CASE STUDY OF RISK AND RETURN ANALYSIS: REFERENCE TO GOLD AND SILVER

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ABSTRACT

This study primarily looks at the correlation amongst Gold and Silver for specific periods it incorporates, toward the beginning of the periods, the endeavored cornering of the silver and gold market as it were. The prime truth is that one would not assume to essentially observe a steady connection among Gold and Silver. Gold and Silver have in the past been viewed as a substitute for each other, both being valuable metals. There is an important affirmation that these valuable metals can play a helpful nature in broadening hazard, in addition, to be an alluring interest in their individual right, this one may anticipate the costs split comparative dynamic. The apparatuses utilized are connection covariance. The study will assist investors in knowing the correlation and investors who will put resources into Gold or Silver.

Keywords Commodity market, silver, and gold.

RISK

Risk refers to the changeability in returns from security. Fundamentally, the investors concentrate a more actual outcome which is not exactly the expected outcome. If the scope of potential outcome is wide, at that point the risk will likewise be high.

RETURN

Return is a standout amongst the most vital motivating elements which empower investment. Return is the top-notch given to the investor for making an investment. To decide the execution of an investment manager, it is basic to figure the historical returns. These returns are additionally regularly utilized as a key contributor for forecasting the returns later on. Investment is the responsibility of assets in a benefit or monetary instruments with the point of creating future returns as premium or profit. An investor has various investment alternatives to lean toward from, contingent upon his risk and desire for returns. Distinctive investment alternatives speak to an alternate risk-reward trade-off. Generally, safe investments are those that offer guaranteed, yet lower returns, while high- risk investments give the likelihood to gain more noteworthy returns.

SCOPE

1.The present study is centered on analyzing the risk-return on investment in gold and silver market.

2. Examining the commodity price movements in the market.

3. Helpful for investors for decision making.

OBJECTIVES

1. To study and analyze the commodity market of selected valuable metals i.e., Gold and Silver.

2. To study the price volatility among commodity market of selected valuable metals i.e., Gold and Silver.

3. To study the risk and return on Gold and Silver.

HYPOTHESIS

H0- There is no significant relation between bullion commodities risk & return and market risk & return.

H1- There is a significant relation between bullion commodities risk & return and market risk & return.

RESEARCH METHODOLOGY

The source of data can be collected from Primary data and Secondary data. Primary data is that data which are collected by and by through the review with the questionnaire and by the observation strategy, however, in my project, everything is finished with the historical values which have as of now there in websites. So, my data collection is from secondary data.

Secondary data: Data is collected from different sources

• Textbooks

• Journals

• Websites,

• Newspapers...etc.

Period of the study: The period of the present study is consisting of one month ranging from 1st jan.2014 to 31st Jan.2015.

SAMPLING: Sample area: In commodities, I have picked non-agro commodities i.e., Gold and Silver

REVIEW OF LITERATURE

Dr. Shefali Dani and Riddhi Ambavale, in their study, found that Gold and Silver are the most mainstream metals in India. Investors do invest in Gold and Silver with their other investment options like stocks, mutual funds, real estate property. The research is that before the year 2006, investors consistently influence investment in Gold and Silver however they to lessen their investment in such metals as the price of Gold and Silver are at hike peak for the back 2007, and they have picked other choice from the investment. In Silver, coins of Silver are most prevalent among the investors. Structure their investigation of the investors' preference on investment on Gold and Silver by conduction research about through the questionnaire, we can to realize that investors are investing in Gold and Silver rely upon their income and savings with them.

Draper, faff et. Al. (2002) "Do Precious Metals Shine? An Investment Perspective". Portfolios that contained Gold, Silver, or platinum perform altogether superior to a standard equity portfolio. Along these lines, sharp investors can limit hazard while maximizing returns.

Dr. G. Malyadri and B. Sufheer Kumar (2012) "A Study on Commodity Market" recalls that commodity derivatives touched base in Indian as mid-1875, scarcely about 10 years after they arrived in Chicago. The commodity market in India has encountered an exceptional boom as far as the numbers of modern exchange, the number of commodities allowed for derivative trading just as the issues to be made do with continued development of the market.

Jaffe (1989) while Gold is very risky as an individual asset; its profits are commonly autonomous of those on different assets. This proposes Gold can assume an important role in a diversified portfolio. 'Particularly in recession and financial crisis, expanding gold investment to a larger amount can diminish account volatility and secure one's financial future over the long run.

Sherma, f. (1983) "AGoldPricing Model" in his study presented that gold markets carried on productively new data is immediately incorporated into the price. Under molding of vulnerability, numerous investors swing to Gold since it is a "currency without borders – a profoundly liquid and secure asset that can be accessible at any time. During economic distress, most asset classes will in the general move in a similar direction. Gold is correlated to numerous assets, including equities and bonds. The economic forces that decide the price of Gold is against the powers that decide other financial assets. Subsequently, Gold assumes an essential job as a diversifies, going about as a balancing out impact for investment portfolios. Along these lines, a portfolio blend of equities with Gold would result in a portfolio of assets moving independently, with low correlation

STATISTICAL TOOLS

In this study, the accompanying statistical tools are utilized to evaluate the performance of the Gold and Silver.

