



A Study on Gold Etf's Performce in India

KEYWORDS

Gold ETF's, ETF Performance

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ABSTRACT In India, gold ETFs were launched mainly with objective to increase the liquidity for the better market efficiency. The drawback with gold ETFs is liquidity; some ETFs are illiquid, which impacts their buying and selling flexibility. Hence, investors should consider this as a factor while investing in gold ETFs and should stick to funds that are liquid. The average returns and NAV has been undertaken to identify the growth of gold ETFs in India.

INTRODUCTION

Exchange-Traded Funds (ETFs) were first introduced in USA in 1993. About 60% of trading volumes on the American Stock Exchange are reported to be from ETFs. As per the ETF landscape report released by BlackRock Inc. (a US-based AMC), ETFs have grown by 33.2%, compounded annually in the past 10 years, and 26.1% in the past five years, globally. ETFs are referred to as passive schemes that fund managers resort to, to avoid risk and offer low-cost options to the investors. These funds rely on an arbitrage mechanism to maintain the prices at which they trade, in line with the net asset values of their underlying portfolios.

As Exchange-Traded Funds started growing in India since 2006, the investment industry required performance analysis of this newly available financial asset. Moreover, fund selection also requires investors to analyze returns, volatility and performance of the available funds Gold ETFs are open ended mutual funds that help the investor, invest their money in gold which is 99.5% pure. Gold Exchange Traded Funds are also known as paper gold. These are listed on the stock exchanges and investors are assigned units of the mutual fund where each unit often represents one gram of gold.

REVIEW OF LITERATURE

Adjei Frederick (2009) found no significant difference between the performances of the ETFs and the S&P 500 index. He found weak evidence of performance persistence on both the half-yearly and the yearly horizons. Johnson (2009) reported the existence of tracking errors between foreign ETFs and the underlying home index returns. Blitz David et al. (2010) investigated the performance of index mutual funds and the ETFs that are listed in Europe. They found that European index funds and ETFs underperform their benchmarks by 50 to 150 basis points per annum. William (2009) found the existence of tracking errors between foreign ETFs and the underlying home index in US.

Mukesh Kumar Mukul , Vikrant Kumar and Sougata Ray (2012) made a study on "Gold ETF Performance: A Comparative Analysis of Monthly Returns" revealed that Gold investment has been a very important aspect for ages across the globe. The study also examines the role of gold in hedging equity investment risk.

Prasanta athma(2011) has stated that Gold ETF is an emerging option of the various investment alternatives available to the investor. The low volatility of gold prices as compared to equity market, weakening of Indian Rupee against US Dollar and growing uncertainty about global economy resulted in the emergence of Gold ETF as a strong asset class. Allocation of a small portion of investment in Gold ETF would diversify

the portfolio risk.

RESEARCH METHADODOLOGY

The research design adopted is analytical design the secondary data (the Net Asset Value) was collected from the websites of the Asset Management Companies. One year average interest rate has been considered as risk free return. The period of study is from April, 2012 to March. 2013. In the Indian commodities market there are around 13 live Gold Elf's. Based on the availability of data 10 Gold ETF's were selected and the tools used for analysis Beta and Sharpe's Index.

BETA

Beta coefficient is a measure of sensitivity of a share price to movement in the market price. It measures systematic risk which is the risk inherent in the whole financial system.

$$\beta = \frac{\text{Correlation Coefficient Between Market and Stock} \times \text{Standard Deviation of Stock Returns}}{\text{Standard Deviation of Market Returns}}$$

THE SHARPE INDEX

The Sharpe Index is a risk-adjusted measure of return that is often used to evaluate the performance of a portfolio. This helps to estimate the performance of one portfolio.

$$SI = R_p - R_f / \beta$$

R_p = Portfolio Return or Stock Return

R_f = Risk Free Return

B= Beta

RESULTS AND DISCUSSIONS

The expected return has been calculated on a monthly basis for all the selected ETF's. The standard deviation for every ETF has been calculated and is compared with the benchmark prices. Beta, the deviation between the expected return and market return is also estimated.

Table 1: Sharpe's Index and Beta for the month of April

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	0.134	0.273	0.274	0.057	0.134	0.165	0.264	0.275	0.275	0.148	0.210	0.70
STD	0.747	0.604	0.607	0.837	0.760	0.754	0.584	0.609	0.608	0.754	0.506	

SI	BETA	CORR
1.161	-0.680	-0.461
-1.724	0.350	0.293
-1.716	0.351	0.293
6.538	-0.108	-0.065
2.996	-0.244	-0.163
110.643	-0.006	-0.004
-1.758	0.345	0.299
-1.705	0.353	0.293
-1.707	0.352	0.293
12.648	-0.056	-0.038

From table 1, it's inferred that the actual return of certain ETF's perform better than the benchmark index. At the same time the positive beta value indicates that, an increase in the gold price the NAV of the fund moves simultaneously. A negative Sharpe's index indicates that the risk free asset performs better than the fund which is been analyzed.

