

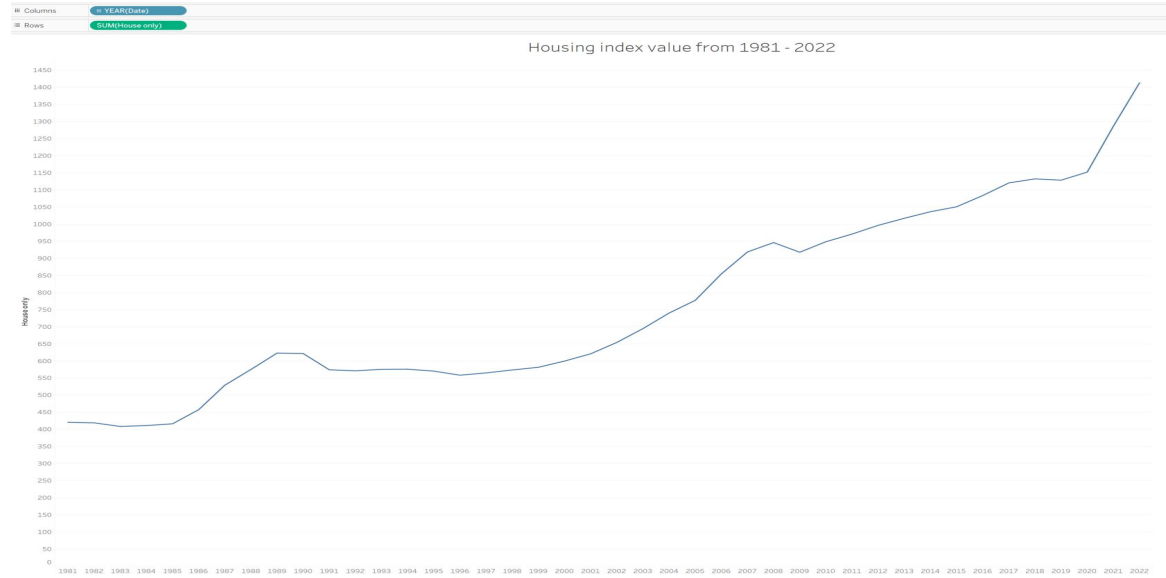


# Exploring CPI's and housing prices

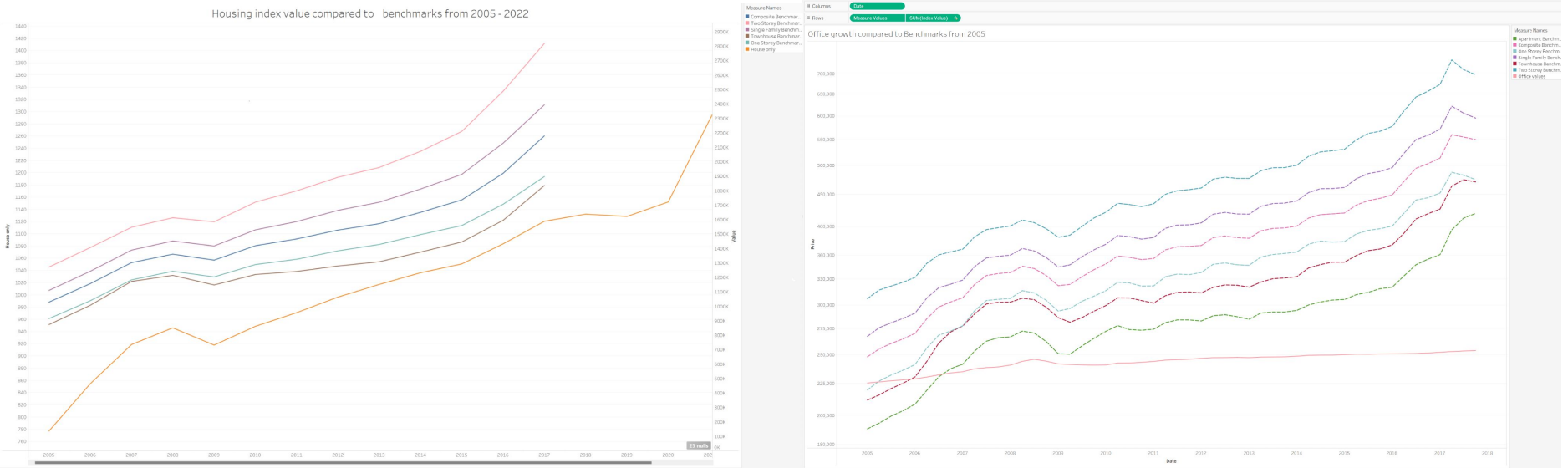
Jonathan Chen

# House prices in Canada has been growing

Last 40 years avg value growth



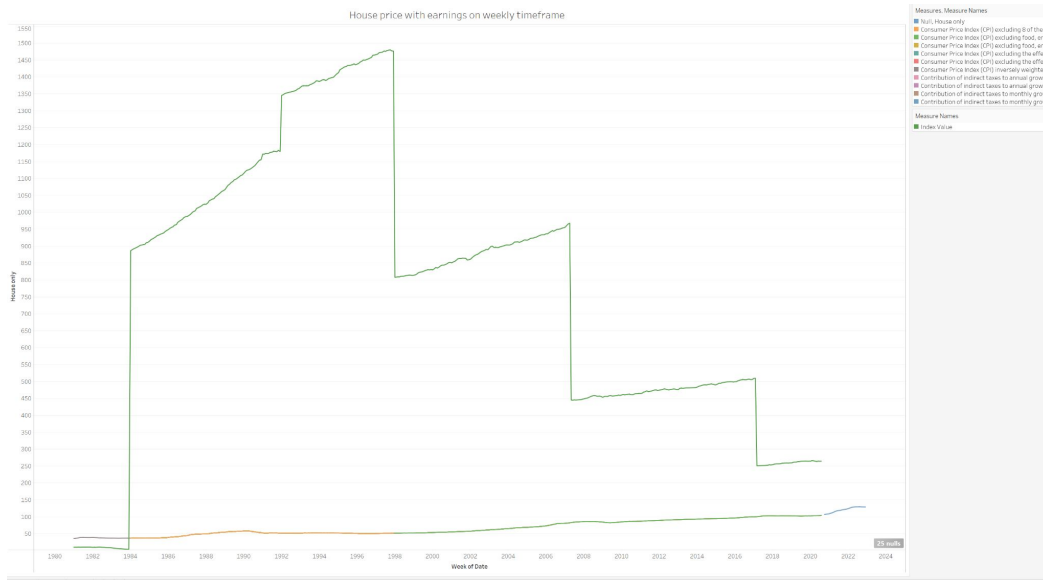
# Date from 2005 and after with Benchmarks



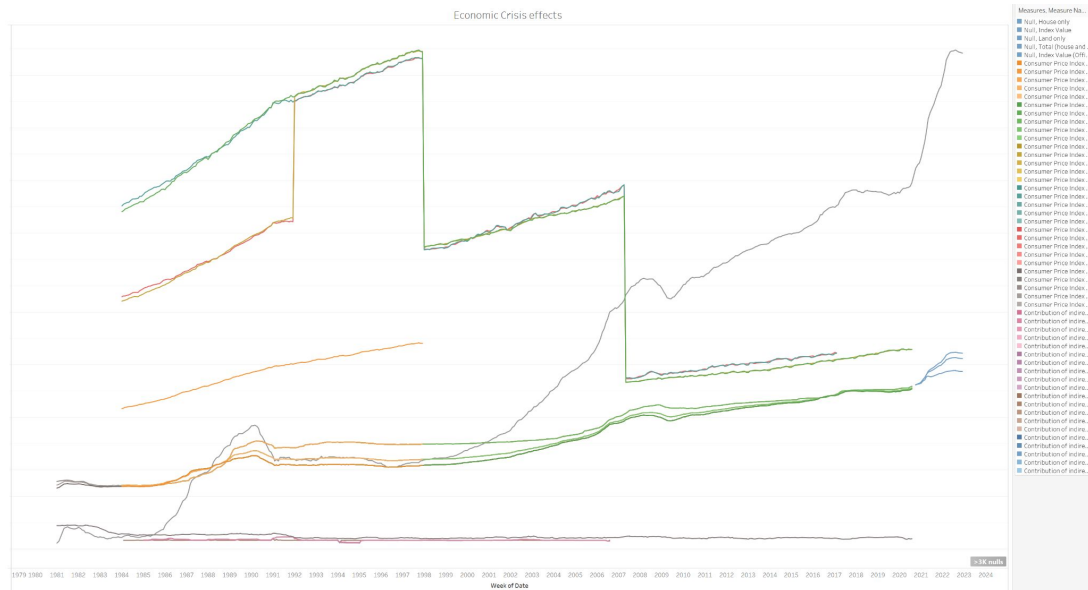
# Trend of house prices with earnings

Earning less

And spending more



## Chemical structure of formalin



# Lin Reg for consumer index and housing price index



## Trend Lines Model

A linear trend model is computed for sum of House only given Index Value. The model may be significant at  $p \leq 0.05$ .

