ISSN NO: 2249-3034

GOLD AND THE INDIAN STOCK MARKET: EVIDENCE FROM BSE & NSE.

AUTHORS: **Dr.THOMAS FELDMAN**

DESIGNATION: Assistant Professor[1], MBA[2]

INSTITUTE NAME: GIDC Rajju Shroff ROFEL Institute of Management Studies (MBA), Rajju Shroff ROFEL University, Vapi (Gujarat) –India.

ABSTRACT

This study explores the relationship between gold market and the Indian stock market. Gold, traditionally viewed as a safe-haven asset, often serves as a hedge against market volatility and inflation. By analysing historical data from both gold prices and key Indian stock market indices such as the BSE Sensex and NSE Nifty, this research is an attempt to investigate correlations and patterns between these variables. The study reveals that gold prices and stock market indices exhibit a complex, dynamic relationship, though no relationship between these parameters can be established. Gold prices often serve as a safe-haven asset for investors, typically rising when stock markets falter during periods of economic uncertainty or market instability. In contrast, during periods of economic stability, this correlation tends to weaken, and stock market indices may show heightened volatility in reaction to fluctuations in gold prices. This research highlights the significance of incorporating gold price trends into financial analyses and investment strategies, emphasizing the complex relationship between precious metals and equity markets in the Indian context.

Keywords: *Gold Market, Stock Market, Nifty, Sensex, Sovereign Gold Bond*

INTRODUCTION

The relationship between gold and stock market performance has long been a subject of interest for investors, analysts, and policymakers. Gold, widely considered a hedge against economic uncertainty and inflation, stands in contrast to the stock market, which reflects overall economic growth and corporate profitability. In India, this relationship holds particular importance, shaped by the distinct features of the country's gold and stock markets.

Gold has a deep-rooted cultural and economic significance in India. It is not only a valuable asset but also a traditional investment choice for individuals and families, often seen as a safe haven during economic downturns. Major indices like the Bombay Stock Exchange (BSE) Sensex and the National Stock Exchange (NSE) Nifty serve as barometers of the Indian stock market, capturing the country's economic health and investor sentiment. Understanding the interplay between these two financial instruments can provide valuable insights into market dynamics and investor behaviour.

LITERATURE REVIEW:

Gilmore et al. (2009) examined the dynamic relationships between gold prices, stock price indices of gold mining companies and broad stock market indices. A VECM analysis finds the long-term relationship between the variables restored after

both gold and large-cap stock prices adjust to disturbances. In the short term, unidirectional causal relationships flow from large-cap stock prices to gold mining company stock prices, and subsequently to gold prices.

Bhuyan and Dash (2018) identified a long-term equilibrium relationship between gold prices and stock returns using Johansen's Co-integration, but they could not establish a causal relationship between the two. The impulse response functions indicate that the gold and the response of the stock return is positive at each time responsive. The response of both the variables has a smooth fluctuation in upcoming 10^{th} period.

Arfaoui and Rejeb (2017) observed significant interactions among oil, gold, the US dollar, and stock prices. While oil and stock prices show a negative relationship, oil has a strong positive correlation with both gold and the US dollar. Additionally, gold prices are influenced by fluctuations in oil, the US dollar, and stock markets.

Mukhuti and Bhunia (2013) found no cointegration relationship between gold prices and the two stock market indices initially. However, results from a multivariate cointegration test revealed a stable cointegration relationship between gold prices and the two Indian stock market indices. So, gold price increased because of stock market reaction in India along with other macro-economic factors during the study period.

Narang & Dr. Singh (2012) discover no causality between the gold price and Sensex during the period of 10 years (2002-2010).

Dr. Bhunia (2013) examined the cointegration relationships among crude oil prices, domestic gold prices, and key financial variables such as exchange rates and stock market indices in India. The study noted that rising gold prices, along with the perception of safety and lack of future loss, have driven investors to shift from stock markets to gold. The Johansen cointegration test revealed a long-term relationship among the selected variables, while the Granger causality test indicated either bidirectional or no causality between them.

Bhunia and Pakira (2014) identified a long-term relationship among gold prices, exchange rates, and the Sensex, with either bidirectional or no causality observed among these variables. In contrast, Muhammad et al. concluded that gold prices, oil prices, and KSE 100 returns do not exhibit a significant long-term relationship.

Mishra et al. (2010) explored Granger causality within a Vector Error Correction Model for the period from January 1991 to December 2009, focusing on domestic gold prices and stock market returns based on the BSE 100 index. The analysis revealed evidence of feedback causality between the two variables, indicating that gold prices Granger-cause stock market returns, and stock market returns also Granger-cause gold prices in India during the study period. This suggests that both variables hold significant predictive information about each other.

