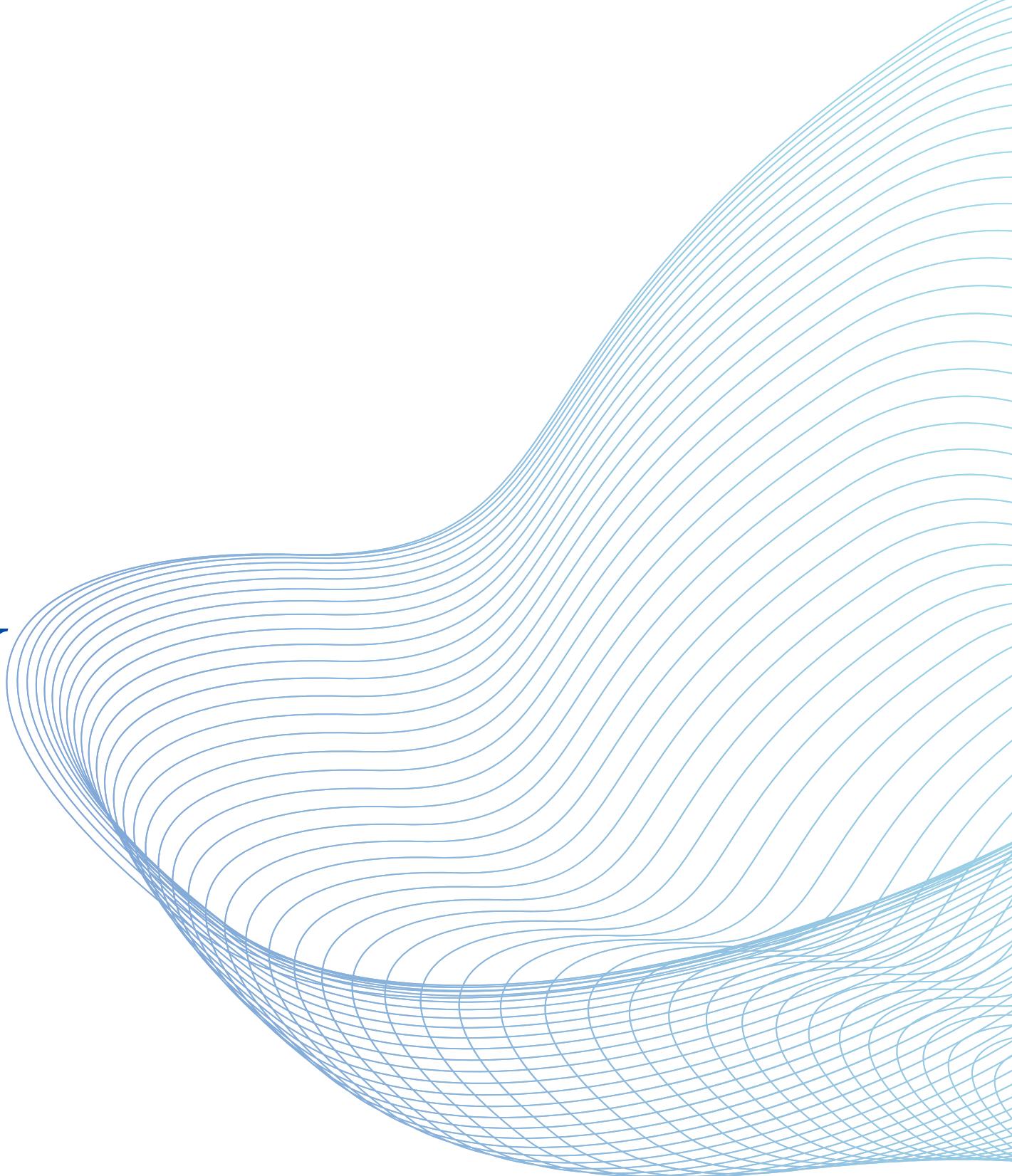




PRICEWISE AI



OUR TEAM



BRADLEY OBARE

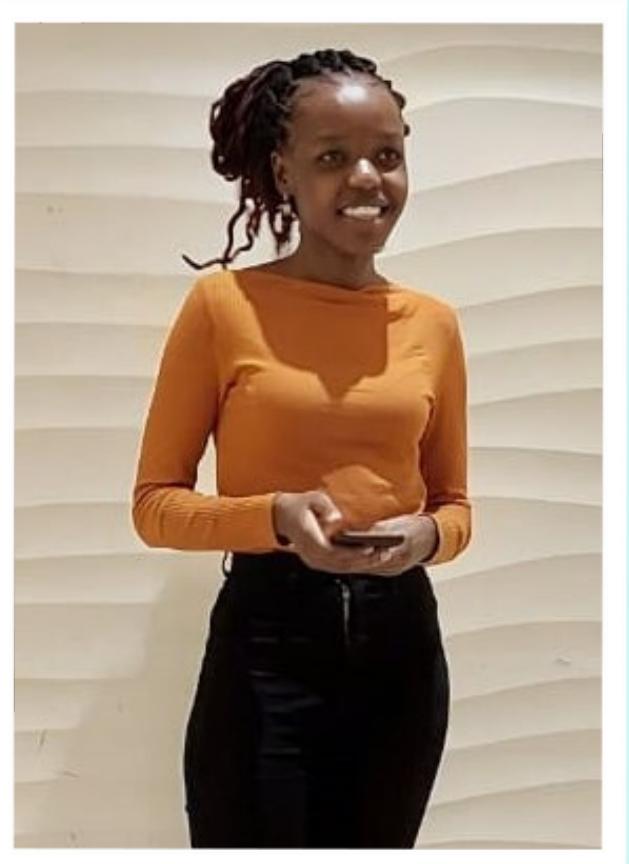


FRANCIS KYALO



JUDY MUTHONI

OUR TEAM



GLORIA OSEKO



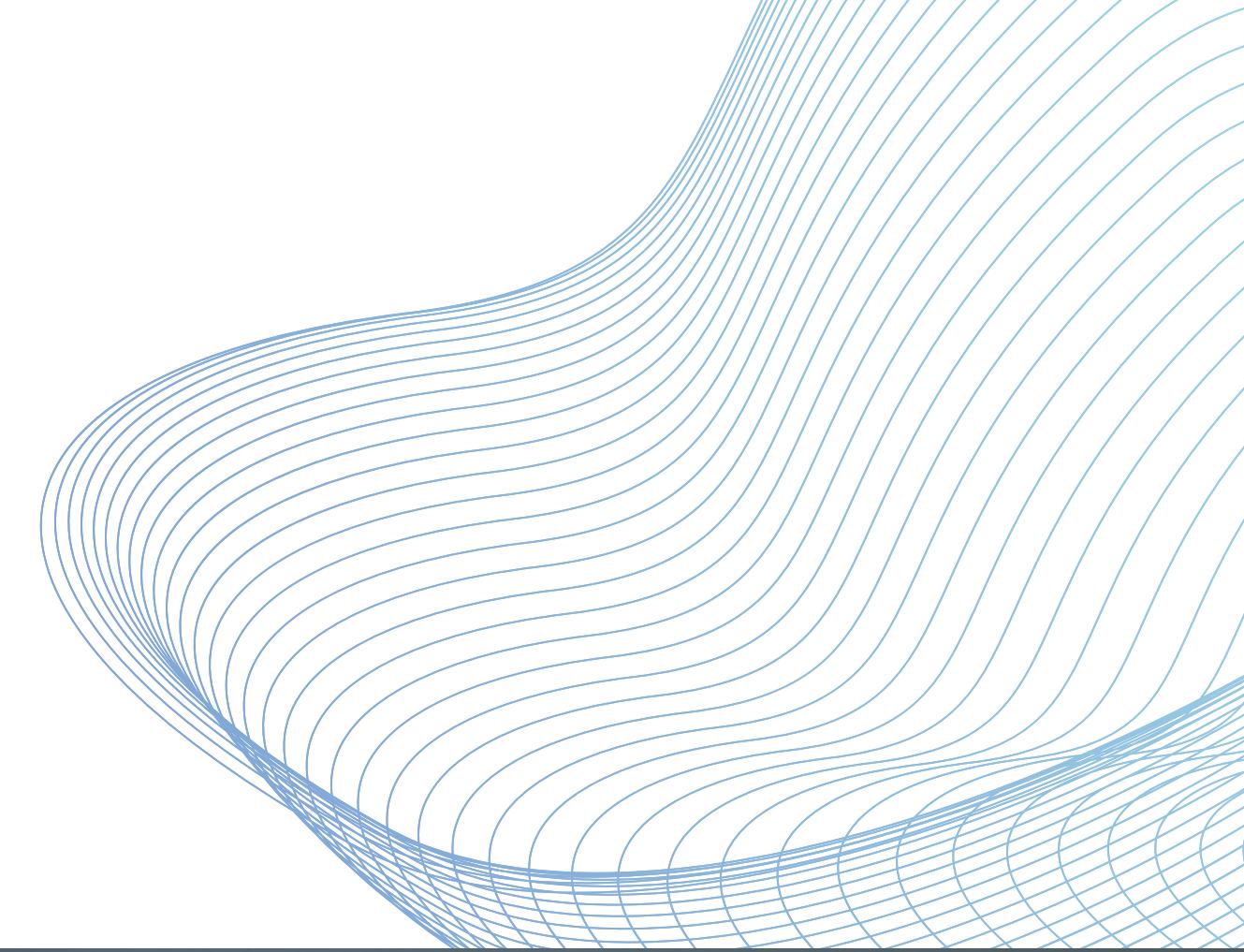
*KIPCHUMBA
BRIAN*



CAROL KILONZO

TACKLING THE COST OF SURVIVAL: PREDICTING COMMODITY COSTS IN KENYA

High cost of living in Kenya is challenging for low/fixed income earners, hindering basic needs and progress. Predicting future commodity costs can ease this burden and hence our model will help with future predictions.



THE POWER OF PREDICTION; HOW CAN OUR MODEL BENEFIT YOUR BUSINESS?"

We aim at creating time series model to forecast economic indicators/commodity prices. Our model will provide valuable insights to businesses, investors, policymakers. This will tackle managing costs associated with fluctuations in commodity prices/inflation rates and identifies investment opportunities.

OBJECTIVES

Main Objective

The project aims to create precise time series models that can predict economic indicators like inflation rates, exchange rates, and commodity prices.



Specific Objectives

Clean and analyze time series data to find patterns and trends.

