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Analyzing the impact of oil prices on commodity future listed on Pakistan mercantile exchange (PMEX) in the era of Covid-19

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ABSTRACT

The main objective of this paper is to find the relationship between PMEX oil prices and agricultural commodities (wheat and soybean), using data on a daily basis from 2019 to 2021 in the era of the COVID-19 pandemic. With the Unit root test, regression is checked with the help of the Augmented Dickey Fuller's (ADF) test. It is utilized to determine the long-term relationship between the variables of the study. Moreover, the connection among the selected variables is tested by the regression of the result commodity. In the results, we found that the selected variable of oil prices has become the first difference stationary and the selected variables (wheat and soybean) have become the second difference stationary based on the PMEX. The OLS results revealed a significant and positive relationship between agrarian commodities (wheat and soybean) and oil prices during the COVID-19 era. It reveals the long term relationship between oil prices and the agricultural commodity prices of wheat and soybeans on the Pakistan Mercantile Exchange (PMEX).

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Introduction

The impact of oil prices on agricultural products is high due to the coronavirus pandemic, but several important efforts are being made to find the fundamental relationship among these variables. These studies observe the influence of the Pakistan mercantile exchange index and fuel prices on agricultural commodities during the coronavirus pandemic. This research analyses the effects of bio fuel prices on agricultural commodities based on the Pakistan mercantile exchange. Research showed an upsurge in crude oil prices during the coronavirus pandemic on Pakistan's mercantile exchange (PMEX). In the era of the COVID-19 pandemic, fuel oil prices result in enhanced effects on agricultural commodities. (Zhang et al., 2015; Esmaeili and Shokoohi, 2016; and Avalos, 2016). Agricultural commodities like wheat and soybeans and fuel oil prices are continuous and significant variables. These crude oil prices and agricultural commodities are especially important for developing countries like Pakistan.

Developing states like Pakistan suffer from economic fallout from the influence of COVID-19 and experience an increase in fuel oil prices as they are a huge importer of crude oil. Oil is the mainstay of their economy, which is connected through other arenas like companies, agrarian commodities,

and transport. These studies observe the influence of the Pakistan mercantile exchange index and fuel oil prices on agricultural commodities in the era of the COVID-19 pandemic. Due to COVID-19, there may be a uni-directional fundamental association between fuel prices and product futures. It has been discovered that an increase in fuel prices caused by the coronavirus disease results in higher rates of advanced experimental merchandise used in the production of crude oil. (Zhang et al, 2020: Esmaeili and Shokoohi. 2016: and Avalos. 2016). The rise in crude oil prices and agricultural products in the international market during the COVID-19 pandemic has been pretentious by traders and has induced business misplacement. That's why this upsurge in oil prices has affected the agrarian product's economic value also. There is also a link between Pakistani fuel prices and international oil prices, as well as US biofuel. (Kiani, 2011).

In the coronaviruses, the oil prices of all enlisted parties were alike, but during the coronaviruses of 2020, the prices of Pakistan's crude oil surged, and it was further analyses that as this pandemic continued, the fuel prices in Pakistan market would continue to increase compared to the international crude oil market. This continuous increase in fuel oil prices in Pakistan during coronaviruses impacts directly the price of agricultural commodities. During the coronavirus situation, the association between crude oil and commodity futures prices has been analyses by a sum of scholars. (Vu, Vo & Macaleer, 2019), (Toeh, Chein, Fong, Yue & Tan, 2014) & (Macaleer, 2019).

A uni-directional link exists between fuel prices and agrarian products like wheat and soybean prices. (Kapusuzoglu & Ulusoy, 2015). In the era of COVID-19, fuel prices are incessantly increasing, which results in an increase in the prices of agrarian products due to the usage of crude oil products in the field of agriculture for various purposes. Moreover, the increase in price would also negatively impact the wheat and soybean markets. (Harri, Nalley & Hudson, 2009). Agricultural products like wheat and soybeans are defined as physical commodities that can be bought or traded, and can be traded by agricultural commodities at good value. Natural resources like fuel oil and agricultural products like soybeans and wheat are common types of commodities. An international firm can purchase the oil at a lower price and sell it at a higher price. (Alley, 2020).

