**Data Source**

The data used in this study was the Precious Metals Data dataset obtained from Kaggle [1] and split into three separate datasets representing gold, silver, and platinum prices. For each of these metals, these datasets contain complete daily market data from March 2019 through June 2024. It includes price details and other important trading statistics that would build a credible background for anyone wishing to study how precious metal prices oscillated and behaved during that time.

The datasets consist of the following columns:

• Date: This column records the specific date of trading activity, formatted as MM/DD/YYYY. It serves as the key for time-series analysis, enabling the tracking of price movements and market trends over time.

• Open: The price at which the precious metal began trading at the start of the day (USD per ounce). This provides insight into market sentiment at the opening of trading sessions.

• High: The highest price reached by the precious metal during the trading day (USD per ounce). This reflects peak trading activity or sudden market reactions.

• Low: It indicates the bottom price at which the precious metal reached during the day’s trading (USD/oz). As a result, this aids in determining the market's downside volatility.

• Close: It marks the price with which the precious metal concludes the trading day at (USD/oz). Typically, this is considered the most vital price for analyzing trends on a daily basis and predicting the future trend.

• Volume: The quantity of units exchanged throughout the day. When it comes to precious metals, it shows the level of investor interest and trading activity on that specific day.

Together, these columns offer an in-depth knowledge of the daily trade trends for gold, silver, and platinum, providing essential data for researching market trends, fluctuations in prices, and the general behavior of these metals.

**Data Cleaning and Preparation**

These datasets were obtained from Kagle and were cleaned and processed in order to guarantee dependability for analysis. All numbers in these columns were consistent in decimal precision and error values were removed. The analysis focuses on the period from March 2019 to June 2024. This highlights the effects of the impacts of key global events such as the COVID-19 pandemic, inflationary pressures and changes in investor behaviour.