Bhunia and Das (2012) examined the relationship between gold prices and stock market returns, finding evidence of bidirectional Granger causality between the two during the study period. Their results highlighted a co-movement of gold prices and

stock prices, particularly during and after the global financial crisis. The study also noted that Indians increasingly view gold as a significant investment option alongside other alternatives.

Al-Ameer et al. (2018) find the co-integration test results same for all the three different periods (before, during and after financial crisis). There is a long run relationship between gold & stock market for the sampled data of HDAX Index. Though, there is no cause & effect relationship between gold and stock market indicated by the result of ganger causality test.

Seifoddini et al. (2017) find no stable relationship between stock market returns and gold price returns which changes in short and long term. The study did not consider major structural changes in the economies, instead considered usual & normal economic circumstances that investors regularly encounter in their investment decisions.

Mukhuti (2018) discover gold prices positively related to BSE-Sensex and NSE-Nifty. However, multiple regression results are unauthentic. The analysis revealed that the time series data are non-stationary at levels but become stationary at the first difference. No causality was found between Nifty and gold prices or between Sensex and gold prices. However, bidirectional causality was observed between gold and Nifty returns as well as between gold prices and Sensex returns.

Patel (2013) discover all-time series stationary at first difference. There exists a long-run equilibrium relation between all the variables under study. Additionally, gold prices were found to Granger-cause Nifty returns exclusively. This suggests that gold prices hold valuable information for predicting Nifty returns.

Tripathy (2016) found no causal relationship between gold prices and stock market prices in the short run. However, they are co-integrated indicating long run equilibrium relationship between them which also exhibits the stability of co-efficient and they move together.

Ram Raj G and Anbu (2020) discovered a unidirectional relationship between gold prices and Sensex returns, indicating a long-run equilibrium between the two variables, with both moving in tandem. Additionally, stock prices can be used to predict gold prices in India. Investors have the opportunity to reap the benefit of the portfolio diversification by gaining knowledge from this study.

Hlupo (2017) found a weak, short-run unidirectional relationship between gold prices and the stocks of gold mining firms on the ZSE. However, no significant association was observed between gold prices and non-gold mining stocks. The study suggests that gold, as a commodity, offers a better diversification opportunity than the shares of gold mining companies.

Mohd. and Kumar (2016) conclude that investors view gold as an attractive and safe investment during periods of declining stock market returns and market instability. In times of extreme market volatility, investors tend to move their assets from the stock market to gold, seeking a safe haven. This shift is partly driven by gold's strong performance in recent years, fueled by high demand. Several factors

contribute to gold's high demand in India. Firstly, gold provides security, particularly when held by central banks. Secondly, it maintains liquidity even during crises, such as high global inflation or political instability.

Farhan et al. (2016) find significant variation in gold prices, oil prices, exchange rates due to stock returns where other macroeconomic variable signify specific trend in stock return except exchange rate shock has significant negative impact on stock returns. The results of the variance decomposition test show that stock return impulses account for variations of 17.77% in oil prices, 8.58% in gold prices, and 6.6% in exchange rates. Conversely, stock returns are influenced by shocks in other macroeconomic variables, with 18.1% of the change attributed to exchange rates, 6.9% due to gold prices, and 6.5% due to oil price shocks. However, no causal relationship was found between gold prices, oil prices, exchange rates, and stock market returns in Pakistan.

Bhunia (2020) conducted bivariate co integration test & concluded that gold price is not related to the Sensex in the long run. Also, vector auto regression model test results confirm that there is a no equilibrium relationship of gold price with Sensex.

Syahri and Robiyanto (2020) found a significant impact of changes in gold prices on stock price volatility, along with a positive dynamic correlation between the CSPI and gold, and a negative dynamic correlation between the CSPI and exchange rates.

Subrata (2020) observed no long-run equilibrium relationship during the COVID-19 outbreak. However, a short-run association was identified, where lagged gold prices influenced current gold prices. Additionally, bidirectional Granger causality was found between the BSE and NSE. During the COVID-19 lockdown, investors showed a preference for stock investments over gold. Finally, the validity and stability of the VAR models were confirmed through various residual tests.

Dr. Kaur and Kaur (2016) conducted an econometric regression analysis and found that gold prices significantly influenced the Indian stock market, represented by the BSE Sensex. Additionally, Karl Pearson's correlation analysis revealed a positive correlation between gold prices and the Sensex.

Srivastava and Singh (2017) observed that the data satisfied the stationarity condition and exhibited a long-run relationship between gold prices and stock returns. Moreover, the causality relationship model indicated a bidirectional influence between the two variables.

