

# THE ROLE OF GOLD IN THE INDIAN COMMODITY MARKET: A SAFE HAVEN OR SPECULATIVE ASSET.

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## Abstract

*In general, a market may be treated as a place where the interchange of goods and services occurs. The business or commercial activity is being carried out with of view to earn some benefits. A commodity market is a venue that merchandise in the process of buying and selling of infinite commodities dealt with market. The commodities are sorted into two, hard and soft commodities. From the abundant commodities, the paper focuses on only gold commodity exclusively. The inevitable role of gold and its price fluctuations are discussed in this paper. The gold plays signification role in both our Indian culture and economy. The study aims to gain knowledge on the price movements in gold with its determining factors. In this study secondary data collection techniques and methods are implied. The study period involves the price movements of gold commodity from January 2021 to January 2023 and it is concluded that gold futures have generally increased in price from 2021 to 2023.*

**Keywords:** Commodity Market, Commodity, India, Gold, Stock Market

## INTRODUCTION

### Stock Exchange:

Stock exchange is a place where buyers and sellers meet in order to do the business transactions i.e. buying and selling of stocks like shares, bonds, debt instruments, commodities, forex etc. It is a unit which provides “trading” services for investors and stock brokers to trade securities. Stock exchange is an organized sector where the members of the stock market will meet to trade the stocks or securities. It is not limited to buying and selling activity but it also involves the services of issuing and redemption of stocks and also the payment of income or dividends. In present situation there is no physical transactions all activities are converted into electronic network which is more helpful in speedy transactions and cost reduction. Apart from this there are over the counter system where physical transaction of derivatives and bonds are done. However the stock exchange has become a part of global market for stock and securities.

### What is Commodity and Commodity Market?

**Commodity:** Commodity refers to the products which are traded in the approved commodity exchange market. But the products should be movable from one place to the other and that must be tradable. It is broadly divided into two main categories that is Hard(Non-agricultural) and Soft (Agricultural) commodities here Hard commodities are typically Non-agricultural or natural resources (Gold, Silver, Copper, Natural Gas) and Soft commodities are the agricultural commodities (Coffee, Corn, Wheat, Sugar).

**Commodity Market:** Commodity market is physical or virtual market place especially for purchasing, selling and trading raw or primary products. Presently there are more than 50 commodity market assisting more than 100 commodity products all over the world. Here the traders use contract system for purchasing or selling the products. Presently this sector is booming very rapidly with high yielding rate of returns.

**Commodity Exchange:** Commodity exchange is the entity or body corporate who issues licenses for the future trading and rules, regulations to be followed in the commodity market and they are guaranteed regulating authority.

### Types of Commodity Markets:

Generally speaking, commodities trade either in spot markets or derivatives markets. Spot Markets are also referred to as “physical markets” or “cash markets” where buyers and sellers exchange physical commodities for immediate delivery.

Derivatives markets involve forwards, futures, and options. Forwards and futures are derivatives contracts that use the spot market as the underlying asset. These are contracts that give the owner control of the underlying at some point in the future, for a price agreed upon today. Only when the contracts expire would physical delivery of the commodity or other asset take place, and often traders will roll over or close out their contracts in order to avoid making or taking delivery altogether. Forwards and futures are generically the same, except that forwards are customizable and trade over the counter (OTC), whereas futures are standardized and traded on exchanges.

### **Commodities Market in India : Evolution and Regulation**

India has a long history of futures trading in commodities. In India, trading in commodity futures has been in existence from the nineteenth century with organised trading in cotton, through the establishment of Bombay Cotton Trade Association Ltd. in 1875. Over a period of time, other commodities were permitted to be traded in futures exchanges. Spot trading in India occurs mostly in regional mandis and unorganised markets, which are fragmented and isolated. Over time the derivatives market developed in several other commodities in India. Following cotton, derivatives trading started in oilseeds in Bombay (1900), raw jute and jute goods in Calcutta (1912), wheat in Hapur (1913) and in Bullion in Bombay (1920). However, many feared that derivatives fuelled unnecessary speculation in essential commodities, and were detrimental to the healthy functioning of the markets for the underlying commodities, and hence to the farmers. With a view to restricting speculative activity in cotton market, the Government of Bombay prohibited options business in cotton in 1939. Later in 1943, forward trading was prohibited in oilseeds and some other commodities including food-grains, spices, vegetable oils, sugar and cloth.

