COMMODITY MARKET COLLISION WITH REFERENCE TO GOLD

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Abstract
Commodity derivative market in India had been existence since 1875 when Cotton Trade Association, Bombay undertook organized derivative trading in cotton. Although derivatives was initially conceived for the commodity market, in recent years there had been a tremendous development in financial derivatives market both in terms of trade volume and in variety of instruments used. Commodity markets can include physical trading and derivatives trading using spot prices, forwards, futures, and options on futures. The trading of commodities consists of direct physical trading and derivatives trading. Gold as a commodity along with other precious metals are being traded in the commodity market. It is also used a commodity in the market and traded for a profit. This study helps in understanding the impact of gold commodity on the commodity markets and the impact of various macro economic factors on the gold commodity.

Key words: Commodity derivative market, spot prices, forwards, futures, and options on futures and Gold.

Introduction and problem discussion

Commodity trading allows for an investment portfolio to be overall improved in terms of return without having a negative impact on risk. Are you wondering who will best benefit from investing in commodities? If you are looking to take advantage of movements of price or are willing to make an effort to diversify your portfolio then you can and should invest in the commodities market. It is important however that small investors and retail investors be careful when initially entering into this market, because a lack of knowledge and understanding of the volatile swings that the market experiences can result in a significant loss of wealth. In order for an investor to be successful in the commodity market, savvy investors need to have a thigh understanding of the demand cycles that the market goes though. These savvy investors must also have a decent view on the different types of factors that may have an effect. Once of the ideal avenues for to pursue is to specific, select commodities that can be analyzed individually, instead of simply speculating about that you have no real background information on. While it can be enjoyable to speculate on products that are new and exciting to you, sometimes this can be a bad decision as you will be, making guesses without any real information about them. You should be investigation and buying into commodities as a way to expand and diversify your portfolio. Commodities are an excellent way to turn your portfolio into something more exciting, and then money should be your second concern. Commodity trading is essentially just trading in the futures of commodities. Trading commodity derivatives would allow you to take a buy or sell position based on the performance in the future of commodities like silver, Page 677 metals gold, crude or agricultural commodities as well many exchanges deal in gains pulses oils, oilseeds, spices, Metals and crude .Commodity trading on future is actually not much different than regular future trading, so you can take long positions or short positions based on you believe the future of the commodity will change.

Commodity trading in India started much before it started in many other countries. However, years of foreign rule, droughts and periods of scarcity and Government policies caused the commodity trading in India to diminish. Commodity trading was, however, restarted in India recently. Multi Commodity Exchange (MCX), National Commodity and Derivatives Exchange (NCDEX), National Multi-Commodity Exchange (NMCE) and Indian Commodity Exchange (ICEX) are the commodity exchanges in India. The regulatory body is Forward Markets Commission (FMC).

Most commodity markets across the world trade in agricultural products and other raw materials (like wheat, barley, sugar, maize, cotton, Cocoa bean or cocoa, coffee, milk products, pork bellies, oil, metals, etc.) and contracts based on them. These contracts can include spot prices, forwards, futures and options on futures. Other sophisticated products may include interest rates, environmental instruments, swaps or freight contracts. Precious metals which are currently traded on the commodity market include gold, platinum, palladium and silver which are sold by the troy ounce. One of the main exchanges for these precious metals is COMEX. According to the World Gold Council, investments in gold are the primary driver of industry growth. Gold prices are highly volatile, driven by large flows of speculative money. Gold is a unique asset based on few basic characteristics. First, it is primarily a monetary asset, and partly a commodity. As much as two thirds of gold's total accumulated holdings relate to "store of value" considerations. Holdings in this category include the central bank reserves, private investments, and high-cartage jewellery bought primarily in developing countries as a vehicle for savings. Thus, gold is primarily a monetary asset. Gold has been widely used throughout the world as money, for efficient indirect exchange, and to store wealth in hoards. For exchange purposes, mints produce standardized gold bullion coins, bars and other units of fixed weight and purity. It is also used as a commodity in the market and traded for a profit. The study has been conducted to explain the volatility of the commodity, trend analysis and performance of the gold as a commodity.

Literature samples

Prakash and Sundararajan (2014) examines a period 2001- 2013. This period covers a very extensive range of economic conditions, political change in major producers and increased sophistication in asset markets generally. The main objective is to study about the relationship between gold and silver in commodity market. The secondary objectives are to study different factors affecting the gold & silver price & to find out how price of gold & silver fluctuate in the Indian commodity market. After effective research it's found that there is significant relationship between gold & silver. The tools used are correlation, regression & ANOVA. The study will help investors to know the relationship and influence of factor over the price of the gold and silver.

Ciner (2001) investigated the interactions between gold and silver future prices using co-integration techniques and daily data from the beginning of 1992 to the end of 1998. He found that a stable gold and silver price on the Tokyo Commodity Exchange has disappeared in the 1990s. Hence, those two markets should be approached as separate markets and the change of gold-silver ratio should not be used to predict prices in the future.