1

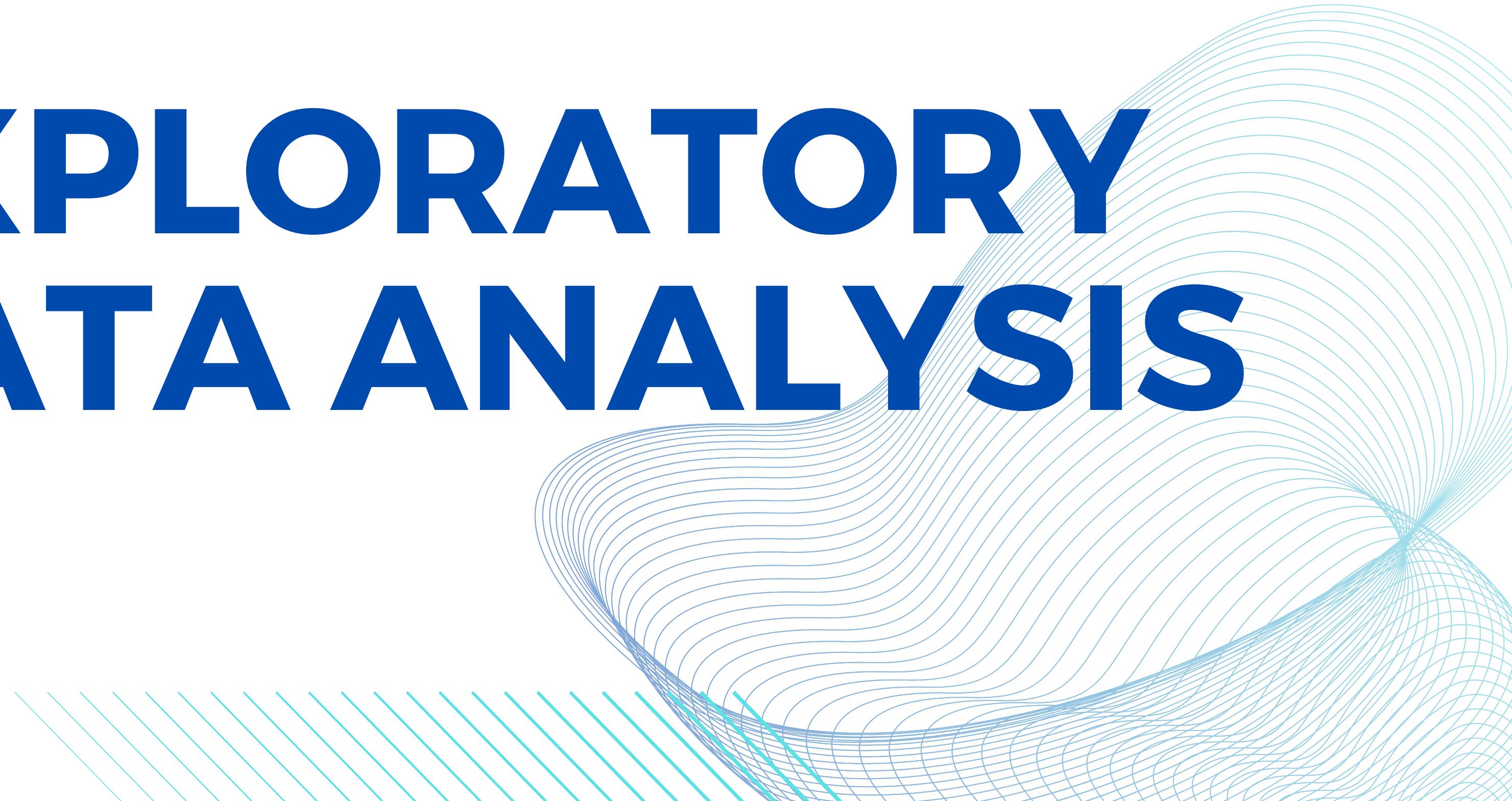
Analyze the market to identify investment opportunities based on commodity price and inflation trends.

2

Create a web application that delivers predictions and updates the model, to ensure accuracy.

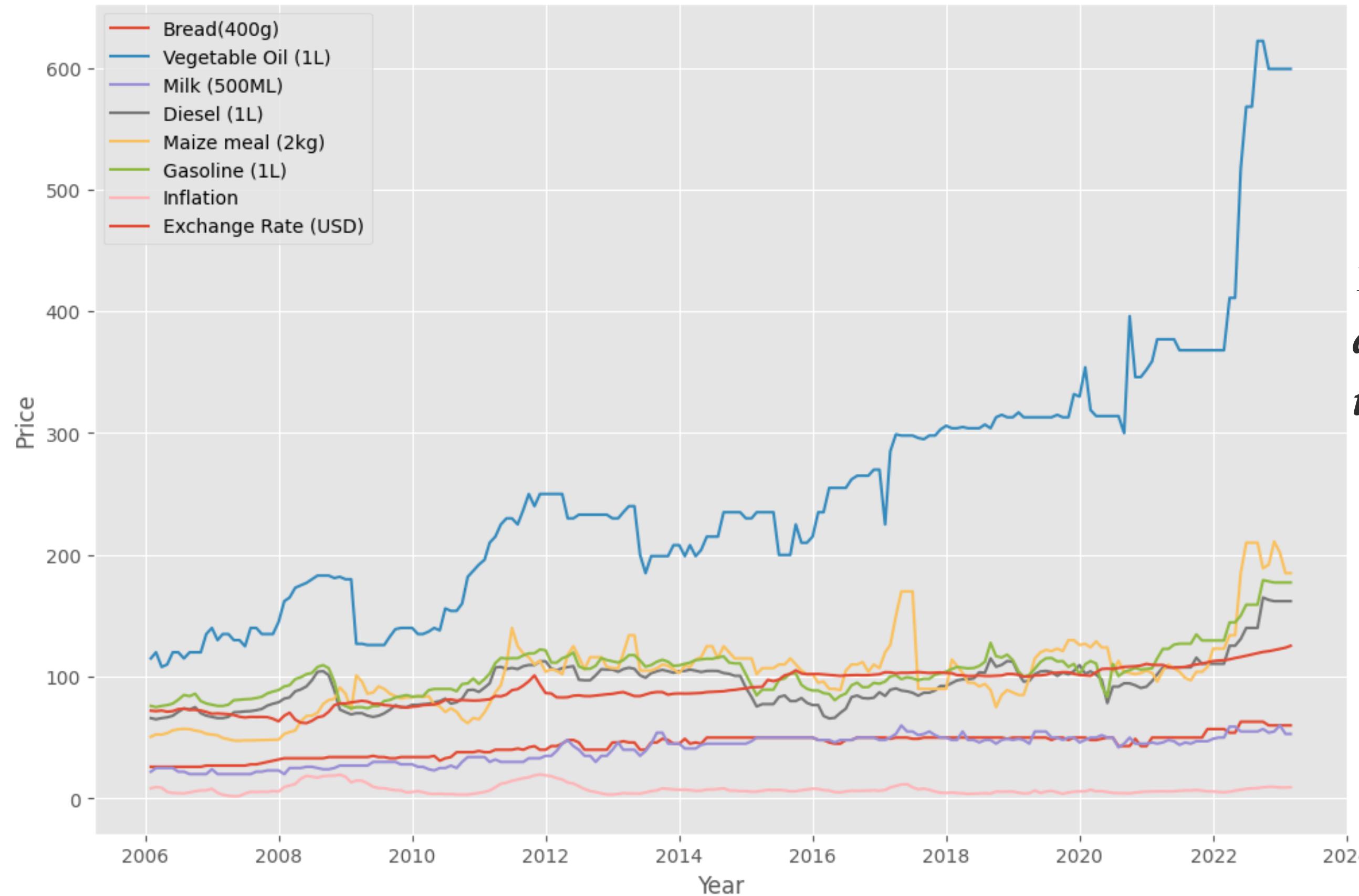
3

EXPLORATORY DATA ANALYSIS



COMMODITY PRICE ANALYSIS

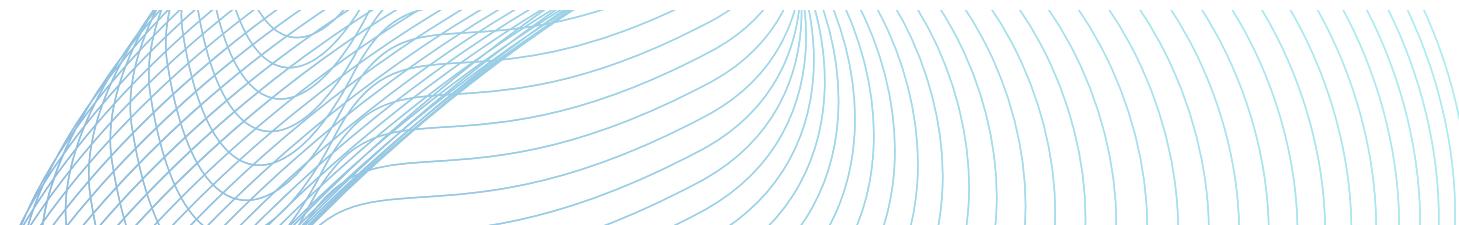
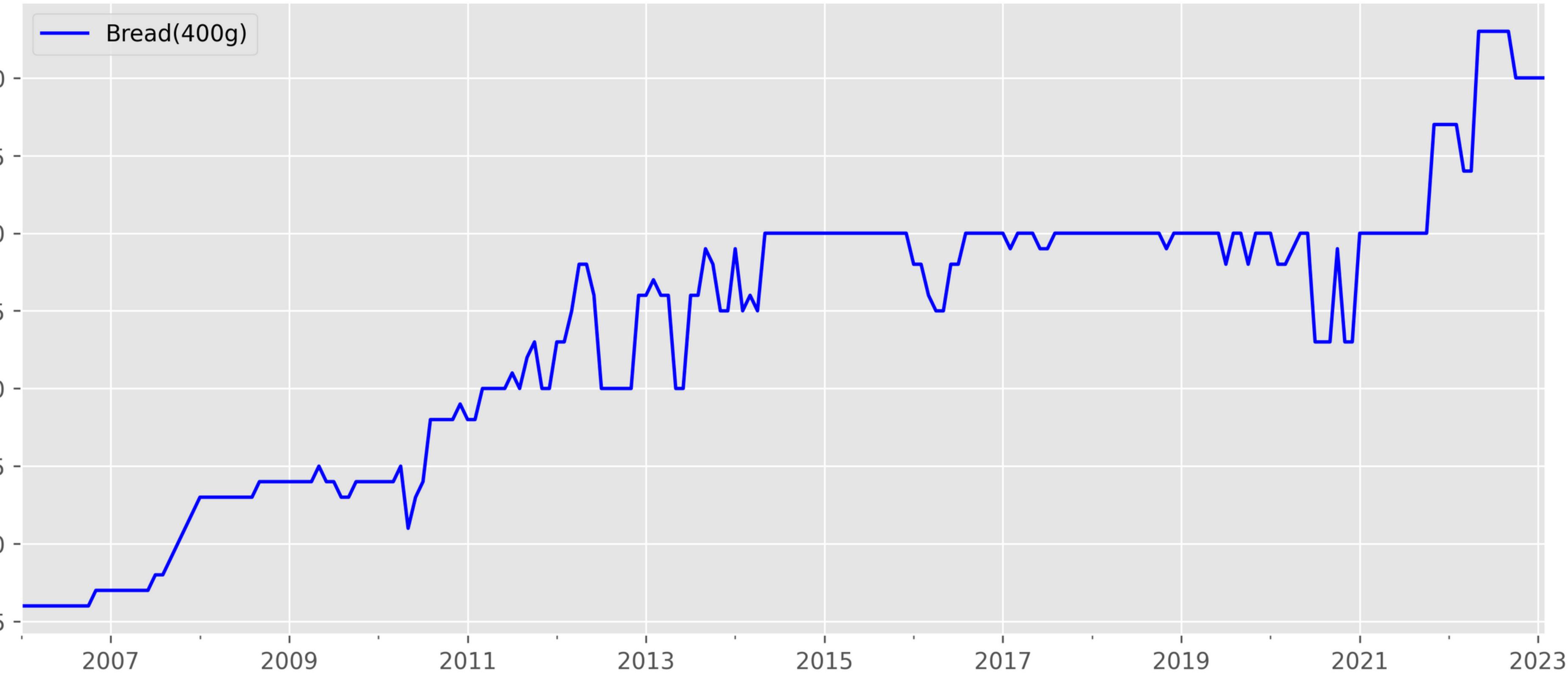
Time Series Plot of Commodity Prices



