

Performance Analysis of Returns of Goldman Sachs Gold Exchange Traded Fund

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Abstract

Goldman Sachs Asset management (India) Private Limited is the first mutual fund house which came up with the concept of scheme of Gold exchange traded fund in 2007. As, the scheme's performance is directly related to the domestic price of gold. It's growth over a period of time is not reflected by some of the research studies. The study is undertaken to fill the research gap with emphasis on determining the potential of generating the performance returns of scheme of Goldman Sachs Gold exchange traded fund from the period 2007-2012. The main objective of the study is (a) to identify the performance of returns of Net Asset Value for the period (b) to identify the performance of returns of domestic price of Gold for the period (c) to determine the trend analysis of computed Net Asset Value returns and (d) to determine the trend analysis of domestic price of gold returns. The hypothesis in this study involves growth rate of Net Asset Value returns & domestic price of gold returns. For this purpose, secondary data is used for collecting historical net asset value prices & domestic price of gold for the period 2007-2012 from the company's website. Computation of daily net asset value returns & domestic price of gold returns is taken into account for five years to identify the tracking error. Hence, the methods used for interpretation of data in the study are tracking error and trend analysis. The trend analysis will show that the net asset value returns are in close proximity with domestic price of gold returns through tracking error. Lower tracking error indicates the better performance of the scheme. The study helps investors for better assessment of the scheme before investment.

Keywords: Gold ETF, Net Asset Value, Domestic Price of Gold, Tracking Error, Trend analysis.

1. Introduction

Goldman Sachs Asset Management India(Private) Limited, earlier named as Benchmark Asset Management company private limited launched the scheme of Goldman Sachs Gold Exchange Traded Fund in 2007. It is listed at National Stock Exchange with a symbol GS GOLDBeEs . It is an open-ended gold exchange traded fund wherein the investors get the opportunity to participate directly in the gold bullion market without the necessity of taking the physical delivery of gold. They participate through demat account wherein they get a share certificate in the form of paper gold, where each unit is approximately equal to one gram of gold, constituting 99.5% purity. The scheme provides an easy and convenient route for reaping the benefits of returns, before expenses which closely correspond to the domestic price of Gold. There is no entry/exit load for participating in the scheme but an investor has to bear the management fee through which the scheme operates. The maximum expense ratio offered by the scheme of Goldman Sachs gold exchange traded fund is 1.50% annualized as mentioned in its Scheme Information Document.

Net Asset Value: Goldman Sachs gold exchange traded fund owns the assets such as Gold, debt and other liquid instrument and cash component in certain percentage form as its portfolio and by combining these assets and thereby, dividing it by the number of units in the Goldman Sachs gold exchange traded fund constitute the net asset value of exchange traded fund. Therefore, in order to determine the value of a unit of Goldman Sachs gold exchange traded fund we take into account net asset value which is the current price of gold less the scheme's expenses.

Tracking Error: Tracking error is a standard deviation of differences between the returns on the portfolio i.e Net Asset Value returns and the returns on the benchmark i.e. domestic price of gold returns.

Trend Analysis: Trend Analysis refers to the techniques for extracting an underlying pattern of behaviour of variables (Net Asset Value returns and domestic price of gold returns) in a time series i.e on an annual basis, which would otherwise be partly or nearly hidden. A trend line is a mathematical equation that describes the relationship between two variables.

Gold prices are less volatile and subject to less market fluctuations, thereby offering a protection against risk and making it an attractive option for diversification. Instead of investing in the raw form of gold where an investor gets highly concerned for its safety, maintenance and storage costs. Goldman Sachs Gold exchange traded fund safeguards the investors from these hassles and also makes an affordable option for investors as they are allowed to trade even in smaller denominations. The average assets under management of the scheme of Goldman Sachs Gold exchange traded fund for September 2013 is ₹ 282,812.29 lakhs.

