

An Empirical Analysis of Alternative Gold Investment Strategies and Their Influence on India's Economic Growth

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Abstract

The contemporary international gold market is a kaleidoscope of change and expansion. The amount of gold purchased annually has nearly tripled since the early 1970s, and gold markets around the world have thrived. Gold has emotive, social, and monetary worth, and it is purchased for multiple and diverse reasons by individuals all over the world, typically affected by nationwide social and cultural fundamentals, home country market conditions, and macroeconomic causes. Different areas of the gold market develop at diverse periods all through the global financial cycle due to the multiple uses of gold – in technology, ornaments, by investors, and central banks as well. Gold's features as an asset for investment are bolstered by the diversity of gold demand in terms of the various alternatives within the gold investment. In India, gold is regarded as one of the most alluring, lucrative, and popular investment choices. Gold is an indispensable component of the socio-economic lives of both the affluent and the poor, and it is a chief source of savings for the low- and middle-income families in both rural and municipal areas. Not only does gold play a significant role in India's cultural zeitgeist, but it also plays a significant role in the economy. This profound relation with gold may be seen not just in terms of tradition, but also in terms of economics. In recent years, gold has become more significant than merely for socio-cultural reasons, and it has earned a position in global financial portfolios. Therefore, this paper discusses gold investment and the factors that influence gold investments in physical forms. Gold has a variety of economic effects, one of which is the influence of gold imports on the balance of payments' trade balance and current account. As a result, the main emphasis of this paper is on examining alternate ways of investing in gold and researching the motives for doing so. Lastly, the paper attempts to investigate the impact of alternative gold investment products (paper/digital gold) by discussing the 'Financialization of Gold', which involves investing in gold-backed financial products that are not held in physical form, resulting in the transformation of the gold market and ecosystem. This study puts forth an analysis of comparison gold alternatives (Gold ETF and Sovereign Gold Bonds) and physical gold by looking at the returns and pricing, requirement, and import quantities of physical gold.

Keywords

Bullion investment, digital/e-gold, Economic Growth, Gold Exchange Traded Fund (Gold ETF), Gold investment, gold mutual fund. Sovereign Gold Bond (SGB),

INTRODUCTION

For millennia, gold has been seen as a sign of riches and prosperity. It has maintained its value over time, and not like paper cash, coins, or any other assets, it has shown to be a reliable means of passing on and preserving wealth. Rendering to research by the World Gold Council (WGC), demand for gold increased 10% to 4,021.3 tons in 2021 globally, owing to a stunning 50% increase in year-on-year demand, a 10-quarter high, during the December quarter. Among the chief major financial assets across the world as of December 2019, by middling daily trading volume, gold had the third-highest average daily trading volume at 145.5 billion U.S. dollars. The amount of gold purchased annually has nearly tripled since the early 1970s, and gold markets around the world have thrived.

Gold is measured as the most striking and is the most prevalent investment opportunity in India. It is an indispensable part of the socio-economic life of rich and poor alike and for a substantial number of low- and middle-income households in rural and urban regions, gold is a key source of savings. According to a report by the World Gold Council,

India has one of the maximum savings rates in the world, at over 30% of total income, with 10% invested in gold. For millennia, India has been the world's largest gold market because Indians acquire gold for its social, religious, and cultural significance. But in contemporary times, gold has been playing an increasingly important role than just socio-cultural reasons and has taken its place in the global investment portfolios. There are diverse variables that influence gold demand and consumption in the country. India, being one of the world's major gold consumers, has a voracious hunger for the precious metal. The demand for gold has increased multifold after the shift in the approach of gold policy post-liberalization.

The demand for this precious metal stood at 875.2 metric tons in 2015 and has seen a slight fall since then when the demand was reported at 690.4 metric tons in 2019 and 446.4 metric tons in 2020 in response to the global pandemic. However, according to the WGC's Gold Demand Trends 2021 Report, India's overall gold demand increased by 78.6% to 797.3 tons in 2021, up from 2020. According to the World Gold Council, this is due to a recovery in consumer sentiment and pent-up demand following the Covid-19-related

disruptions, and the bullish trend is expected to continue this year (WGC). Conferring to a study conducted by the World Gold Council, gold jewelry demand accounted for more than 75% of overall gold consumption in India between 1990 and 2020. We can infer from this that maximum gold consumption is for jewelry fabrication and the rest is gold coins, bars, and gold-backed assets. The Value of the Jewelry Market in India was over 3 trillion rupees in 2016 and has nearly doubled in 2021 to 6.180 trillion rupees. The Value of Gold held by individuals in Physical Assets in the country accounted for 57.16 trillion rupees which amplified to 109.5 trillion rupees in 2020. Gold demand in India is primarily met through imports. In the financial year 2021, imports of gold were nearly 2.5 trillion rupees worth which is higher than the previous year's import value of 1.9 trillion rupees. It is evident that the demand for gold remains less affected by the soaring prices of gold and instead the increasing income, savings, and purchasing power play a greater role. The persistently expanding demand for gold, despite its high price, is nearly entirely fulfilled by imports, as indigenous gold output is quite restricted in comparison to India's overall need. Such enormous gold importation demand at astronomically high prices is a key source of concern for India since massive dollar outflows exacerbate the current account imbalance (CAD). This, in turn, adds to the mass of outdoor debt and causes the Indian currency to belittle, resulting in overall macroeconomic instability. The foreign exchange resource utilized to purchase gold depletes the free exchange resource available to fund the import of other goods. In its analysis of the macroeconomic situation, the RBI stated that the current account deficit is a source of worry due to inelastic gold and oil demand. According to Somasundaram PR, managing director (India) of the World Gold Council (WGC), Indian households may have accumulated roughly 24,000-25,000 tons of gold, making them the world's largest gold holders. The value of the holdings (25,000 tons) at international pricing would be as much as \$1,135 billion, or more than 40% of India's nominal gross domestic product (GDP) in the financial year 2019. In this manner, the savings of households are diverted from productive financial assets to assets that do not add to the industrious competence of the economy.