The graph shows different trends as output of commodity prices over the years.

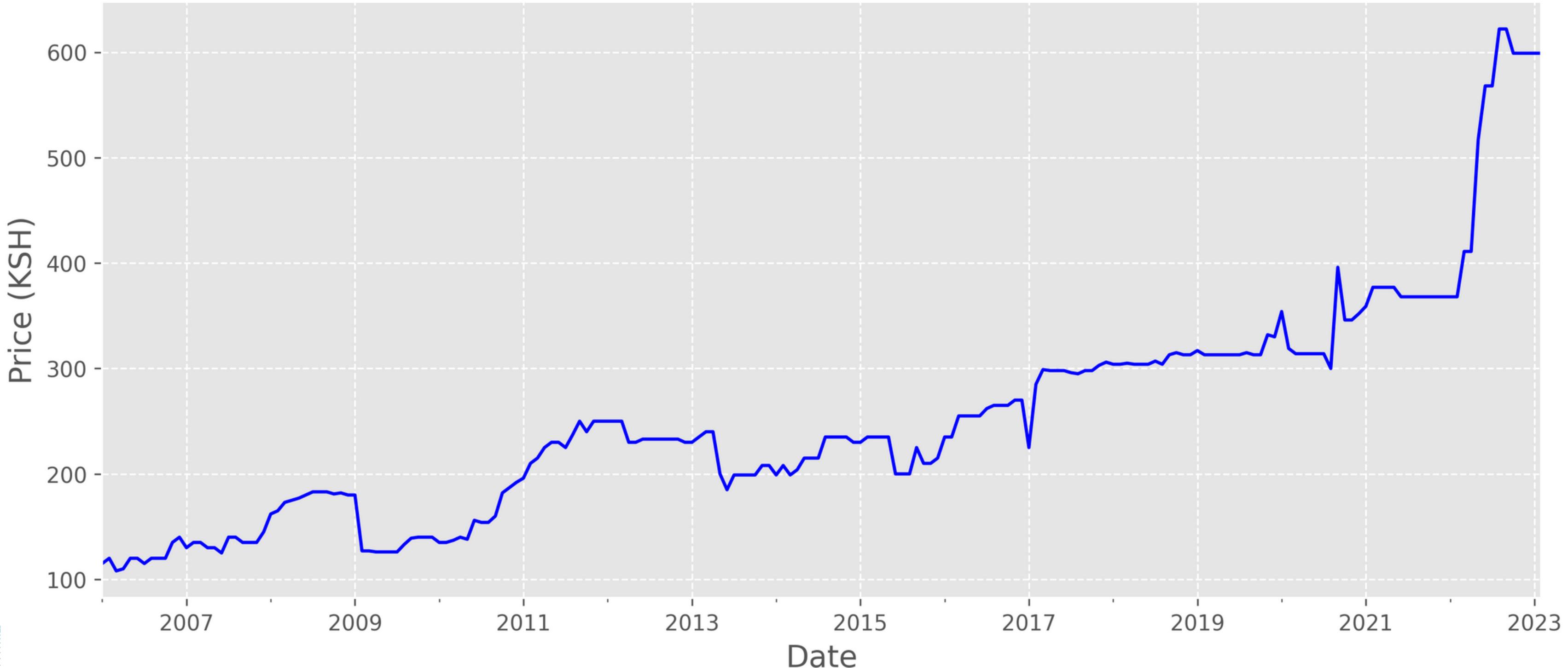
PRICE OF BREAD ANALYSIS

Bread(400g) Prices Over Time



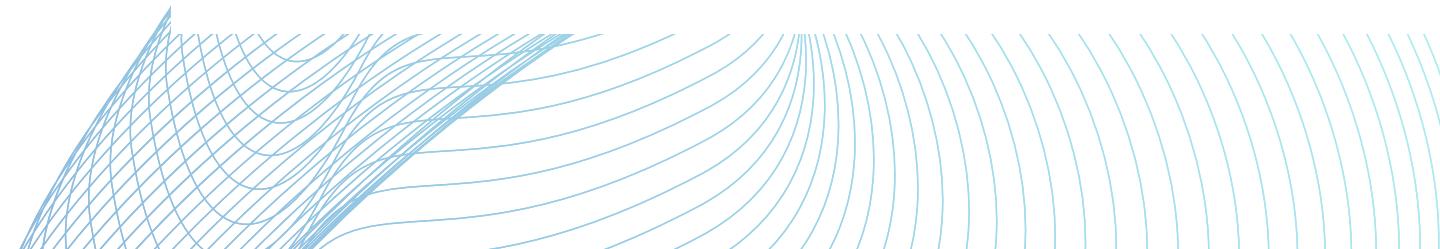
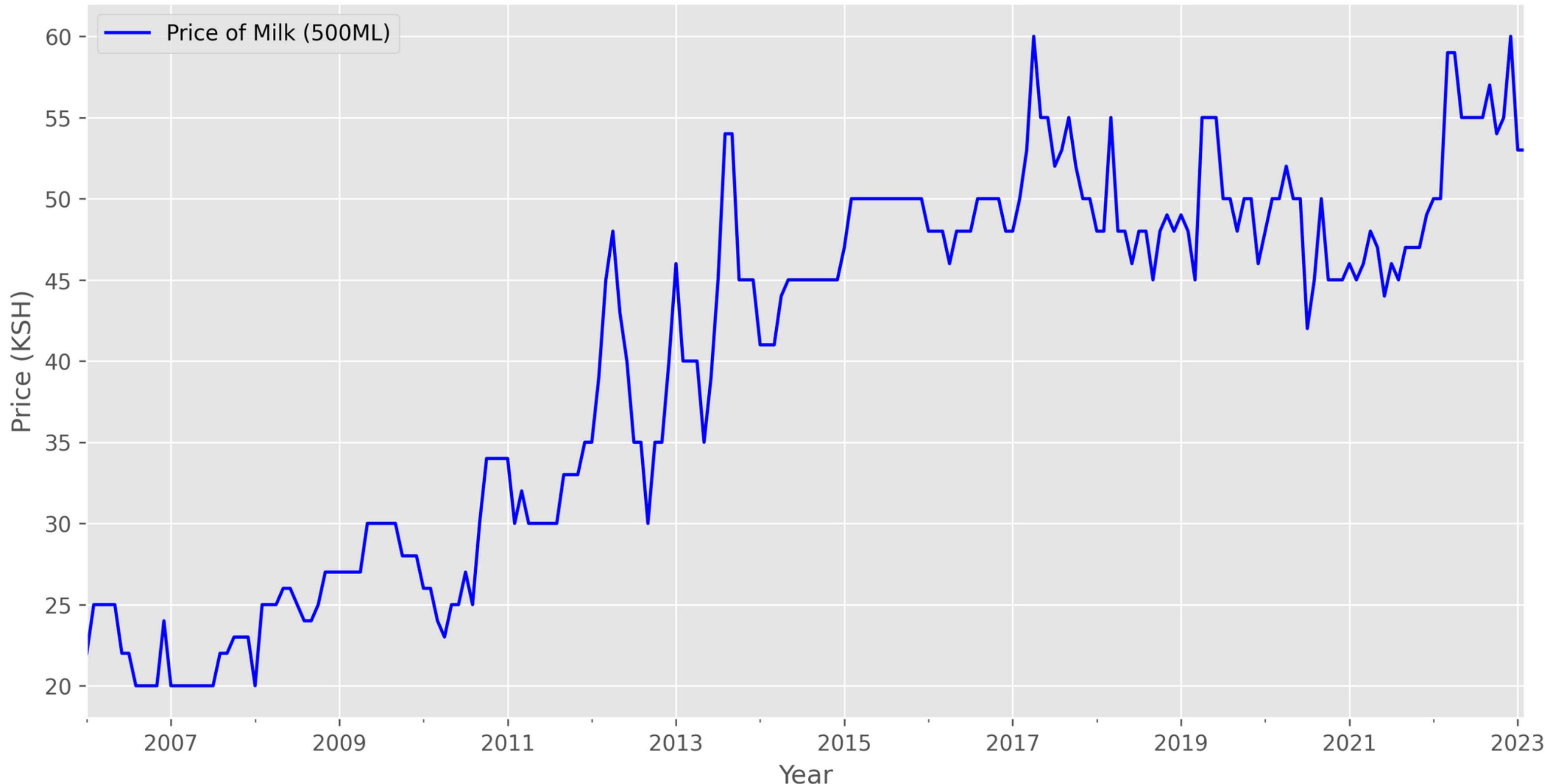
PRICE OF VEGETABLE OIL

