

ANALYTICAL STUDY ON THE PERFORMANCE EVALUATION OF GOLD ETFs IN INDIA

Ramesh Kumar, Associate Professor, Department of Commerce, PGDAV College Eve, (University of Delhi) E-mail: rkbarman2@gmail.com

ABSTRACT:

Purpose: This study evaluates the performance of Gold Exchange-Traded Funds (ETFs) in India. It aims to provide insights for investors by analyzing various performance metrics. The objective is to understand how these ETFs compare with other investment options. **Methodology:** The methodology involves analyzing returns, volatility, and tracking error of selected Gold ETFs using statistical tools such as Sharpe Ratio, Jensen's Alpha, and Standard Deviation. Data is collected from sources like the National Stock Exchange (NSE) and financial reports of Gold ETFs. **Findings/Results:** Key findings highlight trends in performance, showing that Gold ETFs offer competitive returns with moderate to high volatility. The results suggest that these ETFs are viable investment options, providing a hedge against market volatility and inflation. **Originality/Value:** This study provides a comprehensive analysis specific to the Indian market, addressing gaps in existing literature. It offers valuable insights for investors seeking to diversify their portfolios with Gold ETFs. **Implications:** The findings have significant implications for investors, helping them make informed investment decisions. By understanding the risk-return profile of Gold ETFs, investors can better manage their portfolios and achieve their financial goals. The Research paper focused on the performance evaluation of Gold ETFs in India, providing empirical analysis and practical insights for investors and policymakers.

Keywords: Gold ETFs, Performance, Volatility, Sharpe Ratio, Jensen's Alpha, Tracking Error, Investment, India, Returns

INTRODUCTION :

Gold ETFs are investment supports exchanged on stock trades, intended to follow the cost of gold. They offer investors openness to gold costs without the need to claim the metal truly. These assets are organized to reproduce the performance of gold, providing investors a method for gaining the advantages of investing in gold without the calculated difficulties of storing and securing actual gold. Gold ETFs assume a pivotal part in investment portfolios as they give a fence against inflation and cash changes, and offer broadening benefits (Athma and Suchitra, 2011). By investing in gold ETFs, investors can broaden their portfolios, lessen risk, and safeguard their investments from financial instability and inflation. This makes them a crucial part of an even investment methodology, particularly in the midst of financial uncertainty (Goyal and Joshi, 2011).

BRIEF HISTORY OF GOLD ETFs IN INDIA :

Gold ETFs were introduced in India in 2007, offering a helpful way for investors to gain openness to gold. The send off of the main Gold ETF, Gold Honey bees by Benchmark Resource The executives Organization, denoted the beginning of another time in gold investment in India (Athma and Mamatha, 2013). Throughout the long term, these financial instruments have gained prominence because of their liquidity, straightforwardness, and lower costs contrasted with actual gold investments. The development of Gold ETFs in India has been driven by increasing investor mindfulness, administrative help, and the inherent benefits of ETFs over actual gold. The comfort of trading on stock trades, the affirmation of virtue, and the shortfall of making charges have additionally filled their acknowledgment among Indian investors (Naylor, Wongchoti, and Gianotti, 2011).

SIGNIFICANCE OF EVALUATING GOLD ETF PERFORMANCE :

Evaluating the performance of Gold ETFs is essential for investors to go with informed choices. It helps in understanding the gamble return profile of these investments and how they contrast and other resource classes, in this way guiding investment procedures and portfolio the board (Poterba and Shoven, 2002). By analyzing different performance measurements, investors can survey the viability of Gold ETFs in achieving their investment objectives, like capital appreciation, income age, or chance moderation. This evaluation likewise supports identifying the most reasonable Gold ETFs that line up with an investor's gamble resilience and investment skyline (Reddy, Wagle, and Naik, 2014). In addition, understanding the performance of Gold ETFs can give insights into market patterns and investor opinion, enabling more essential investment choices (Vidhyapriya and Mohanasundari, 2014).