As a consequence, there is a dire need to understand ways of moving toward alternative gold investment options which reduce the burden on the external sector and perform a vital role in contributing to the economy. The investors should move towards more viable options within the gold investment such as gold exchange-traded funds, gold mutual funds, gold futures and options, digital gold, stocks of gold mining companies, and gold sovereign bonds. [25]

OBJECTIVES

- To analyze investment in physical gold and factors influencing investment in physical gold.
- To study and understand alternate ways of investing in gold available in the Indian market.

- To analyze investments in the alternatives of Gold ETF and Sovereign Gold Bond.
- To study the impact of alternative gold investments on economic growth.

NATURE

The rationale of this research paper is to explore and examine alternative methods of investing in gold that does not include the use of physical gold and to analyze their influence on India's economic growth in an explanatory manner. It aims to explain the many alternative means of investing in gold as well as present a comparison between them and physical gold.

SCOPE

The claim for gold has seen intensifying trend notwithstanding the prices. India is projected to be amongst the world's major gold consumers where it is demanded various social, cultural, and economic reasons in the forms of jewelry, coins, and technological and investment purposes. In recent years, gold has earned a significant position for investment purposes but unfortunately, the largest amount of investment is done in physical forms of gold such as jewelry, coins, and bars which ultimately are left idle in lockers. This paper attempts studying and analyzing the alternative forms of gold investment which are backed by gold such as Gold ETF, Gold mutual funds, digital or e-gold, gold futures, and Gold Sovereign Bonds. The idle lying physical gold in temple depositaries, safes, and lockers does not contribute to the economy's productive capability. Financialization of gold and a shift toward these alternative paper and digital gold can have a positive impact on economic growth which has been put forth in this paper. Gold ETF and Gold Sovereign Bonds have been particularly studied in this paper as part of alternative gold investment options in comparison to physical gold. [24]

METHODOLOGY

The study made use of secondary information obtained from reports, research articles, websites of the Reserve Bank of India, World Gold Council, money control, Statista, good returns, and various company websites. The study is a descriptive paper with an in-depth analysis of the data. The data for the average annual return on physical gold is taken from the financial year 2015-2016 to 2020-21. A comparative analysis of average annual returns for Gold ETFs, Sovereign Gold Bonds, and physical gold has been done for the above-mentioned time period. Data regarding the annual demand value of gold, subscribed units of Sovereign Gold Bonds, and assets under the management of Gold ETFs are also analyzed. The period of study covered the financial year 2015-2016 to 2020-21 since the gold bond issues started in 2015. Lastly, the possible impact of alternative gold investments on economic growth is envisaged.

