Report

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This report aims to predict which Nifty sector indices will outperform Nifty 50 using historical data and macroeconomic variables. What I did is download all the Indian nifty 50 sector indices data which are available. Some of them were not available, hence couldn't proceed further with them.

The steps which I followed are as follows:

1) Data collection: I downloaded the data using *yfinance* and other resources such as the World Bank Data. The indices included are:
- Nifty Auto
- Nifty Bank
- Nifty FMCG
- Nifty IT
- Nifty Media
- Nifty Metal
- Nifty Realty

2) I actually did 2 projects from here on. In one I used the **ARIMA** model to find the predicted close prices of the last 2 years and drew a plot based on them. I did this for only one sector, that is NIFTY FMCG. I found out the acf and pacf of the model first and tried correcting the p value by the difference method.

3) In the second project, I downloaded all the macroeconomic variables and then made a correlation plot between the sectors and the variables. Then I used the ARIMA model for NIFTY IT sector and predicted the closing price for it for the last 2 years and made a plot based on the comparision. I couldn't quite figure out how to compare the sectors who are not under **NIFTY 50** and the ones which are currently there. I could build the model only upto the prediction part.