

Analysing the Influence of COVID-19 on Major Agricultural Commodity Prices in South Africa

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Abstract : This paper analyses the influence and impact of COVID-19 on major agricultural commodity prices in South Africa. According to a World Bank report, the agricultural sector in South Africa has been unable to reduce the domestic food crisis that has been occurring over the past years, hence the increased rate of poverty, which is currently at 55.5 percent as of April 2020. Despite the significance of this sector, empirical findings concluded that the agricultural sector now accounts for 1.88 percent of South Africa's gross domestic product (GDP). Suggesting that the agricultural sector's contribution to the economy has diminished. Despite the low contribution to GDP, this primary sector continues to play an essential role in the economy. Over the past years, multiple factors have contributed to the soaring commodities prices, namely, climate shocks, biofuel demand, demand and supply shocks, the exchange rate, speculation in commodity derivative markets, trade restrictions, and economic growth. The COVID-19 outbursts have currently disturbed the supply and demand of staple crops. To address the disruption, the government has exempted the agricultural sector from closure and restrictions on movement. The spread of COVID-19 has caused turmoil all around the world, but mostly in developing countries. According to Statistic South Africa, South Africa's economy decreased by seven percent in 2020. Consequently, this has arguably made the agricultural sector the most affected sector since slumped economic growth negatively impacts food security, trade, farm livelihood, and greenhouse gas emissions. South Africa is sensitive to the fruitfulness of global food chains. Restrictions in trade, reinforced sanitary control systems, and border controls have influenced food availability and prices internationally. The main objective of this study is to evaluate the behavior of agricultural commodity prices pre-and during-COVID to determine the impact of volatility drivers on these crops. Historical secondary data of spot prices for the top five major commodities, namely white maize, yellow maize, wheat, soybeans, and sunflower seeds, are analysed from 01 January 2017 to 1 September 2021. The timeframe was chosen to capture price fluctuations between pre-COVID-19 (01 January 2017 to 23 March 2020) and during-COVID-19 (24 March 2020 to 01 September 2021). The Generalised Autoregressive Conditional Heteroscedasticity (GARCH) statistical model will be used to measure the influence of price fluctuations. The results reveal that the commodity market has been experiencing volatility at different points. Extremely high volatility is represented during the first quarter of 2020. During this period, there was high uncertainty, and grain prices were very volatile. Despite the influence of COVID-19 on agricultural prices, the demand for these commodities is still existing and decent. During COVID-19, analysis indicates that prices were low and less volatile during the pandemic. The prices and returns of these commodities were low during COVID-19 because of the government's actions to respond to the virus's spread, which collapsed the market demand for food commodities.

Keywords : commodities market, commodity prices, generalised autoregressive conditional heteroscedasticity (GARCH), Price volatility, SAFEX

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