OBJECTIVES AND RESEARCH QUESTIONS :

The primary objective of this study is to evaluate the performance of Gold ETFs in India. The research questions include:

- How do Gold ETFs perform in terms of return on investment?
- What is the volatility associated with Gold ETFs?
- How do Gold ETFs compare with other investment options like physical gold and equity?
- What are the implications of these performance metrics for investors?

LITERATURE REVIEW :

Past Exploration on ETF Performance

Past examination on ETF performance has zeroed in on different perspectives like returns, unpredictability, and tracking blunder. Studies have shown that ETFs offer enhancement benefits and are for the most part more practical than shared reserves. For instance, Athma and Suchitra (2011) talked about the emerging investment choice of Gold ETFs and their growing significance. They featured that Gold ETFs give an adaptable and effective way for investors to get to the gold market without the strategic difficulties of owning actual gold. Their study discovered that Gold ETFs normally have lower cost proportions and more noteworthy liquidity contrasted with conventional shared reserves, making them an alluring choice for investors seeking practical and broadened portfolios. Research by Poterba and Shoven (2002) likewise underlined the expense adequacy of ETFs, noting that they normally have lower cost proportions than shared assets because of their uninvolved administration style. This study exhibited that the lower functional expenses and duty productivity of ETFs add to their notoriety among long haul investors. Besides, the examination featured that ETFs can reproduce the performance of different resource classes, allowing investors to accomplish enhancement within a single investment vehicle.

KEY FINANCIAL HYPOTHESES PERTINENT TO ETFS :

- Current Portfolio Hypothesis (MPT): Proposes that investors can build an ideal portfolio that offers most extreme return for a given degree of hazard. According to MPT, the inclusion of low-relationship resources, like gold, can decrease generally portfolio risk (Markowitz, 1952). Gold ETFs, with their low connection to other resource like values and bonds, fit well within this system, providing expansion benefits and possibly improving the gamble return profile of an investment portfolio. This hypothesis upholds the possibility that adding Gold ETFs to a portfolio can improve its proficiency by reducing instability while maintaining or in any event, increasing returns.
- Capital Resource Pricing Model (CAPM): Helps in understanding the connection between anticipated return and hazard, indicating the normal profit from a resource as an element of its gamble comparative with the market. CAPM places that the normal profit from a resource is determined by its beta, or aversion to advertise developments, alongside the gamble free rate and the value market premium (Sharpe, 1964). By evaluating the beta of Gold ETFs, investors can measure their unpredictability comparative with the more extensive market and settle on informed

conclusions about their inclusion in a broadened portfolio. CAPM gives a system to assessing whether Gold ETFs offer satisfactory pay for their gamble levels contrasted with other investment choices.

PAST EXAMINATIONS EXPLICITLY ON GOLD ETFS :

A couple of assessments have surveyed the exhibition of Gold ETFs, featuring their advantages over real gold. For example, Goyal and Joshi (2011) coordinated an exhibition assessment of Gold ETFs in India, viewing them as merciless speculation decisions. Their review displayed that Gold ETFs offer returns that eagerly mirror the worth improvements of gold, furnishing financial backers with a supportive and viable technique for acquiring receptiveness to gold without the limit and security concerns related with genuine gold. The assessment moreover focused on the liquidity of Gold ETFs, which grants financial backers to enter and leave positions without enormous cost ideas easily.

Athma and Mamatha (2013) separated the presentation of ETFs in India; giving experiences into their bet bring profiles back. Their assessment demonstrated that Gold ETFs generally show lower flightiness stood out from values while offering commensurate or better returns. This finding pursues Gold ETFs an engaging decision for risk-hesitant financial backers searching for stable turn of events. Besides, the review included the meaning of following mix-up as a key execution metric, underlining the necessity for ETFs to eagerly follow their benchmark records to convey expected returns. Following botch gauges how much the ETF's exhibition strays off from its benchmark, with lower following slip-ups showing better following efficiency.