Table 2: Sharpe's Index and Beta for the month of May

SI	BETA	CORR	STD	RET
-1.364	0.492	0.448	1.032	0.056
-2.417	0.297	0.248	1.126	-0.066
-1.464	0.501	0.417	1.130	-0.070
9.081	-0.077	-0.076	0.962	0.058
-5.326	0.130	0.127	0.963	0.043
3.371	-0.206	-0.199	0.974	-0.018
-2.492	0.288	0.248	1.091	-0.065
-2.397	0.300	0.249	1.134	-0.066
-2.396	0.300	0.250	1.129	-0.065
3.375	-0.206	-0.199	0.974	-0.018
			0.941	0.095
				0.70
				RF

From table2, it's inferred that the risk adjusted return for certain ETF's are positive which means that they outperform the risk free assets.

Table 3: Sharpe's Index and Beta for the month of June

SI	BETA	CORR	STD	RET
1.044	-0.675	-0.453	1.471	0.009
9.041	-0.078	-0.053	1.447	0.109
-0.601	0.978	0.666	1.449	0.113
-1.854	0.344	0.224	1.519	0.173
-1.977	0.332	0.212	1.543	0.128
-3.969	0.170	0.109	1.535	0.145
9.264	-0.076	-0.053	1.407	0.107
8.854	-0.080	-0.054	1.461	0.112
8.862	-0.080	-0.054	1.459	0.112
-3.975	0.170	0.109	1.534	0.145
			0.987	-0.027
				0.70
				RF

From table 3, it's inferred that the SI is positive when the beta is negative. The ETF perform better than the bench mark index.

Table 4: Sharpe's Index and Beta for the month of July

SI	BETA	CORR	STD	RET
-0.472	1.234	0.890	0.802	0.094
-2.664	0.256	0.195	0.760	0.065
17.186	-0.041	-0.031	0.759	0.070
-1.297	0.556	0.399	0.807	-0.042
4.608	-0.151	-0.119	0.737	-0.014
-0.456	1.370	1.000	0.793	0.054
-2.749	0.248	0.195	0.737	0.063
-2.643	0.258	0.195	0.766	0.065
-2.644	0.258	0.195	0.765	0.066
-0.456	1.369	1.000	0.792	0.054
			0.579	0.060
				0.70
				RF

From table 4, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 5: Sharpe's Index and Beta for the month of August

SI	BETA	CORR	STD	RET
-1.097	0.473	0.530	0.503	0.380
-28.315	0.024	0.028	0.496	0.375
5.607	-0.134	-0.148	0.509	0.386
-109.267	0.006	0.007	0.519	0.391
52.220	-0.013	-0.014	0.545	0.426
-1.092	0.474	0.530	0.503	0.380
-30.921	0.022	0.026	0.482	0.363
-223.123	0.003	0.003	0.508	0.397
-28.361	0.024	0.027	0.499	0.377
-1.094	0.474	0.530	0.503	0.380
			0.563	0.457
				0.70
				RF

From table 5, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 6: Sharpe's Index and Beta for the month of September

SI	BETA	CORR	STD	RET
0.859	0.095	0.095	0.859	0.095
0.962	-0.074	-0.074	0.962	-0.074
0.975	-0.019	-0.019	0.975	-0.019
0.959	0.063	0.063	0.959	0.063
1.018	0.074	0.074	1.018	0.074
1.019	0.074	0.074	1.019	0.074
0.954	-0.069	-0.069	0.954	-0.069
0.973	-0.073	-0.073	0.973	-0.073
0.970	-0.073	-0.073	0.970	-0.073
1.024	0.077	0.077	1.024	0.077
0.951	0.068	0.068	0.951	0.068
			0.70	0.70
				RF

CORR	0.048	0.259	0.291	0.218	0.065	0.065	0.258	0.258	0.259	0.066		
BETA	0.044	-0.262	0.298	-0.220	0.070	0.070	-0.259	-0.264	-0.264	0.071		
SI	-15.925	2.589	-2.359	3.242	-9.963	-9.934	2.629	2.572	2.577	-9.760		

From table 6, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 7: Sharpe's Index and Beta for the month of October

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	-0.053	-0.010	-0.034	-0.065	-0.080	-0.079	-0.011	-0.010	-0.010	-0.087	-0.037	0.70
STD	0.502	0.561	0.596	0.582	0.508	0.508	0.553	0.566	0.566	0.505	0.484	
CORR	-0.003	0.316	0.444	0.421	-0.290	-0.290	0.316	0.316	0.316	-0.361		
BETA	-0.003	0.366	0.548	0.507	-0.304	-0.305	0.361	0.370	0.370	-0.377		
SI	240.455	-1.917	-1.309	-1.443	2.216	2.212	-1.943	-1.897	-1.898	1.763		

From table 7, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 8: Sharpe's Index and Beta for the month of November

