

# Empirical Analysis of the Relationship between Macroeconomic Indicators and the Health/Energy Sectors

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## Objective:

The objective of this research is to analyze the relationship between macroeconomic indicators and the volatility of the health and energy industries. The findings can be useful for investors to diversify their portfolio by focusing on the macroeconomic factors that have historically influenced these industries. We will examine industry-specific ETFs, which track a group of companies belonging to the same industry. Additionally, we will use the various models to compute the volatility response variable. Understanding the impact of macroeconomic factors on these industries can guide investors in making informed decisions about hedging strategies.

## Project Description:

- **Usefulness:** The usefulness of this research is to provide investors with insights into the impact of macroeconomic indicators on the volatility of the health and energy industries. By analyzing industry-specific ETFs and using the various model to calculate the volatility response variable, investors can understand how different macroeconomic factors have historically influenced these industries. This information can guide investors in making informed decisions about hedging strategies and portfolio diversification. Ultimately, the findings of this research can help investors manage risk and optimize their investment strategies.
- **Dataset:** We will collect trading prices for two ETFs related to the health and energy sectors from Yahoo Finance and macroeconomic data from the Federal Reserve Economic Data (FRED). By analyzing these datasets, we can identify the relationship between macroeconomic factors and the volatility of the health and energy industries. This approach will allow us to understand how macroeconomic factors have historically affected the trading prices of these ETFs and the associated industries.

You can find the links below:

- <https://fred.stlouisfed.org/>
- <https://finance.yahoo.com/>
- **GitHub Repo Link:** <https://github.iu.edu/sakamb/Time-Series-Analysis-Project>