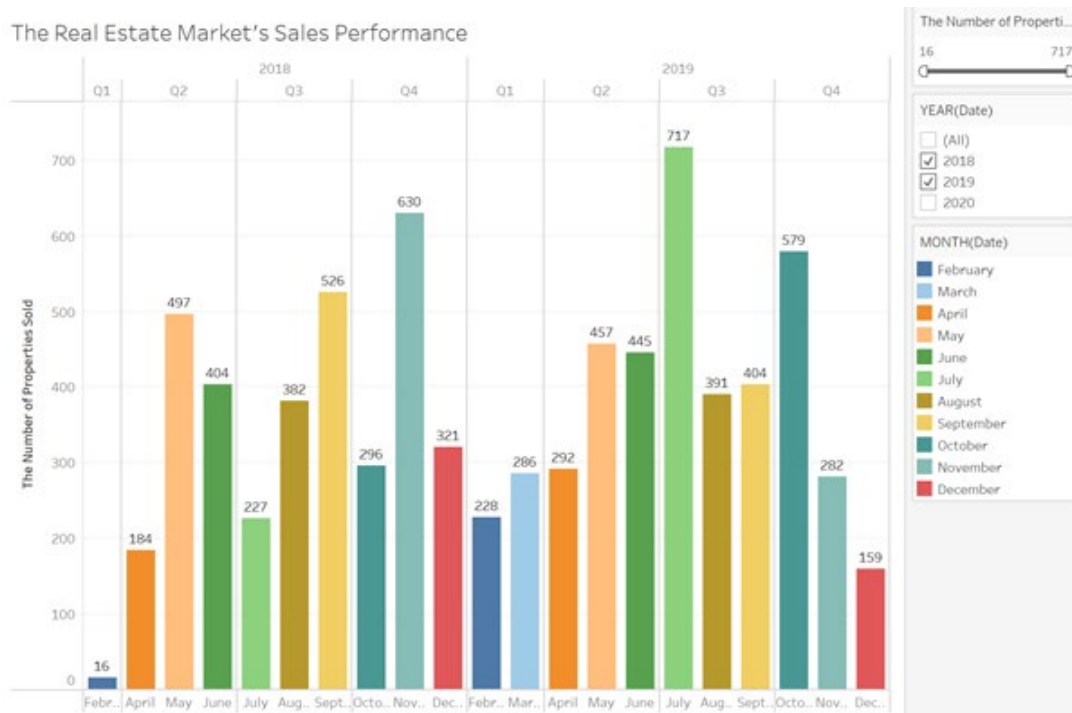


Figure 1 Sales Performance

In terms of 2018 sales, September and November had the highest number of home sales in the months of 526 and 630 respectively. While the number of homes sold at the lowest was 16 units in February. This analysis shows that there is a large variation in home sales between months/seasons.