LITERATURE REVIEW

- In this work, Chaudhary, K., Singh, S., Dubey, P., and Subedi, N. [1] examine the three gold schemes: the Gold Monetization Scheme, the Sovereign Gold Bond Scheme, and the Indian Gold Coin Scheme. Along with this a comparative analysis of the Gold Deposit Scheme and Gold Metal Loan scheme also has been done. The study's goals are to see how these approaches can minimize gold imports in the long run. The programs enable investors to earn income by placing idle gold in banks.
- Kumar, S. (2019) [2] in their research study aimed to look into the connection between Gold ETF and actual gold as well as the performance of Gold ETFs in India with help of various statistical tools and models such as Alpha, etc. and they also performed correlation analysis. The article indicates that gold and gold exchange-traded funds have a favorable association. It was discovered that Gold ETFs outperformed actual gold in terms of returns; Axis ETFs outperformed the other Gold ETFs in the survey.
- In this research article, Saleem, M., and Khan, M. (2013) [3] compare gold ETF versus actual gold and conclude that gold ETF is a powerful and appealing investment alternative. The purpose of this article is to explore the origins and evolution of Gold Etf in India, as well as to illustrate the fund's correct operating mechanism, risk appetite diversification, and taxation. Physical gold is riskier compared to gold ETF in terms of safekeeping and market fluctuations. Also, gold ETF have fewer tax implications.
- Mishra, S. K., & Mohapatra, A. K. D. (2020). [4] explain the value of Gold ETF as an alternative investment to actual gold. The functioning processes of Gold ETFs are explained in this paper, as well as the benefits of Gold ETFs. The continual climb in the gold price has made gold and gold-backed assets an appealing investment alternative. As a result, it should be considered as part of an individual's entire investing plan to reduce risk and increase returns.
- Verma, N., Negi, Y. S., & Shukla, R. K. (2020) [5] in their paper conducting a survey in a culturally rich Himalayan state, Himachal Pradesh, India, this study aims to learn about people's investment preferences in gold-backed products. The goal of the study is to determine the relationships between key socio-demographic characteristics and the amount of money invested in gold ETFs, GMS, SGBS, and ISCBS. The majority of households opt for the Gold Monetization Scheme (GMS) with long-term Deposit Accounts and SGBS for the anticipated safe and reliable returns, according to the data, and the study also suggests that in the long run, households would prefer Gold ETFs for their quality of providing an amalgamation of security, consistent and easy trading on the stock market.[18]
- Nargunam, R., & Anuradha, N. (2017) [6] in their research paper aim to see whether the Indian Gold ETF market has met the criteria for price determination and informational efficacy. The results showcase various issues concerning price discovery while stating the evidence does not support the market efficacy hypothesis. For their research, they have used the statistical tools of non-parametric tests, correlation analysis, and Fuller root test.
- This study by Gnanakumar, P. B. (2020) [7] attempts to determine the cause of a large drain of gold ETF investments, as well as an increase in physical gold investments, and to examine various investment analyses concerning Gold and Gold ETF during the 2017-18 period. K-means clustering and ROC analysis were utilized for trend analysis and prediction. The paper concludes that only during the bullish time we gain from Gold ETF and actual Gold have a balancing effect. Gold ETF's bearish tendency can be hedged by Gold, but not the other way around.
- This paper by Pullen, T., Benson, K., & Faff, R. (2014) [8] attempts to analyze various alternate gold investment options like gold bullion, gold ETF, gold FoFs, and their properties of diversification, hedge against inflation, and safe haven. Findings suggest that gold bullions display strong hedging properties whereas gold fofs, and gold ETFs are good at diversification. The safe-haven property can be seen in gold etfs as well as gold bullion.
- In this study, L. E. Blose (1996) [9] investigates the influence of physical gold yields on fund of funds that employ money in gold and gold-related equities. A model is developed that precisely explains the impact of gold prices on gold mutual fund earnings. The elasticities of gold prices of 27 mutual funds that invest in gold mining businesses are examined to verify this conclusion. The findings show that funds that make investments with assets mostly made up of operational goldfields will earn at least as much as a gold investment. It also demonstrates that gold funds have risks that are independent of gold or market values.
- In this paper Suresh, A., & Keerthika, R. (2019) [10] focus on the impact of educational literacy on human behavior when making investment decisions, and the study, therefore, aims to analyze the existing association between annual incomes and investment decisions made with electronic gold formats, as well as the role of educational literacy in investors' behavioral patterns when considering modern gold investment contours. The study employs Karl Pearson's correlational analysis and linear regression for this goal. The final conclusion is that there is a relationship between annual income and the preference for electronic gold investment available in the market, with the educational level of literacy as a component not affecting the premise of digital investment except for portfolio and fund manager

factors in investment behavior.

- The goal of this research by Esampally, C., & Aarthi, B. (2015) [11] is to examine the effectiveness of the two most popular investment vehicles in the market, Gold ETFs and Gold FoFs. It examines the growth, compares risk-return performance, and critically evaluates Gold ETFs and Gold FoFs, using NAVs from March 2011- 2014. According to the article, gold ETFs and FoFs are better options than jewelry, and findings show that portfolios with a gold allocation of 3.3 percent to 7.5 percent, depending on the investor's risk tolerance and the currency of reference, have greater risk-adjusted return while continuously reducing Portfolio risk (Var).
- This article authored by Narasimhan, Chari, & Pradiptarathi, 2020 [12] tries to outline Gold's origins as a valuable metal and its transformation into a financial asset category. It discusses the benefits and hazards of these new investing opportunities. It claims that gold as an asset class has regained prominence in 2020, owing to concerns about an economic slump and worldwide recession as a result of the Pandemic.
- Chaudhary, C. R., & Bakhshi, P. (2016) [13] in this paper aim to investigate the goals, contrasts, progress, and obstacles of the two gold schemes announced by the Indian government, the Gold Monetization Program (GMS) and Sovereign Gold Bond Scheme (SGBS). The article examined the variations, purposes, problems, and achievements of GMS and SGBS using secondary data from the Reserve Bank, FICCI, and other official websites. The report explains how these methods will lower import and CAD costs. It finds that while numerous gold schemes are good overall, they are not successful in the Indian setting because of emotional and psychological considerations surrounding the yellow metal.
- The focus of this research by Aarthi, B [14] is to go over the published literature on Gold ETFs specifically. It's a descriptive paper based on secondary information. According to the findings, gold ETFs improve investors' ability to deal with modification, inflationary balancing, and price equivocation. It also states that gold ETFs have a significantly higher alpha, implying supernormal profits; they have less variance than physical gold; they have a negative relationship with equity ETFs, and there is unawareness about the alternate solution to gold investment.
- The goal of this study done by Menakadevi, P., Prabha, P., & Natarajan, M. L. (2021) [15] is to undertake a quantitative analysis of investors' rationale for investing in gold and to identify elements that promote a better comprehension of gold schemes and understanding of complex gold investment behavior. According to research, the majority of investors are unaware of any of the scams, therefore they choose physical gold in terms of jewelry and wish to invest in gold ETFs and sovereign gold bonds, which yield higher returns.
- Subramanian, S., & Mohan, K. (2012) [16] in their paper aims to comprehend the complexities of e-Gold (Electronic Gold) and how it can reach or surpass the security and investment norms of purchasing actual gold, Exchange Traded Funds (ETFs), or jewelry. Its goal is to familiarize investors and students with the notion of e-gold and its benefits. It outlines the properties of e-gold and compares it to other gold investment options such as actual gold and gold exchange-traded funds (ETFs).
- In the Ernakulam area of Kerala Abraham, S. (2016) [17] seeks to examine and uncover the investment demand for gold as an asset in a changing environment. It takes both primary and secondary data and evaluates and analyses it thoroughly. According to the study's findings, the low-risk appetite people of Kerala favor physical gold as an investment due to emotional attachment and suspiciousness of alternative possibilities such as e-gold and gold ETF.