This study covers the link between agricultural commodities like wheat and soybeans and oil prices during the era of coronavirus spread. Fuel prices are one of the most significant and critical issues. During the coronavirus issues, which also greatly affect the budget. (Alley, 2020). In the era of COVID-19, fuel prices have jumped, especially for importing nations. As a result, if fuel prices are in conflict, the oil trade procedure may fail. (Maria. 2020). Then there is insufficient study in the era of the COVID-19 pandemic which displays the effect of fuel prices on the Pakistan mercantile exchange. A sum of research must be completed to discover the link between crude oil and agricultural commodity prices. (Nazlioglu & Soytas, 2012), (Kristoufek & Janda, 2019). During this time period, along with various consequences of this pandemic on the economy, this link between two variables is also studied. (Guellil, Belmokaqddem & Benbouziane). The purpose of the study is to examine the influence of basic oil prices and agricultural products in the context of the coronavirus in Pakistan.

The current study is an effort to drive support and provide more useful ground on the perspective of how crude fuel prices precede agricultural products in the context of PMEX during coronaviruses. The former studies do not consume and measure these limits and qualifications during the coronaviruses, i.e., do high crude oil prices influence agricultural products in the era of COVID-19?

Literature Review

Crude Oil

Crude oil is defined as a physical quantity that returns energy. When crude oil is acceptable to respond through other matter, the power is barred as warmth or energy. The basic framework of crude oil consists of carbon and hydrogen having an incendiary nature. The crude oil of altered types is wood oil, coal oil, fuel oil, diesel oil, natural gas, and gasoline. Coal and natural gas are the main types of crude oil. Crude oil is the most abundant type of coal on earth. By way of refinement, petroleum can be the main type of oil that will be used for energy in the coming years. It is still used in rising nations to get energy. A sum of work is present on fuel prices, agricultural products, and conversation rate properties (Liu,Yang &Liu, 2019), (Zafeiriou, Arabatzis, Karanikola, Tampakis, & Tsiantikoudis, 2018).

Commodity

The term "commodities" refers to a varied group of assets that include large markets such as cattle, metals (industrial base), precious metals, cereals, energy, and cash crops. These markets are together referred to as "commodities." The distinction between the valuation of commodities and that of bonds and stocks lies in the fact that commodities are seen as representing actual physical assets, whilst bonds and stocks are regarded as representing financial assets. Their value is determined by an economic projection of future pricing, which is in turn determined by the demand and supply for the physical product in question. In the trade of commodities, there are three different types of trading parties that are involved: speculators, arbitrageurs, and informed hedgers and investors. I Speculators ii. Arbitrageurs iii. Pricing for commodities may be broken down into two categories: futures prices, which are based on future delivery, and spot prices, which are based on current market conditions. The current price at which a commodity may be brought or acquired in a particular place is referred to as the "spot price," and it is defined as such. An exchange-based price that is agreed on in order to bring or purchase a certain quality and quantity of a physical commodity at a future date is what is referred to as a futures price. Both monetary and physical delivery of the goods are acceptable methods for fulfilling the terms of the commodity contracts. (Howes, 2020).

Wheat

One of Pakistan's most important agricultural exports is wheat. Pakistan is the third biggest producer of wheat among the nations in Asia, and it also exports a significant quantity of the grain. Wheat is grown by the people of Pakistan over a total area of around 9 million hectares of land, making up approximately 40 percent of the country's total covered area. Pakistan's overall output is close to 6.6 million tonnes, and out of that number, the country exports 4.3 million tonnes (results from the International Grains Council, IGC). These results may be ascribed to the efficient use of irrigation water, the high quality and quantity of the inputs, favourable weather conditions, and the early planting of the seeds. It is the province of Punjab that is responsible for the cultivation of a significant amount of wheat. (Ismail & Jabeen).