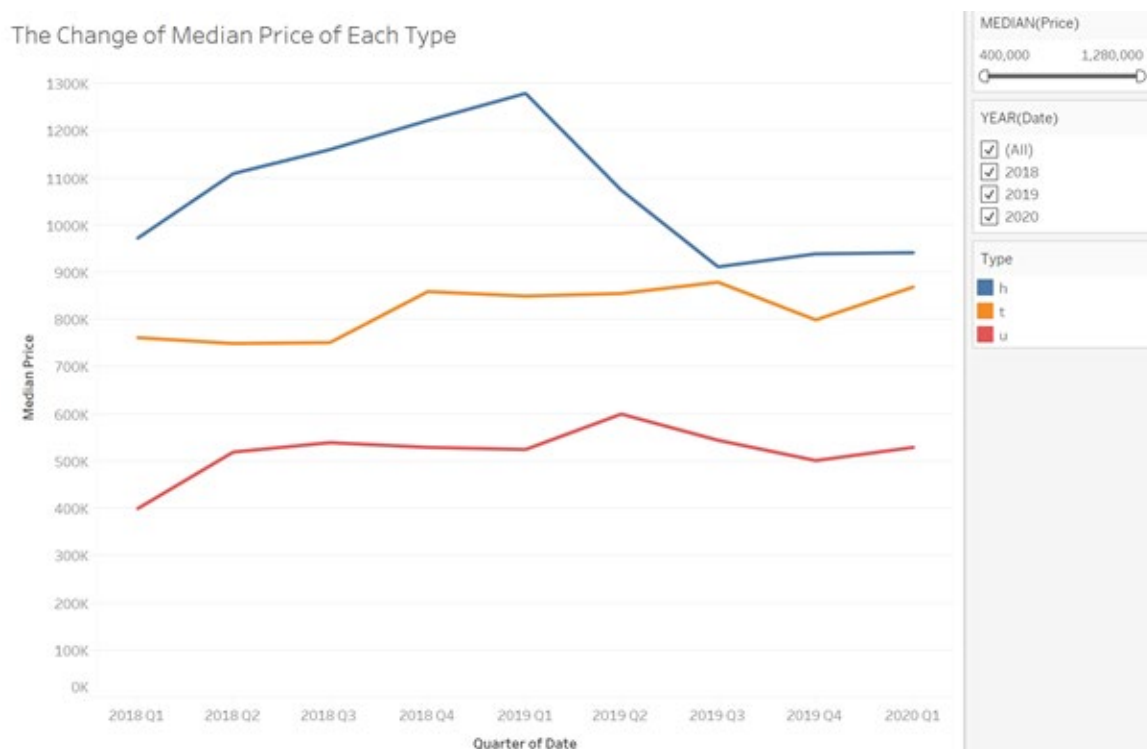
Next, the analysis of 2019 sales activity also shows the same finding. Specifically, the number of homes sold in the Q1 and December was low, below 292 homes. While from June to November is very good, sales are best in July with 717 homes, followed by October at 579 homes.

In both years, the real estate market is extremely active in winter/spring (June to November). In contrast, this trend tends to decrease in the summer when the number of sales at that time compared to other times of the year is negligible. It was also

mentioned by Maher (1989) that real estate exhibitions are a seasonal pattern, with a marked increase in spring sales.

The median price of houses has declined dramatically, while the median price of a townhouse has increased Over the past three years, the median price of properties in Melbourne has changed dramatically. The variation in trend of the 3 types of real estate is depicted in figure 3 below. For property type 'h' includes house, cottage, villa, semi, and terraces which have the most variation in median prices. It experienced a significant increase during the period from Q1 2018 to Q1 2019 with a value from \$973,000 to \$1,280,000 but plummeted to nearly \$900,000 in 2019.

Figure 2 Change of Median Price of Each Type



On the other hand, the median price of townhouses (t) and unit, duplex (u) increased rapidly around 2019. The median price of townhouses at the beginning of 2018 was \$762,500, then rose to a peak in Q3 2019 with \$880,000 and eventually fell slightly to \$870,000 in Q1 2020. The median unit and duplex value started at \$400,000 in early 2018 and reached \$530,000 after 2 years.

It is notable that the median price of type 'h' is greater than that of type 't' by more than \$200.00 at the beginning of 2018 but after 2 years the two values are roughly equal at \$942,500 dollars for 'h' and \$870,000 for 't' in Q1 2020. This demonstrates a downward trend in residential values in Melbourne while there is a significant increase in townhouse prices.

The land size of properties in various Melbourne regions tended to increase as distance increased.

Figure 3 below shows how the average land size value changes as the average distance between different regions of Melbourne changes. It is easy to see that as the average distance increases, so does the average land-scale value in that area. Therefore, properties in the inner-city areas and close to the Melbourne CBD will have a small land size since it is where the focus of a lot of businesses that provide employment and production, this economic wealth leads to a larger demand for land per capita or households (Bourassa & Hendershott 1995).