After Independence, the Parliament passed Forward Contracts (Regulation) Act, 1952 which regulated forward contracts in commodities all over India. The Act applies to goods, which are defined as any movable property other than security, currency and actionable claims. The Act prohibited options trading in goods along with cash settlements of forward trades, rendering a crushing blow to the commodity derivatives market. Under the Act, only those associations/exchanges, which are granted recognition by the Government, are allowed to organize forward trading in regulated commodities.

### **The Act envisages three-tier regulation:**

- (i) The Exchange which organizes forward trading in commodities can regulate trading on a day-to-day basis
- (ii) The Forward Markets Commission provides regulatory oversight under the powers delegated to it by the central Government, and
- (iii) The Central Government - Department of Consumer Affairs, Ministry of Consumer Affairs, Food and Public Distribution - is the ultimate regulatory authority.

The era of widespread shortages in many essential commodities resulting in inflationary pressures and the tilt towards socialist policy, in which the role of market forces for resource allocation got diminished, saw the decline of this market since the mid-1960s. This coupled with the regulatory constraints in 1960s, resulted in virtual dismantling of the commodities future markets. Liberalization of Indian economy since 1991 recognised the role of market and private initiative for the development of the economy. The much maligned market instruments such as the futures trading were also given due recognition. Forward trading was permitted in cotton and jute goods in 1998, followed by some oilseeds and their derivatives, such as groundnut, mustard seed, sesame, cottonseed etc in 1999. The year 2003 marked the real turning point in the policy framework for commodity market when the government issued notifications for withdrawing all prohibitions and opening up forward trading in all the commodities. This period also witnessed other reforms, such as, amendments to the Essential Commodities Act, Securities (Contract) Rules, which have reduced bottlenecks in the development and growth of commodity markets. Of the country's total GDP, commodities related (and dependent) industries constitute about roughly 50-60 %, which itself cannot be ignored. Responding positively to the favourable policy changes, several Nation-wide Multi-Commodity Exchanges have been set up since 2002, using modern practices such as electronic trading and clearing. The Forward Markets Commission is the regulatory authority of the Commodity Futures Market in India. The Commodity Futures Market comprises Six National Commodity Exchanges and nineteen Regional Commodity Exchanges.

### **Following are the National commodity exchanges :**

- Multi Commodity Exchange of India (MCX) Mumbai,
- National Commodity and Derivative Exchange of India (NCDEX) Mumbai,
- National Multi Commodity Exchange of India (NMCE) Ahmedabad.
- Indian Commodity Exchange (ICEX), Gurgaon.
- Shariah Index
- Universal Commodity Exchange.

### **Following are the regional commodity exchanges:**

- Bikaner Commodity Exchange Ltd., Bikaner
- Bombay Commodity Exchange Ltd., Vashi, Bombay

- Chamber of commerce, Hapur
- Central India Commerce Exchange Ltd. Gwalior
- Cotton Association of India, Mumbai
- East India Jute & Hussain Exchange Ltd. Kolkata
- First Commodities Exchange of India Ltd., Kochi
- Haryana Commodities Ltd., Sirsa
- India Pepper & Spices Trade Association Cochin (IPSTA)
- Meerut Argo Commodity Exchange Co. ltd. Meerut
- National Board of Trade (NBOT), Indore
- Rajkot Commodity Exchange Ltd., Rajkot
- Rajdhani Oils & Oilseed Exchange ltd., Delhi
- Surendranagar Cotton oil & Oilseeds Association Ltd., Surendranagar
- Spices & Oilseeds Exchange Ltd. Sangli
- Vijay Beopar Chamber Ltd., Muzaffarnagar

The recent policy changes and upbeat sentiments about the economy, particularly agriculture, have created lot of interest and euphoria about the commodity markets. Even though a large number of the traditional exchanges are showing flat volume, this has not weakened excitement among new participants. Many of these exchanges have been permitted with a view to extend the culture and tradition of forward trading to new areas and commodities and also to introduce new technology and practices.

The current mindset of the people in India is that the commodity exchanges are speculative (due to non-delivery) and are not meant for actual users. One major reason being that, the awareness is lacking amongst the actual users. In India, interest rate risks, exchange rate risks are actively managed, but the same does not hold true for the commodity risks. Some additional impediments are centered around the safety, transparency and taxation issues.