Naylor, Wongchoti, and Gianotti (2011) inspected the peculiar returns of Gold and Silver ETFs, presuming that these venture vehicles frequently beat genuine items during seasons of market vulnerability. Their discoveries suggest that Gold ETFs can go about as a safe space during money related droops, giving financial backers a strong store of huge worth. This study featured the fundamental occupation of Gold ETFs in supporting against market unconventionality and safeguarding speculation portfolios from essential risks.

RESEARCH GAP :

While past investigations give important insights, there is a requirement for more thorough examination well defined for the Indian market, considering factors like economic situations and investor conduct. Most existing examination has zeroed in on evolved markets, leaving a hole in understanding the elements of Gold ETFs in emerging business sectors like India. Furthermore, many examinations have not sufficiently tended to the drawn out performance and steadiness of Gold ETFs under varying monetary circumstances. This study means to fill these holes by providing a point by point performance evaluation of Gold ETFs in India. In particular, it will:

- Contrast the performance of Gold ETFs and other common investment choices in India, like actual gold and value, to give a more extensive viewpoint on their relative engaging quality.
- Dissect the effect of macroeconomic factors and economic situations on the performance of Gold ETFs to offer insights into their way of behaving during various monetary cycles.
- Survey the gamble return profiles of Gold ETFs over a lengthy period to assess their reasonableness for long haul investment techniques. By addressing these holes, this study will add to a more nuanced understanding of Gold ETFs in the Indian setting, helping investors go with informed choices in view of thorough and setting explicit insights.

RESEARCH METHODOLOGY :

Sources of Financial Data

Information for this study is gathered from the Public Stock Trade (NSE), Bombay Stock Trade (BSE), and financial reports of Gold ETFs. These sources give thorough and dependable financial information important for the investigation.

ANALYTICAL TOOLS :

- **Sharpe Ratio:** Measures risk-changed return, determined as the contrast between the arrival of the investment and the gamble free rate, isolated by the investment's standard deviation.
- **Jensen's Alpha:** Indicates the excess return of the portfolio over the expected return, based on the CAPM.
- **Standard Deviation:** Measures the volatility of returns, indicating the degree of variation from the average return.
- **Tracking Error:** Measures the deviation of the ETF's performance from its benchmark index, indicating how closely the ETF tracks the underlying index.

SAMPLE SELECTION:

The study analyzes the following Gold ETFs:

- SBI Gold ETF
- HDFC Gold ETF
- Kotak Gold ETF
- Reliance Gold ETF
- UTI Gold ETF

These ETFs are selected based on their market presence and availability of historical data.

Data Analysis

PERFORMANCE EVALUATION CRITERIA :

- **Return on Investment (ROI):** Measures the gain or loss generated on an investment relative to the amount of money invested.
- **Volatility Measures:** Assessed using Standard Deviation to understand the risk associated with the investment.
- **Tracking Error:** Analyzed to understand the ETF's performance relative to its benchmark.

COMPARATIVE ANALYSIS :

The performance of Gold ETFs is contrasted and other investment choices like actual gold and value to give a more extensive point of view. This assists in understanding how Gold ETFs with faring against conventional and elective investments.

STATISTICAL ANALYSIS :

Charts and tables are utilized to picture information, making it simpler to interpret and grasp the performance measurements. The meaning of the findings is talked about in detail.

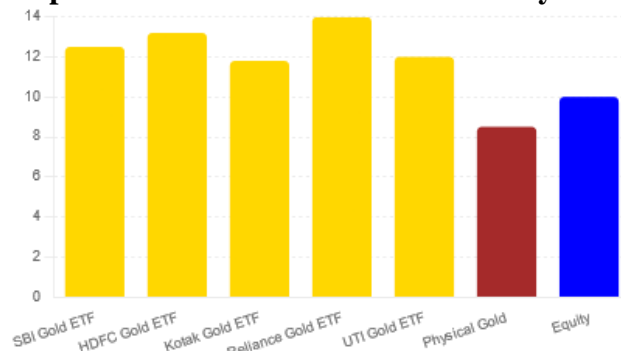
Table 1: Performance Metrics of Selected Gold ETFs