Soybean

Soybean plants are used to obtain cooking oil and other valuable goods. Sufficient sunlight and running are the conditions for the development of plants. Pakistan spent nearly $900 million per year on imports. Pakistan can reduce its imports, improve the attractiveness of its age, and reduce the chances of contamination if it establishes its own plantation. At that stage, its manufacturing in the international sector is around 33 billion tons. Pakistan, India, Malaysia, and India are the main producers of this agrarian product. The use of soybean fuel is in cooking and nutrient goods. It is also used in cleansers, cleaners, oil, makeup, oil, and a variety of other products. It is likely that in the upcoming years in the shires of Baluchistan and Sindh, almost 900 lands of terrestrial

determination will be used for the manufacture of soybean plants. It was determined through research that soybean fuel is the most practical and cost-effective source of vigour and nutrition in the global marketplace (Ayub, 2018).

COVID-19 Pandemic

This study elaborates on the effects of the coronavirus on the crude oil prices and agricultural products futures listed on the Pakistan mercantile exchange, PMEX. We have taken the daily closing of the price statistics of World Bank data and daily final oil prices, agrarian products like wheat and soybean prices during the coronavirus pandemic futures listed on the Pakistan Mercantile Exchange (PMEX). We have determined only agricultural commodities like wheat and soybeans and crude oil prices and their relationship with the other variables. Furthermore, the measurement of production in these agricultural commodities, wheat and soybeans, is much higher than in other variables. Independently, after that, to make a relationship study between agrarian commodities and crude oil prices which are affected due to the coronavirus infection, we have taken daily basis data from the Pakistan mercantile exchange (PMEX). Further, changed republics are not elaborated on in the object owing to the absence of data obtainable and the influence of the COVID-19 Pandemic is not linked to other countries like Pakistan. (Farhan Ahmad, 2020).

De Medeiros, R.K., et al. (2019) Due to the impact of the COVID-19 pandemic, alternative methodologies were advised to forecast the asymmetrical oil prices and agricultural products like wheat and soybeans. They used crude oil market financial reports and varied rates of return to make the sentimentality meter. To measure the financial method aimed at their forecasting accuracy, they make use of the mean square error method. It showed the low impact of crude oil prices in the era of the COVID-19 pandemic achieved by accepting sentimentality as a key, the MIDAS model, and high incidence signs.

Muramalla et al. (2020). Studies the long-run relationship between crude oil costs and agricultural products like wheat and soybeans in Indonesia in the era of the COVID-19 pandemic. In practice, the Granger connection and ARDL were used to explain the long-term relationship between agricultural product prices, crude oil prices, and financial markets. Short and long-term relationships were there among crude oil prices and Asian products like wheat and soybeans during the COVID-19 pandemic. In fact, due to the COVID-19 pandemic, a unidirectional relationship was established between crude oil prices and agricultural supplies, and an 11 percent unidirectional relationship was established between GDP and inflation.

Cepni, O, et al. (2020). I investigated the crude oil price tremors based on the subtitles of entire produce turn for eighteen markets with dissimilar crude oil markets. Construction issues were investigated in a different way than crude oil prices, which were dependent on the source of crude oil. In the coronavirus pandemic in crude oil prices, an increasing burden was used. Crude oil importing economies increased in all phases, while crude oil exporting firms decreased. More crude oil importing countries have an increasing influence on demand and supply determined shocks, and the influence of protective shocks is also determined in crude oil importing countries. These studies were found to be valuable for global traders for collection, strategies manufacturers, and hedging judgments.

