DOI : 10.18843/ijms/v5i3(3)/17
DOIURL :http://dx.doi.org/10.18843/ijms/v5i3(3)/17

Gold Exchange Traded Funds: A Perfect Substitute of Physical Gold

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ABSTRACT

Gold has its own importance from investors and cultural point of view. It stands as a sign of wealth and prosperity amongst individual and is popular among investors for building a strong portfolio. There are different ways to invest in gold viz. gold bullion bars, ornaments, gold coins, gold futures, gold ETFs etc. Gold ETFs are like owing virtual gold, which does away with the difficulties confronted while investing in physical gold. The present study aims to understand the advantages of investing in gold ETFs over physical gold and compare their returns and deviations of returns. For the purpose of the study the data was collected from secondary sources and was analysed using Ms-excel. Further hypothesis was tested using T-test and results were interpreted thereof. The study concluded that gold stands as one of the best diversifier and gold ETFs provides almost same returns as that of gold hence to avoid the difficulties conferred while in investing in physical gold one can switch to gold ETFs.

Keywords: Gold bullion, Exchange Traded Funds, Gold Exchange traded funds.

INTRODUCTION:

Gold has a deep-rooted importance in the Indian history, appealing people from different parts of the world with its beauty and charm. India is well known for its' obsession for gold. Here it stands as a symbol of wealth, prosperity beauty and heritage. Indians hoard gold in the form of gold coins, ornaments, jewellery etc. which is passed on to generations and has proved to be an efficient investment way for Indian households. Moreover, it is used by people to capitalize their business, farms or secure their basic needs after severe reversals and backdrops, by pledging the gold forms they have.

Apart from just being a sign of prosperity and wealth, gold has also emerged as a much more trustable form of investment among the investors of not only in India but also all over the world. Higher the risk, higher will be the return and vice-versa is the general rule, which depends upon the investor's choice. In India investors are risk averse in nature, they try to invest money in investment avenues with low returns but known risks rather than with higher returns and unknown risk. Now due to lower yields / returns, investors are forced to look after alternative modes of investment and they, instead of making aggressive investment, now prefer sensible investment decisions. The presence of uncertainty and volatility in the market have increased the importance of risk management, which has increased investor's inclination towards portfolio investment. A research report from W.G.C (2011) concludes, "even if the investor holds a variety of alternative assets, they are no substitute for protection that presence of gold can offer. Allocation of gold in the portfolio along with the other assets reduces the risk without reducing the long-term returns".

Gold is considered as the best investment an individual can make to protect himself from the losses due to market fluctuations. Expert investors say presence of gold in the portfolio makes the portfolio well diversified, as gold is negatively correlated asset to other stock in the portfolio. It is one of the best ways to diversify the portfolio and to protect the wealth of the investors due to its universal appeal in the world and stability during various crisis period in past. It has been the best hedge against inflation and erosion of various currencies. Investors can invest in gold in various forms i.e. Gold coins, ornaments, Gold bullion Bars, Gold futures, Gold ETFs etc. the choice of investment depends upon the time span of investment and the investment objectives of the investors.

Exchange Traded Funds:
Exchange traded funds or ETFs essentially are cost effective, passively managed investment funds that is inherited with combined features of stocks as well as mutual funds. In other words, an ETF is like an index fund that are listed and traded on exchanges like stocks at a discount or premium i.e. above or below its actual NAV based on demand and supply equation of the market. Thus at their core ETFs are hybrid investment products, with many of the investment features of mutual funds and of common stocks. Hence, it can be said that ETFs provide liquid access to virtually every corner of the financial markets, allowing investors to build strong calibrated portfolios with less management fees as compared to that of mutual funds.

Gold Exchange Traded Funds:
Gold ETFs are exchange-traded funds that are meant to track closely the price of physical gold. Gold ETF's are units representing physical gold which maybe in paper or dematerialized form. Gold ETF makes it easier to invest in gold. The investment objective of Gold ETFs is to provide returns that closely correspond with the domestic price of physical gold. Each Gold ETF unit is roughly equal to the price of 1 gm of gold, it is easy to buy each unit at a time and over time, a strong gold portfolio can be built. These units are traded on exchanges like any other stock of a company. Gold ETF's are intended to offer investors a means of participating in the gold bullion market without the necessity of taking physical delivery of gold.
Gold ETFs invest in gold of 99.5% purity, which prevents one from falling into the clutches of jewellers who fool their customers. Moreover, owing virtual gold I the form of ETFs vanishes the difficulty of storage security and purity, which may be there with physical gold. These ETFs are highly liquid thus can easily be converted in cash at real time prices on stock exchanges and 1 unit of ETF is approximately 1 gm of gold which makes it easier for small investors to invest in low cost, small denomination, with affordability in dealing contribute to its desirability over physical gold.
In India, Benchmark Asset Management Company Private Limited propounded the idea of ETF when they filed proposal to SEBI in May 2002, however it was not approved, after approval, Benchmark Mutual Fund launched India's first Gold ETF on 15th Feb followed by UTI Mutual funds Gold Scheme on 1st march 2007.