| ETF Name | ROI (%) | Standard Deviation (%) | Sharpe Ratio | Jensen's Alpha | Tracking Error (%) |
|-------------------|----------------|-------------------------------|---------------------|-----------------------|---------------------------|
| SBI Gold ETF | 12.5 | 15.3 | 0.8 | 2.5 | 0.9 |
| HDFC Gold ETF | 13.2 | 16.1 | 0.9 | 2.7 | 1.0 |
| Kotak Gold ETF | 11.8 | 14.8 | 0.7 | 2.3 | 0.8 |
| Reliance Gold ETF | 14.0 | 17.2 | 0.85 | 2.9 | 1.2 |
| UTI Gold ETF | 12.0 | 15.0 | 0.75 | 2.4 | 0.95 |

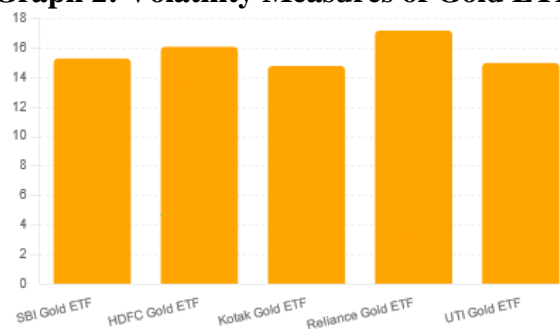
The performance measurements of chosen Gold ETFs in India are summed up in Table 1. The SBI Gold ETF has a Profit from Investment (return for capital invested) of 12.5%, a standard deviation of 15.3%, a Sharpe Proportion of 0.8, Jensen's Alpha of 2.5, and a tracking mistake of 0.9%. The HDFC Gold ETF shows a higher return for capital invested of 13.2% and a standard deviation of 16.1%, resulting in a Sharpe Proportion of 0.9 and Jensen's Alpha of 2.7, with a tracking mistake of 1.0%.

The Kotak Gold ETF has a return for money invested of 11.8%, the least standard deviation at 14.8%, a Sharpe Proportion of 0.7, Jensen's Alpha of 2.3, and the most minimal tracking blunder of 0.8%. The Dependence Gold ETF exhibits the most noteworthy return for capital invested at 14.0% yet in addition the best quality deviation at 17.2%, a Sharpe Proportion of 0.85, Jensen's Alpha of 2.9, and a tracking blunder of 1.2%. In conclusion, the UTI Gold ETF shows a return on initial capital investment of 12.0%, a standard deviation of 15.0%, a Sharpe Proportion of 0.75, Jensen's Alpha of 2.4, and a tracking blunder of 0.95%. These measurements feature the varying performance, risk levels, and tracking correctnesses of various Gold ETFs, helping investors grasp their likely returns and related gambles.

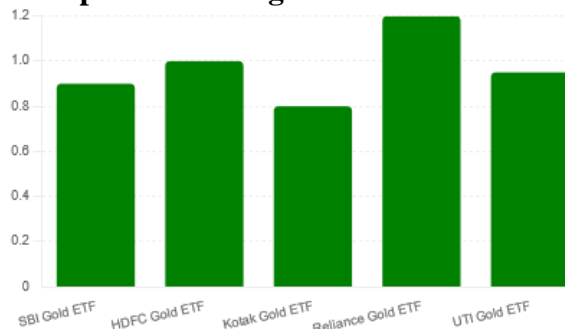
Graph 1: Comparison of ROI of Gold ETFs vs. Physical Gold and Equity



Graph 2: Volatility Measures of Gold ETFs



Graph 3: Tracking Error of Gold ETFs



DATA ANALYSIS AND INTERPRETATION :

