

Canada - GDP vs Unemployment

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Introduction: Gross domestic product (GDP) is a measure of the market value of all the final goods and services produced in a period. GDP is an indicator of how well the economy is doing. A drop in GDP indicates the economy is producing less; similarly an increase in GDP suggests the economy is performing better. In this project I will compare how change in GDP has affected Unemployment in Canada over the years.

Data: To solve the problem, we will need the following data:

1. [Economic Research at the St. Louis Fed : Civilian Unemployment Rate](#)
2. [Data Packaged Core Datasets](#)

Methodology: The goal of this project is to draw a relationship between GDP change and Unemployment in Canada from 1950 to 2012.

Analytic Approach:

To create a dashboard,

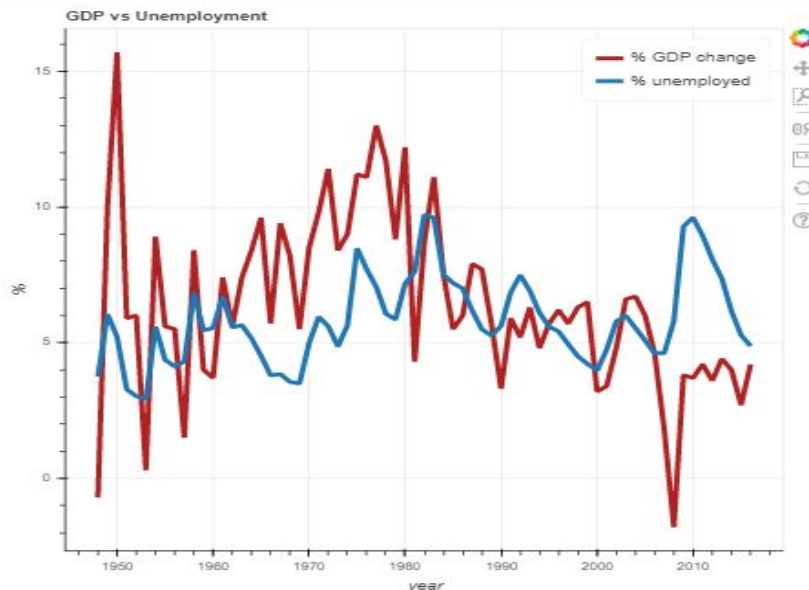
1. Initially extract data from the above links and save it to 2 csv files, one containing data about GST and other about Unemployment.
2. Read the data using Python's pandas and save each csv file into 2 dataframes named df_gdp and df_unemp.
3. We will use bokehJS to create a dashboard with a line plot, because a line plot is the best way to show relationships between 2 variables over a specific time-period.

To create a URL:

1. We will Provision An Object Storage Instance On Ibm Cloud and access IBM Cloud Object Storage with Python using the boto3 library.
2. We can interact with IBM Cloud Object Storage through a boto3 resource object and generate a URL.

Results:

We get a dashboard as the following:



The url to dashboard is:

[Canada - GDP vs Unemployment](#)

Discussion and Observations: From the above dashboard it is clear that, the percentage positive change in GDP is always followed by a fall in unemployment rates and negative change always rises the unemployment.

Conclusion: This project draws a relationship between GDP change and Unemployment in Canada from 1950 to 2012 by extracting data and creating a dashboard of line plot.