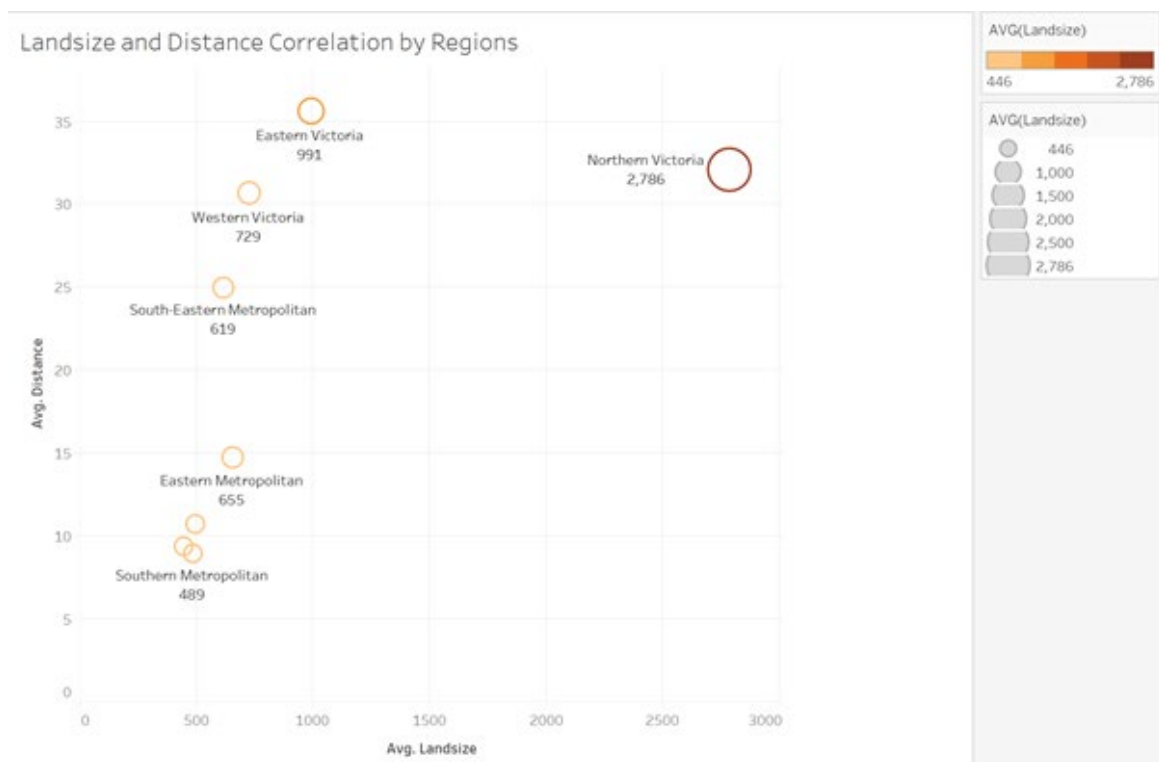


Figure 3 Land size and Distance Correlation by Regions

In contrast, properties located in outlying areas such as Northern Victoria or Eastern Victoria will have larger acreage. For example, properties have an average area of 495 - 655 meters if there is an average distance of 10 - 15 km. On the other hand, suburb

areas such as Northern Victoria, located 30 - 35 km from the Melbourne CBD, have an average land area of 2,786 m (nearly 6 times the average land area in the Southern Metropolitan).

OPPORTUNITIES FOR GROWTH

The top 10 suburbs with the most total properties sold over the past 3 years are Reservoir, Richmond, Brunswick, Bentleigh East, Coburg, Essendon, Preston, Glenroy, Yarraville, and Pascoe Vale analysed in Figure 4. Reservoir was the most sold suburb with 193 properties, followed by Richmond with 153 properties. The rest of the regions also have strong real estate markets, with the number of homes sold ranging from 102 to 150. In particular, these 10 suburban areas mainly belong to 3 areas including Northern Metropolitan, Southern Metropolitan, and Western Metropolitan, which offer many high opportunities and have the best business performance in the real estate market in Melbourne.