2. Review Literature

1. Stein, David (1999), introduces tracking error as an integral aspect of portfolio management. The research study explains tracking error in more depth so as to help investors understand the concept and establish their performance expectations.
2. Athma, Prashanta, & K, Suchitra (2011), conducted the study which constitutes to fill the research gap with the objectives to focus on the Gold ETF as a strong asset class. The second objective is to stress upon the inclusion of Gold ETF in a portfolio for risk diversification and thirdly, to assist the investor in the selection of the best Gold ETF option and its tax implications. The findings revealed that Gold prices are less volatile compared to the equities market which instilled confidence in the minds of investors to possess gold proving it to be a strong asset class. Inclusion of Gold ETF in a portfolio would diversify the Portfolio risk.
3. Goyal, Alok, & Joshi Amit (2011), studies the financial performance of the selected Gold ETFs, their variations and analysed the risk behaviour in comparison of NSE.
4. Sindhu (2013), studies and analyzes the impact of factors like exchange rate of US dollar with INR, Crude oil prices, repo rate and inflation rate individually on gold prices. There exists an inverse relation between the US \$ and gold prices. The crude oil prices have an impact on the gold prices. Gold prices and repo rate are interdependent. Gold prices and inflation rates are also dependent and positively correlated.

2.1 Research Gap

The review literature reveals that previous studies do not cover the performance of the Gold exchange traded scheme of Goldman Sachs asset management company. Hence, the study is undertaken to determine the potential of generating the performance returns of scheme of Goldman Sachs Gold exchange traded fund from the period 2007-2012.

3. Objectives of the Study

The objectives of the study are as follows:

- a) to identify the performance of returns of Net Asset Value for the period
- b) to identify the performance of returns of domestic price of Gold for the period
- c) to determine the trend analysis of computed Net Asset Value returns
- d) to determine the trend analysis of domestic price of gold returns.

4. Research Methodology

The study is based on secondary data. The data has been taken from the company's website, Goldman Sachs Asset Management India Private Limited. The following data have been taken:

- (1) Historical Net Asset Value prices for the period 2007-2012.
- (2) Historical domestic price of Gold i.e benchmark of Gold exchange traded fund for the period 2007-2012.

4.1 Hypothesis:

- (1) **Hypothesis Assumed (H_1):** The performance of returns of Net Asset value is always positive.
- (2) **Hypothesis Assumed (H_1):** The performance of returns of domestic price of gold is always positive.
- (3) **Hypothesis Assumed (H_1):** Growth rate of Net Asset Value returns is closer to domestic price of gold returns.

4.2 Statistical Tools and Techniques

Calculation of percentage change in net asset value returns and domestic price of gold returns since inception, Tracking error and Trend Analysis are being used which are explained below:

4.2.1 Calculation of percentage change in Net Asset Value returns and domestic price of gold returns

- (i) Percentage change in NAV returns = (NAV of current date - NAV of previous date)/NAV of previous date *100
- (ii) Percentage change in DPG returns = (DPG of current date - DPG of previous date)/ DPG of previous date *100 where NAV = Net asset value and DPG = Domestic price of gold.

4.2.2 Tracking Error:

$\sigma^2 = 1/(n - 1) \sum(x_i - y_i)^2$
 standard deviation
 it is measured(n=2 for two working days)
 Asset Value for the period i
 domestic price of gold for the period i

where σ = tracking error or
 n = number of periods over which
 x_i = percentage return on the Net
 y_i = percentage return on the

4.2.3 Trend Analysis for the period 2007-2012 : $Y = MX + B$

where X= independent variable and is usually the one Asset Management company has control over

Y =dependant variable that changes in response to X.

The other two letters, M and B stand for actual numbers that are specific to the data, so trend line equation will have numerical values in place of M and B.

5. Analysis and Interpretation

Analysis and interpretation has been done on the basis of trend analysis. Trend analysis will reveal the performance of returns generated on a daily basis from 2007-2012 by

Performance Analysis of Returns of Goldman Sachs Gold Exchange Traded Fund 797

Net Asset Value and domestic price of gold. Tracking error will reveal the consistency of Net Asset Value returns closer to domestic price of gold subject to management expenses.