1) Mean

2) Standard Deviation

3) Correlation and covariance

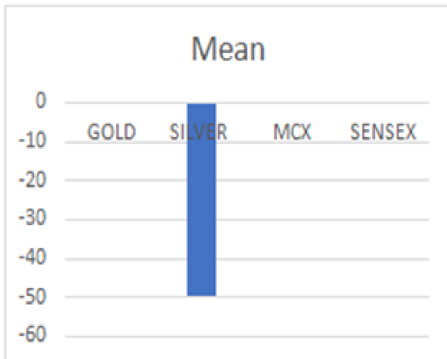
4) Variance

5) Beta

6) Bar diagram

DATA ANALYSIS AND INTERPRETATION MEAN

	MEAN
GOLD	-0.06324
SILVER	-49.4231
MCX	-0.22399
SENSEX	-0.23275

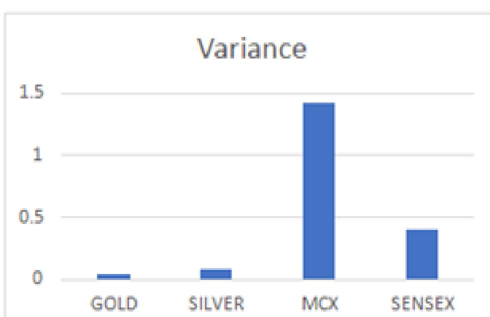


Interpretation: From the above table the average return of all variables are negative

values. The least negative value observed in MCX and Sensex with -0.22399 and - 0.23275 compared to gold and silver with - 0.63239 and -49.42308 respectively.

VARIANCE

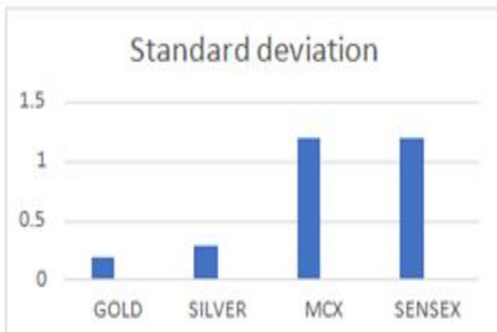
	Variance
GOLD	0.038514
SILVER	0.080022
MCX	1.42247
SENSEX	0.394604



Interpretation: From the above table, 1.42247 is the highest stated variance of MCX and 0.0385137 is the lowest variance of commodity gold.

STANDARD DEVIATION

	standard deviation
gold	0.196249
silver	0.282882
mcx	1.192673
sensex	1.192673



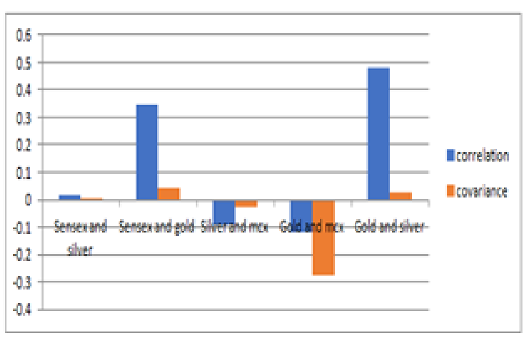
Interpretation: From the above table, mcx and Sensex both stands highest in standard deviation value i.e. 1.1926735 and gold is the lowest raised standard deviation value i.e. 0.1962491.

Calculation of Beta

The Beta value arose for the analysis of both variables gold and silver is 0.67190

CALCULATION OF CORRELATION AND COVARIANCE

variables	Correlation	Covariance
Sensex and silver	0.0188312	0.0028949
Sensex and gold	0.3462756	0.0428794
Silver and mcx	-0.093289	-0.027229
Gold and mcx	-0.117155	-0.27544
Gold and silver	0.4784467	0.0255395



Interpretation: The above table depicts that there is a relationship between gold and silver with market returns (sensex and mcx). Sensex and silver are positively correlated and sensex and gold are also positively correlated. It shows that silver, gold, and sensex are moving in the same direction and vice-versa. Gold and silver are in the same direction.

HYPOTHESIS TEST

T-Test: Paired Two Samples for Means

	Market returns	Gold returns
Mean	-1.723913043	-0.052987358
Variance	77.38747036	0.042471963
Observations	23	23
Pearson Correlation	-0.116033685	
Hypothesized Mean Difference	0	
df	22	
t Stat	-0.908217524	
P(T<=t) one-tail	0.186802674	
t Critical one-tail	1.717144374	
P(T<=t) two-tail	0.373605349	
t Critical two-tail	2.073873068	

T-test value -0.908 which is lower than the t critical value i.e., 2073873068.so, we failed to reject H0. Hence there is no significant relationship among gold and market returns.

T-Test: Paired Two Samples for Means

	Market returns	Silver returns
Mean	-0.088307696	-0.22399
Variance	0.065458441	1.42247
Observations	23	23
Pearson Correlation	-0.093289414	
Hypothesized Mean Difference	0	
df	22	
t Stat	0.523531025	
P(T<=t) one-tail	0.302919415	
t Critical one-tail	1.717144374	
P(T<=t) two-tail	0.605838831	
t Critical two-tail	2.073873068	

t-test value of silver is 0.523 which is lower when compared to critical value with 2. 073873. So, we are failed to reject H0, here, there is none relation among silver and market returns.

FINDINGS

1. Silver and mcx returns are low when compared to gold and mcx returns.

2. The Standard deviation of gold is lower when compared to both the standard deviation of mcx and sensex.it refers to the total risk of mcx is the highest

3. Silver variance is highest when compared to gold variance.

4. Gold and silver, sensex and silver, sensex and gold are correlated positively and other, both combinations are negatively correlated.

5. Silver and gold are opposite to mcx and gold moves opposite and silver moves in an identical direction.

CONCLUSION

To assess the data, correlation, beta, standard deviation, mean is utilized. Gold and Silver have low price development contrast with Sensex and MCX. Silver moves same way with Sensex files. Gold and Silver are positively correlated and covariance. Gold and MCX, silver and MCX have adversely corresponded. It shows gold and silver move inverse to MCX. An Investor can invest in Gold and Silver when MCX has falling view.

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