Objective

1. To identify impact posed by the gold commodity on the commodity market.
2. To examine the impact of macroeconomic factors on the gold commodity.

Limitations of the study

1. The study is based on Indian commodity market and the results of the study may not be applicable to other commodities markets in the globe.
2. The study is based on secondary data, which has its own limitations on reliability and accuracy.

Analysis and discussion

The daily prices of gold for the years between 2015-2016 and 2019-2020 have been collected to make the analysis.

Relationship between Commodity Market and Gold

H_{01}- The **r**elationship between the commodity market and gold is insignificant.

Table 1: Correlation

		Commodity Market	**Gold**
Commodity Market	Pearson Correlation	1	.881**
	Sig. (2-tailed)		.000
Gold	Pearson Correlation	.881**	1
	Sig. (2-tailed)	.000	

*Significant at 5 percent level **Significant at 1 percent level

Source: Compiled and calculated using the primary data

From the above table, it is clear that there is a significant relationship between commodity market and gold. The variables imply a positive correlation. Thus, it can be concluded that there is a significant relationship exists between commodity market and gold. A regression analysis was used to measure the degree of impact posed by gold on commodity market in India.

H_{02}: The impact posed by the gold on the commodity market is insignificant.

Table 2

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.89[a]	.57	.59	.32
a. Predictors: (Constant), Gold				

Table 3

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	12.01	1	.31	1.25	.02[b]
	Residual	14.08	1441	.68		
	Total	26.09	1442			
a. Dependent Variable: Commodity market						
b. Predictors: (Constant), Gold						

Table 4

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	.17	.00	.17	4.23	.01
	Kno	.36	.00	.06	.98	.00
a. Dependent Variable: Commodity market						

The above table depicts the regression model showing the impact of gold on the commodity market. The regression coefficient R^2 is found to be 0.57 indicating 57 percent of the variance in commodity market is predicted by gold. The ANOVA result confirms that the model is fit and significant (F=1.25), p<0.05). The p-value is significant revealing that there is a significant relationship between gold and commodity markets. Therefore, it can be concluded that the impact posed by the gold on commodity markets is significant.

Impact of macroeconomic factors on Gold commodity

Table 5

DEPENDENT VARIABLE	INDEPENDENT VARIABLES
Gold	Inflation
	GlobalMovement
	Government GoldReserves
	JewelleryMarket
	Interest RateTrends

From the above table, it is conferred that the dependent variables and independent variables are confined to make analysis.

H_{03}: The various macroeconomic factors will have no significant difference in the gold commodity

Table 6: Multivariate Analysis of Variance

General Linear Model:macroeconomic factors

MNOVA for components of financial standing S = 2 m = - 0.5 n = 5			
Criterion	**Test Statistic**	**F**	**P**
Wilk's	0.510	8.32	0.070
Lawley-Hotelling	0.921	13.28	0.012

Pillai's	0.421	6.25	0.026
Roy's	0.813		0.005

Source: Calculated and compiled using Primary Data

The table above presents the multivariate analysis between the macroeconomicfactors and gold. It is inferred that the p values are being insignificant and hence the null hypothesis is accepted and concluded that the macroeconomicfactors will have no significant difference in the gold commodity.

H_{04}: The macroeconomicfactors will have no significant impact on the gold commodity

Table 7: Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Inf	-1.18	8.26	-0.48	0.04
GJ	3.21	8.14	6.32	0.01
GG	4.81	3.41	-3.17	0.02
J	2.52	6.51	-3.31	0.05
IR	1.21	2.11	5.11	0.04
C	-5.18	1.80	-3.02	0.03
R-Squared	0.61		**Durbin-Watson stat**	1.00
Adjusted R-squared	0.64			
F-statistic	3.22		**Prob (F-statistic)**	0.02

Source: Calculated and compiled using Primary Data

The table above shows the regression analysis between macroeconomicfactors and gold. The analysis shows (R^2 = 0.61), which states that the macroeconomicfactors contributed significantly for thegold. The F-statistic is significant indicating the hypothesized relationship between the variables is validated. The value of Durbin-Watson statistic is 1.00 indicating that the model is not suffering from auto correlation problem. The calculated F value is significant and hence, the null hypothesis is rejected and concluded thatmacroeconomicfactors will have a significant impact on the gold commodity.

Conclusion

India is one of the top producers of a large number of commodities and also has a long history of trading in commodity and related derivatives. Interestingly this have happen only after the government protection was removed from the number of commodity and market forces were allowed to play their role. The investor should be in a position to choose the best commodity to trade with, and also dealing with the right company. Amongst the many commodities that is being traded in the commodity market gold occupies the most prominent position. The focus towards the gold by the investors has become massive and people are showing really a significant interest towards the commodity. The various macro economic factors and its impact on gold is considered to eb the evidence, where the economy is reasonably dependent on the gold as a commodity.

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