**Objective**

The objective of the research is to study how political freedom, economic freedom and consumer price inflation affect the happiness index of a country.

Milton Friedman, in his seminal work, **Capital and Freedom**, explained the correlation between economic freedom and political freedom[[1]](#endnote-1). We assume that there is a proportional relationship between the political freedom and the happiness index of a country. We study if there is a correlation between the economic freedom and the happiness index.

Additionally, the happiness of a population is affected the by the inflation that the population experiences. Hence, the paper takes into account the consumer price inflation as well and studies how that affects the happiness index of a country.

The research aims to understand how these two factors combined, affect the happiness index of a country.

**Research Design**

We first divide the data set into training set and testing set. The division is random.

We can build a regression model of the form,

*Y =* ***β0 + β1 .X1 + β2 .X2 + ε***

Where, Y = Happiness Index

X1 = Economic Freedom

X2 = Consumer Price Inflation

Using the test data that we have, we run a regression to obtain the coefficients ***β0,β1, β2.*** We will then test these coefficients using the test data.

**Data**

I have limited my analysis to the year of 2016. In order to do that, I have retrieved the data for the three factors for the year 2016, and have merged them to create a single dataset I can then analyze.

a) The Happiness data: **The codebook is titled hap\_final**. The data is retrieved from the World Happiness Report (**source**: <https://s3.amazonaws.com/happiness-report/2016/Online-data-for-chapter-2-whr-2016.xlsx>). The world happiness report is a survey of global happiness. It ranks 156 countries on the basis of their happiness. **The data format is xlsx.**

b) Economic Freedom data: **The codebook is titled eco\_free\_f**. The data is retrieved from the Fraser Institute. **source**: <https://www.fraserinstitute.org/sites/default/files/efw-2018-master-index-data-for-researchers.xlsx>. The Frasier Institute is a non-profit think tank in Canada. It is a conservative and libertarian think tank. **The data format is xlsx.**

c) Consumer Price Inflation: **The codebook is titled Inflation**. I retreived this data from the world bank open source datasets (**source**: <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?locations=BR>). The World Bank is an International organization that provides loans to countries of the world for capital projects. **This file can be found on the repository by the name of Inflation.xlsx.**. **The format is xlsx.**

**Validation Methods**

**Data Validation: We validate the data by testing the economic freedom data and the consumer price inflation data. We correlate the economic freedom with the average household disposable income of a country. The data will be validated if there is a positive correlation between GDP per capita and the economic freedom. Similarly, we can correlate the consumer price inflation with the inflation of essential food item and validate the CPI data.**

**Model Validation: After building the regression model, we use the regression coefficients to predict the happiness index of countries in the testing set. We compare this to the actual happiness index of these countries. Similarity in the predicted and actual happiness index would indicate validation of the calculated regression coefficients. We compare the predicted and actual value by running a t-test.**

1. Friedman, Milton. *Capitalism and freedom*. University of Chicago press, 2009. [↑](#endnote-ref-1)