



EFFECT OF COVID 19 ON GOLD SPOT MARKET AN EMPIRICAL STUDY OF INDIA

P Chandrika
Research Scholar
UCC & BM
Department of Commerce
Osmania University

Abstract

India is a country of rich customs and traditions. Investment in gold is considered to be one of the measures of richness in India. People often purchase gold for various occasions viz marriages, festivals, offering gifts etc. Gold market is one of the key players in economic development of the country. COVID 19 or Coronavirus has a very bad impact on financial markets across the world. Due to the spread of coronavirus all the countries have announced lockdown for a short period of time. Post lock down the business markets slowly noticing a growth. With this background, an attempt has been made to study the effect of COVID 19 on Indian Gold Spot Market.

Key words : COVID 19, Gold, Spot market and India.

Introduction

India is the 2nd largest consumer of gold universally with year wise gold demand of around 800-900 tonnes, and it holds an crucial position in the international markets. However, the Indian market is currently infested by challenges such as high market fragmentation, weak price transparency and lack of quality assurance. Pandemic caused because of coronavirus has changed the perception of investors on investing in gold. The commodity gold has notice a positive sign of returns and dragged many investors. Many opined that investing in gold is a high risk situation but they say higher the risk better the returns. Keeping in view the above facts an attempt has been made to study the performance of gold spot market in India during coronavirus pandemic.

Review of Literature

Dilip Kumar (2014) investigated the first and second orders moment transmission between gold and Indian industrial sectors with an application of portfolio design and hedging effectiveness using generalised VAR-ADCC-BVGARCH model. The findings indicated a significant return spill over from gold to Indian industrial sector they did not

found there is no significant evidence from gold to Indian stock sectors they also suggested that stock and gold portfolio provides a better diversification benefits than stock portfolios

P.Mali (2014) Examined the time series of gold prices in the Indian market and global consumer price index from the period of January 1985 – June 2013 by employing Multifractal detrended fluctuations analysis (MP-DFA) variables such as generalized Hurst exponent, the Multifractal mass exponent, the singularity spectrum are extracted for both the series. They have revealed that both the gold prices and the index price are highly fractal in nature, which cannot be removed but are weakened by random shuffling. This means the origin of observed multifractality is not only long range time correlation but also the fat-tailed probability density function of the values. Moreover observed that the strength of multifractality as well as its contribution from the long range temporal correlation are slightly higher in the global CPI series than the Indian market price series.

Lee A Smales, CFA (2013) utilized commodity specific news sentiment data provided by Thomson Reuters News Analytics to examine the relationship between news sentiment and returns



in the gold futures market over the period 2003-2012. There is a symmetric response to news releases with negative new sentiment invoking a greater contemporaneous response in returns of gold futures than positive news. There is evidence to support the supposition that net trader positions significantly impacts the identified sentiment relationship with effect greatest when traders are holding positions contrary to their natural position; this may be explained by constraints imposed on traders in terms of credit availability, exchange imposed limits, or inventory required for physical and the news sentiment / return relationship.

Premesh Kumar Narayan, Seema Narayan and Xinwei Zheng (2013) The examine the long- run relationship between Gold and oil sport and futures markets. We dawn on the conceptual framework that when oil price rises, it creates inflationary pressures, which instigate investments I gold as a hedge against inflation. We test for the long-run relationship between gold and oil futures prices at different maturity and unravel evidence of co integration. This implies that :(a) investors use the gold market as a hedge against inflation, and (b) the oil market can be used to predict the gold market prices and vice versa, thus two markets are jointly inefficient, at least for the sample period considered in this study.

Mohd Fahmi Ghazali, Hooi-Hooi Lean and Zakaria Bahari (2013) investigated the role of gold in Malaysia for the period of July 2001- February 2013. Specifically, we examine whether gold can be used as a hedge on average or a safe haven during financial turmoil. The noteworthy finding of our study i that gold plays an important role as a hedge, but its characteristic is short-lived. On one hand, they found little evidence that gold is a safe haven in some thresholds. On the other hand, gold at best is a weak safe haven for stockholders during financial stress. These results indicate that gold plays a minor role in emerging market like Malaysia during stock market slump. Therefore, holding a well diversified portfolio could help in providing reasonable return and protection from economic collapse.

Research Gap

Many studies have been taken up on the price

effectiveness on gold, price discovery process of gold, performance of gold market in India. But there are only limited studies that covered the impact of Coronavirus on Gold Market in India. This paper aims at evaluating the performance of Gold spot market in India post coronavirus lockdown.

Objective

- To examine the effect of coronavirus on gold spot market in India.