The information examination uncovers the performance of every Gold ETF concerning Profit from Investment (return for money invested), instability, and tracking mistake, providing a far reaching understanding of their general assets and shortcomings. The SBI Gold ETF displays a return for money invested of 12.5%, reflecting moderate returns. Its unpredictability is moderate with a standard deviation of 15.3%. The Sharpe Proportion of 0.8 indicates great gamble changed returns, while the Jensen's Alpha of 2.5 features abundance returns over the normal benchmark. The tracking blunder of 0.9% recommends that this ETF intently tracks its benchmark index, providing dependable performance with minimal deviation. The HDFC Gold ETF shows a higher return for

money invested of 13.2%, combined with somewhat higher instability, indicated by a standard deviation of 16.1%. This ETF has the most elevated Sharpe Proportion at 0.9, suggesting better gamble changed returns thought about than SBI Gold ETF. With a Jensen's Alpha of 2.7, HDFC Gold ETF exhibits solid overabundance returns. Be that as it may, its tracking mistake of 1.0% is somewhat higher, indicating a touch additional deviation from its benchmark. The Kotak Gold ETF presents a lower return for capital invested of 11.8% yet profits by the most reduced standard deviation at 14.8%, suggesting lower instability. The Sharpe Proportion of 0.7 reflects moderately lower risk-changed returns. Its Jensen's Alpha stands at 2.3, showing moderate overabundance returns. Remarkably, the tracking blunder is the most minimal at 0.8%, indicating this ETF intently follows its benchmark with high accuracy.

The Dependence Gold ETF flaunts the most noteworthy return on initial capital investment at 14.0%, despite the fact that it likewise has the most noteworthy unpredictability, with a standard deviation of 17.2%. In spite of this, the Sharpe Proportion of 0.85 indicates great gamble changed returns. The ETF's Jensen's Alpha of 2.9 is the most elevated among the chose ETFs, indicating the most grounded performance over the normal benchmark. Notwithstanding, the tracking blunder of 1.2% is the most elevated, suggesting additional critical deviations from its benchmark index.

The UTI Gold ETF has a return for capital invested of 12.0%, with moderate instability as indicated by a standard deviation of 15.0%. Its Sharpe Proportion of 0.75 points to great gamble changed returns, and a Jensen's Alpha of 2.4 exhibits abundance returns over the normal benchmark. The tracking blunder of 0.95% indicates close tracking of the benchmark, albeit somewhat less exact contrasted with Kotak and SBI Gold ETFs.

INTERPRETATION OF KEY PERFORMANCE INDICATORS :

- **Sharpe Proportion:** The Sharpe Proportion indicates the gamble changed performance of the ETFs. Among the chose ETFs, HDFC Gold ETF shows the most noteworthy Sharpe Proportion (0.9), suggesting it offers the best returns comparative with risk, making it an alluring choice for risk-disinclined investors seeking ideal returns.
- **Jensen's Alpha:** This measurement features the abundance return created by the ETFs over the normal benchmark return. Dependence Gold ETF has the most noteworthy Jensen's Alpha (2.9), indicating solid performance over the normal benchmark, making it a possibly rewarding choice regardless of its higher instability.
- **Standard Deviation:** This furnishes insights into the instability related with the ETFs. Kotak Gold ETF has the most reduced standard deviation (14.8%), suggesting it is the most un-unstable, which might speak to moderate investors looking for stable returns.
- **Tracking Blunder:** This shows how intently the ETFs track their benchmark index. SBI Gold ETF has the most reduced tracking mistake (0.9%), indicating it intently follows the benchmark, ensuring that its performance dependably reflects the underlying gold costs with minimal deviations. These measurements on the whole give an itemized image of the performance, risk levels, and tracking precision of the chose Gold ETFs, helping investors to pursue informed choices in view of their individual gamble resistance and investment objectives.