## LITERATURE REVIEW

**Bose(2008)** studied the Indian commodity futures market in order to judge whether prices indicate efficient functioning of the market or otherwise, particularly as this market is less developed compared to the financial derivatives markets, being constrained by its chequered history with many policy reversals. Using the available notional price indices for the commodity market we find that multi-commodity indices, which have higher exposure to metals and energy products, with clear and efficient price dissemination in national and international markets, behave like the equity indices in terms of efficiency and flow of information.

**Bhusari(2015)** concluded that level of speculation in the agriculture commodity and the crude oil markets has remained relatively constant in percentage terms as prices have risen. Studies in agriculture and crude oil markets have found that speculators tend to follow trends in prices rather than set them. When demand for a commodity is higher than the supply, its price increases, and vice versa. There is always some imbalance between the two when it comes to commodities, which results in constantly fluctuating prices.

**Mukherjee(2011)** studied that in long history of trading in commodities and related derivatives, agricultural commodity market has seen several developments between two extreme scenarios, protection of the essential commodity market through government intervention and the opening up of the sector and getting the necessary protection through market based instruments like commodity futures contract and besides the availability of several committee reports and research studies favouring the utility of futures contract on commodities, a further attempt has been made to re-validate the positive impact of futures trading on agricultural commodity market in India.

**Kumar (2012)** concluded that investing in commodities as an asset is always good for long term. The price movements are more predictable, purely based on demand and supply of that commodity, unlike in other markets where price manipulations are very much possible, hence the investor is fixed. The recent attempt by the Government to permit Multi-commodity National levels exchanges has indeed given it, a shot in the arm. Commodity includes all kinds of goods. Futures trading are organized in such goods or commodities as are permitted by the Central Government.

**Hariharan & Reddy(2018)** studied that there are certain issues like instability of commodity prices which has been a major concern to the producers as well as the consumers. In India, more than 70% of populations depend on agricultural commodities. Commodity futures markets are a part and parcel of a program for agricultural liberalization. There is a need for liberalization in the sector. Futures markets are an instrument for achieving that liberalization. The study was carried out with respect of all six National level commodity exchanges in India namely NMCE, Ahmadabad; MCX, Mumbai; NCDEX, Mumbai; ICEX, Mumbai; ACE, Ahmadabad; and UCX, Mumbai. These exchanges are playing very important role in the trading activities in India.

**Kandoi(2020)** concluded that Investing in Commodity market requires time, knowledge and constant monitoring of the market. Overall performance of gold and silver indicates the low returns for short term investment and high returns for long term investments. In current scenario no individual is interested in investing in only one avenue they are interested in investing in other avenues like Gold and silver which is more trending from past few years

## RESEARCH METHODOLOGY

### 3.1 NEED FOR STUDY:

Commodity Markets are where raw and primary products are exchanged. Commodity Markets is two types i.e., hard & soft. Hard commodities are typically Non-agricultural or natural resources (Gold, Silver, Copper, Natural gas). Soft commodities are agricultural commodities (Coffee, Sugar, Wheat, Corn). The problem faced by the participants in the market is to predict price movement of the commodity and to take the right decision when to take entry and exit the market and make maximum profit. As gold, silver, copper, natural gas and crude oil are more sensitive in the market in the market, their prediction is rigorous. Thus, there is need to study the present scenario of performance of non-agricultural commodity gold in Indian commodity market.

### 3.2 OBJECTIVES OF STUDY:

- To study the price movements of gold commodity.
- To study and analyze the commodity market of selected Non-agricultural product i.e gold.

**3.3 SAMPLE SIZE:** The sample consists of one commodity(gold) from MCX.

**3.4 DATA COLLECTION:** Online publication, BSE websites, Research Journals etc. (purely secondary data)

**3.5 STUDY PERIOD:** The study period is of three years covering from 2021 to 2023.

**3.6 SOURCES OF DATA:** Main source of data is MCX, BSE to obtain historical prices.

### 3.7 STATISTICAL TOOLS AND INDICATORS USED:

- Mean
- Median
- Standard deviation
- Kurtosis
- Skewness
- Range
- Correlation
- Anova

**TABLE-1**

MONTHLY CLOSING PRICES OF GOLD FUTURES CONTRACT			
	Year 2023	Year 2022	Year 2021
DEC	63203	55017	48099
NOV	62605	52480	47606
OCT	60940	50322	47635
SEP	57105	50094	46323
AUG	59374	50414	47120
JUL	59568	51426	47846
JUN	58211	50517	46839
MAY	60163	50855	48821
APR	59919	51754	46737
MAR	59402	51585	44637
FEB	55756	50760	45736
JAN	57242	47686	49096

**Figure:1**  
**Monthly closing prices of gold futures contract**



The table above presents the monthly closing prices of gold futures contracts from December 2021 to December 2023. By examining the data, we can observe trends and fluctuations in the prices over this three-year period.

