Understanding Stock Price Beahavior using an R Based Analytical Framework

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Introduction

Stock market behavior is a well researched area due to the free availability of high frequency historic information. Several studies links the stock price movement to the sentiments of the market participants which is influenced primarily by the relevant economic events specific to the companies. IBM Watson APIs help track relevant news and social media through extensive text mining and help come out with a Sentiment Index for a business. Business Sentiment Index is one such index calculated by Menerva Fintech that quantifies market sentiment for a company . In addition, to represent global sensitivity Foreign Exchanges Rates are also introduced to measure the stock price behavior. Idea here is to demonstrate how to extract data from various sources, transform and load into an analytic framework to visualize and infer the relationship.

Purpose

Primary objective is to develop an analysis system using extensive R libraries. Extracting and processing data from multiple sources, data cleaning, simplify repetitive tasks using control structures and functions, application of data visualization and basic statistical methods are the focus areas during the mid term. In short learning to develop reproducible code is the purpose.

```r
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.