Time Series Analysis the Case of China and USA Trade Examining during Covid-19 Trade Enormity of Abnormal Pricing with the Exchange rate

Authors : Md. Mahadi Hasan Sany, Mumenunnessa Keya, Sharun Khushbu, Sheikh Abujar

Abstract : Since the beginning of China's economic reform, trade between the U.S. and China has grown rapidly, and has increased since China's accession to the World Trade Organization in 2001. The US imports more than it exports from China, reducing the trade war between China and the U.S. for the 2019 trade deficit, but in 2020, the opposite happens. In international and U.S. trade, Washington launched a full-scale trade war against China in March 2016, which occurred a catastrophic epidemic. The main goal of our study is to measure and predict trade relations between China and the U.S., before and after the arrival of the COVID epidemic. The ML model uses different data as input but has no time dimension that is present in the time series models and is only able to predict the future from previously observed data. The LSTM (a well-known Recurrent Neural Network) model is applied as the best time series model for trading forecasting. We have been able to create a sustainable forecasting system in trade between China and the US by closely monitoring a dataset published by the State Website NZ Tatauranga Aotearoa from January 1, 2015, to April 30, 2021. Throughout the survey, we provided a 180-day forecast that outlined what would happen to trade between China and the US during COVID-19. In addition, we have illustrated that the LSTM model provides outstanding outcome in time series data analysis rather than RFR and SVR (e.g., both ML models). The study looks at how the current Covid outbreak affects China-US trade. As a comparative study, RMSE transmission rate is calculated for LSTM, RFR and SVR. From our time series analysis, it can be said that the LSTM model has given very favorable thoughts in terms of China-US trade on the future export situation.
Keywords : RFR, China-U.S. trade war, SVR, LSTM, deep learning, Covid-19, export value, forecasting, time series analysis
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