Model formula: ( Index Value + intercept )  
Number of modeled observations: 758  
Number of filtered observations: 9  
Model degrees of freedom: 2  
Residual degrees of freedom (DF): 756  
SSE (sum squared error): 2.055e+08  
MSE (mean squared error): 271826  
R-Squared: 0.0265661  
Standard error: 521.369  
p-value (significance): < 0.0001

## Individual trend lines:

Panels		Line		Coefficients				
Row	Column	p-value	DF	Term	Value	StdErr	t-value	p-value
House only	Index Value	< 0.0001	756	Index Value	-2.46223	0.542071	-4.54226	< 0.0001
				intercept	524.268	53.0757	9.87774	< 0.0001



# What is CPI?

## Consumer price index

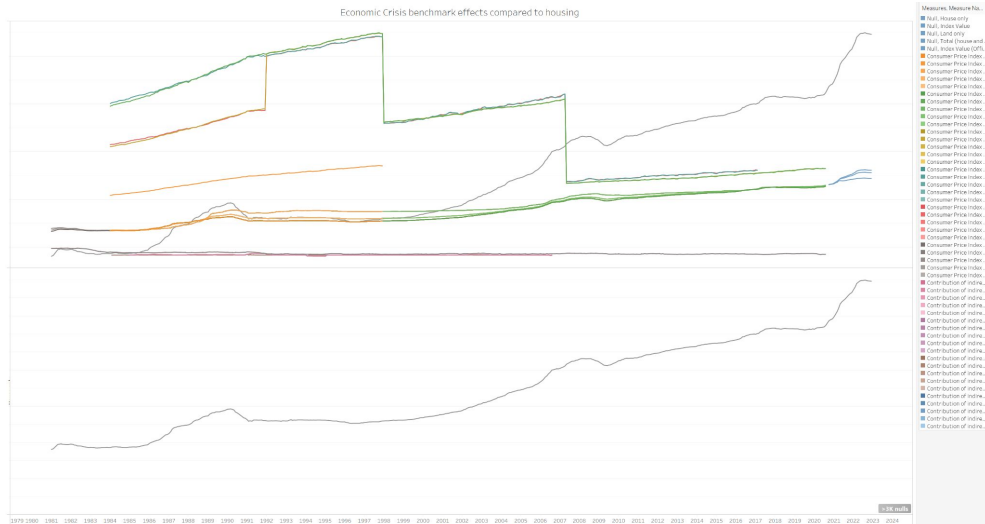
A consumer price index is a price index, the price of a weighted average market basket of consumer goods and services purchased by households. Changes in measured CPI track changes in prices over time. The CPI is calculated by using a representative basket of goods and services. The basket is updated periodically to reflect changes in consumer spending habits. The prices of the goods and services in the basket are collected monthly from a sample of retail and service establishments. The prices are then adjusted for changes in quality or features. Changes in the CPI can be used to track inflation over time and to compare inflation rates between different countries. The CPI is not a perfect measure of inflation or the cost of living, but it is a useful tool for tracking these economic indicators. [Wikipedia](#)

The IMF intervened to stem the crisis with [loans](#) to stabilize the affected economies. The IMF and others lent roughly \$118 billion in short-term loans to Thailand, Indonesia, and South Korea.<sup>[1]</sup> The bailouts came with conditions, though: Governments had to raise taxes, cut spending, and eliminate many subsidies. By 1999, many of the affected countries began to show signs of [recovery](#).

Other financial institutions also intervened. For example, in December 1997, the U.S. [Federal Reserve Bank](#) brokered a deal under which U.S. banks owed money by South Korean companies on short-[term loans](#) voluntarily agreed to roll them over into medium-term loans.<sup>[1]</sup>

## What Did TARP Do to Stabilize the Financial System?

The Troubled Asset Relief Program (TARP) was instituted by the U.S. Treasury following the 2008 financial crisis. TARP stabilized the financial system through a government purchase of mortgage-backed securities and bank stocks. From 2008 to 2010, TARP invested \$426.4 billion in firms.<sup>[1]</sup>





- The [Depository Institutions Deregulation Committee](#) and [Monetary Control Act](#) of 1980 removed many restrictions on thrifts and credit unions
- The Garn-St. Germain [Depository Institutions Act of 1982](#) gave thrift banks greater latitude to invest in real estate loans
- The [Tax Reform Act of 1986](#) fundamentally altered the banking landscape and engendered conditions that contributed to the banking crisis.