RESEARCH GAP

In the existing literature on this subject, a comparison between physical gold forms and alternate paper and digital gold has not been studied, especially with respect to the most influential characteristics of gold. In this research, the alternate gold investment strategies have been examined and a comparative analysis of the same with physical gold has been performed. Along with this, the impact of physical and alternate gold investment options on the Indian economy and growth has been studied which too has not been covered so far.

INVESTMENT IN PHYSICAL GOLD AND INVESTOR'S BEHAVIOUR

Gold is one of the most favored and popular investment options. In India, the demand and investment in physical forms of gold such as jewelry, gold coins, and bars are far larger than in paper and digital gold. It is not only a valuable asset but also serves as a store of value when purchased in its physical form making it all the more popular. Investment in physical forms of gold comprises majorly jewelry, gold bars, and gold coins. It is a traditionally admired form of investment because of the sentiments, social status, and historical value attached to it. It forms a crucial part of festivities, ceremonies, marriages, etc., especially in India.

Moving towards the investors' behavior and factors influencing the investment in physical gold. Some important factors that have a primary influence on the gold buying and investing behavior of consumers include Substantially High Returns on gold invested in the physical form, Low Risk and safe-haven property, and the Income of people. The fact that investment in gold is seen as an inflation hedge and provides security acts as a stimuli gold investment. Demographic factors such as family, marital status, age, gender, and occupation also have a considerable impact. Gold prices influence the investor's behavior but to a lesser extent. Price

volatility does have an impact on the investment in gold but is lesser comparing other factors as there is still high demand for gold despite rising prices. Some other factors which affect investment in physical gold are Purity, Liquidity and Mortgageable, Tax and convenience, Education, and Lifestyle.

AVAILABLE ALTERNATIVE WAYS OF INVESTING IN GOLD IN THE INDIAN MARKET

Our country stands to be the largest importer of gold and also has the highest demand and consumption. This has a negative influence on the current account deficit and the foreign exchange rate. The core of the problem is India's massive stockpile of idle gold, which exists despite the country's insatiable need for the commodity. As a result, finding other investment channels, as well as integrating idle gold for productive use in the economy is of utmost importance. The necessity of the hour is to develop alternative instruments that deliver a real rate of return similar to gold. Educating the investors about more productive investment alternatives is also very imperative. India possesses the world's greatest gold holdings, including temple treasuries, trash gold, and so on. There is a huge opportunity to tap into this unused gold and properly integrate it into the monetary system.

Integration of gold with the mainstream financial economy or alternatively called the Financialization of Gold is an essential approach that needs to be envisioned. It implies three things. First, existing above-ground gold stockpiles must be integrated into the financial system and the actual economy. Second, to ensure that all future gold investment demand is fulfilled by financial instruments backed by gold rather than real gold. Third, to guarantee that an individual's gold assets are valued at their full economic worth (e.g.: credit against physical gold or jewelry).

- **Gold-backed Financial Products-** It is vital to convert idle gold holdings into new supply for the gold industry while also moderating physical gold demand by encouraging its conversion into financial assets with more transparency and the use of digital means. Thus, by boosting the lending and deposit arms of the monetization system and creating new financial products like the Gold Savings Account, the focus should be on integrating gold into the mainstream. Around 23,000-24,000 tons of gold are said to be underused in households and religious organizations across the country. The Government created the Gold Monetization Scheme (GMS) in the Union Budget of 2015-16 in order to monetize this unutilized gold. Gold-backed financial products include Gold Deposit Schemes, Gold Pension Products, Gold Accumulation Plans, Gold Loans, Gold Metal Loan Accounts, Gold Savings accounts, etc. which should be made widely available through banks with attractive incentives attached to them. This encourages the monetization and dematerialization of gold. Dematerialization of gold is

exemplified by the Gold Deposit Scheme, which allows people to deposit their current gold stock for a lockout time, the e-gold plan, and the paper gold savings account. In India, gold securitization for a term of 1-3 years and gold derivatives trading are also viable choices. Gold-backed products enhance the financial inclusion of physical gold.