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	0.072	0.072	0.072	0.154	0.281	0.281	0.071	0.073	0.073	0.288	0.087	0.70
STD	1.012	1.006	1.014	0.803	0.827	0.827	1.007	1.015	1.014	0.825	0.600	
CORR	0.348	0.348	0.348	0.092	-0.150	-0.150	0.349	0.348	0.348	-0.358		
BETA	0.588	0.584	0.589	0.124	-0.207	-0.207	0.586	0.589	0.588	-0.492		
SI	-1.116	-1.124	-1.114	-5.487	3.650	3.662	-1.121	-1.113	-1.115	1.707		

From table 8, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 9: Sharpe's Index and Beta for the month of December

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	-0.166	-0.165	-0.166	-0.241	-0.340	-0.339	-0.166	-0.166	-0.165	-0.339	-0.132	0.70
STD	0.659	0.654	0.659	0.852	0.792	0.790	0.653	0.657	0.657	0.789	0.787	
CORR	0.154	0.154	0.153	0.105	0.026	0.026	0.154	0.140	0.153	0.026		
BETA	0.129	0.128	0.128	0.113	0.026	0.026	0.127	0.117	0.128	0.026		
SI	-5.597	-5.632	-5.604	-6.410	-27.316	-26.861	-5.649	-6.131	-5.620	-27.241		

From table 9, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 10: Table Showing the Sharpe's Index and Beta for the month of January

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	-0.002	-0.003	-0.003	0.062	0.014	0.014	-0.004	-0.003	-0.003	0.014	-0.031	0.70
STD	0.803	0.780	0.785	0.797	0.804	0.804	0.775	0.787	0.783	0.803	0.704	
CORR	0.126	0.126	0.148	0.304	0.305	0.126	0.126	0.126	0.305	1.000		
BETA	0.144	0.140	0.165	0.344	0.348	0.143	0.139	0.140	0.339	1.140		
SI	-4.851	-5.008	-4.236	-1.968	-1.994	-4.853	-5.046	-4.978	-2.065	-0.599		

From table 10, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 11: Sharpe's Index and Beta for the month of February

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	-0.205	-0.203	-0.204	-0.233	-0.207	-0.207	-0.204	-0.205	-0.204	-0.207	-0.025	0.70
STD	0.676	0.672	0.675	0.645	0.665	0.666	0.669	0.678	0.675	0.665	0.522	
CORR	-0.117	-0.114	-0.117	-0.486	0.021	0.021	-0.114	-0.114	-0.114	0.022		
BETA	-0.152	-0.146	-0.151	-0.601	0.027	0.027	-0.146	-0.148	-0.147	0.028		
SI	4.397	4.571	4.410	0.929	-25.879	-26.069	4.590	4.512	4.543	-25.555		

From table 11, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 12: Sharpe's Index and Beta for the month of March

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	0.078	0.080	0.077	0.072	0.078	0.077	0.076	0.081	0.081	0.078	-0.189	0.70
STD	0.529	0.557	0.529	0.572	0.530	0.531	0.554	0.561	0.559	0.530	0.576	
CORR	0.289	0.259	0.289	0.371	0.289	0.289	0.258	0.259	0.259	0.290		
BETA	0.266	0.250	0.266	0.369	0.266	0.267	0.248	0.252	0.251	0.266		
SI	-2.549	-2.715	-2.552	-1.822	-2.546	-2.542	-2.738	-2.687	-2.697	-2.543		

From table 12, it's inferred that most of the ETF have positive beta and SI. This indicates they are performing better than the risk free asset.

Table 13 Consolidated - Sharpe's Index and Beta

	1	2	3	4	5	6	7	8	9	10	G	RF
RET	0.017	0.026	0.026	0.019	0.020	0.020	0.024	0.027	0.027	0.019	0.017	8.38
STD	0.834	0.845	0.849	0.855	0.850	0.852	0.829	0.853	0.850	0.852	0.700	
VAR	0.696	0.714	0.721	0.732	0.722	0.726	0.688	0.727	0.723	0.726	0.490	
CORR	0.076	0.102	0.332	0.068	0.105	0.096	0.102	0.100	0.102	0.080		
BETA	0.091	0.123	0.403	0.083	0.128	0.117	0.121	0.122	0.124	0.097		
SI	-91.975	-67.992	-20.764	-101.012	-65.612	-71.341	-69.156	-68.815	-67.639	-86.406		
C	-2.749	-2.746	-2.746	-2.749	-2.748	-2.748	-2.747	-2.746	-2.746	-2.749		

It's inferred that most of the ETF do not outperform the risk free assets in the longer run. They provide better returns at shorter durations.

FINDINGS AND SIGGESSTIONS

ETFs do not outperform the bench mark gold prices. It looks like a mutual fund that tracks an index, a commodity or basket of assets like an index fund, but trades like a stock on an exchange. ETFs experience price changes throughout the day as they are bought and sold. Buying an ETF is equivalent to buying shares of a portfolio that tracks the yield and return of its native index. The main difference between ETFs and other types of index funds is that ETFs don't try to outperform their corresponding index, but simply replicate its performance. ETFs don't try to beat the market; they try to be the market. Gold ETF is method of participating in the gold bullion market through trading. They tend to move according to the price of physical gold.

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