A short on the current scenario of fluctuations in commodity market in India

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Abstract. Several Indian commodities are fluctuating in price. Gold prices rose 1.5% this month to a 6-month high, while crude oil prices fell 5% to a 4-month low owing to sluggish global demand. These variations are expected to raise the commodities market's nominal worth to US$983.30 billion by 2023. These changes are caused by supply and demand, production costs, economic development, geopolitical events, natural catastrophes, speculative trading, and government policies. These variables impact commodity prices and the global economy, influencing consumer products, stock markets, and other industries. These swings have major effects on India's economy. Trade disruptions may hurt commodity-dependent economies. Even as prices fall, commodities market volatility is expected to provide economic concerns. Commodity pricing, global trade dynamics, and changing rules and standards may impact actual economic activity, inflation, and economic development in India.

Keywords: Energy commodities, ARDL bound, Causal relationship, Energy, Johansen Co-integration, Stock index and Toda and Yamamoto test

1 Introduction

1.1 The Present Situation Regarding the Variations that Occur in the Indian Commodity Market

Both local and foreign stakeholders are being impacted by the significant price changes that are occurring on the Indian commodity market. These fluctuations are affecting a variety of commodities. The fluctuations in prices have substantial repercussions for the economy as a whole, as well as for commercial traders, manufacturers, and consumers. In this research, we will investigate the recent price changes of important commodities, conduct an analysis of the reasons that contributed to these fluctuations, and give insights into the driving forces that are responsible for the dynamic character of the Indian commodity market [1].

1.2 Main commodities in the Indian market

The primary commodities that are traded on the Indian market are separated into a collection of unique categories, each of which has its own set of trading characteristics [2]. Cereals, energy, base metals, precious metals, and soft commodities are the categories that fall under this category. Agricultural items such as wheat, maize, and soybeans are examples of cereals. On the other hand, energy commodities include a wide variety of energy sources that are essential for the functioning of industry, transportation, and homes. The category of base metals mostly consists of metals that are necessary for the goods and activities that people engage in on a daily basis, while precious metals are appreciated for their scarcity, beauty, and practicality in the jewellery industry, investment, and industry. Coffee, chocolate, sugar, cotton, and rubber are examples of soft commodities that are susceptible to regular price fluctuations as a result of weather patterns, supply and demand dynamics, and geopolitical events (Most Traded Commodities in India | Share India. 1). A number of well-established commodity exchanges, such as the Multi Commodity Exchange (MCX), the National Commodity and Derivatives Exchange (NCDEX), and the Indian Commodity Exchange (ICEX), are responsible for the active trading of these commodities (Basics of Commodity Market - India infoline).

1.3 Recent price fluctuations of these commodities

Several different commodities have been documented to have experienced price changes in recent times [3-4]. In 2023, it is anticipated that the cost of energy will be 23 percent lower than it was in 2022, and it is anticipated that the cost of energy will be relatively steady in 2024. There are, however, significant hazards associated with this projection. These risks include the possibility of interruptions in the supply of energy and metals, the intensification of geopolitical tensions, a stronger-than-anticipated rebound in China's industrial sector, and unfavourable weather occurrences. On the other hand, despite the fact that energy prices have decreased, the prices of all major commodity groupings and the majority of individual commodities continue to be higher than their average levels from 2015 to 2019. In spite of the volatility, this positive tendency implies that prices will continue to be stable and that commodities markets will