Bhunia and Mukhuti (2013) applied a unit root test and found that the time series data were non-stationary at levels but became stationary at the first difference. The Granger causality test revealed no causality between Nifty and gold prices, gold prices and the Sensex, or Nifty and the Sensex. However, bidirectional causality was observed between gold prices and Nifty, the Sensex and gold prices, and the Sensex and Nifty.

METHODOLOGY:

- **Objective:**
  - to re-examine the relationship between the gold price and

the Indian stock market.

- **Hypothesis:**

H0: Price of gold and BSE are not related.
H1: Price of gold and BSE are related.
H0: Price of gold and NSE are not related.
H1: Price of gold and NSE are related.

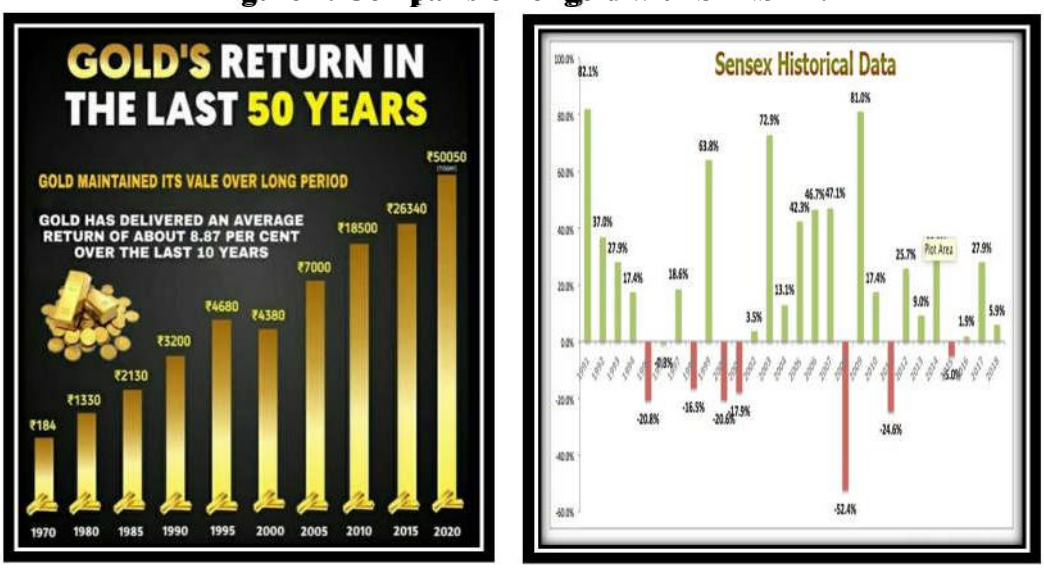
- **Research Design**

The aim of this research paper is to re-examine the relationship between the gold price and the Indian stock market. This research was a descriptive study conducted through secondary data analysis by performing correlation in SPSS 23 version. Gold prices, Sovereign gold bond, BSE & NSE yearly as well as monthly data were collected for 15 years i.e. 10 years pre covid & 5 years post covid.

DATA ANALYSIS:

Descriptive Analysis:

Figure 1: Comparision of gold with SENSEX.



Source : Author creation

- **1970s - Gold Outshines:**

- Gold surged from ₹184 per 10 grams in 1970 to ₹937 by 1980, driven by the collapse of the Bretton Woods system and global inflation.
- The Indian stock market was nascent, with limited participation and negligible Sensex returns (Sensex was launched in 1986).

➢ **1980s - Stock Market Emerges:**

- Gold rose modestly from ₹937 in 1980 to ₹3,200 by 1990 as domestic demand increased.
- The Sensex, launched in 1986 at 100, grew to ~750 by 1990, reflecting economic growth and rising corporate profitability.

➢ **1990s - Liberalization Boost:**

- Economic reforms fuelled Sensex growth from ~750 in 1990 to ~5,000 by 2000, an annualized return of ~18%.
- Gold rose more moderately, from ₹3,200 in 1990 to ₹4,400 in 2000, as equities became a preferred investment.

➢ **2000s - Dual Bull Run:**

- Gold prices jumped from ₹4,400 in 2000 to ₹18,500 by 2010, with a sharp rise during the 2008 financial crisis.
- The Sensex soared from ~5,000 in 2000 to ~20,000 in 2010, with high volatility during the 2008 market crash.

➢ **2010s - Diverging Paths:**

- Gold saw fluctuating gains, ending the decade at ~₹39,000 per 10 grams due to economic uncertainties and currency movements.
- The Sensex climbed steadily from ~20,000 in 2010 to ~41,000 by 2019, delivering strong returns amid reforms and corporate growth.