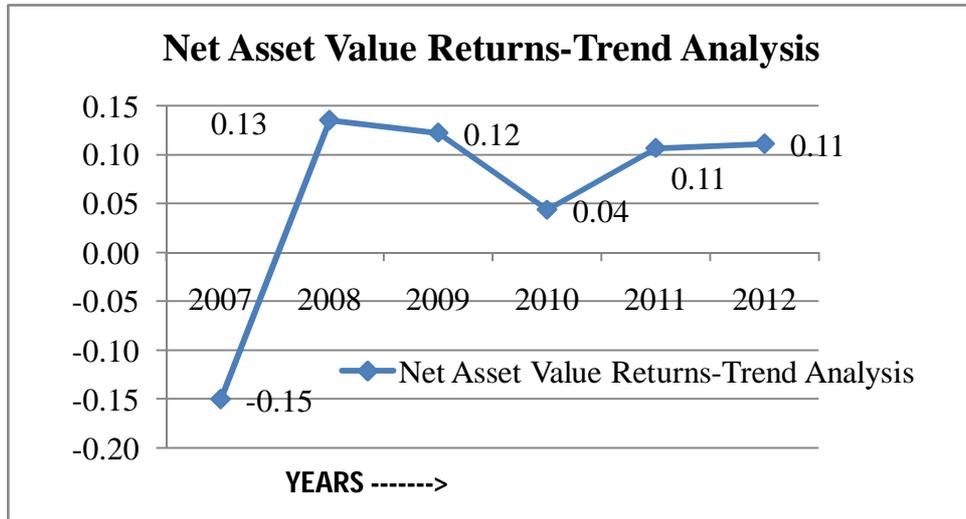


Figure 1: Trend Analysis of Net Asset Value Returns.

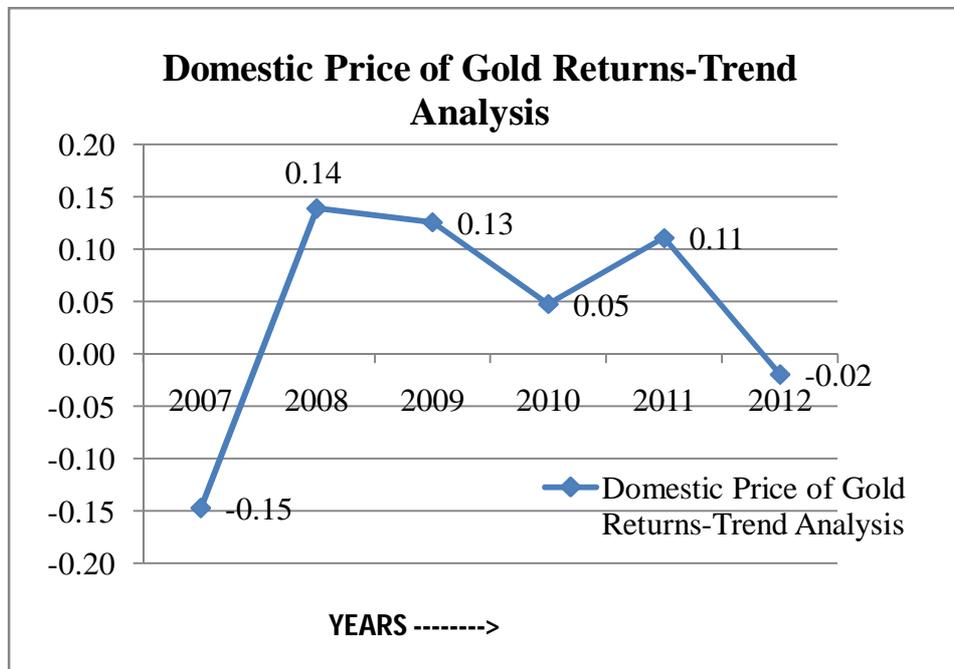


Figure 2: Trend Analysis of Domestic Price of Gold Returns.