continue to be resilient. As a result of the drop in the pricing of natural fuels, Russian export earnings have been negatively impacted. As a result, Russia has shifted its exports of oil, gas, and coal to India and China while simultaneously decreasing its supply to the European Union, the United Kingdom, and the United States. Several factors have contributed to the decline in natural gas prices, including a fall in demand, winter weather that was milder than anticipated, an increase in the importation of liquefied natural gas (LNG), and initiatives to improve energy efficiency and conservation. A benchmark for the price of natural gas in Europe had a decline of eighty percent from its highest point in August of 2022. This fall may be ascribed to shifts in the patterns of LNG trading as well as a decrease in the supply of gas from pipelines in Russia, both of which are anticipated to continue for an extended period of time. In addition, the supply circumstances of essential food items have improved, although there are still dangers. The initiative, improved harvests in other major grain-producing nations, and decreased energy costs are all factors that have contributed to the decrease in the pricing of agricultural commodities. With that being said, there are continuing concerns associated with global food prices. These risks include the prospect of more trade restrictions, the deepening of geopolitical tensions, and unfavourable meteorological circumstances such as the emergence of El Niño. Domestic food price inflation continues to be a problem, despite the fact that global food costs are falling. The worldwide year-on-year domestic food price inflation rate averaged about 20 percent in the first quarter of 2023, which was the greatest level observed in the last twenty years. Price increases in metals and minerals increased by ten percent in the first quarter of 2023, led by increases in iron ore and tin. These price increases reflected confidence for a robust rebound in China and better global development prospects at the beginning of the year. The costs, on the other hand, are anticipated to fall by an average of eight percent in 2023 in comparison to 2022, and it is anticipated that they will fall even more in 2024. A stronger-than-expected rebound in China's real estate industry and supply interruptions caused by trade restrictions are two key risks that might have a positive impact on the price projection. The energy shift has the potential to considerably increase the demand for certain metals, particularly lithium, copper, and nickel, over the course of a longer period of time. Due to the fact that commodities account for close to forty percent of the Consumer Price Index (CPI) that is established by the United States Bureau of Labour Statistics, these movements have the potential to have a big influence on the market as well as the trends of inflation. Price fluctuations in the energy sector are especially subject to a broad variety of factors, with the most significant impact on oil prices coming from changes in the worldwide market. According to the most recent projections, the price of oil is expected to stay relatively steady in the short term, but it is possible that it could trend upward in the long run owing to the continued demand. A degree of uncertainty has been introduced to the market for grain commodities as a result of the conflict between Russia and Ukraine as well as the possibility of disruptions to grain supplies. However, it is anticipated that weather conditions will continue to be the most significant determinant regarding the pricing of agricultural commodities. There is a possibility that the prices of metals could be affected in the near future due to supply worries and swings in demand brought about by the growing production of electric cars and slower development in China. For this reason, investors have to be ready for regular shifts in the pricing of commodities and should think about techniques that will allow them to capitalise on market trends.

1.4 Fluctuations may be caused by a number of factors

Account balances may be influenced by several factors, leading to fluctuations [5-6]. Some examples of these factors include inflation, interest rates, changes in government policy, the performance of firms, overseas transactions, and speculation and expectations. Inflation may erode the purchasing power of money, impacting the capacity to execute transactions and leading to swings in account balances. Fluctuations in interest rates affect the expenses associated with borrowing funds, the profits generated from investments, and the expenditure patterns of consumers, thereby influencing account balances. Government policy alterations, such as adjustments to taxes and regulations, may impact both businesses and individuals, resulting in fluctuations in financial indicators. Account balances are vulnerable to direct influence from a company's performance, which encompasses the growth of revenue, profitability, and market share. International transactions, influenced by currency exchange rates and commercial dynamics, may lead to fluctuations in account balances. Moreover, fluctuations in financial indicators may also be attributed to speculation and anticipations on the economic conditions and market movements. To effectively assess fluctuations in account balances, it is crucial to possess a comprehensive comprehension of these additional factors.

