MGMT220 Assignment 1 - Spreadsheet Functions Findings

* **Selected LGA: Willoughby**
  + Artarmon
  + Artarmon Industrial Area
  + Castle Cove
  + Castlecrag
  + Chatswood
  + Chatswood West (shared with City of Ryde)
  + East Willoughby
  + Gore Hill (shared with Municipality of Lane Cove)
  + Middle Cove
  + Lane Cove North (shared with Municipality of Lane Cove)
  + Naremburn
  + North Willoughby
  + Northbridge
  + Roseville (shared with Ku-ring-gai Council)
  + St Leonards (shared with Municipality of Lane Cove and North Sydney Council)
  + Willoughby

**Preliminary:**

* There are some missing data from Match 1991 – June 1994
* I decided to not take the missing data into account since I believed that we do not need to consider data from that far back (insert valid reason)
  + The instructions guide also said we might need to account that far back so it is ok to have some missing data/start from an alternative date.
* From the time series graph generated from Excel, it appears that there is an increasing trend for both non-strata and strata dwellings in the Willoughby LGA with non-strata growing at a significantly faster rate than strata dwellings.
* Both types of dwellings appears to be grow faster than the NSW average (maybe include precise figures)

|  |  |
| --- | --- |
| Stamp Duty Table | |
| Dutiable value | Duty rate |
| $0 to $14,000 | $1.25 for every $100 or part of the value |
| $14,001 to $30,000 | $175 plus $1.50 for every $100, that the value exceeds $14,000 |
| $30,001 to $80,000 | $415 plus $1.75 for every $100, that the value exceeds $30,000 |
| $80,001 to $300,000 | $1,290 plus $3.50 for every $100, that the value exceeds $80,000 |
| $300,001 to $1,000,000 | $8,990 plus $4.50 for every $100, that the value exceeds $300,000 |
| Over $1,000,000 | $40,490 plus $5.50 for every $100, that the value exceeds $1,000,000 |
| Premium property duty:                  over $3,000,000 | $150,490 plus $7.00 for every $100, that the value exceeds $3,000,000 |

**The real costs of a property development project (do we really need to include all the hidden costs:** <https://onproperty.com.au/hidden-costs-when-building-a-house/>)**:**

1. The first step is to purchase a non-strata dwelling to obtain the land of the project. According to the spreadsheet which it lists out the median price of a non-strata dwelling in Willoughby = $2,410,000.
2. Stamp duty also needs to take into account when we purchase the land as it involves the transfer of land rights. It can be calculated in the following formula (based on the table above):

= $40,490 + [(2,410,000-1,000,000)/100] x 5.5

= $118,040.

1. Assuming the property developer is building a 4 story unit complex which includes a lift, concrete structure and a basement carpark. According to research by BMT (One of the largest tax depreciation company in Australia), it stated the average cost of building an apartment with a medium finish (which means that it has quality construction, modern conveniences and fitting) costs $2,585/m2. So for instance, if the size of each apartment unit is 100 m2 and they are going to build are 40 then the total cost of building apartment equals:

= $2,585 \* 100 \* 40 (units) = $10,340,000 (The cost of building an apartment)

1. Imagine all of the apartments were sold at the price of $898,000 (from the master spreadsheet), then the revenue of the overall project equals to:

= $898,000 \* 40

= $35,920,000 (Initial Profit)

So overall, it seems that Willoughby is a good LGA to build property for resale. (Reason 1)

More reasons to support Willoughby

- Talk about **demographics** – Population growth (via census) and population projections in the LGA. – This may be one of the reasons why property developers should develop more houses.

* Population growth in the City of Willoughby between the 2006 Census and the 2011 Census was 5.9%; and in the subsequent five years to the 2016 Census, population growth was 10.3%. If we compare the total population growth of Australia for the same periods, being 8.3% and 8.8% respectively. As a result, we can concluded that, population growth in Willoughby local government area has accelerated faster than the national average.
* having said that, we may use this reason to argue property developers should develop more dwellings to accommodate the growing population.
  + The median age of the LGA is 36 years old in which 65.6% of the population are working full time and 25.7% working part time. To add these numbers, we can say 91.3% is working – we can suggest that there is a strong market (both buying and rental) market. .
* (In general, in all LGA), economic factor such as interest rates could be a factor (to determine the demand of housing) as currently the interest rates (cash rate) are 1% - which increased the amount that households could borrow – so they are more willing borrow more.
* If the price non-strata dwelling continue to grow, it will cost housing developer(s) a higher cost to purchase them. This may ultimately affect the profitability

**Analysis (23th August 2019 5pm)**

1. **Profitability – Short Run**

Although the project is profitable however if we compare the profitability against other LGAs such as Ku Ring Gai. Building a strata dwellings in Ku Ring Gai appears to be more profitable than building it in Willoughby. Therefore it shows that Willoughby is not a good place to property for resale.

From 2001-2016

1. **Residential Vacancy Rate (**<https://sqmresearch.com.au/graph_vacancy.php?postcode=2067&t=1>)

Residential Vacancy Rate is the percentage of all available units in a rental property, such as a hotel or apartment complex, that are vacant or unoccupied at a particular time.

The benchmark is usually 3%.

* If the vacancy rate is below 3% then it will imply that there could be a stronger demand than supply.
* If the vacancy rate is above 3% then there could be an excess supply and less demand in the suburb/LGA.

\*Note:

- There are only data from 2005

- You need to add all the data from different suburbs and average it to become the LGA’s vacancy rate.

1. **Population change in %**

The population growth rate in Willoughby appears to grow faster than nearby LGAs (such as Lane Cove and Ku Ring Gai) and even NSW. As a result, such change will lead an increase in the demand of dwellings in such LGA as more population will be needed to accommodate the current and the future (predicted) population.

1. Property Prices – (which will ultimately affect the project’s profitability in the long run).

Compare Willoughby and Middle Ring’s growth rate in strata dwellings. It is evident that the rate Willoughby’s strata dwelling prices are greater than Middle Ring (as well as other nearby LGAs). As a result it demonstrates that Willoughby is a good place to build property for resale.

**Analysis (23th August 2019 11pm)**

1. **Expected Profit**:

The expected profit in Willoughby appears to be lower than nearby LGAs such as Ku Ring Gai. That means that building a strata dwelling in Willoughby is less profitable compare to nearby suburbs. The property developer might need to choose another LGA in order to maximise its profitability.

1. **Variability of expected profit:**

By calculating the standard deviation of the expected profit, we will be able to see the variation (volatility) of the profits of the projects. The lesser standard deviation then it implies that the profits will be less volatile – less risky to develop strata dwellings within the LGA and vice versa. Based on (graph name), it implies that the standard deviation of Willoughby’s expected profits is greater than Middle Ring therefore, it means it is risker to develop strata dwellings in Willoughby than nearby suburbs as profits will vary over time.

1. **Break even analysis**

It requires (number) on average to break even in Willoughby, while the middle ring requires (number) on average to break even. This means that it is less expensive to build in Willoughby in comparison to the nearby suburbs. Nonetheless, it is worth noting that this is per m2 measurement so this number may change in if more dwellings are developed within the same project.

1. **Property Prices Growth Rate**

As you can see from the graph, it appears that Willoughby’s strata dwelling prices are growing faster than Ku-Ring Gai. As a result, it will generate a greater level of profits in the long run if the project continues on.