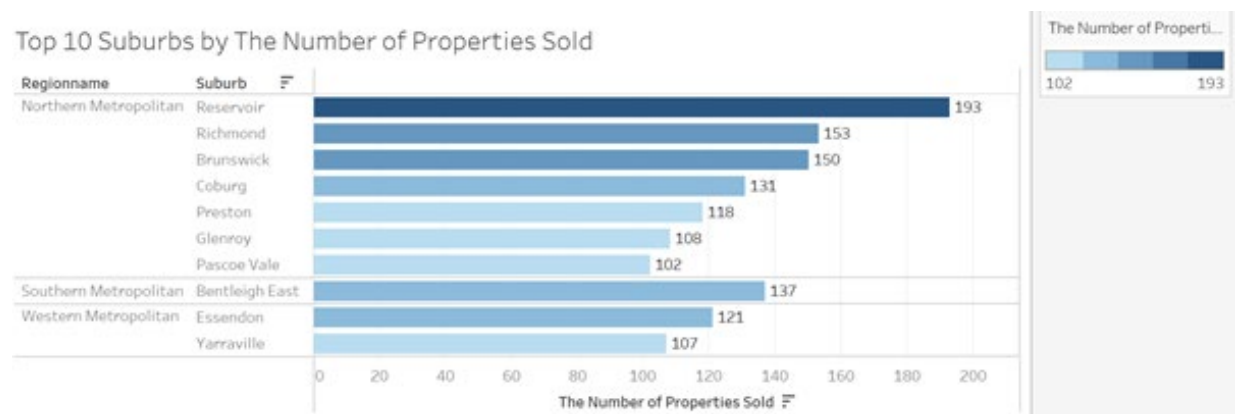


Figure 4 Top 10 Suburbs

BUBBLE BURST OR GROWTH?

In recent times we have seen immense increases in the cost of entering the real estate market across Australia and Melbourne is no exception. Annual growth is averaging at 5.61% and over the past ten years property prices in Australia have increased by a whopping 70% (Bellavance, 2021).

As we can see in the below figure income is not even close to keeping up.

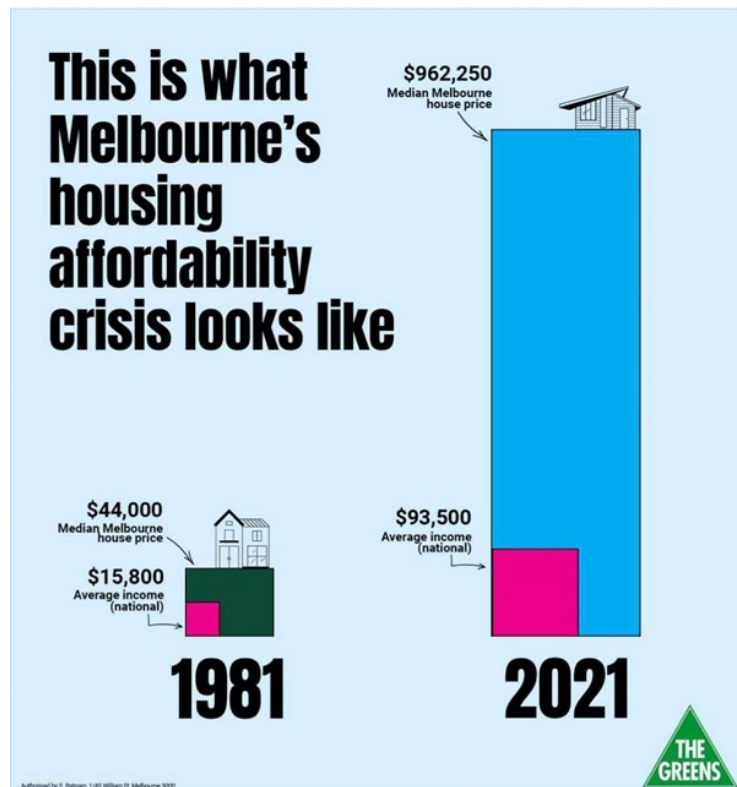


Figure 5 Income vs. Property Price

This disparity is mainly driven by investment which has caused what we could be currently experiencing as a real estate bubble. So, is there a bubble? And will this bubble burst or is this unprecedented growth in the Real estate market sustainable? There are many factors to consider when it comes to housing prices.

Low interest rates are a key driver now, as well as an increasing population and a rise in real estate investment. Investment is also driven by government legislation and the large tax breaks available to investors who choose to buy rental properties and reclaim tax against them. However, the main driver to real estate bubbles is speculation in the market, high rates of consumer confidence cause high rates of increase in house prices (Thomsett, 2007).

