

Using Predictive Models to Forecast Gasoline Prices

The prices of gasoline have been a subject of debate since the widespread adoption of gasoline and fossil fuels. While fluctuations in gasoline prices are often linked to economic and political factors, these connections require careful examination. Factors such as global oil trade, warfare, sanctions, and tariffs can all affect the prices we pay at the pump, though singular causes are frequently attributed in hindsight. Given the many factors at play and the abundance of data available, the question arises: Can these variables provide true predictive value?

This case study focuses on economic data due to its availability and its connection to political decisions. Political actions often directly affect economic indicators, such as stock market responses to declarations of war, which can lead to increases in military stocks. Analyzing economic data can offer insights into the broader political landscape and its impact on economic conditions.

Deliverable

By examining economic indicators such as industrial production, oil company stocks, and the price of oil in trading, this study aims to develop a predictive model for gasoline prices one month into the future. The process begins with initial data wrangling and cleaning to prepare the data for analysis. Through exploratory graphical analysis, an informed decision will be made on selecting a simple machine learning model to forecast gasoline prices one month ahead.

Finally, the findings and the predictive nature of the model will be summarized in a concise presentation or a brief PDF. This summary will encompass the work conducted and the predictive model developed.