

Tableau Final Project

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Goals

- The goal is to analyze and make connections between housing prices, consumer spending and the average Canadian's earnings.

Process

- Step 1: Connecting Data Sources to Tableau
- Step 2: Answering questions with the data.
- Step 3: Interesting pattern, trend or outlier from the data.

House Index Trends vs Reality Benchmark

- -Range of housing index trend data: $78.81 - 100.86 = 22.6$
- -Range of actual benchmark price index data: $104.4 - 245.5 = 141.1$
- It's interesting to note that the range of the actual benchmark prices is far greater than the range of the housing index trend data. Housing prices increased much faster than the trend predicted, 16 times faster in fact. This is easily visually noticeable on the graphs below by seeing how much steeper the benchmark price index line is vs the trend index data.

Office Price Index vs Housing Price Index

- *-Range of benchmark housing price index from 2005-2007(2005) to 104.44-130.92(2007) = 51*
- *-Range of office price index from 2005-2007: 113.21(2005) to 134.64(2007) = 21.43*
- Comparing the change in office price index to the change in housing price index, not many of the years with data collected overlap. So, from the years we do have to work with, 2005-2007. We can say that the office price is growing 42% faster over this time period.

Housing prices by District



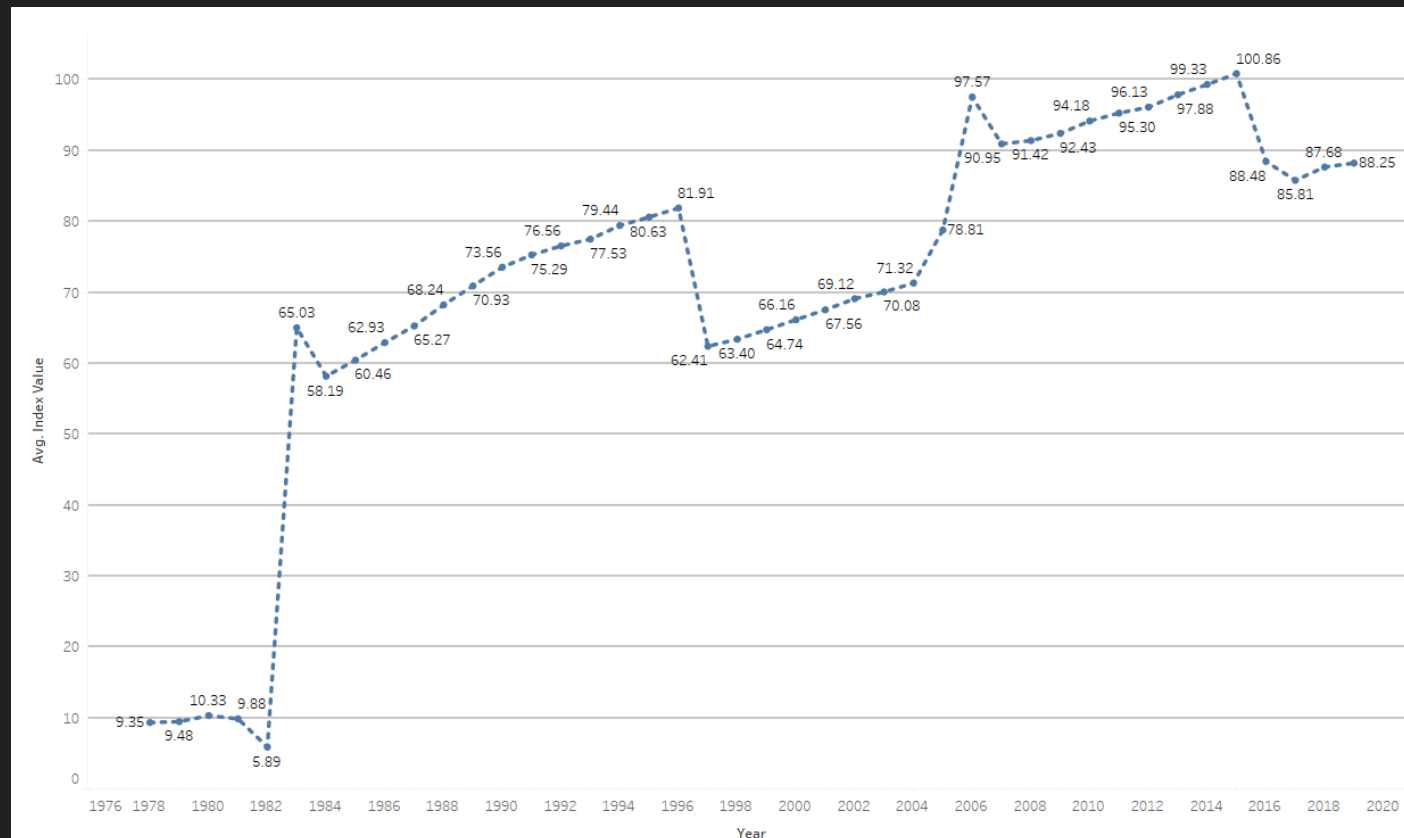
House price vs Canadian Avg. Income



Continued:

- *2005-2015 Average Single Family Home Average Price Range: \$291,938(2005)-\$866,558(2015) = \$574,620 Average Monthly Income: \$2947.00(2005)-\$3814.00(2015) = \$867*
- -129% Increase in monthly income.
- -297% increase in average single family home price.
- The average single family home price has increased by 297% from 2005-2015 and the average monthly income has increased by 129% in the same time period. The home price is increasing 168% faster than the average Canadian monthly income.

Consumer Spending Index by Year



Consumer Spending Index, Continued.

- 2001 Consumer Spend Index: 66.16 2014 Consumer Spend Index: 97.88
- Yes, people did spend more of their earnings in 2014 than they did in 2001, about 32% more than back in 2001.
- It seems like the years go on, consumers spend more of their earnings.

Interesting Insights

- As the years go on, consumer spending increase, housing prices increases and so does the average Canadians monthly earnings. However, the amount of money needed to purchase things is growing much quicker than the average earnings of a Canadian citizen.
- Another interesting outlier is between 1982 and 1983, the consumer spending index has grown massively compared to any other 1-year interval.

Results

- Business context: People are spending more money than ever, now is a good time to be a merchant. Houses are more valuable than ever, and the trend suggests this will continue, buying real estate at this time is favorable investment.

Challenges

- Trying to import the Json file into tableau was tricky, however I was able to use Python and the json library to clean the data and get it ready for analysis.
- Limited domain knowledge at the start of the project, learned more as I did research on real estate terminologies.

Future Goals

- If I had more time I would try and do one of the other nonstandard final projects, some of those topics interest me and I believe that curiosity would help me take my analysis skills to a new level.