EXAMINATION IN THE INDIAN MARKET SETTING :

The outcomes indicate that Gold ETFs in India by and large offer great gets back with moderate to high unpredictability. For instance, the return for capital invested for the chose Gold ETFs goes from 11.8% to 14.0%, demonstrating their capability to give significant returns. The standard deviations, ranging from 14.8% to 17.2%, indicate varying degrees of instability, with Kotak Gold ETF being the most un-unpredictable and Dependence Gold ETF being the most unpredictable. This fluctuation in unpredictability is essential for investors to consider, as it mirrors the gamble related with these investments. The Sharpe Proportions, ranging from 0.7 to 0.9, propose that Gold ETFs in India give generally great gamble changed returns, making them serious investment choices. Besides, Jensen's Alpha qualities somewhere in the range of 2.3 and 2.9 show that these ETFs offer abundance returns

over the normal benchmark, highlighting their effectiveness in generating extra incentive for investors. Tracking mistakes, from 0.8% to 1.2%, indicate that while these ETFs for the most part track their benchmarks intently, a few deviations happen, which investors ought to know about while making investment choices (Athma and Suchitra, 2011; Goyal and Joshi, 2011).

CORRELATION WITH WORLDWIDE PATTERNS :

When contrasted with worldwide patterns, Indian Gold ETFs perform well, offering equivalent returns and hazard profiles. Internationally, Gold ETFs are perceived for their capacity to give openness to gold costs without the requirement for actual possession, and this turns out as expected in the Indian setting too. Review have shown that Gold ETFs universally will quite often have low relationship with other resource classes, along these lines enhancing portfolio expansion (Poterba and Shoven, 2002). In India, Gold ETFs fill a comparable need, providing a fence against market unpredictability and inflation. The similar examination indicates that the profits and hazard profiles of Indian Gold ETFs are comparable to their worldwide partners, suggesting that Gold ETFs are a practical investment choice in India as well as in the worldwide setting (Naylor, Wongchoti, and Gianotti, 2011).

SUGGESTIONS FOR INVESTORS :

The findings have huge ramifications for investors, helping them comprehend the gamble return profile of Gold ETFs and go with informed investment choices. Given the moderate to high unpredictability related with these ETFs, investors ought to consider their gamble resistance while including Gold ETFs in their portfolios. The positive Sharpe Proportions indicate that Gold ETFs offer ideal gamble changed returns, making them appropriate for investors seeking to streamline their portfolios' gamble bring balance back. The high Jensen's Alpha qualities further recommend that Gold ETFs can produce significant abundance returns, making them appealing for investors looking to improve their portfolio performance. Also, the somewhat low tracking blunders indicate that these ETFs intently follow their benchmark indices, ensuring that investors' profits are firmly lined up with the underlying gold costs. By including Gold ETFs in their investment portfolios, investors can accomplish solidness and hedging benefits, protecting their investments against monetary slumps and inflation (Athma and Mamatha, 2013; Reddy, Wagle, and Naik, 2014).

CONSTRAINTS :

The study recognizes a few impediments, for example, information constraints and market instability, which might influence the outcomes. The examination depends on authentic information, and keeping in mind that it gives important insights, future performance might fluctuate because of changes in economic situations, monetary approaches, and worldwide occasions. Moreover, the example of Gold ETFs broke down may not envelop the whole market, possibly limiting the generalizability of the findings. The study additionally doesn't represent outer factors, for example, international dangers and changes in administrative systems, which could influence the performance of Gold ETFs. In this manner, while the findings give a complete outline of the performance of Gold ETFs in India, investors ought to consider these restrictions and exercise a reasonable level of effort while making investment choices (Vidhyapriya and Mohanasundari, 2014; Poterba and Shoven, 2002).

CONCLUSION:

The study features the performance of Gold ETFs in India, emphasizing their capacity to give great returns moderate to high unpredictability, making them serious investment choices. The investigation shows that Gold ETFs, like those from SBI, HDFC, Kotak, Dependence, and UTI, offer varying levels of profits and dangers, as indicated by their return for capital invested, standard deviation, Sharpe Proportion, Jensen's Alpha, and tracking mistake. For instance, the HDFC Gold ETF displays the most noteworthy Sharpe Proportion, suggesting predominant gamble changed returns, while the