Liu et al. (2019). Investigate the profit and volatility after the crude oil marketplace for products, future markets and energy spots by using different empirical methods. It was determined by the useful methods that natural gas has the main impact in the era of the COVID-19 pandemic on the crude oil market. By way of the historical distance of transfer for agricultural commodities like soybeans and wheat, an upsurge in profit spillover is experiential. During the coronaviruses pandemic to agrarian products prices, their impact was disintegrated to some crude oil prices, It

was studied that profit spillovers existed in a short time, though instability spillovers remained shaped in the long run. Instability spillovers are known to be complex for risky economic proceedings.

Majuca et al. (2020). In the era of the COVID-19 pandemic, the effect of crude oil costs upon genuine GDP, financial profit spat taxes, agrarian products, and the rise in Malaysia was felt. They employed the muti-variet ARDL and the course error alteration method. As a result of the 2% drop in crude oil prices in the United States, GDP was reduced by approximately MYR 747 billion. Similarly, a 0.05 percentage point drop in agrarian products was investigated for a nearly 2% drop in crude oil prices. The submission of the ADF method suggests the existence of loss instability determination between crude oil, exchange and agrarian merchandise (wheat and soybean) during the coronavirus pandemic.

Zavadska et al. (2020). Determined based on the share of product futures and spot crude oil prices. The objective was to examine the main lag association specifically in the era of the COVID-19 pandemic. Annual data was composed from the era of 2019 to 2020 and standards were occupied by annual final prices. Consequences revealed that there was a long-term and short-term relationship between crude oil prices and agrarian commodity prices. Instability examinations performed display that issues activate production to an energetic share in instability inspection. Such research is beneficial to the financials, who rely heavily on crude oil supplies for their vigor.

Shu-Mei Chiang et al. (2019). To complete this determination, ARDL's strength and component methods were working. The study also delivers helpful information about bio-fuel agricultural commodities in relation to crude oil prices and the USA money table. The results of the research demonstrated that the ARDL method does not offer product fit of monthly data in relation to instability subtleties for different agricultural commodities during the coronavirus pandemic. This method is too helpful for the available models of predicting. Crude oil prices and agrarian products influence each other in a positive way to achieve the profit of agrarian products. For a well-organized understanding of crude oil prices and agricultural products futures price differences, the ARDL trend method was found to be helpful during the coronavirus pandemic, being of period variable hurdles, fleeting module, and enduring factor (Chiang, Chen, & Huang, 2019).

Mcealeer et al, (2020). Planned the association between crude oil prices and agrarian products like wheat and soybeans. The investigation was finalized by using short samples in the era of the COVID-19 pandemic from 2019 m2 to 2021 m6. The findings from Wang et al. and the further research were simulated. Agricultural commodities like wheat and soybean trading charges prices big change much due to the COVID-19 pandemic influence in the case of crude oil prices, which was defined by the observed results. Moreover, for the agricultural commodity prices of totally sub-sample, the crude oil supply shocks were not significant. After the sum of agrarian products similar to wheat and soybean improved, the effect of total request tremors on the upcoming interchange marketplace existed but was not as robust as it remained in Wang et al. Only two agricultural commodities were measured, and only two agricultural commodities were influenced by the era of the coronavirus pandemic, the major era, and only two agrarian products, similar to wheat and soybean, were affected by the additional era. Unlike in the second and fourth periods of the coronavirus pandemic, agricultural commodities such as wheat and soybean have a significant impact on crude oil demand shocks.

In the era of the coronavirus pandemic, these old-fashioned agricultural commodities are hugely varied by the crude oil marketplace, as was obvious by the practical results. Later, the collective mandate tremors the influence of agrarian products exchange on crude oil values was also deliberate. To achieve this education desire, the purpose was to show that tremors did not exert

any prominent influence on the COVID-19 pandemic on crude oil prices through the second era. During the coronaviruses, the effect of the positive, significant relationship between basic oil values and agrarian products.