Vegetable Oil (1L) Prices Over Time



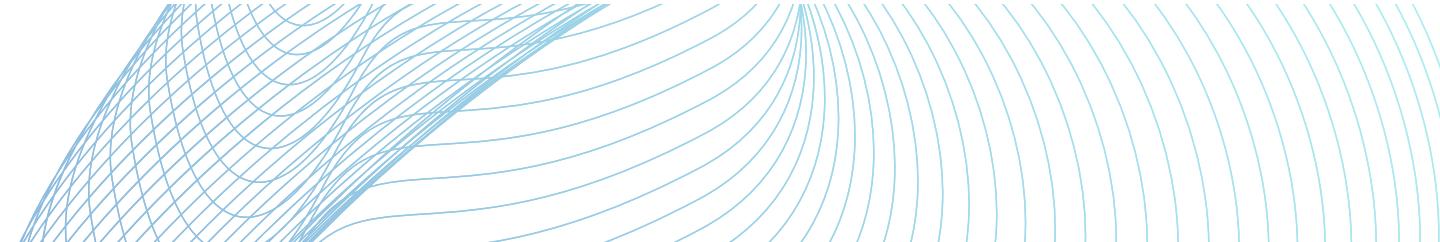
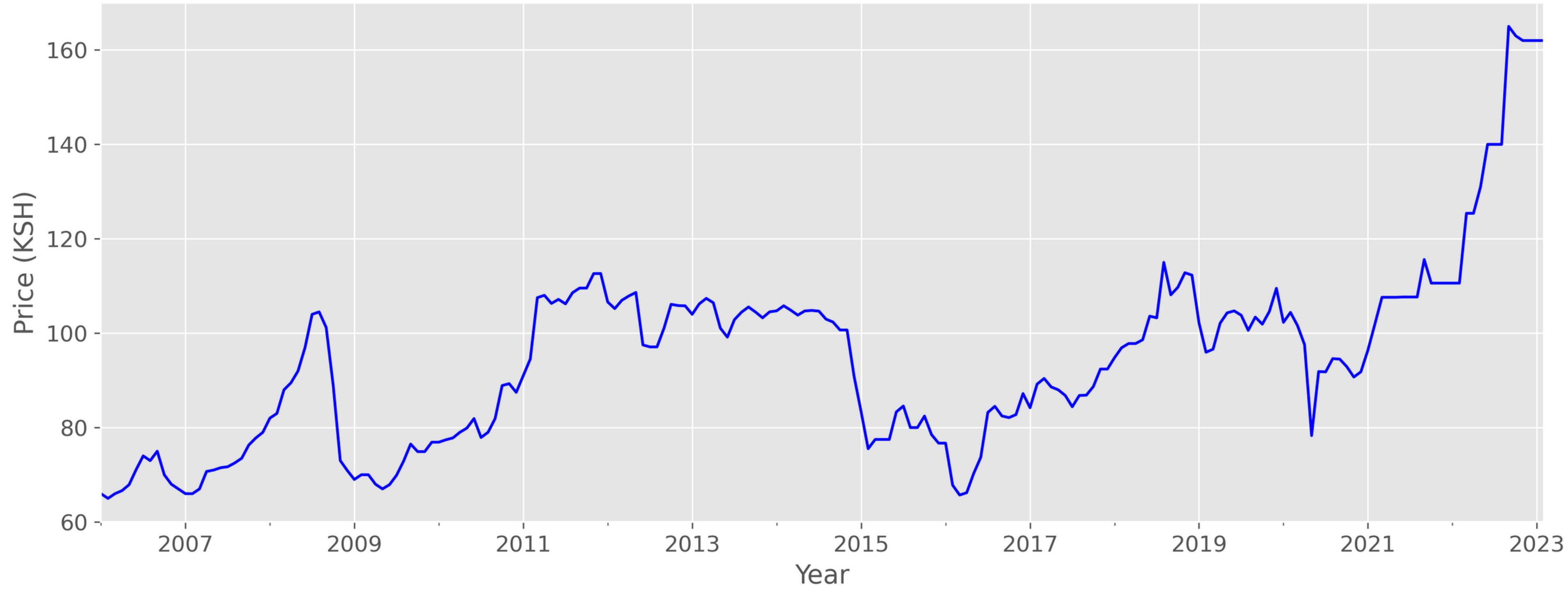
PRICE OF MILK ANALYSIS

Price of Milk (500ML) Over Time



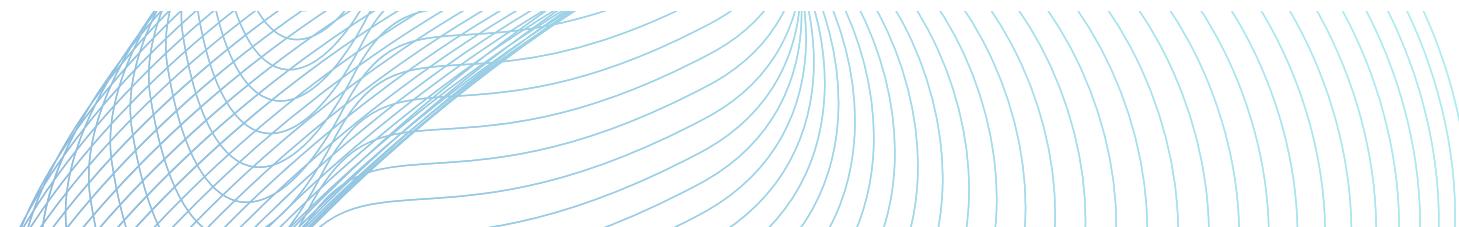
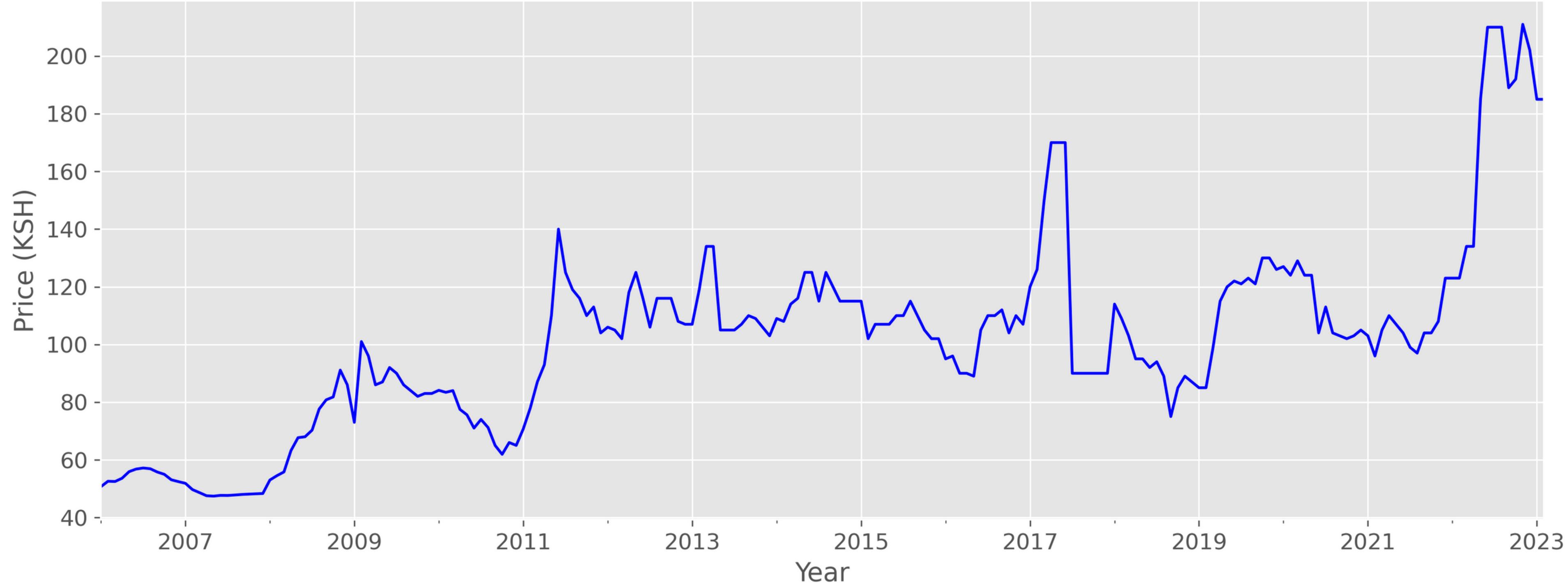
DIESEL PRICE ANALYSIS