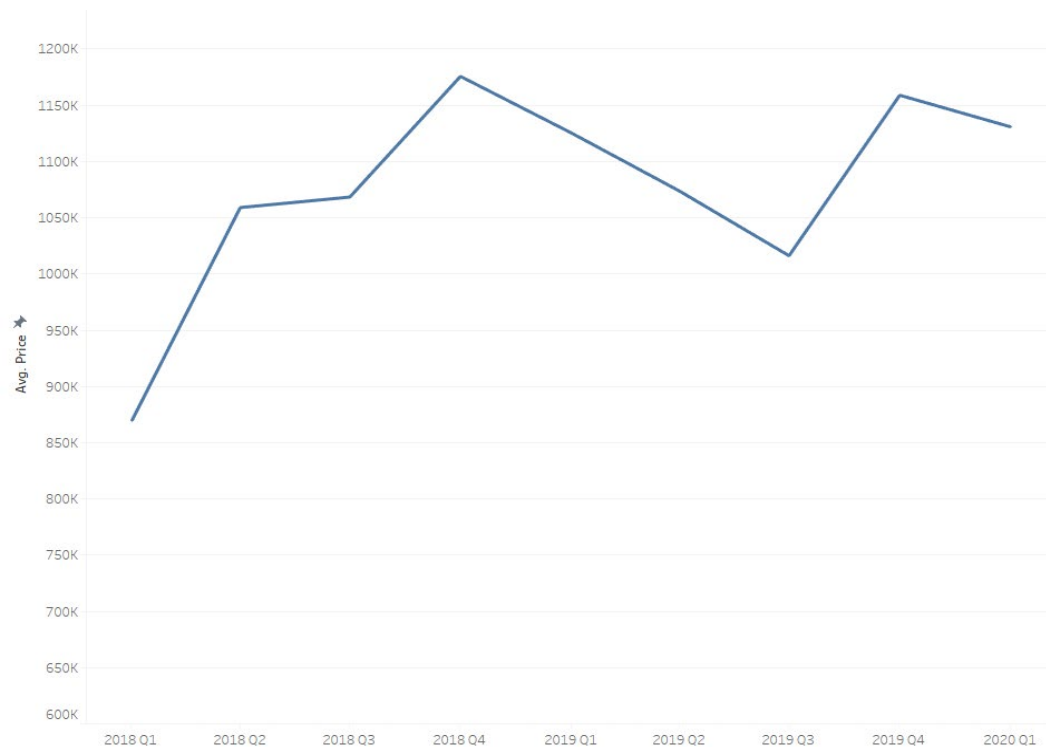


Figure 6 Median Price per Quarter 2018-2020

The above figure shows the average house price in Q1 of 2018 at 875k increasing to 1.1 million in Q1 of 2020. This steady increase implies that the growth could continue as the cycle is subject to both peaks and troughs, indicating the economy is stable over this period.

So, what does this all mean and how can we possibly predict the future? In short, the answer is we cannot predict the future, however based off the:

- Historical data of Melbourne's REM
- Consumer confidence in the real estate market
- Local development trends
- Lending practices

we can gain some insight into how the market is likely to behave in the future (Thomsett, 2007).

PRICE PERFORMANCE

Price performance on different properties.

Price of property influences its demand. The more the price, the more the property is perceived to be of high quality and attracts high end investors who are interested in quality. In the last four decades, property in Melbourne city have risen significantly due to different underlying reasons. This is due to growing demand for the properties and an increase in rental rate yields which have made it possible for properties to change in value monthly.

Both commercial and residential properties have continued to attract high demand in the region. Melbourne continued to be the only capital city where the total value of stock is higher than in 2020 due to new and modern structures being brought up which have stimulated appreciation of real estate property prices in the region. In the last couple of years, 91% of Melbourne's suburbs enjoyed a growth of prices of houses because buyers were attracted into the region because of affordability. With the rising demand for housing however, prices have significantly changed an attribute that has led to many houses to be expensive due to high demand for classic lifestyle, residential accommodation, and commercial purposes usage (Crosato et al., 2021).