During the COVID-19 pandemic, the crude oil prices of half of agricultural commodities such as wheat and soybean were discovered to have a significant impact on crude oil prices. Earlier, the implementation performance of the crude oil price policy act was such that practical results could not be found. Agricultural commodities that influence crude oil prices, such as wheat and soybeans, are not chosen at random, as such agricultural commodities are used in crude oil efforts. The scope of crude oil values consumed has remained unchanged, so the chances that agricultural commodities like wheat and soybean can improve the crude oil market have also increased a lot. The current research work provides various ideas for governing policies. By the end of the literature review, the theoretical framework and hypothesis will be

H1: There is a positive and significant relationship between oil prices and wheat commodity futures in the context of COVID-19.

H2: There is a positive and significant relationship between oil prices and soybean commodity futures in the context of COVID-19.

Research Frameworks

Before we observed the empirical evidence, it was important to identify a positive significant to identify a theoretical relationship between oil prices and commodities (wheat and soybean) during coronaviruses. The terms of trade channel mostly focus on oil prices and commodities, while the coronaviruses have an effect on oil prices and commodities.

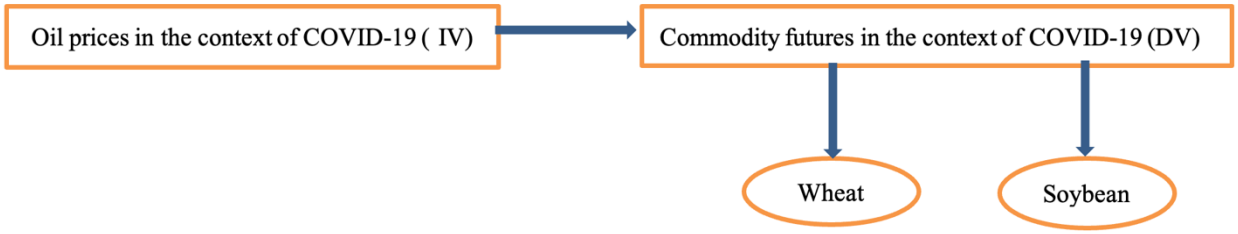

Figure 1. IV & DV

Research Methodology

Data

This study adopts a quantitative data approach and an empirical test to the analysis of the data for 2 year periods (from 2019 to 2021). Our analysis of the effect of crude oil prices on agricultural commodities like wheat and soybeans is based on the daily closing prices of wheat, soybeans and crude oil futures. The sample time frame covers the era of the COVID-19 Pandemic. The PNEX data was most recently updated on December 31, 2019. The analyses that follow are based on the PMEX data. The data was gathered from the World Bank and PMEX.

Methodologies

In the era of coronaviruses, these studies examine the impacts of the World Bank data and oil prices on wheat and soybean product futures. The reason why this daily study of the positive and significant relationship among these variables. First, the appearance of significant updates (e.g., irregular exchange, boom prices, etc.) in a marketplace will directly cause rare fluctuations in commodity standards and the result of coronaviruses of price jumps, as indicated by the (McAleer, M. (2019). As a result, the price of agricultural commodities is coronaviruses exaggerated by

soybean, wheat, and crude oil production, as well as fluctuations in World Bank data to the PMEX. The ADF model is used to (McAleer, M. (2019). When the Augmented Dickey-Fuller test of unit roots test is used as a post-estimation test for long-run causality analysis for acceptance or non-acceptance of developed hypotheses, probability values (p-values) are to be compared with the level of significance. This study set a 5% level of significance throughout the statistical analysis. The decision rule is that for a hypothesis to be accepted, reported p-values should be less than 0.000. In other words, p-values should be statistically significant. A statistically important examination result ($P< 0.05$) mean that the test should be rejected. A p-value greater than 0.05 mean that no effect was observed.