Diesel Price Time Series



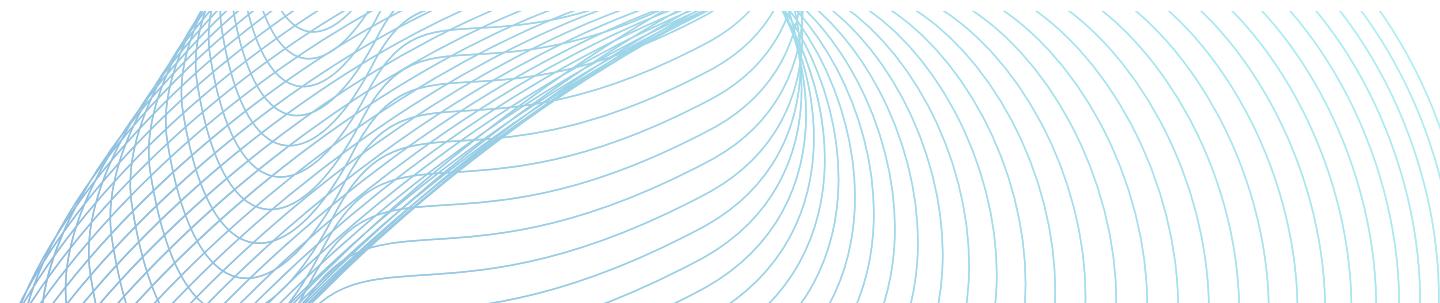
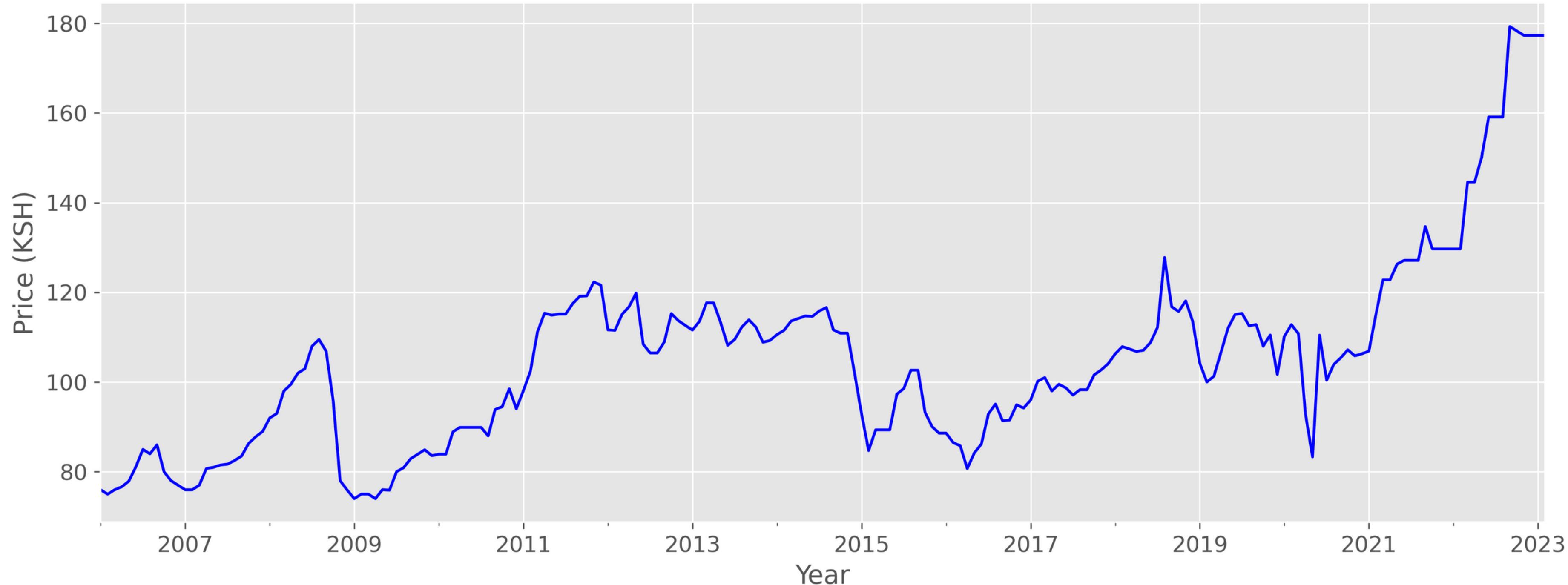
MAIZE MEAL PRICE ANALYSIS

Maize Meal Price Time Series



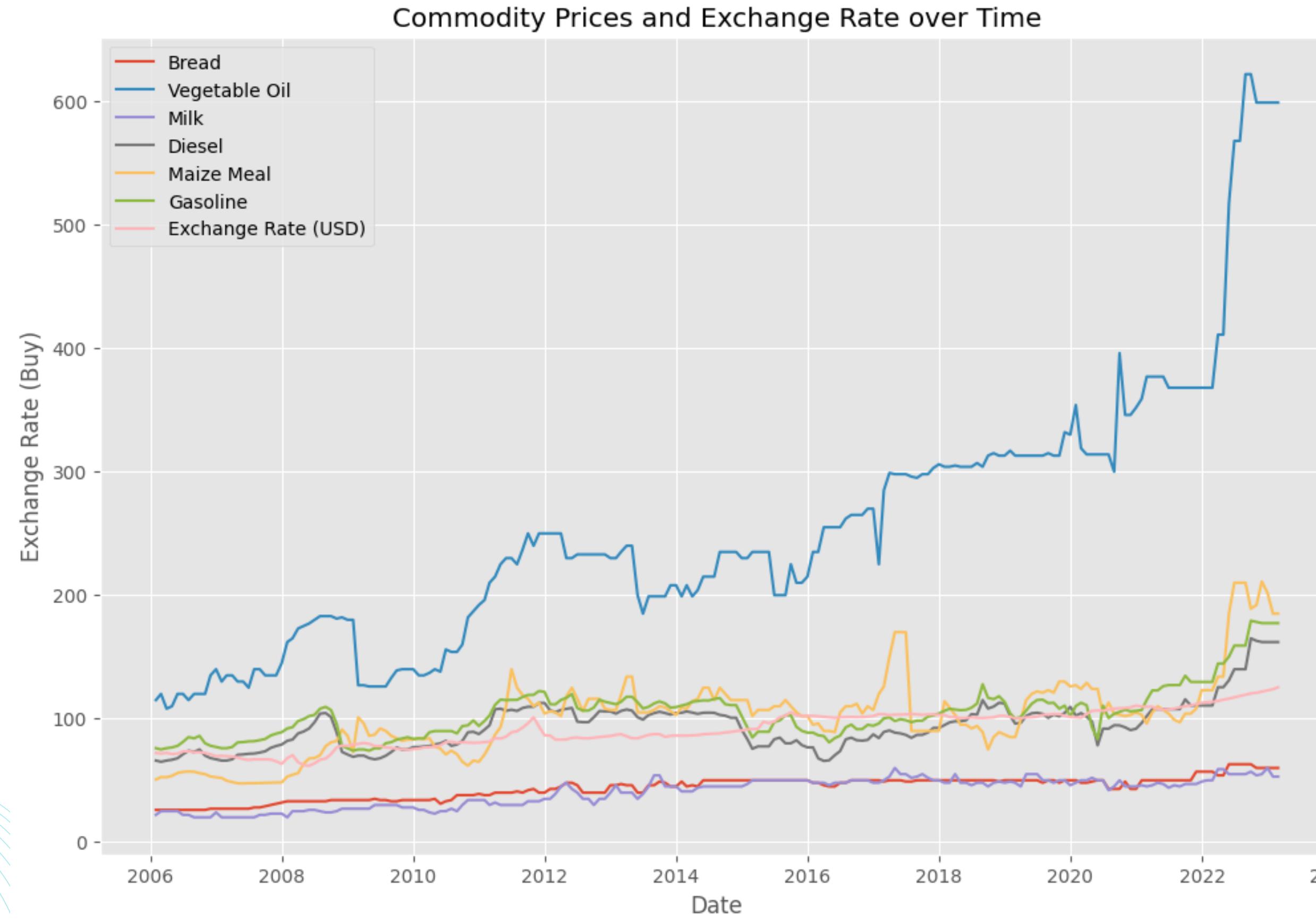
GASOLINE PRICE ANALYSIS

Gasoline Price Time Series



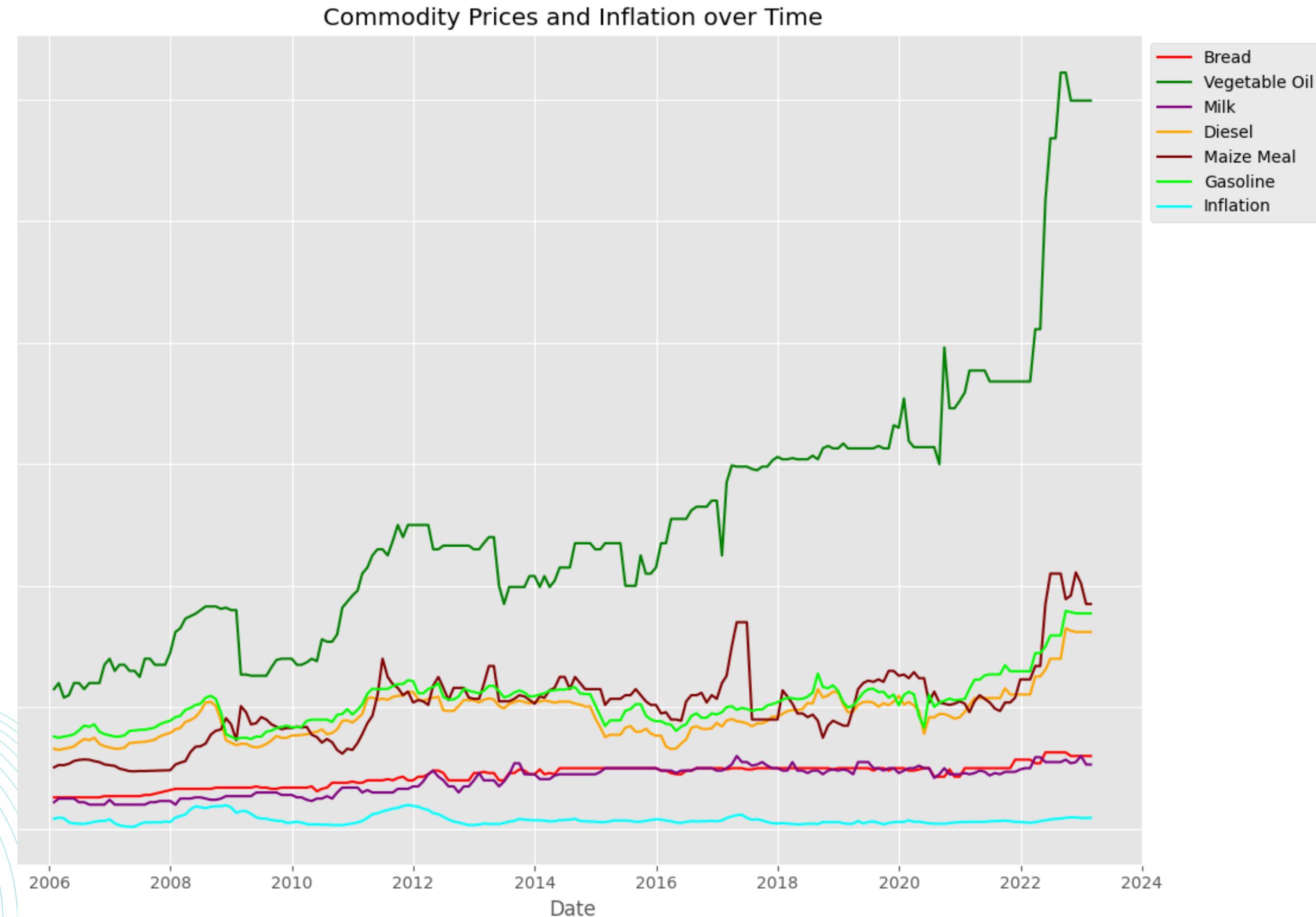
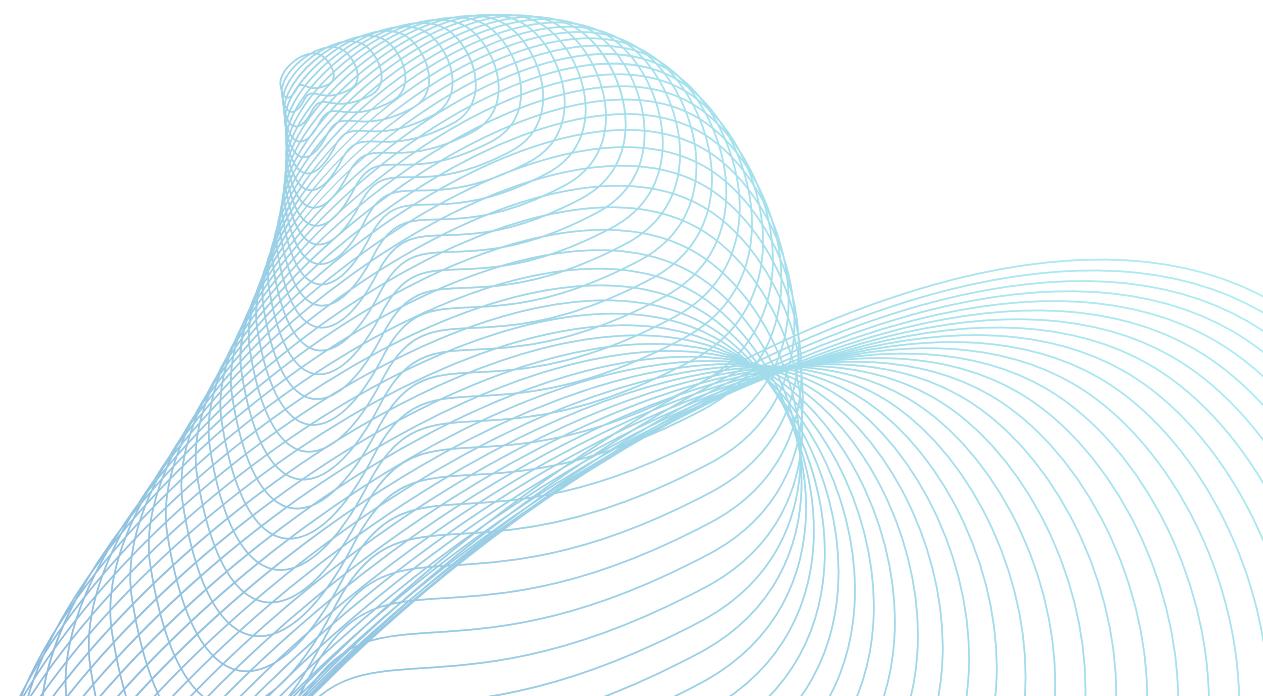
EXCHANGE RATE ANALYSIS