Methodology

The study is based on secondary Data. Daily closing spot prices of gold for around 6 months i.e. from 1st March, 2020 to 24 Aug, 2020 are collected from Multi Commodity Exchange of India. To study the stationarity of the data ADF test is applies and GARCH (1, 1) model has been applied to study the volatility in returns. For the convenience of the study spot prices are converted in to returns. Econometric tests are conducted with the help of E-views. Descriptive Statistics viz. Mean, Median, Standard Deviation, Coefficient of Variation, Skewness and Kurtosis also conducted to study the stationarity of the time series data.

Data and Analysis

Table 1: Descriptive statistics of Gold Spot Returns - India

	Spot Prices	Spot Returns
Mean	45535.19	100.1856
Median	43750.00	100.0000
Maximum	55922.00	113.7110
Minimum	39741.00	95.24117
Std. Dev.	4865.674	1.572774
Skewness	0.489498	5.031648
Kurtosis	1.834729	47.78100
Jarque-Bera	11.67797	10533.04
Probability	0.002912	0.000000
Sum	5509758.	12022.27
Sum Sq. Dev.	2.84E+09	294.3607
Observations	121	120

The above table shows the descriptive statistics of the daily of spot market of commodity gold. The Mean of Spot log prices and returns are 45535.19



and 100.1856. Positive skewness was observed in the prices of spot returns. The presence of positive skewness indicates the tail on the right side of the distribution is longer or fatter. The mean and median will be greater than the mode. A small kurtosis figure (>3) is also observed, which means the distribution produces fewer and less extreme outliers than does the normal distribution. Distributions with kurtosis greater than 3 are said to be leptokurtic.

Table 3 Testing of Stationarity of Gold Spot Returns Augmented Dickey Fuller Test – India – Gold

Particulars	Spot Returns	
	t-Statistic	Prob.*
Gold - Spot Returns	-10.10476	0.0000

Test critical values: 1% level -3.432948; 5% level -2.862574; 10% level -2.567366

*MacKinnon (1996) one-sided p-values

The table 3 shows the calculation of stationarity test on the log values of spot returns of gold - India. Most commonly log returns tend to be stationary, but to confirm the Stationarity of the series statistically, augmented version of Dickey Fuller test has been employed. The null hypothesis is that series is non-stationary and if the calculated value exceeds the critical value null hypothesis may be rejected implying the stationary characteristics of the series. The results of the test confirm that the data series of futures returns is stationary ($p < 0.05$).

Table 4: Impact of COVID 19 on Gold Futures Price Volatility

GARCH (1, 1) Model

Period	Variable	Coefficient	Std. Error	z - Statistics	Prob.
COVID 19	Constant	1.205166	0.676979	1.780213	0.0750
	ARCH (RESID (-1)^2)	-0.015301	0.028316	-0.540357	0.5890
	GARCH (-1)	0.575148	0.234035	2.457530	0.0140

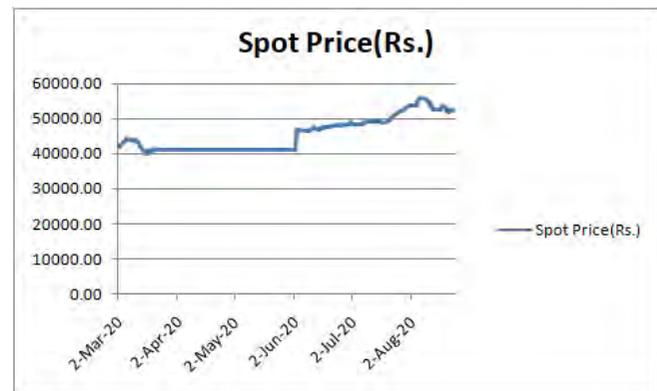
Z-test critical Values – 1% level – 2.58; 5% level – 1.96; 10% level – 1.645

During Covid 19 period, the co-efficient of constant is 1.205166 and its calculated value of z-statistics is

less than the critical value causing to accepting the null hypothesis at 1% significance level indicating the conditional volatility has its impact on gold spot prices. ARCH co-efficient is -0.015301 and GARCH coefficient is 0.575148 and calculated value of z-statistics of both the variable is less than the critical value causing to accept null hypothesis and rejecting alternative hypothesis at 1% level of significance, inferring that effect of the recent news and the old news in the market is significant on gold spot prices.

Trend Analysis

Table 5: Trend analysis of Gold Spot Prices for the period March 2020 to Aug 2020



The above table explains the trend line of gold spot prices during the period March 2020 to Aug 2020. It is evident from the above table that coronavirus pandemic has a very positive impact on gold prices recording its all time high prices from investors point of view.

Conclusions

Economies maintain gold as reserves to meet uncertainties of future requirements. Investment in gold is considered to be one of the safe investments. Coronavirus pandemic has shaken the stock markets of world economy. The only commodity i.e. giving a positive hope to the investors is Gold. Gold is recording its all time high price post lockdown in the economy. Hence, it can be concluded that the yellow metal is giving the greater returns to the investors in the pandemic times.



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