Unit Root Test

Stationarity or no unit roots mean that data has a time-invariant mean and variance. There is a first theory to be achieved that the variables have unit roots at the level of D2 oil prices, but when these variables are converted to the second difference (2), they become stationarity. There is a second theory to be achieved that the variables have unit roots at the level of D1 wheat, but when these variables are changed to the first difference (1), they become stationarity. There is a third theory to be achieved that the variables have unit roots at the level of D1 soyebean, but when these variables are changed to the first difference (1), they become stationarity. The Augmented Dickey-Fuller (ADF) Test has been used for checking stationarity between variables.

Data Analysis and ADF Results Interpretation

The chapter presents the findings from the gathered data, performs analysis of the data, and covers the results of this data collection from Pakistan mercantile exchange and World Bank data during the COVID-19 pandemic. This section organized the data in a logical manner. The main data source for this research was collected data from secondary data. Data analysis was performed using statistical tests. The findings obtained for all variables using ADF division and approach are provided in the table. The regression results for wheat in the context of COVID-19 are shown in the table, and for soyebean in the context of COVID-19.

Stationary test

Table 1. Augmented Dickey-Fuller test (ADF) test (ADF) test results.

D: Difference in Variables		**Prob**
D2:	Oil Prices in the context of Covid-19	0.026
D:1	Wheat in the context of Covid-19	0.001
D:1	Soyebean in the context of Covid-19	0.045

Test outcomes for the Augmented Dickey-Fuller test (ADF) are shown in the table. Oil prices in the context of COVID-19 (D2.) are stationary after the second difference, D 2.1. Wheat in the context of COVID-19 (D 2.1) has become stationary after the first difference, and soybeans in the context of COVID-19 (D 2.2) has become stationary after the first difference. Statistical test; z (t) is used to measure variables such as oil prices and commodity futures, indicating a difference when variance is introduced.

H0: Oil prices in the context of COVID-19 are not stationary.
H1: Oil prices in the context of COVID-19 are stationary.

The probability value of the variable of oil costs in the situation of COVID-19 is 0.0026, while the level of significance of the study is set at 5%. As the probability value is less than the 5% level of significance, so we rejected our null hypothesis and accepted the alternative hypothesis and concluded that oil prices in the context of the COVID-19 variable are stationary at the second difference.

H0: Wheat prices in the context of COVID-19 are not stationary.
H1: Wheat prices in the context of COVID-19 are stationary.

The probability value of the variable of wheat costs in the situation of COVID-19 is 0.001, while the level of significance of the study is set at 5%. As the probability value is less than the 5% level of significance, so we rejected our null hypothesis and accepted the alternative hypothesis and concluded that wheat prices in the context of the COVID-19 variable are stationary at first difference.

H0: Soybean prices in the context of COVID-19 are not stationary.
H1: Soyebean prices in the context of COVID-19 are stationary.

The probability value of the variable of soyebean costs in the situation of COVID-19 is 0.045, while the level of significance of the study is set at 5%. As the probability value is less than the 5% level of significance, so we rejected our null hypothesis and accepted the alternative hypothesis and concluded that soybean prices in the context of the COVID-19 variable are stationary at the first difference.

Regression Results of Wheat in context of Covid-19

In the regression results of wheat in the table, wheat in the context of the Covid-19 variable had a coefficient of 3.86, wheat T-state; 3.89 with a constant coefficient; 0.55, constant T-stat; 23.15 and probability of zero was observed. Here the results have 491 observations showing the values of R-sq.; 0.1192, F-stat; 16.64, Prob > F; 0.000, correspondingly. As per the result of OLS, there exists a significant and positive association between wheat prices and oil prices in the context of COVID-19.