This representation shows how exchange rate affects commodity prices over time.



INFLATION ANALYSIS

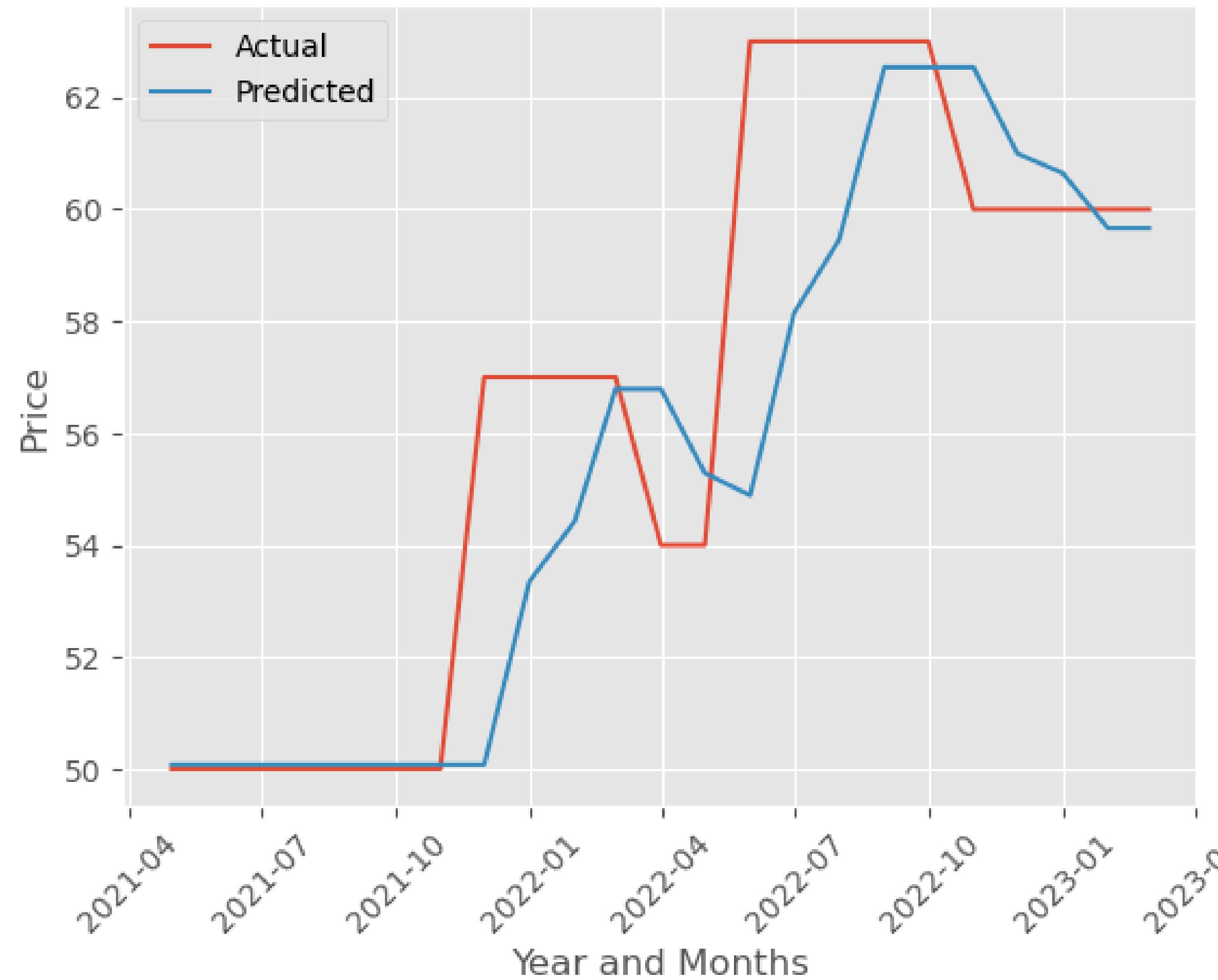
The lineplots show the continuous increase of commodity prices and inflation over the years.



MODELING

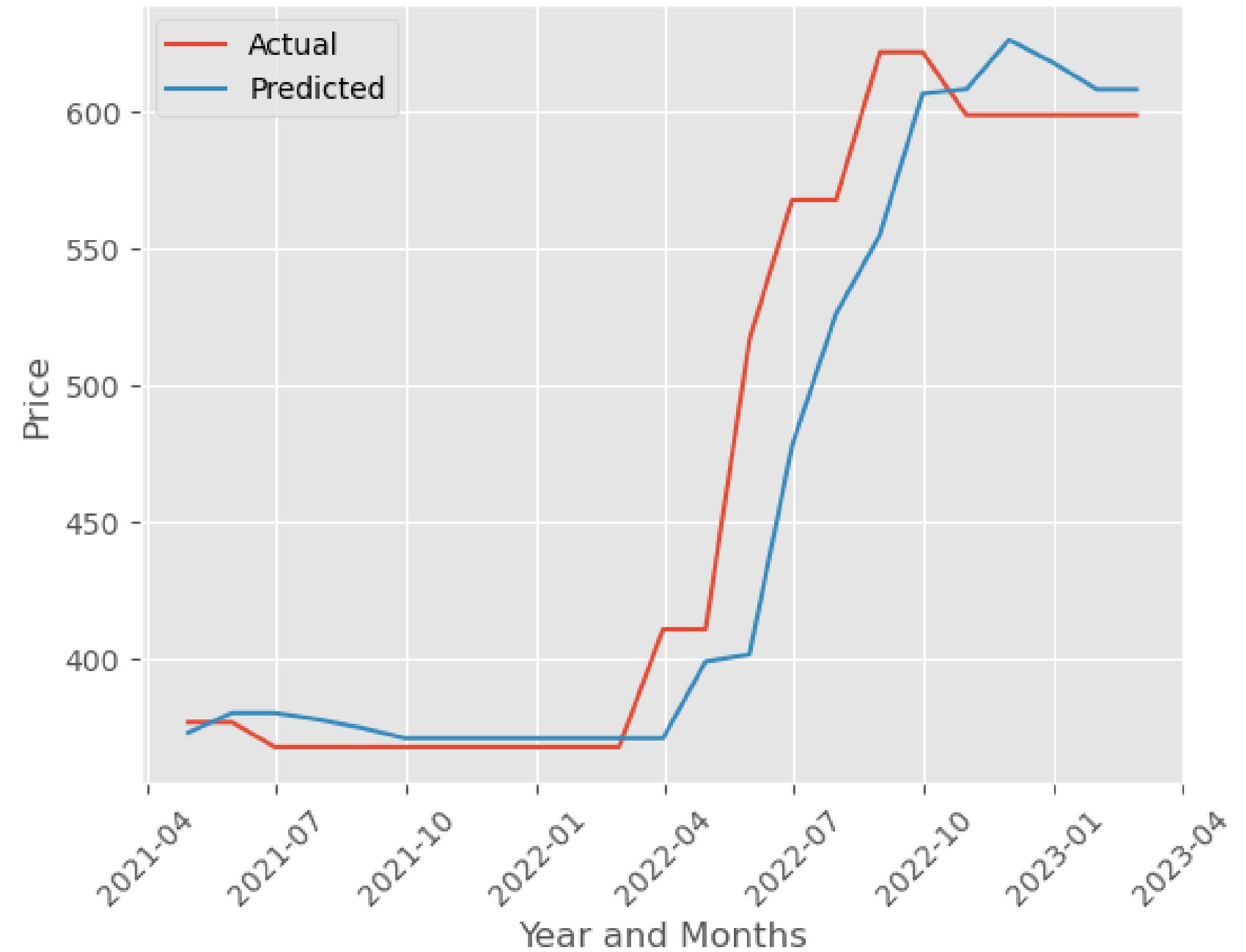


Bread(400g)