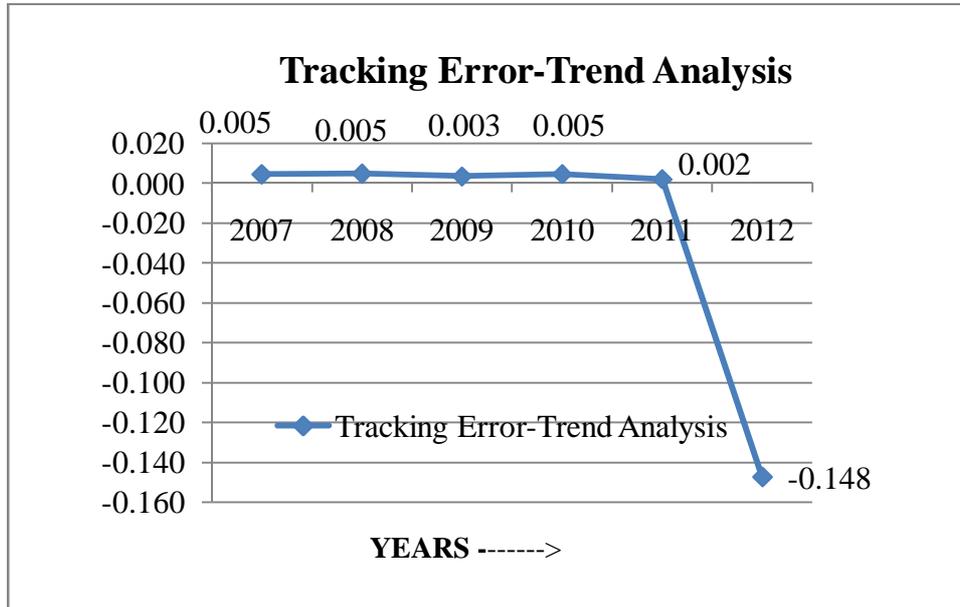


Figure 3: Trend Analysis of Tracking Error.

The performance of returns of Net Asset Value is not always positive as shown in Figure 1 where the Net Asset value returns in the year 2007 is -0.15%. It is due to low awareness among the investors regarding the scheme of Goldman Sachs Gold Exchange Traded Fund. Therefore, the hypothesis doesn't stand true only for the year 2007.

The performance of returns of Domestic Price of Gold is not always positive as shown in Figure 2 where the domestic price of gold returns in the year 2007 is -0.15%. Since, the scheme of Goldman Sachs Gold exchange traded fund was launched on February 23, 2007 but it became functional from March 8, 2007. Investors subscribing in the scheme were less due to lack of awareness of the new concept. So, the fund's valuation for the creation unit of domestic price of gold through physical gold depends on the demand and supply conditions prevailing in the year 2007. Therefore, the hypothesis doesn't hold true only for the year 2007.

Growth rate of Net Asset Value returns is not always closer to the domestic price of gold returns. We can get to see that the domestic price of gold is negative i.e. -0.02% in the year 2012 but net asset value returns are positive i.e. 0.11%. Due to which tracking error comes out to be -0.148% as shown in Figure 3. It is due to the fact that domestic price of gold is affected by the market conditions prevailing in the year 2012. If we analyze the overall performance of the scheme, we notice that the net asset value returns are able to reach it's benchmark returns i.e. domestic price of gold returns. It is witnessed through low tracking error i.e. 0.005% in the year 2007, 2008 and 2010. Furthermore, 0.003% in 2009 and 0.002% in 2011 which are positive signs for the fund in generating positive and better returns for the investors. Lower tracking error is subjected to the lower management expense, applicable on the scheme of Goldman

sachs gold exchange traded fund which is 1.00%. It is also resultant of the fund manager's expertise in managing the fund i.e. to invest the entire corpus comprising of gold, gold related securities and cash component exactly in the same proportion as in the underlying index i.e. domestic price of gold returns.

6. Conclusion

The consistency of the scheme of Goldman Sachs Gold exchange traded fund in generating better performance is dependent on the lower tracking error. Tracking error which are subjected to management fees and expenses applicable on the scheme, corporate actions, cash balance, changes to the underlying index i.e. domestic price of gold through creation unit and other regulatory restrictions.

Goldman sachs gold exchange traded fund is directly tradeable at the prevailing market price of gold, so the investors need to equip themselves of the various prevailing market conditions which has a direct relation on the fluctuations of the scheme. This study will help them to assess certain other factors which have not been covered in previous research studies of Gold exchange traded fund.

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