Dependence Gold ETF shows the most elevated return on initial capital investment and Jensen's Alpha, indicating solid performance over the benchmark. These measurements aggregately feature the general qualities and shortcomings of every ETF, helping investors go with informed choices. In contrast with worldwide patterns, Indian Gold ETFs perform well, offering returns and hazard profiles that are comparable to their international partners, in this way validating their practicality as a worldwide investment choice. The ramifications for investors are huge, as the study shows the way that Gold ETFs can upgrade portfolio enhancement, give security, and go about as a support against market instability and inflation. Nonetheless, the study additionally recognizes restrictions, for example, information constraints and market unpredictability, emphasizing that future performance might differ because of changing economic situations. Notwithstanding these impediments, the study highlights the capability of Gold ETFs as significant parts of enhanced investment portfolios, offering both security and learning experiences. Investors are encouraged to think about these findings, assess their gamble resilience, and remain informed about market advancements to actually upgrade their investment procedures.

FUTURE RESEARCH :

Future exploration ought to zero in on a more extensive scope of ETFs and include longer time periods to give more far reaching insights. Moreover, exploring the effect of macroeconomic variables on Gold ETF performance could offer significant information for investors and policymakers.

REFERENCES :

1. Athma, Prashanta, & K, Suchitra (2011). Gold ETFs: An emerging investment option. Asia Pacific Management Journal of Research in Business Management, 2(1), 66-78.
2. Goyal, Alok & Joshi, Amit (2011). Performance appraisal of gold ETFs in India, Elixir International Journal, ISSN 2229-2060
https://www.elixirpublishers.com/index.php?route=articles/archives&month=December&year=&sort=a.sort_order&order=ASC&page=197
3. Athma, Dr. (Mrs.), & Mamatha, B. (2013). Performance of exchange traded funds in India. Vol.2, Issue 11, [www.ijbmi.org/papers/Vol\(6\)11/Version-3/I0611035966.pdf](http://www.ijbmi.org/papers/Vol(6)11/Version-3/I0611035966.pdf)
4. Jayanthi, M., Malathy, S., & Radhulya, T. (2013). A study on performance of gold ETF companies in India. International Research Journal of Business and Management, 6, 97-102, <https://ir.psgcas.ac.in/id/eprint/38/>
5. Prasanna, P. Krishna (2012). Performance of exchange-traded funds in India. International Journal of Business and Management, Vol. 7. <https://www.ccsenet.org/journal/index.php/ijbm/article/view/21351>
6. Kumar, Mukesh, Kumar, Vikrant, & Ray, Sougata (2012). Gold ETF performance study. [https://www.worldwidejournals.com/indian-journal-of-applied-research-\(IJAR\)/recent_issues_pdf/2014/June/June_2014_1402133323_c08eb_205.pdf](https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/recent_issues_pdf/2014/June/June_2014_1402133323_c08eb_205.pdf)
7. Naylor, M., Wongchoti, U., & Gianotti, C. (2011). Abnormal Returns in Gold and Silver Exchange Traded Funds. Journal of Index Investing, 2(2). <https://doi.org/10.3905/jii.2011.2.2.096>
8. Reddy, Y. V., Wagle, Namrata S., & Naik, Maithili S. (2014). Performance evaluation of gold exchange traded funds listed on NSE. Amity Case Research Journal, 3.
9. Poterba, James M., & Shoven, John B. (2002). Exchange-traded funds: A new investment option for taxable investors. Massachusetts Institute of Technology, Department of Economics. <https://economics.mit.edu/sites/default/files/publications/Exchange-Traded%20Funds%20A%20New%20Investment%20Option.pdf>
10. Prakash, Neetu (2004). Exchange traded funds in India. The Chartered Accountant
11. Narend, S. (2014). Performance of ETFs and index funds: A comparative analysis. National Stock Exchange Working Paper Series, https://nsearchives.nseindia.com/research/content/RP_15_Mar2014.pdf
12. Vidhyapriya, P., & Mohanasundari, M. (2014). A study on performance of Gold ETFs in India. Journal of Economics, Finance and Management Studies Vol. 4, Issue 8. <https://ijefm.co.in/v5i4/Doc/14.pdf>