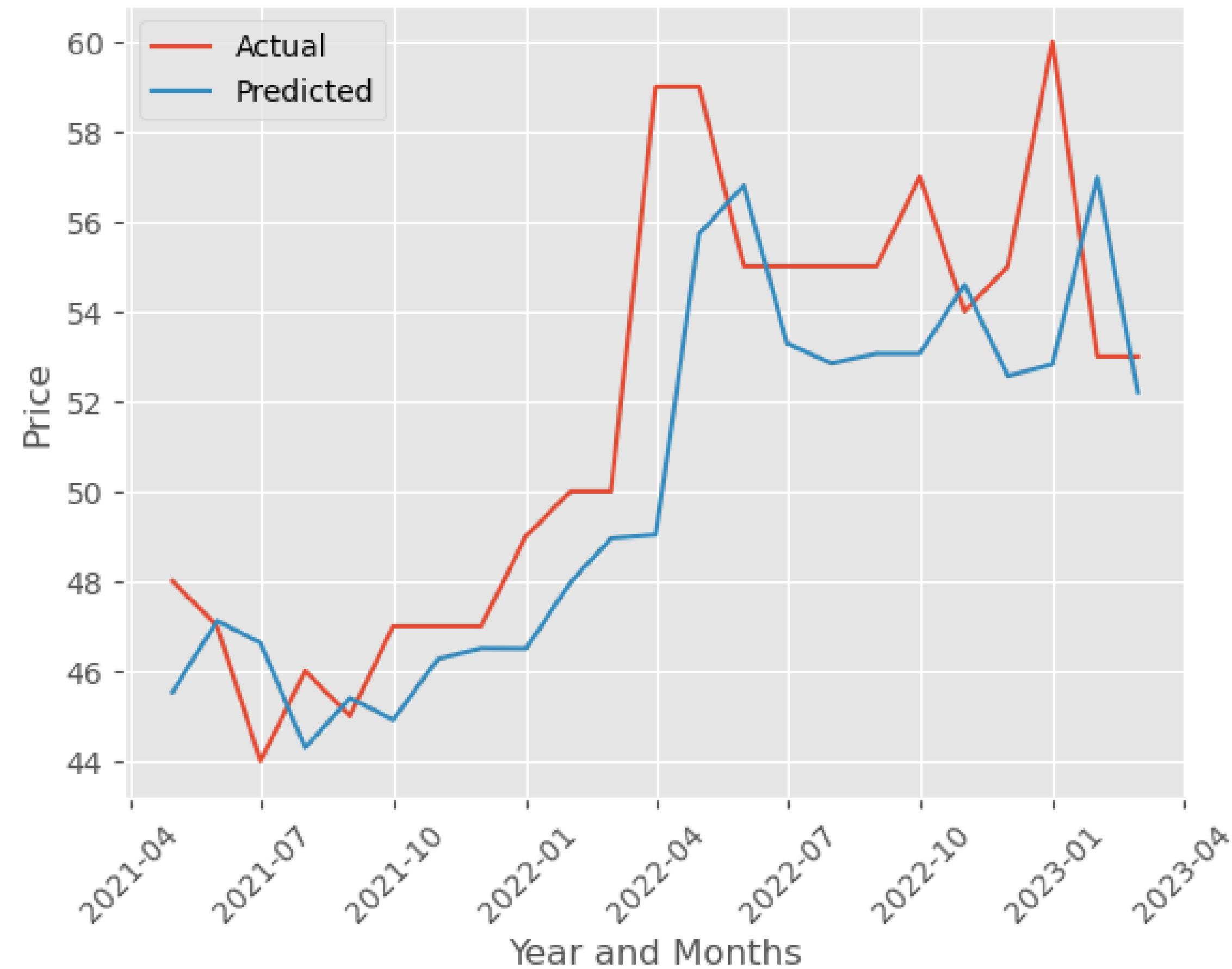
*This shows how well our
model performed in
predicting the price of
bread.*

Vegetable Oil (1L)



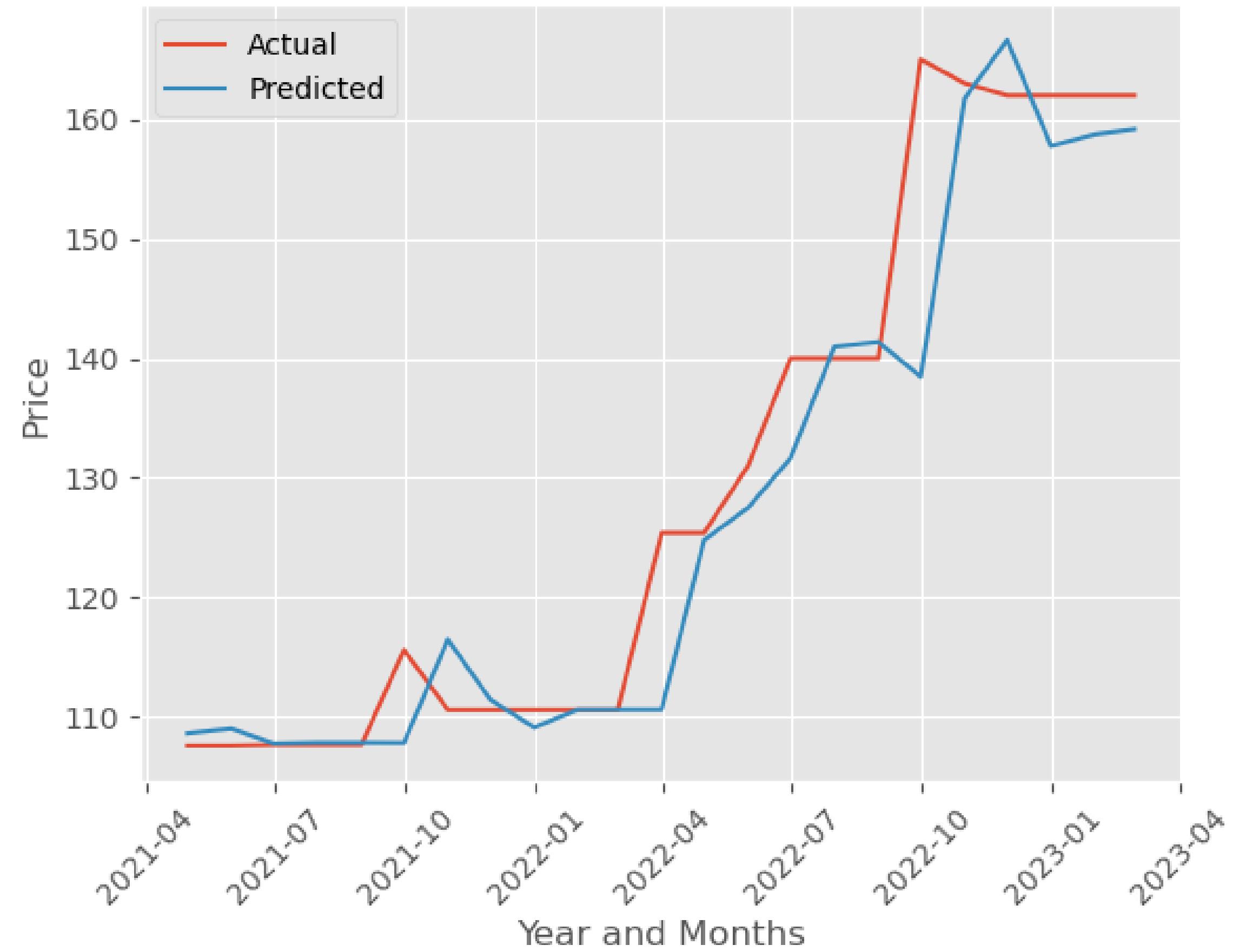
This shows how well our model performed in predicting the price of Vegetable oil (1L).

Milk (500ML)



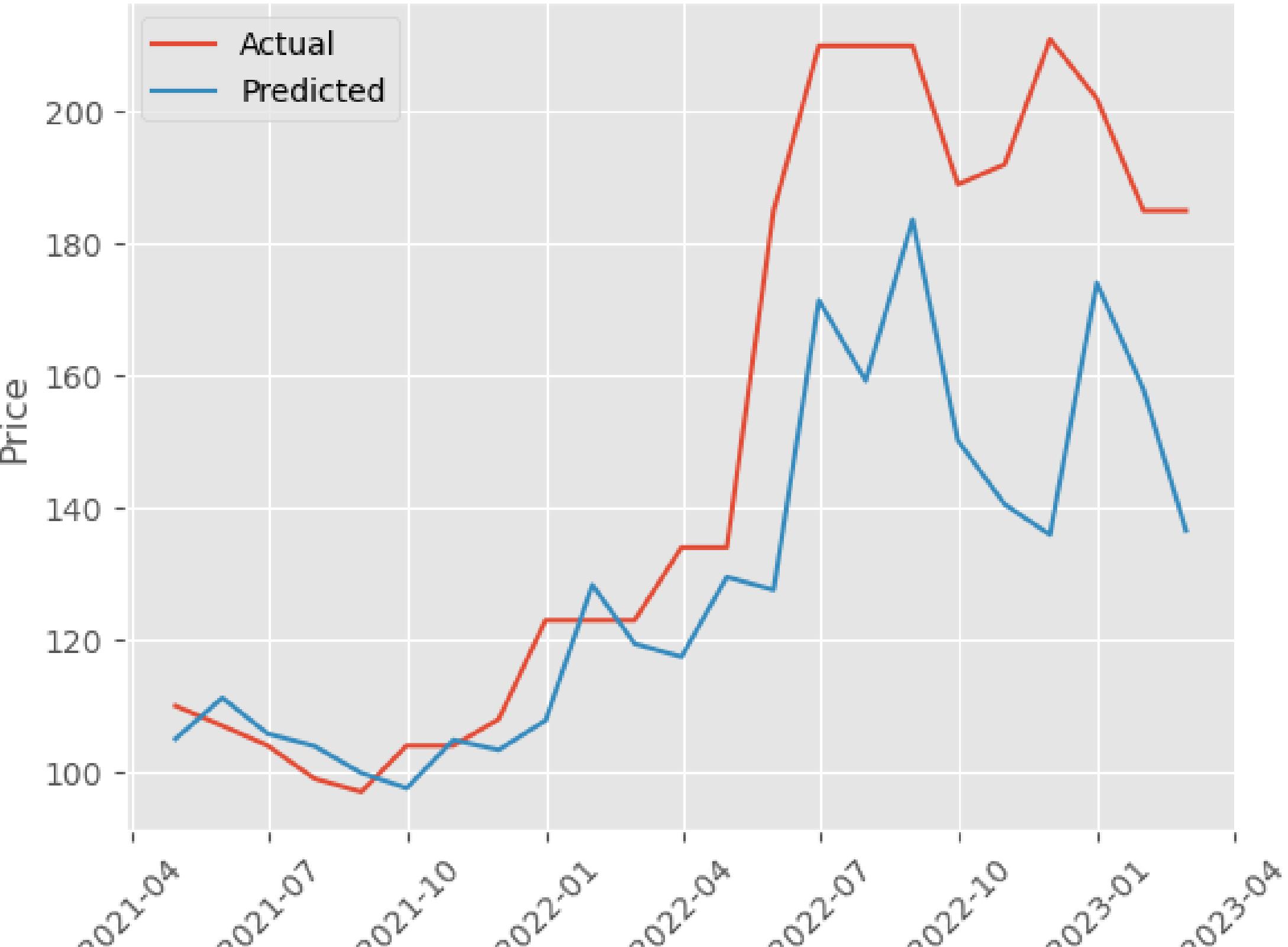
*This shows how well our
model performed in
predicting the price of
Milk (500ML).*