- **Digital Gold-**The digital revolution's rise has spread to the gold market [21] in recent years, introducing a new type of investment: digital gold. Gold is still used as money today, even if it is no longer utilized as a currency. Digital gold is a term that refers to digital certificates that can be exchanged for real gold. These assets can be traded online or redeemed in metal by the possessor. It's similar to regular gold in that it can be acquired online and stored in safe vaults on behalf of the customer, i.e., 24K, absolute gold that consumers can purchase via digital means. It eliminates storage and purity difficulties, among other things. It's comparable to Gold ETFs and SGBs, except that, unlike SGBs, such privately owned certificates of digital gold don't pay any interest. Digital gold can be purchased through e-wallets such as Google Pay and Phone Pay, as well as brokers such as Motilal Oswal and others. Companies like MMTC-PAMP India Pvt. Ltd, Secure Gold, and Augmont Gold Ltd also sell digital gold. In contrast to actual gold, the purchase is carefully stored and insured without incurring expenses. It's simple to buy and sell, and it can even be exchanged for genuine gold. Another advantage of digital gold is that it can be used as security for online loans. Most platforms have a restriction of Rs 2 lakh for this investment. The digital form of gold is subject to a 3 percent GST tax, and if you sell it right away, the corporation will charge you a spread for storage and insurance. Though digital gold has several advantages over purchasing and investing in physical gold, there are preferable investment options such as Gold ETFs and SGBs. Gold has become more utilitarian, accessible, and efficient as a result of this invention. Digital gold is being offered by the country's top digital platforms, including, banking, wealth management channels, e-commerce portals, and payment applications.
- **Gold Mutual Funds-** Frequently known as gold funds of funds, these are mutual fund schemes. Gold Mutual Funds [26] are open investment vehicles that deal primarily in gold ETF units. The fund company collects public funds and makes investments in gold ETFs. The scheme offers returns that are very similar to the Gold Exchange Traded Scheme. Gold Funds necessitate no Dematerialized account, and one of their main advantages is the availability of a Methodical Investing Plan also known as SIP, which allows individuals to invest a set amount of funds monthly in gold fund components, riding the highs and lows of gold. Gold FoFs were initially introduced in India by Reliance

Mutual Fund. According to the research, Gold MFs and Gold ETFs have fairly similar yields, but gold mutual funds have a greater coefficient of variation, which enables investors to understand the volatility of an investment. When compared to jewelry or physical gold, a gold mutual fund closely tracks gold prices while also offering outstanding liquidity. There is no need to store physical gold and wait for a good deal to sell it. Investors in gold mutual funds can convert their assets out from mutual funds at any moment after which their money will be returned based on the payment cycle. This assures that they can reclaim their funds whenever they wish. Fund houses collect funds from the people and deploy them in gold ETFs out of their company holdings. HDFC Gold FoFs, for example, will invest in HDFC Gold ETF units. Companies put 90% to 100% of their funds into the underlying gold exchange funds and the remainder in debt instruments and financial markets assets. Recently companies have also been investing in gold mines shares. Gold FoFs allow for improved average purchasing cost, often called as 'rupee cost average', which is impossible with gold ETFs because investors may only acquire a certain number of units at various prices. Gold funds are popular with investors who want to benefit from the rupee cost averaging theory through a systematic investment strategy. Gold Mutual funds units held for more than three years are subject to a 20% tax rate plus a 4% cess. Short-term investors (up to 36 months) have their investment gains added to their income and taxed according to their tax bracket.

- **Gold ETFs**- these are exchange-traded funds that invest in gold. A Gold ETF tracks the local gold price. They are inert gold-based financial products that engage in physical gold and are oriented on the price of gold. Gold ETFs are dematerialized or paper items that reflect gold bullion in a nutshell. Each unit of the Gold ETF equals 1 gram of gold and is guaranteed by gold bullion that is exceptionally pure. ETFs for gold unite the simplicity of gold and flexibility of stocks. A Demat (Dematerialized) Account is required to capitalize in Exchange Traded Funds. Gold ETFs are listed and traded on the Bombay Stock Exchange Ltd. (BSE) and the National Stock Exchange of India, just like any other stock (NSE).
- **Sovereign Gold Bond**- These Gold Bonds (SGBs) are government bonds valued in gold grams. They are supposed to be utilized instead of actual gold. Issuing price for it has to be given in cash, and the redemption is also done in cash itself when mature. The Reserve Bank (RBI) [27] releases these bonds regularly and makes them accessible for purchase through major private and public sector institutions. Even though these bonds are assured by the Indian government and are related to the gold price, they are not backed by physical gold.

FACTORS INFLUENCING INVESTMENT IN GOLD ETF AND SOVEREIGN GOLD BONDS

Data Analysis

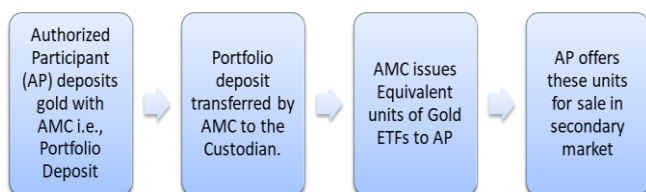
This section of the study will cover an in-depth analysis of the two most popular alternatives to investment in physical gold along with data analysis of the returns generated by Gold ETFs, SGBs, and Physical Gold as well as the demand value of the three, respectively. Thus, this section includes the comparative analysis of Gold ETFs, SGB, and the physical form of gold.