Top 10 Most Expensive Suburbs

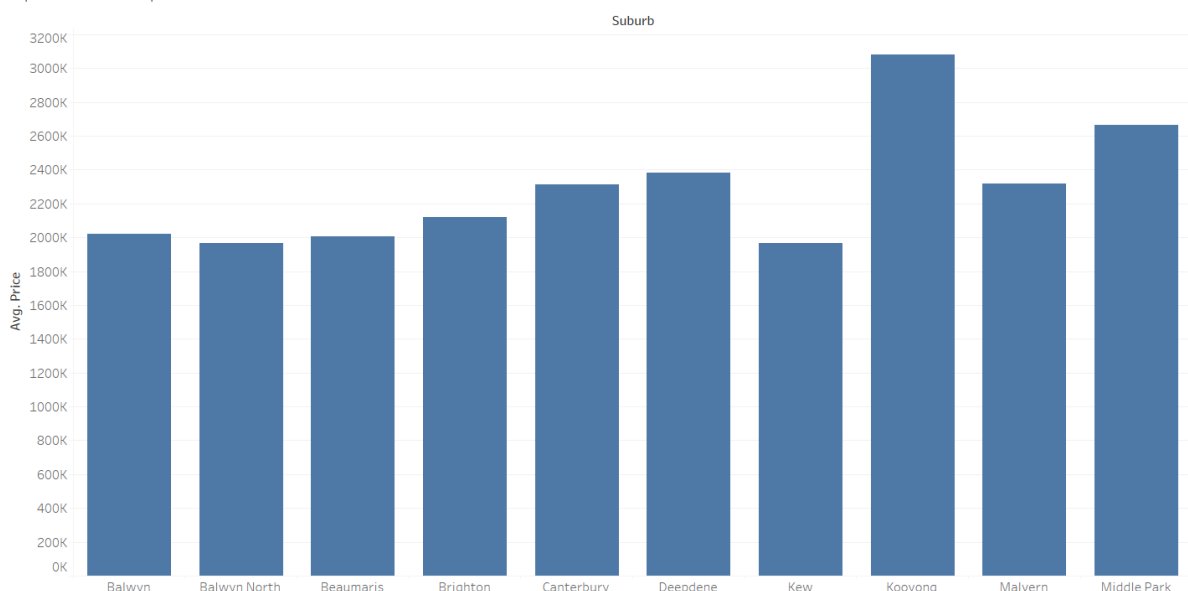


Figure 7 Top 10 Most Expensive Suburbs

Figure 7 shows us the top 10 suburbs with the highest average property prices in Melbourne. Kooyong's prices are significantly higher than the rest, however areas such as Brighton are in high demand due to it being closely located to the beach.

Properties such as commercial houses which are located near towns have attracted a lot of customers for business purposes an attribute that has led to sharp rising in prices of those building properties. On the other hand, leafy suburbs areas nearby major towns have also attracted high demand for settlement due to the conducive environment for settlement which is far from busy town locations. As a result, residential properties in leafy suburbs have continued to attract high demand which in return has also made the region experience high growth of residential and recreational properties which are sold at higher prices possibly due to the shift of customers from town locations to leafy suburbs.

Average Property Prices by Postcode

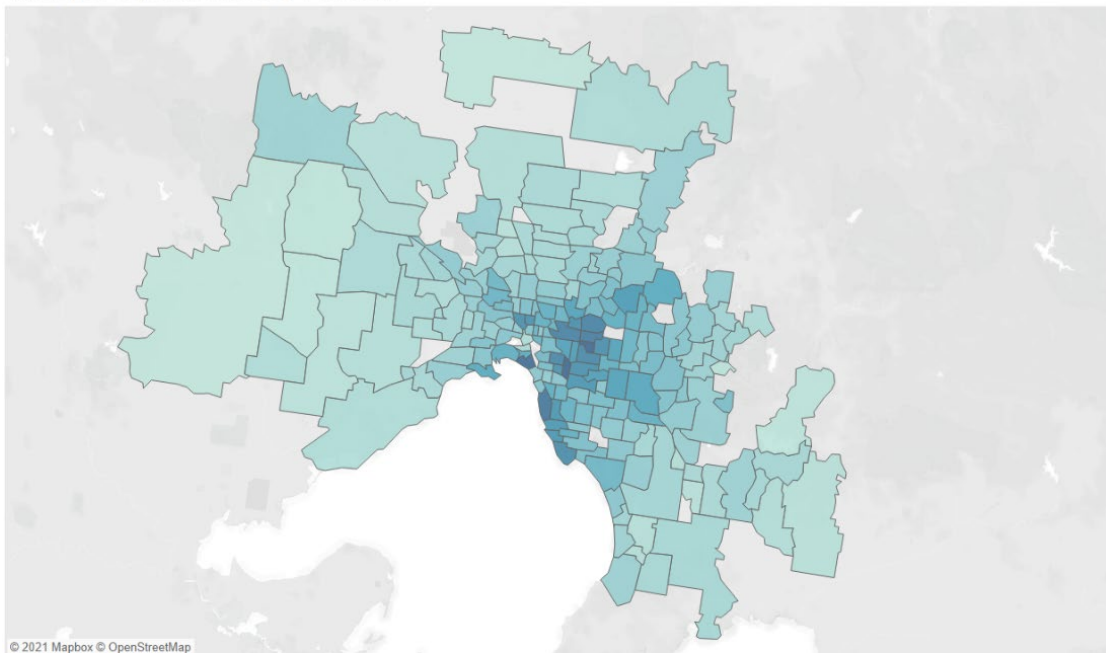


Figure 7 Average Property Prices by Postcode

Figure 7 depicts the average property prices around Melbourne. Areas closer to the CBD have higher average prices as opposed to those further away; this trend is not uncommon in most busy cities around the world.