Diesel (1L)



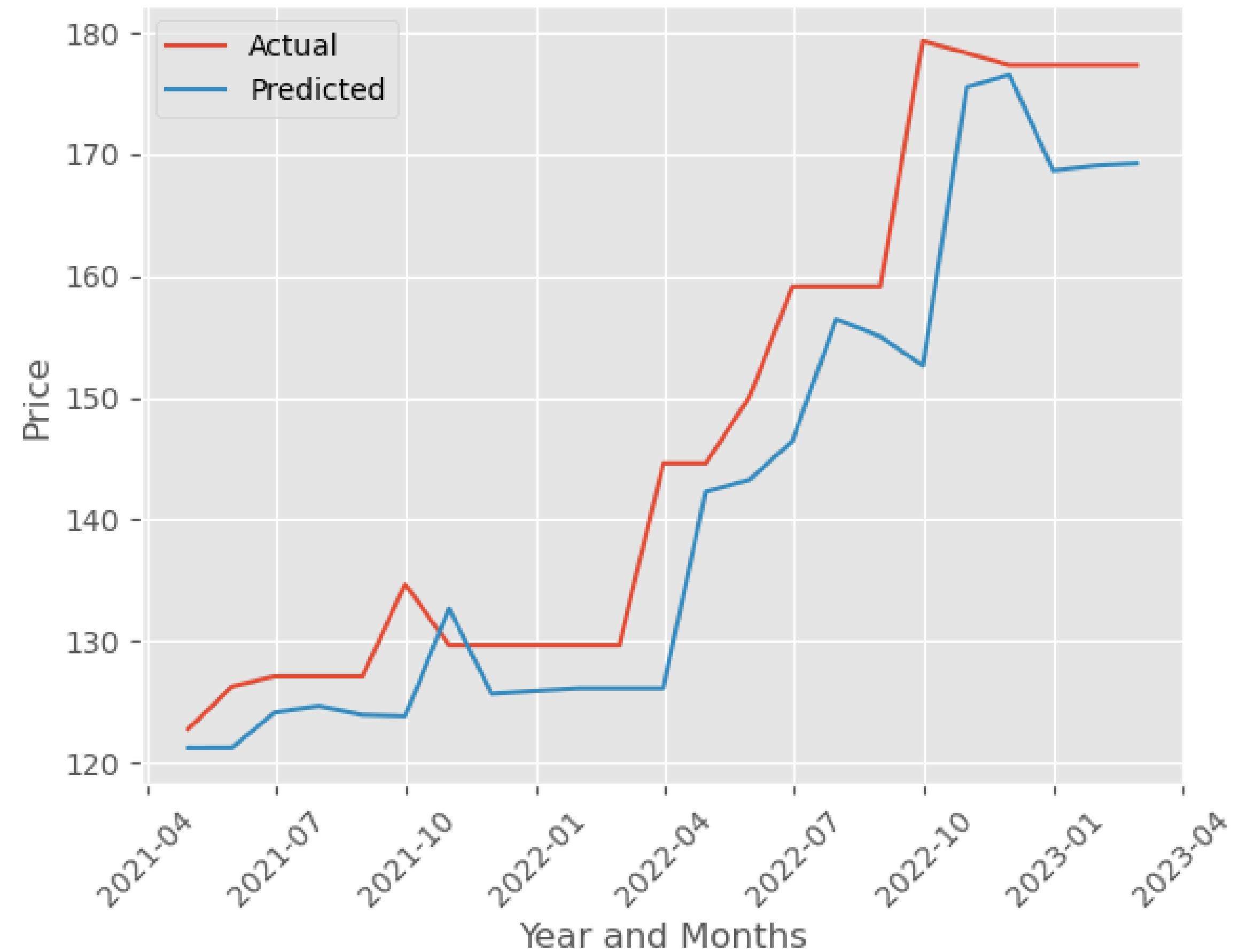
*This shows how well our
model performed in
predicting the price of
Diesel (1L)*

Maize meal (2kg)



*This shows how well our
model performed in
predicting the price of
Maize Meal (2kg)*

Gasoline (1L)



*This shows how well our
model performed in
predicting the price of
Gasoline (1L)*

DEPLOYMENT

X

Commodity/ Economic Indicator:

Bread

Month:

May

Year:

2023

PriceWise AI 

Predict your tommorow!! 



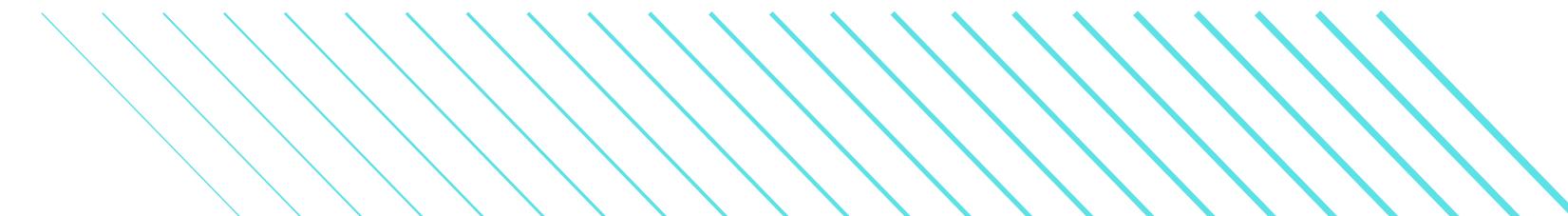
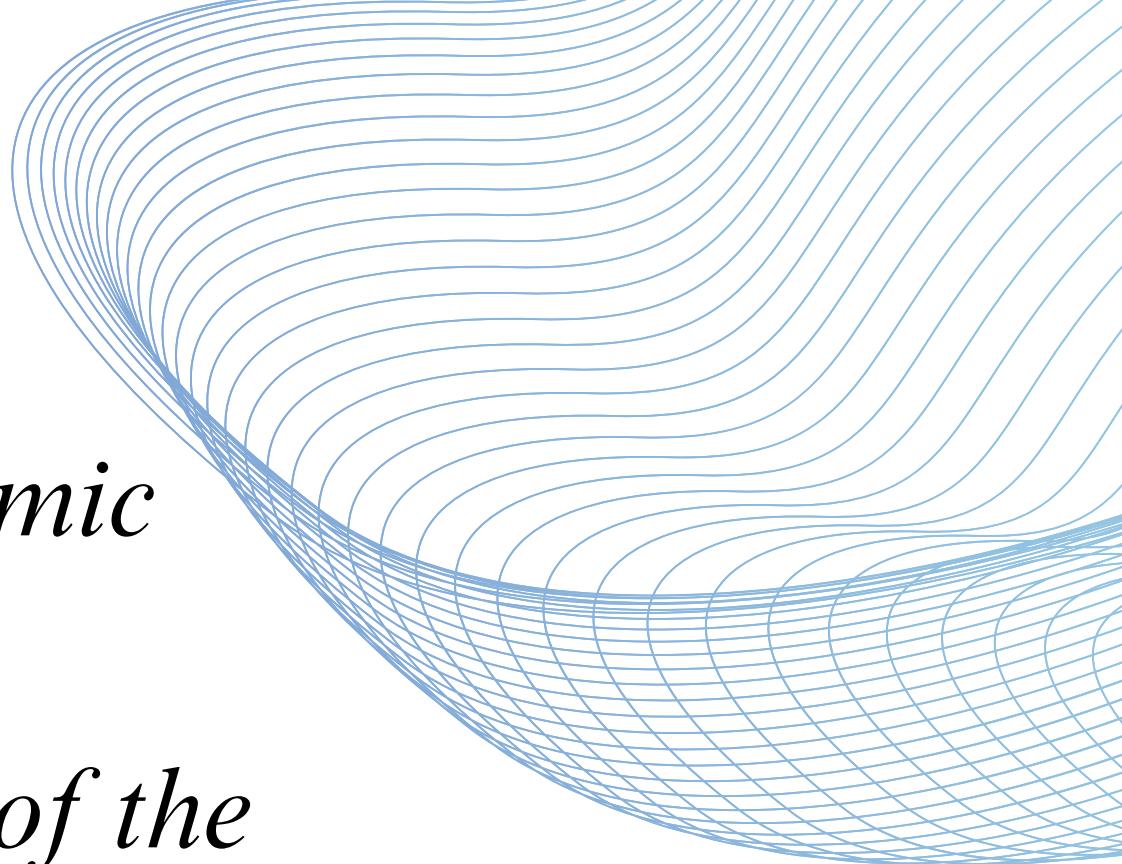
Forecasted Price for Bread(400g): Ksh 57

DEPLOYMENT

There is a sidebar for selecting the commodity or Economic indicator, month, and year

Based on the user's selection, the app displays an image of the selected commodity and predicts its price for the selected month and year

The app displays the forecasted price of the selected commodity. In this example, the user selected Bread as the commodity, May 2023 as the month and year, and the app predicted the price of Milk to be Ksh 57



LIMITATIONS

- *Incomplete coverage of long-term trends in inflation,*
- *Nominal GDP figures that do not account for price changes,*
- *Limited currency coverage in exchange rates data, and limited food commodity coverage in the commodity prices dataset.*

CONCLUSIONS

- *Time series model: accurate insight into commodity prices and economic indicators.*

Forecast prices for next 12 months.

- *Web-based app offers real-time, reliable commodity price predictions.*

- *Forecasts can guide investors and buyers to maximize profits.*

- *Time series modeling offers valuable insights for decision-making in commodity market.*

RECOMMENDATIONS

- *Traders and investors benefit from reliable commodity price predictions to identify market trends and gain an edge in the market.*
- *Farmers and producers use commodity price predictions to adjust production schedules and maximize profits.*
- *Monitoring inflation rates is crucial to anticipate changes in commodity prices and adjust investments accordingly.*
- *Government agencies use accurate commodity price forecasts to manage supply and demand, prevent price spikes, and ensure accessibility of essential goods.*



THANK YOU

QUESTIONS?