Gold Exchange Traded Funds (Etf)-

Gold ETF i.e., exchange-traded funds, are dematerialized or paper-based unit representations of physical gold. It combines the best of both worlds: equities and gold. Gold ETFs, on the other hand, combine the freedom of investing equity and stocks with the uncomplicatedness of yellow metal investing. While possessing gold in its physical forms, such as jewelry, bars, or coins, is inconvenient, gold ETFs are dematerialized and are more closely tied to the metal's market price. One gram of gold is equal to one gold ETF unit, which is backed by the purest form of actual gold. Gold Etf, like any other stock, are offered and dealt on the National Stock Exchange of India and the Bombay Stock Exchange. Gold ETFs, similar to any other corporate stock shares, are traded on the cash segment of the two stock exchanges located in Bombay and can be purchased and sold at a value determined by the market on a continuous basis. Buying a Gold ETF is the same as acquiring physical gold in computerized electronic format, and when you redeem it, you get the cash corresponding to the gold price instead of physical gold. Trading in Gold ETFs necessitates the use of a Demat Account and a broker, making it a very handy option to invest in gold. They are backed by 99.5 percent pure gold and it is possible to buy and sell it at the same gold price across India. The protocols of SEBI for Mutual Funds apply to gold ETFs. A statutory auditor must audit the actual gold purchased by mutual fund companies on a regular basis. The assets of Gold ETF are completely transparent due to its direct gold pricing. Furthermore, compared to real gold investments, ETFs have substantially lower expenses due to their unique structure and formation method.

The existing literature and study on Gold ETF also highlight several distinct traits. An analysis of numerous research studies reveals that gold ETFs and physical gold have a positive association. As a result, rather than holding real gold, investors may want to spend on ETFs. As per the current literature, Gold Etf, are less variable and risky than gold and offer a higher return than actual gold. In comparison to actual gold, gold in Demat form such as etfs is viewed as more convenient, safe, and cost-effective. Investors examine a variety of considerations when investing in their funds, including payment mode flexibility, investment size, tax incentives, liquidity, primary safety, risk in return, estimated return, and so on. Smaller sums of money can be invested in gold exchange-traded funds. Unlike actual gold, where one

must invest a larger quantity over time, which is often not viable for the small investor, one can develop a larger portfolio over time by investing lesser amounts over time.



Investments in the gold ETFs can be done by two means—through subscribing to the New Fund Offerings or through authorized participants.

There are multiple pros to investing in this alternative. To begin with, gold purity is guaranteed, and all units are guaranteed by genuine physical gold. The purchase and selling of gold ETF are done in real-time, that is, at the current market price, and the pricing process is transparent. Storage is the second benefit. Stakeholders don't need to be concerned regarding the safekeeping and precaution issues connected with gold in its physical forms. There is no risk of theft because the units are kept in a Demat. One also saves money on storage locker fees. It is appropriate for retail investors because the minimum lot size to sell on the secondary market is one unit. There are no wealth taxes, security transaction taxes, VAT, or sales taxes. ETFs are frequently accepted as loan collateral. Last but not least, Gold ETFs guarantee gold purity.

Gold ETFs provide both short- and long-term returns. When a unit of a Gold ETF is retained for a time period lesser than 12 months, the earnings are considered as short-range profit which is taxed at the marginal rate and included in gross income. Capital gain from long duration is assumed when a unit of a Gold ETF has been owned for longer than one year. The tax rate on earnings from investment for more than a year (long term) is 20% following indexation advantages or 10% without indexation advantages, depending on which is lower, resulting in a lower tax rate for the investor. There is no sales tax or VAT on the Gold ETF.

Sovereign Gold Bonds-

The Sovereign Gold Bond scheme, which allows for the purchase of gold in an electronic form, was unveiled in 2015 with the goal of promoting digital gold as an alternative to acquiring real gold. Because India imports the most gold in the world, investing in SGBs will reduce demand for gold and encourage consumers to invest in Demat or paper gold bonds. The SGBS has a price that is tied to the price of gold, plus a 2.5 percent annual interest rate that is paid semiannually. While the RBI has issued the SGBS on behalf of the Indian Government (GOI) as a way to buy "Paper Gold," it is important to note that these gold bonds are not backed by actual gold. The Bonds' price is calculated in INR by simply averaging the previous 3 business days of a week prior to the registration period. The term for investing in SGBs is for 8

years beginning on the day when they are allotted, with an early withdrawal option commencing in the fifth year. The Sovereign Gold Bonds are due to be redeemed after eight years. Premature redemption of bonds is permitted on interest payment dates beginning the fifth year after the date of issue. At the end of the investment period, the SGBS can only be redeemed for cash (not in the form of actual gold). The redemption amount is computed using the current gold price, granting the purchaser the price of the SGBs plus capital appreciation or depreciation from the date of purchase due to changes in the gold price. Investors can contact the respective financial institution, post office, or agent 1 month prior to the interest payment date, which occurs only twice a year if they want to redeem their bonds prematurely (after five years). On the same date, bondholders will receive a sum equivalent to the underlying gold value. As a result, they will gain the same return as if they bought gold bars/coins and later sold them at a higher price.