INVESTING CLOSER OR FURTHER AWAY FROM THE CBD

Location is the most important factor when doing investment in real estate. The decision to invest in near the CBD or further away from it entirely depends on the purpose of the property that the investor wants to invest on. If the property will be used for commercial purposes, closer to the CBD will be ideal because in the CBD is where people converge for business and other related activities hence in the process, the property can serve its commercial purpose well because it can be used for different purposes in the CBD such as office building, restaurants and many more.

On the other hand, if an investor is interested in a residential property, the best approach is to invest in properties located far away from the CBD as many people are migrating from the stress and bustle in the CBD and they have embraced leafy suburb locations where they can experience less noise, conducive environment, fast growing neighboring and enhanced security which exist in those regions (Ratcliffe et al., 2021).

Average House Prices and Landsize Against Distance from CBD

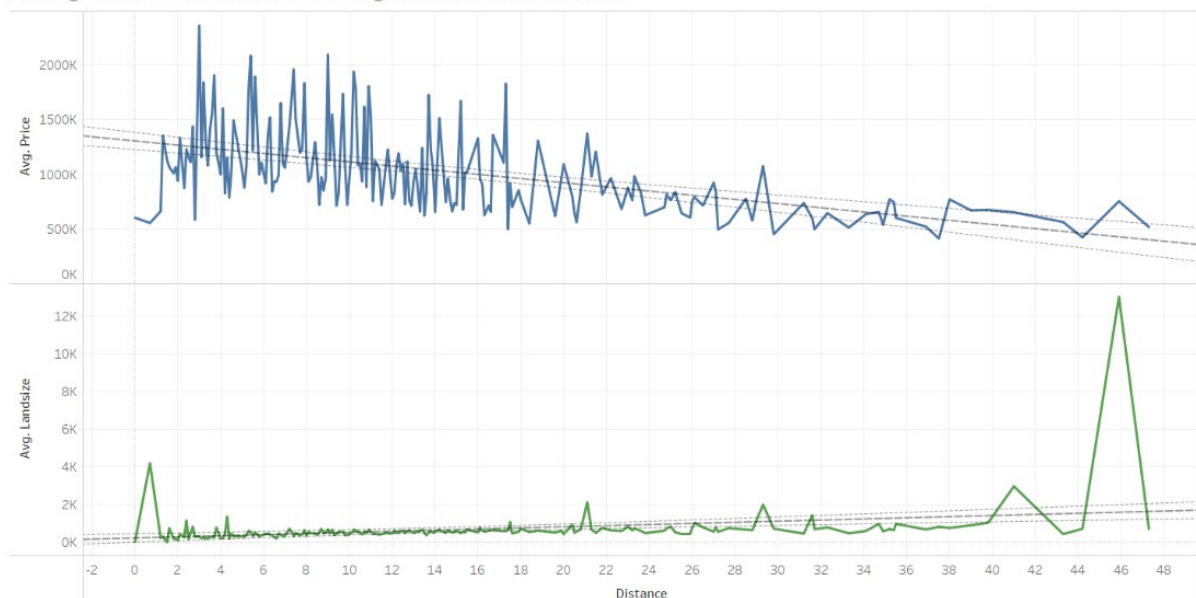


Figure 8 Average Price and Land Size Against Distance

Figure 8 shows us what we have confirmed prior in Figure 7 with the average prices reducing as we go further away from the CBD. However, it is interesting to note the average land size increases. Potentially, this could mean investors would get the best value in regard to property size, especially when considering further development or building duplexes, which are increasingly popular.

