Problem Statement Worksheet (Hypothesis Formation)

Considering SPX, SLV, GLD, Barrick Gold Corp and Bitcoin, is it true that Gold increases in value as these other stock values decrease?

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1 Context

A client is developing an investment portfolio for their customers and wants to test the theory that Gold increases in value as other stocks decrease in value. In addition, the client wants to see if any of these stocks are rather predictable and to certainty they could predict Gold would increase as other stocks decrease.

2 Criteria for success

Develop a time series model that predicts the value of Gold based on the fluctuation of the other stocks. This must be ready before the fourth quarter of 2020.

3 Scope of solution space

This model will exclusively focus on the aforementioned indexes and stocks. In addition, it will see if gold mining companies have a similar relation to that of gold and the other indexes.

4 Constraints within solution space

The data collected only has the daily closing value for each stock from September 17, 2014 to August 21, 2020. .

5 Stakeholders to provide key insight

CEO
CFO
Financial Advisors
Investors,

6 Key data sources

**Collected CSV's:
Barrick Gold Corp 2010-2020.csv
BTC-USD 2014-20201.csv
gold-price-last-ten-years.csv
silver history.csv
SP500 2010-2020.csv**

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