The minimal application condition is 1 gram of gold, whereas the maximum amount for application was 500 grams per individual every financial year, which was extended to 4 kilograms subsequently. Interest paid on SGBs is taxed under the provisions of the Income Tax Act of 1961. When individuals redeem their SGBs, they are not subject to taxation for their capital gains. Subscribers or if the bond is transmitted from one individual to another receive indexation benefits on long-term capital gains. The SGBS can now be traded on stock exchanges and utilized as loan collateral. The receiving institutions will impose a commission of 1percent of the total subscribed value for the issuing of the bond. Intermediaries will receive at minimum half of the charge. SGBs are fully safe, with the exception of market volatility. They are free of the risks that come with genuine gold. They pay you a fixed annual interest rate as well as indexation advantages when long-term capital gains occur or the bonds are transferred to another person. Concerning existing literature investment in Sovereign Gold Bonds is ideal for those with a low-risk appetite because it is a low-risk investment. SGBs are inexpensive to buy and sell when compared to actual gold and also give higher returns than physical gold as well as Gold ETF.

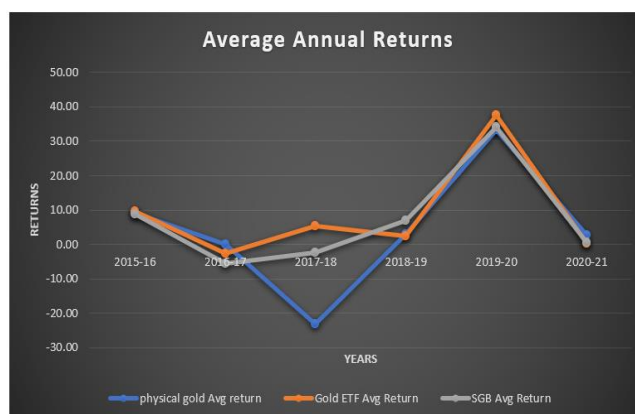


Figure 1 Average Annual Returns for Gold, (SGB) Sovereign Gold Bond, and Gold Etf

From the above figure, it is visible that with respect to returns on investment, the Gold ETF (exchange-traded funds) and the Gold Bonds issued by the government earn higher interest or at least at par, as compared to physical gold. The returns for physical gold have been calculated using the spot prices of gold per 10 grams of gold on the first and last day of every financial year. Similarly, for Gold ETF the prevailing prices of seven top-performing GOLD ETFs of the following institutions, Axis Bank, SBI, ABSL, HDFC, Invesco India, UTI, and Kotak, have been considered for the first and last days of respective financial years for calculating the average annual returns. The returns calculated for gold exchange-traded funds as a whole are an average of the average annual returns of the above-mentioned seven gold etfs. With respect to the returns for Sovereign Gold Bonds, the issue prices of the first and last series for each financial year have been taken to calculate the average annual return for that particular year. The annual interest of 2.5% has been incorporated during the calculation. Another method of calculating the returns on SGB would be by taking the weighted average for the issues in the respective financial years which would also show the results of higher returns in comparison to physical forms of gold.

Thus, high returns being one of the influencing factors for investing in gold indicates towards investment in the alternatives of Gold Etf and SGB is more profitable. In terms of safety, the SGBs and Gold ETFs are safer, easy to handle, and convenient compared to physical gold. SGBs also have low volatility in terms of market risks. The findings suggest that portfolios with a gold allocation of 3.3-7.5 percent, dependent on the investor's tolerance for risk and the reference currency, had greater risk accustomed return although the (VAR) variance is continuously reducing.

All the analysis suggests that paper or dematerialized gold is a better option for investment.



Figure 2 Demand Values of Physical gold, Gold ETF, and SGB (Rs Crores)

Despite the high returns available on investment in Gold ETFs and Sovereign Gold Bonds, the demand in terms of volume and value for the alternate investment options remains drastically low compared to that of physical gold. The demand values are calculated by holding 1 gram of gold as a base unit to make a comparison.

IMPACT OF ALTERNATIVE GOLD INVESTMENT ON ECONOMIC GROWTH

India, being one of the world's major gold consumers, has a voracious hunger for the precious metal. The demand for gold has increased multifold after the change and modification in the gold policy's stance post-liberalization. Demand for this precious metal stood at 875.2 metric tons in 2015 and has seen a slight fall where the demand was reported at 690.4 metric tons in 2019 and 446.4 metric tons in 2020. Even though demand has been declining since 2015, the fall in volume seemed to have no effect on the value of gold due to the rising prices.

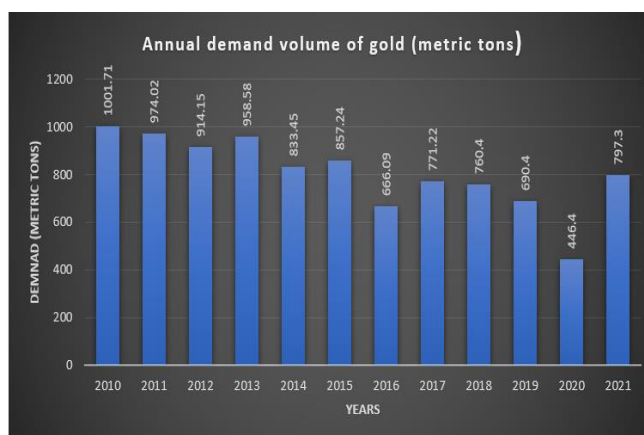


Figure 3 Annual Demand Volumes of Gold

In accordance with a study conducted by the (WGC) Gold Council, gold jewelry requirement accounted for about more than 75% of overall gold consumption in India between 1990 and 2020. We can infer from this that maximum gold consumption is for jewelry fabrication and the rest is gold coins, bars, and gold-backed assets. The Value of the Jewelry Market in India was over 3 trillion rupees in 2016 and has nearly doubled in 2021 to 6.180 trillion rupees. The Value of Gold held by individuals in Physical Assets in the country accounted for 57.16 trillion rupees which amplified to 109.5 trillion rupees in 2020.