LITERATURE REVIEW:

- Wang, Hussain & Ahmed (2010), Studied the developments of the gold exchange traded funds and future scenario, specifically in China. Their study shows that the gold exchange traded fund is an affluent product to invest in the gold and holds a very constructive implication for the foreign exchange, financial safety and avoiding the inflation in the country.
- Goyal & Joshi (2011), studied the financial performance, variations and also analyzed the risk behavior of the selected Gold ETFs in comparison of NSE from the period March 2008 to December 2010.The study find strong evidence that the Gold ETFs are good for investors as they are having less variations as compare to the other investments. Confidence of investors is increasing and hence the future of gold is bright in India.
- Pullen, Benson & Faff (2011) examined the safe haven, hedging and diversifying properties of gold stocks, gold bullion, gold ETFs and gold mutual funds. They found that all of these tend to be diversifiers. Both gold bullion and gold ETFs showed support for the property of safe haven but there was very little evidence of the safe haven characteristics in case of gold mutual funds and gold stocks and thus, the investors who were keen on securing safe haven features of gold, could not generally trust on gold mutual funds or gold stocks. Instead, they needed to take direct exposures in gold ETFs or bullion.
- Saleem & khan (2013), studied the emergence and history of gold ETFs in India and explained the working mechanism along with the portfolio risk diversification and tax implications of gold ETFs in India. They also made a comparative study of gold and gold ETFs and suggested that gold ETFs are very attractive investment destination due to its low price, smaller denomination feature and other advantages over physical gold.
- Goyal (2014), studied the performance of various investment alternatives from the period of October 2007 to October 2014. The results suggested that Gold ETFs were providing higher returns at a lower risk as compared to the market. Also systematic risk for Gold ETFs were negative implying that inclusion of gold stocks in the portfolio will make it more diversified and risky less. Investment in gold can be beneficial to both retail as well as institutional investors.

- Aggarwal et.al. (2014), studied the comparison between performance of gold ETFs and physical gold. For this purpose, monthly returns from March 2011 to March 2014 was taken and risk and return of physical gold is compared to risk and return of gold ETFs. The results derived suggested that the gold ETFs has lesser variability as compared to that of physical gold and hence the performance of gold ETfs was better than that of the performance of physical gold.
- Eswara (2015), studied the performance and relationship of gold ETFs (post-crash period) to spot gold prices using regression and correlation. The results suggested that the performance of gold ETFs was better and superior as compared to other mutual funds, fund of funds and other ETFs during the period of study. This study concluded by asserting that investing in gold in Indian scenario is better investment option comparatively.
- Esampally & Aarthi (2015), studied the returns and risk of gold ETFs to that of the returns and risk of fund of funds. Monthly NAV from march 2011 to march 2014 were used for the study. The result concluded that gold ETFs record lesser variability as compared to that of gold FOFs and therefore, the performance of gold ETFs was better than FOFs.
- Raghu G. Anand (2017). Studied the analysis of gold and gold ETFs as an investment tool and its advantage. For this purpose, five popular gold ETFs were chosen and a comparative analysis of gold and gold ETFs was done. The results concluded that gold indeed is one of the best investment options available for investors. The innovative collective scheme (gold ETFs) provides higher returns than physical gold and helps the investors to gain. Gold ETFS have been consistent in their returns, which makes them remarkable to shift investors mind from physical gold to gold ETFs.

OBJECTIVES OF THE STUDY:

- To enumerate and understand the advantages of investing in Gold ETFs.
- To compare the annual returns and deviations (risk) of Gold ETFs individually and with that of physical gold.
- To test whether there is a difference or not in the returns of Gold ETFs as compared to the physical gold.