1.5 Current Status Of Volatality in Energy Commodity Market in India

The fluctuating prices of commodities may be attributed to several factors, with one of the primary concerns being the instability seen in the energy commodity market in India [7-8]. The current situation is a result of a convergence of declining prices in some areas and consistent advancements in other others. More precisely, it is projected that the mean energy cost in 2023 will decrease by 23 percent compared to the levels in 2022, and it is expected to remain relatively stable in 2024. The risks associated with this prediction, on the other hand, are somewhat more favourable than expected owing to a number of reasons, including the possibility of interruptions in energy and metal supplies, the intensification of geopolitical tensions, and a stronger-than-anticipated recovery in China's industrial sector, amongst others. A combination of factors, including a slowdown in economic activity, favourable winter weather, and a worldwide reallocation of commodity trade flows, has led to a drop in the pricing of energy commodities. Although this

is the case, the prices of key commodity groupings and a significant share of individual commodities continue to be higher above their average levels from 2015 to 2019.

Russian export income have been impacted as a result of the drop in the pricing of mineral fuels. In the aftermath of the conflict in Ukraine, Russia has steadily increased the amount of oil, gas, and coal that it ships to India and China, while simultaneously decreasing the amount that it sends to the European Union, the United Kingdom, and the United States. This reorganisation of trade flows has therefore had an effect on the pricing of energy in a number of different places.

Natural gas prices have decreased as a result of a number of factors, including decreased demand, winter weather that was milder than anticipated, greater imports of liquefied natural gas (LNG), and initiatives to improve energy efficiency and conservation. Furthermore, it is anticipated that the drop in Russian pipeline gas supply and changes in LNG trading patterns will continue over the long term as a result of the increasing emphasis placed on energy security, notably in Europe 2.

China's attempts to absorb ample cargoes, together with supply issues induced by pandemic-related production impediments, continue to disrupt the market. It is crucial to note that India's coal importers are also preparing themselves for another year of market volatility and supply turmoil. This is something that should be taken into consideration. This demonstrates that the volatility that exists in the market for energy commodities continues to be a significant worry.

1.6 Current status of volatality in agriculture commodity market in india

One of the most major concerns is the volatility that exists in the agricultural commodities market in India [9-10]. As a result of the fact that the prices of agricultural commodities may have a negative impact on both consumers and producers, price stabilisation programmes are essential components of food policy in both developing nations and industrialised ones. Since India gained its independence in 1947, one of the primary goals of the Indian government's food policy has been to ensure that domestic prices remain stable without fluctuating. The price volatility of nine agricultural commodities in India was analysed using monthly wholesale pricing data. The results of this research reveal that some government programmes were successful in achieving their objective of lowering price volatility for certain commodities. These commodities include wheat, sugar, groundnut oil, cotton, and onions. Nevertheless, across the board, a great number of programmes failed to significantly minimise price volatility.

Despite the fact that the study demonstrated that the devaluation of the Indian Rupee and the existence of the futures market did not have a significant impact on the domestic price variance of commodities, it is important to note that the study also examined the impact of market liberalisation and other government policies on price volatility in India, as well as the effects of futures markets on commodity prices. The investigation was based on a number of different GARCH (Generalised Autoregressive Conditional Heteroskedastic) models, and the findings suggested that the majority of policies did not have a substantial influence on the volatility of prices.

In addition, it is anticipated that the recent resurgence of volatility in commodities markets will provide economic issues in the years to come, despite the fact that prices are falling. This will have ramifications for both economic growth and inflation. The research highlights the significance of futures markets in terms of their ability to increase price discovery and decrease price volatility for agricultural commodities in India.

1.7 Current status of volatality in metals commodity market in india

There is a shift occurring in the amount of volatility within the metals commodities market in India[11-12]. The World Bank's Commodity Markets Outlook predicts a 5 percent decline in base metal prices in 2024 due to a fall in demand. Following a projected decrease of 12 percent in 2023, this occurs. Several factors have contributed to this decline, including the slowdown in China's heavy industrial and housing construction sectors. Nevertheless, the deficiency has been counterbalanced by the high demand for renewable energy products that need a significant amount of metals, despite the surplus supply of metals. Furthermore, the report highlights that while there is a projected decrease in 2024, there is an expectation for a recovery in base metal prices in 2025. This is because there is a high probability of an increase in global activity, which will lead to a growth in demand for metals used in renewable energy technology.