Table 2. Regression results of Wheat in the Covid-19

Variables	Coefficient	T-stat	Probability
Oil Price in the context of Covid-19	3.86	3.89	0.000
Constant	0.55	23.15	0.000
Note: R-sq.; 0.921, F-stat; 16.64, Prob > F; 0.000, No. of observations; 550			

As the coefficient value of the variable oil price is 3.86, which shows that 1 percent (R-Sq) is 0.921, which shows the explained variation in the analysis of prices of wheat due to the change in oil prices. It tells us that the regression model explains 92.1 percent of the change in wheat prices as a result of changes in oil prices. During COVID-19, an increase in the price of oil will raise the price of wheat by 3.86 percent. The value of the test statistics is 3.89, with a probability value of 0.000. It shows that the variable of oil price is significant at 5 percent level of significance. In the above table, the coefficient of shows The F-Stat is 16.64 with a probability value of 0.000, which shows that the overall model is significant at a 5 percent level of significance.

Regression Results of Soybean in context of Covid-19

Table 3. Regression results of Soyebean in the context of Covid-19

Variables	Coefficient	T-stat	Probability
Oil Price in the context of Covid-19	9.84	13.57	0.000
Constant	1.25	41.15	0.000
Note: R-sq; 0.72, F-stat; 23.15 Prob > F; 0.000, No. of observations; 550			

As per the result of OLS, there exists a significant and positive association between soybean and oil prices in the context of COVID-19.

As the coefficient value of the variable of soyebean is 9.84, which show that a 1 percent increase in the oil price will increase the prices of the soyebean due to COVID-19 by 9.84 percent. The value of test statistics is with probability value of 0.000. It shows that the variable of oil price is significant at 5 percent level of significance.

In the above table, the coefficient of determination (R-Sq.) is 0.72, which shows the explained variation in the analysis of prices of soybeans due to the change in oil prices. It tells us that the regression model is explaining the 72 percent change in the prices of wheat as a result of change in oil prices. The F-Stat is 23.15 with a probability value of 0.000, which shows that the overall model is significant at a 5 percent level of significance.

Discussion & Conclusion

This study employs the ADF model and discovers a positive relationship between crude oil prices and commodities (wheat and soybean) during the coronaviruses. The result shows that the US dollar index and biofuel prices do affect the values of wheat and soybean commodities. The ADF method provides a positive link between oil prices and wheat and soybean prices.

On a daily basis, data for fuel prices and agrarian products like soybeans and wheat are taken from the certified sites of the Pakistan Mercantile Exchange (PMEX) and the World Data Bank. The time sequence figures out 550 observations, of these variables operating in stocks and advertising marketplaces in Pakistan from December 2019 to June 2021. In the wheat and soybean commodity markets, the research concludes that oil prices significantly affect the wheat and soybean futures prices and, in the short-run, crude oil prices can forecast the wheat and soybean commodity markets during the COVID-19. To sum up, we conclude that oil prices have a positive correlation in the long run with agrarian commodities.

Research concluded that crude oil prices have a pronounced effect on wheat and soybean futures prices, but the wheat and soybean spot prices are also influencing the oil prices owing to the COVID-19 epidemic. During the COVID-19, the futures markets for wheat and soybean were found to be more sensitively influenced by increased oil prices than the spot markets for wheat and soybean in Pakistan. Trading of wheat and soybean commodities in the futures market of the Pakistan Mercantile Exchange is advised on the basis of achieved results. The study suggests the most desirable trading strategies in terms of oil price sensitivity for marketing wheat and soybeans in Pakistan.

Futures Recommendation & Limitation

This paper has some failings due to the COVID-19 pandemic as well as how it opens ways for future research too. This study suggests future research on independent variables such as oil price in the context of the COVID-19 pandemic, as well as dependent variables such as wheat and soybeans in the context of the COVID-19 pandemic.

This study is limited to the collection of data of daily basis oil prices, wheat and soybeans from PMEX and World Bank data from 2019 to 2021. For better results, further researchers may enhance the data for more than 02 years or on the basis of daily basis data. Finally, this study is limited only to the oil values in the situation of COVID-19, wheat and soybeans over the period of 2019 to 2021, or 02 years based on PMEX.

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