For the year 2021 it can be seen that prices were around 48,000 rupees, but from year 2022 from February prices have increased. In the year 2023 prices have increased to 63,000 rupees i.e. 30% comparing to year 2023. From the year 2021 to 2023 monthly closing prices of gold show increase in prices of gold.

**TABLE-2**

DESCRIPTIVE STATISTICS - GOLD FUTURES CONTRACT			
Year	2023	2022	2021
Mean	59457.33333	51075.83333	47207.91667
Standard Error	631.0397185	494.4259272	365.4984861
Median	59485	50807.5	47363
Standard Deviation	2185.985708	1712.741653	1266.123896
Sample Variance	4778533.515	2933483.97	1603069.72
Kurtosis	-0.272830961	2.907524135	0.221814022
Skewness	0.113995729	0.513259258	-0.483386744
Range	7447	7331	4459
Minimum	55756	47686	44637
Maximum	63203	55017	49096

- The average value of gold futures for each year is shown by the mean. Over the course of the three years, we observe a consistent rise in the mean, with 2023 exhibiting the highest average price, indicating an upward tendency in the gold market during this time.
- The degree to which the data diverge from the mean is indicated by the standard deviation. In comparison to 2022 and 2021, a higher value in 2023 denotes higher volatility in gold futures. The fact that 2023's standard deviation was higher indicates that gold prices fluctuated more during this time.
- The median, which tracks similarly to the mean, gives the dataset's midway value. Additionally, it has an upward trend, suggesting that the price of gold futures has increased throughout the previous three years. Interestingly, the 2023 median is rather near to the mean, indicating that the price distribution is reasonably symmetrical.
- "Tailedness" of the distribution is measured by kurtosis. A leptokurtic distribution (with more extreme outliers) is indicated by a high positive kurtosis in 2022, whereas a platykurtic distribution (with fewer extreme outliers than a normal distribution) is suggested by a negative value in 2023. This suggests that there were more occurrences of sharp price swings in gold futures in 2022 compared to 2023.
- A positive skew in 2023 and 2022 suggests that the distribution was somewhat right-skewed, with a tail on the higher side of pricing. Skewness displays the asymmetry of the data distribution.



- The 2021 distribution appears to have been left-skewed, with a tail on the lower side, based on the negative skew. Given the comparatively low skewness numbers, it appears that the distributions for the three years were almost symmetrical, with 2023 having the least amount of skewness.
- The range displays how the greatest and lowest numbers differ from one another: The widest range was in 2023, suggesting that prices varied greatly during the year. Compared to 2022 and 2023, the 2021 range was lower, suggesting less price fluctuation in that year.
- The data extremes for each year are displayed by the minimum and maximum values. We see that 2023 saw greater price levels than prior years, which is consistent with the mean and median's upward tendency.

**TABLE-3**

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	941034121	2	470517060.5	151.533867	0.000	3.28491765
Within Groups	102465959	33	3105029.068			
Total	1043500080	35				

The null hypothesis ( $H_0$ ) is rejected since the p-value is very little (much less than 0.05), indicating that there is a statistically significant difference between the three groups. The fact that at least one group mean deviates significantly from the others is further supported by the F-statistic (151.53), which is significantly greater than the crucial threshold (3.28).

## CONCLUSION

- Price Growth: Gold futures have generally increased in price from 2021 to 2023.
  - Volatility: There was a notable increase in volatility in 2023, as seen from the rise in standard deviation and range.
  - Distribution Shape: The distributions have varied over the years, with 2022 showing a more peaked and extreme price distribution (leptokurtic), while 2023 had a flatter distribution (platykurtic).
  - Skewness: The distribution was slightly right-skewed in 2023 and 2022, but left-skewed in 2021.
  - According to the ANOVA results, the three groups' means differ significantly from one another.
- This analysis provides insights into the changing behaviour of the gold futures market over these years, with growing volatility and price levels in recent years.

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