METHODOLOGY OF THE STUDY:

This study is empirical in nature based on secondary data. To fulfil our objectives the data was collected and filtered as needed from various published sources and websites such as NSE, World Gold council and many others. In this study the returns and deviation of physical gold is compared to that of the Gold ETFs. For this purpose, the daily prices for physical gold for 6 calendar years (i.e. from 2012 to 2017) was collected from the website of World Gold council and was converted to the price per gram of physical gold and the daily closing prices for Gold ETFs was collected from the website of National Stock Exchange respectively. Thereafter daily returns and annual returns was calculated using formula:

Return for N^{th} day =

$$\frac{\text{Closing price at the end of } N^{th} \text{ day - closing price at the end of } (N\text{-}1)^{th} \text{ day}}{\text{closing price at the end of } (N\text{-}1)^{th} \text{ day}} \text{ X } 100$$

(The above formula is used to calculate the annual returns by replacing the word day in above formula by year) The above formula gave us the annual and daily returns for each Gold ETFs and physical gold. Thereafter the standard deviation for the Gold ETFs and physical gold was calculated to estimate the deviation of each Gold ETF and physical gold from their mean. The annual returns and the standard deviation was rounded off to four points after decimal to ease out the calculations. Further to test the hypothesis of our study T-test was found suitable and the same was applied over daily returns and results were interpreted thereof.

Physical gold v/s Gold ETFs:
Gold ETFs are investment avenues that invests in gold of 99.5% purity. Investing and maintaining these funds is easy and satisfying due to its diversifying nature. Gold ETFs are more ideal than physical gold due to the following reasons:

- Gold ETFs are investments in gold of 99.5% purity only. Investing in Gold ETFS prevents from falling in to the clutches of jewellers who fool the customers in the name of purity.
- Gold ETFs does away with the difficulty of storage and security hazards of possessing physical gold. The units of gold ETFs can easily be stored in both demat and trading account without the uncertainty of being

theft or stolen. A word of caution here, you could be sure of it when you keep your units in accounts secured with user name and password.

- Gold ETFS are ideal for small investors as they can now invest in ETFS in small denominations to as low as 1 gm of gold. This benefit is not available with physical gold So ETF's can be bought easily in small instalments regularly and increased in the virtual form.
- Low cost and affordability in dealing with gold ETFs increases their desirability over physical gold. ETFs are listed in exchanges, which helps to reduce processing charges, disbursements and collection charges. Gold ETFs also help do away with the carry charges in gold futures.
- Gold ETFs can easily be converted in cash at real time prices on the stock exchange avoiding charges like commission, and unnecessary fuss over quality and price by jewellers makes them a desirable investment over physical gold. This also makes buying and selling these units easy.
- Uniform pricing in Gold ETFs offers no scope for price discrimination, which is experienced in encashing physical gold. Gold rates in different states may differ. It may also differ from a wholesaler to retailer. However, Gold ETF will have the same Rate as rest of India. As it is traded in the market, one lacking knowledge and experience in dealing in gold would do best to invest in good gold ETFs.
- Gold ETFs are likely to show lesser tracking errors as compared to normal funds as the creation and redemption of units are done with units of the same type. This accounts for lesser liquid cash being required and the short time interval between buying and selling of units.

However, some may disagree and say that the psychological satisfaction of seeing and feeling physical gold in the physical form is important and gold ETFs are an intangible concept. It is purely a question of one's own perception, but an investor should strongly vouch for gold ETFs if investment, safety and security is ones objective.

Instead of keeping gold in physical form if one really wants to consider it as an investment, shall keep it in the form of Gold ETFs, which will remove the problem of emotional attachment towards gold and be safe. If you need money you will feel free to encash it. However, in the case of physical gold, we will not be prepared to sell it because we will have emotional attachment towards physical gold. Therefore, Gold ETFs are the better way to invest in gold.

DATA ANALYSIS AND INTERPRETATION:

Returns Analysis:

Annual returns for physical gold and Gold ETFs was calculated based on filtered data and is presented in the form of line chart in figure no .1. From the figure, it can be inferred that during past six year (i.e. from 2012 to 2017) all the 11 ETFs under analysis have closely tracked their underlying in terms of returns. In year 2012, the annual return of physical gold was 11.6977 % which was very close to the returns of Gold ETFs with HDFCMFGETF (12.2805%) being the highest and SETFGOLD (10.1622%) being the lowest and others lying in between these two. During year 2013 and 2015 the returns from physical gold was of negative nature however, in 2013 Gold ETFs also gave negative return but all of them were better in comparison to physical gold. While in 2015 five out of eleven Gold ETFs under analysis underperformed as compared to physical gold and rest all were at par. Year 2014 can be said to be the year of exception as in this year all eleven ETFs have underperformed. In 2016, all Gold ETFs were in sync with physical gold and gave more returns than their underlying (8.3063%) with highest being that of IVZINGOLD (21.3903%) and lowest of BSLGOLDETF (8.6367%). During 2017 physical gold had annual return of 5.9521% and Gold ETFs also had positive returns but ranging in between 6.7086% (SETFGOLD) to 0.4373% (GOLDIWIN).