Furthermore, the study emphasises that while there is an expectation of a decline in the prices of base metals, there is a significant surge in the demand for crucial minerals like cobalt, lithium, and molybdenum, which are necessary in the production of electric cars and batteries. The global need for renewable energy infrastructure is being propelled by investments made around the globe. Due to the sudden increase in demand, it is expected that prices for metals and minerals will start to rebound in 2025.

Conclusions

The current condition of fluctuations in the commodities market in India, including energy, agriculture, and metals, clearly indicates that these three sectors are vulnerable to a diverse array of factors and patterns that affect them. The

energy sector is now experiencing a shift towards a gas-based economy and zero-carbon fuels. This transition involves adopting a diversified energy strategy that focuses on increasing refining capacity, exploring, and transitioning to these fuels. It is evident that there is a potential for significant changes in the energy environment in the future. The agricultural sector is expected to have rapid market growth due to the adoption of novel farming techniques and government initiatives aimed at improving conditions for farmers. This indicates the presence of promising opportunities for the agricultural sector to contribute to the GDP. Several factors contribute to the potential increase in price projection, such as the recovery of China's real estate sector and disruptions in supply. Given these factors, it is expected that prices in the metals market would decrease on average during the following year. These insights reveal the ever-changing nature of the Indian commodities market, highlighting the need of strategic planning and risk management to effectively navigate fluctuations and take advantage of emerging opportunities.

References

1. Reardon, Thomas, and Ashok Gulati. *The rise of supermarkets and their development implications: International experience relevant for India*. No. 589-2016-39798. 2008.
2. Polanyi, K., 2018. The economy as instituted process. In *The sociology of economic life* (pp. 3-21). Routledge.
3. Irwin, S.H., Sanders, D.R. and Merrin, R.P., 2009. Devil or angel? The role of speculation in the recent commodity price boom (and bust). *Journal of agricultural and applied economics*, *41*(2), pp.377-391.
4. Abbott, P. and Borot de Battisti, A., 2011. Recent global food price shocks: Causes, consequences and lessons for African governments and donors. *Journal of African Economies*, *20*(suppl 1), pp.i12-i62.
5. Mussa, M., 2013. The exchange rate, the balance of payments, and monetary and fiscal policy under a regime of controlled floating. In *The Economics of Exchange Rates (Collected Works of Harry Johnson)* (pp. 47-65). Routledge.
6. Vangjeli, E., Gerdhe, S. and Teneqexhi, M., 2012. Current account balance in Albania and the influence of different factors on it. *International Journal of Trade and Global Markets*, *5*(3-4), pp.235-253.
7. Asif, M. and Muneer, T., 2007. Energy supply, its demand and security issues for developed and emerging economies. *Renewable and sustainable energy reviews*, *11*(7), pp.1388-1413.
8. Ghosh, J., 2011. The unnatural coupling: Food and global finance. In *Reforming the international financial system for development* (pp. 84-104). Columbia University Press.
9. Dwyer, A., Gardner, G. and Williams, T., 2011. Global commodity markets–price volatility and financialisation. *RBA Bulletin, June*, pp.49-57.
10. Ali, J. and Bardhan Gupta, K., 2011. Efficiency in agricultural commodity futures markets in India: Evidence from cointegration and causality tests. *Agricultural Finance Review*, *71*(2), pp.162-178.
11. Shalini, V. and Prasanna, K., 2016. Impact of the financial crisis on Indian commodity markets: Structural breaks and volatility dynamics. *Energy Economics*, *53*, pp.40-57.
12. Renner, S. and Wellmer, F.W., 2020. Volatility drivers on the metal market and exposure of producing countries. *Mineral Economics*, *33*(3), pp.311-340.L’O9-=MJ\K