Gold demand in India is primarily met through imports. India imported gold worth over Rs 2.5 trillion which is more than the preceding year's value of total imports of 1.9 trillion rupees. It is evident that the demand for gold remains less affected by the soaring prices of gold and instead the increasing income, savings, and purchasing power play a greater role. The persistently expanding demand for gold, despite its high price, is nearly entirely fulfilled by imports, as indigenous gold output is quite restricted in comparison to India's overall need. Such massive gold import demand at exorbitantly high prices is a key source of concern for India since massive dollar outflows exacerbate the current account imbalance (CAD). This, in turn, adds to the weight of external debt and causes the Indian currency to depreciate, resulting in overall macroeconomic instability. The foreign exchange resource utilized to purchase gold depletes the free exchange resource this is available. These resources can be utilized to fund the import of other essential and intermediate

goods. In its analysis of the macroeconomic situation, the RBI stated that the current account imbalance is a source of worry due to the inelasticity of oil and gold demand. The reduced burden on the current account and the foreign exchange that can be saved by reducing gold imports and the financialization of gold can be utilized to create a positive impact on the Indian economy following respective policy priorities.

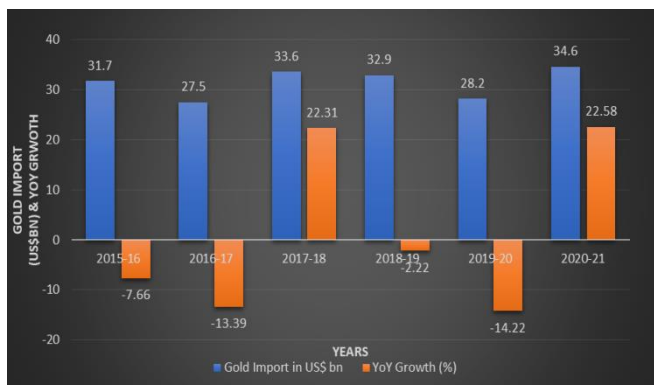


Figure 4 Average Annual Gold Prices

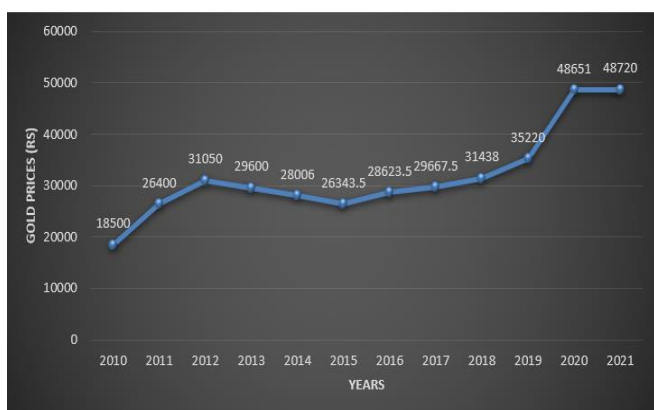


Figure 5 Gold Import bill in US\$bn and year-on-year growth

As mentioned above most of the investment in gold happens in jewelry, gold coins, and other physical assets. These investments though they seem very attractive and beneficial are left idle in the safes and lockers of banks or houses without serving any productive purpose. According to the Regional CEO (India) of the Gold Council (WGC) Mr. Somasundaram PR, Indian households may have accumulated roughly 24,000-25,000 tons of gold, making them the world's largest gold holders. The value of the holdings (25,000 tons) at international pricing would be equivalent to \$1135 Billion, or greater than 40 percent of the nominal gross domestic product (GDP) of India in the financial year 2019. In this manner, the savings of households are diverted from productive financial assets to assets that don't augment the productivity of the Indian economy.

CONCLUSION & WAY FORWARD

Notwithstanding its high price, India's growing need for gold is nearly exclusively met by imports, as domestic gold production is limited in contrast to the country's overall

needs. Large gold import demand at exorbitantly high prices is a major source of concern for India, whose current account deficit is exacerbated by massive dollar outflows. As a result, the Indian currency depreciates, contributing to general macroeconomic instability. Irrespective of the gold alternatives of SGB and Gold ETF performing over and above physical gold options in terms of the factors responsible for gold investments, there is comparatively slow growth in their demand and people's changing preferences. In the recent past, investments in these alternatives have started catching attention but not as much as is required.

There is a greater need for the financialization of gold and a shift in approach from physical to paper or dematerialized gold. Alternative gold investments like Sovereign Gold Bonds and gold Exchange Traded Funds prove to be beneficial not only to individual investors but also to the economy as a whole by reducing the burden of high import demand and the current account and balance of payments. Awareness and encouragement both are necessary for moving from physical gold to dematerialize or paper gold.

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