Risk Analysis:

Standard deviation was calculated using excel sheet and the results attained was plotted in the column chart as in Figure no. 2. From the figure, it can be inferred that almost all the gold ETFs schemes have approximately same standard deviation. While physical gold has the standard deviation of 11.2232, amongst the Gold ETFs the highest standard deviation is of IVZINGOLD (13.8132) followed by AXISGOLD (10.4475), IDBIGOLD (9.6114), HDFCMFGETF (9.5570), GOLDBEES (9.3636) and the lowest is of BSLGOLDETF hence it can be said that IVZINGOLD is the riskiest one and BSLGOLDETF being the safest.

Test of Hypothesis:

H_0 = There is no difference in the returns of Gold ETFs as compared to that of the returns of physical gold.
H_1 = There is difference in the returns of Gold ETFs as compared to that of the returns of physical gold.
To test the hypothesis of our study t-test (paired two sample for means) was conducted individually for each of

the Gold ETFs over the daily returns. In every case, it was found that the P value was greater than the value of alpha 0.05, which means that our null hypothesis is accepted, it redirects towards the result that there exists no difference in the returns of Gold ETFs as compared to that of the returns of the physical Gold.

FINDINGS AND CONCLUSIONS:

In the above study the daily returns and annual returns of physical gold and individual Gold ETF was calculated so as to ease the comparison and find whether the gold ETFs closely track their underlying in terms if returns. It was found that almost all Gold ETFs makeup to the standard and those who do not they had only slight lower returns than actual gold, which can be ignored (Figure 1). Further standard deviation analysis was used to check out the deviations of returns from their mean for physical gold and individual ETFs. It was found that almost every ETF had the nearby standard deviation as of physical gold. IVZINGOLD had the highest standard deviation followed by AXISGOLD and IDBIGOLD and the lowest standard deviation was of BSLGOLDETF suggesting IVZINGOLD to be the most risky and BSLGOLDETF being the safest one (Figure 2).
Further to test the hypothesis of our study T-test was used and the results suggested to accept the null hypothesis that there is no difference between the returns of physical gold and Gold ETFs.
Thus from the results and analysis conducted it can be said that gold indeed is one of the best investment options available to Indian retail investors. Gold ETFs provide the higher returns and if not at least close returns to that of their underlying. This innovative, easy and liquid investing tool helps the prospective investor’s gain and asset management companies to widen their products and customer base. Consistent returns by Gold ETFs over past years has been remarkable and shifted the general investor’s mentality from physical gold to Gold ETFs. In fact, studies suggest that real value of gold may change in short term but in long term, gold has always returned to its historical purchasing power parity. For long term gold may be the best tool for preserving wealth but to match up the demand is not an easy task, hence instead of investing in physical gold, investing in something completely identical to it would be a clever job, hence Gold ETFs are the best choice. All in one, Gold ETFs form a highly attractive investment tool and a must include option in the portfolio of a modern investor.

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FIGURES:

Figure 1

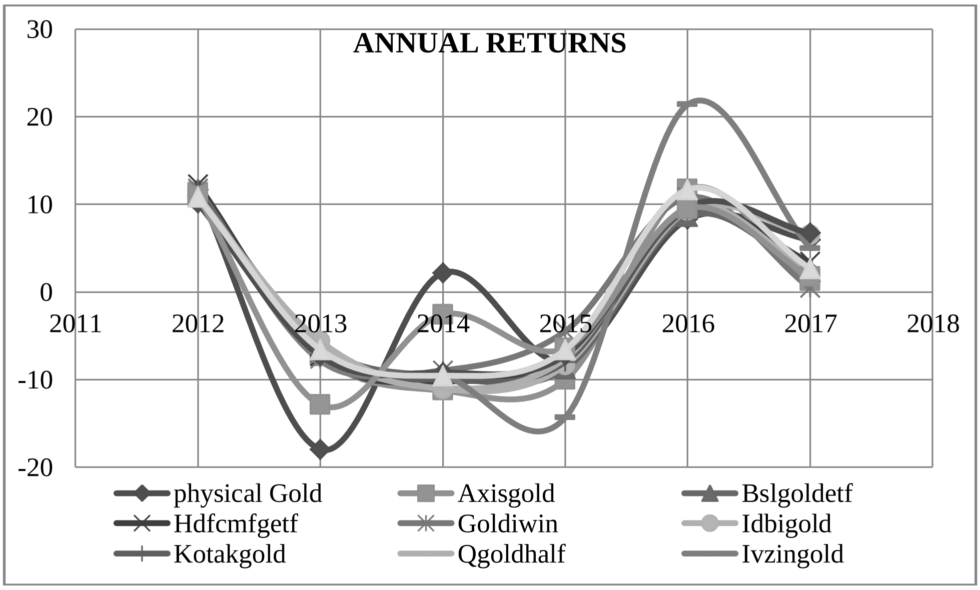

Figure 2