It is therefore important to analyse the purpose of the property that one would like to invest in before considering investing on it. If the goal is to engage in commercial activities, then the CBD will be ideal location to invest in due to the area experiencing high demand from business entrepreneurs who are looking for properties to rent and establish their businesses. However, in terms of security wise, properties near the CBD are not that safe compared to those that are located away from CBD locations. Thus, security as a factor should also be evaluated when making a decision to invest in real estate property.

Lastly, there has been a growing and shifting culture of residents embracing to settle outside CBD due to various underlying reasons. This move has resulted to gradual demand in the housing units located in leafy suburbs and away from CBD an act of assurance that is created to an investor that if they can make a decision and invest in rental property or apartments for sale which are located away from the CBD, this will not be a worse decision rather, it will be one that will make the investor to earn more profit from leasing out or selling the property at once.

PREDICTIONS AND FORECASTS

House Prices Forecast for 2020-2021

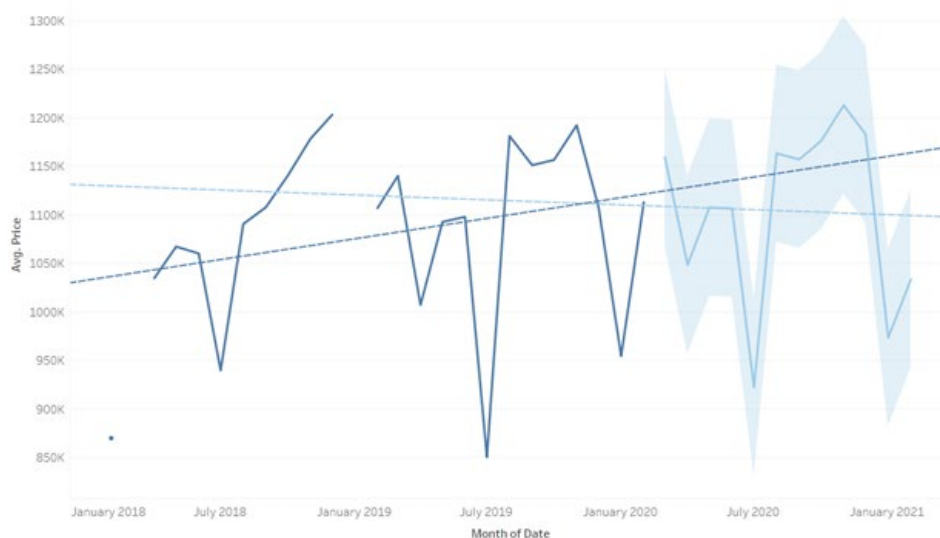


Figure 9 Forecast for House Prices 2020-2021

As the forecast in Figure 9 for the average house prices over time was generated, we notice that the trend lines go in opposite directions. The darker blue line signifies the actual average prices, while the light blue trend line indicates the forecast. Based on current data, it is forecasted that average house prices will decrease by 2021. This could

be due to the increasing amount of land sold further away from the CBD, which generally have lower prices. Still, this insight may be valuable to future buyers as they can consider waiting further in the future to purchase land at lower costs.

OTHER INSIGHTS

Fundamental economics state that boom periods like the one we are currently experiencing will come to an end, there are a number of ways this can happen i.e., increase in interest rates that cause a reduction in demand, driving price and equity downwards leaving borrowers with reduced leverage and higher repayments thus increasing the default rate on mortgages (Jarsulic, 2010).

Typically, a boom period comes to an end from over supply and was the trigger behind the collapse in the US in 2008. Australia does not have the same supply issue at this stage as our population is rapidly expanding and construction is struggling to keep up. If we see more people leaving Melbourne however this may cause a localised REM collapse (Jarsulic, 2010).

Our advice to the investors is to make decisions based off the logical analysis modes we have described and not based off emotional responses. The stakes are higher in real estate in comparison to the stock market as transaction rates are much higher and take a lot more time to settle however the same essential market facts remain at play with real estate reacting to supply and demand just like stocks (Thomsett, 2007).

CONCLUSION

Overall, we can see that Northern, Southern and Western Metropolitan regions have the strongest performances in the market between 2018-2020. Sales were greater between June to November and dropped significantly between July-October. There is also an interesting trend with house prices, where townhouses and duplexes increased rapidly as houses decreased. On average, house prices are forecasted to decrease by 2021, which may be valuable insight to future homeowners. Finally, we recommend investors to base their decisions off the insights gathered.

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