➢ **2020s - Pandemic and Recovery:**

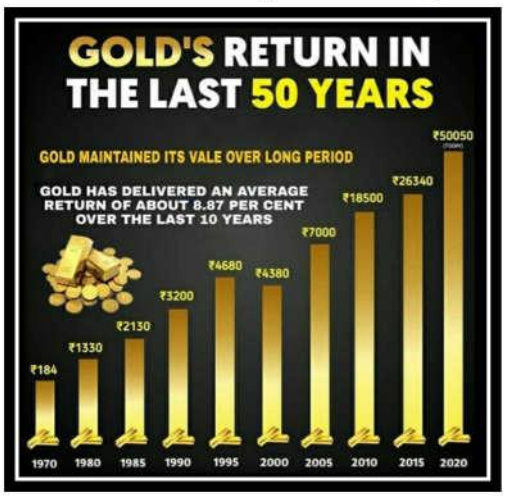
- Gold peaked at ~₹56,000 per 10 grams in 2020 during COVID-19 but moderated to ~₹60,000 in 2023.
- The Sensex rebounded from ~28,000 in March 2020 to over ~65,000 in 2023, reflecting post-pandemic recovery and tech-sector growth.

Historical Impact

- **1970s**: Gold experienced a significant rally due to geopolitical tensions, inflation, and the collapse of the Bretton Woods system in 1971. This was a period of economic uncertainty globally.
- **1980s and 1990s**: With liberalization reforms in India and the rise of financial markets, the Sensex began its growth trajectory. Gold remained a steady store of value but showed relatively muted performance compared to equities.
- **2000s**: Gold surged again due to the global financial crisis of 2008 and rising inflation fears. Meanwhile, the Sensex experienced volatility but grew rapidly in response to India's economic boom.

- **2010–2020:** The Sensex exhibited strong growth driven by technological advancements and economic reforms. Gold maintained its role as a hedge against market corrections and global crises, including the COVID-19 pandemic in 2020.

Figure 2: Comparison of gold with NIFTY.



Source : Author creation

- **1970s - Gold Dominance:**
  - Gold surged from ₹184 per 10 grams in 1970 to ₹937 by 1980, driven by global inflation, economic instability, and high demand as a safe haven.
  - The Nifty did not exist; India's stock market was underdeveloped, with minimal organized trading.
- **1980s - Early Stock Market Growth:**
  - Gold continued its upward trend, reaching ~₹3,200 by 1990 due to rising domestic demand and geopolitical tensions.
  - Indian equity markets gained attention, culminating in the Nifty's launch later in 1996.
- **1990s - Liberalization Era:**
  - Gold prices grew modestly from ₹3,200 in 1990 to ~₹4,400 in 2000, overshadowed by a booming equity market post-1991 reforms.
  - The Nifty, launched in 1996 at a base value of 1, climbed to ~1,200 by 2000, reflecting economic reforms and rising corporate earnings (~18% annualized return).
- **2000s - Twin Bull Runs:**

- Gold rallied from ₹4,400 in 2000 to ₹18,500 by 2010, spurred by the 2008 financial crisis, global uncertainties, and rising inflation.
- The Nifty grew exponentially, from ~1,200 in 2000 to ~6,000 by 2010 (~18% CAGR), boosted by strong economic growth and FII inflows despite market volatility during the 2008 crash.

➢ **2010s - Diverging Trends:**

- Gold saw volatile growth, increasing from ~₹18,500 in 2010 to ~₹39,000 by 2019, influenced by global trade wars, weak currency, and geopolitical events.
- The Nifty consistently outperformed, rising from ~6,000 in 2010 to ~12,200 by 2019 (~12% CAGR), driven by structural reforms and corporate sector growth.

➢ **2020s - Pandemic and Recovery:**

- Gold reached all-time highs of ~₹56,000 per 10 grams in 2020, driven by COVID-19 uncertainty, before stabilizing around ₹60,000 in 2023.
- The Nifty rebounded from ~7,500 in March 2020 (pandemic low) to ~20,000 in 2023, delivering exceptional returns as the economy recovered and technology sectors thrived.

Historical Impact

➢ **1970s–1990s: Early Growth of Indian Markets**

- Gold: Benefited from global economic uncertainties, such as the collapse of the Bretton Woods system, oil crises, and high inflation during the 1970s.
- Nifty Proxy (Sensex): In its infancy, the Indian stock market showed limited growth until liberalization reforms in the 1990s, which propelled corporate earnings and equity returns.

➢ **2000s: Economic Boom and Crisis**

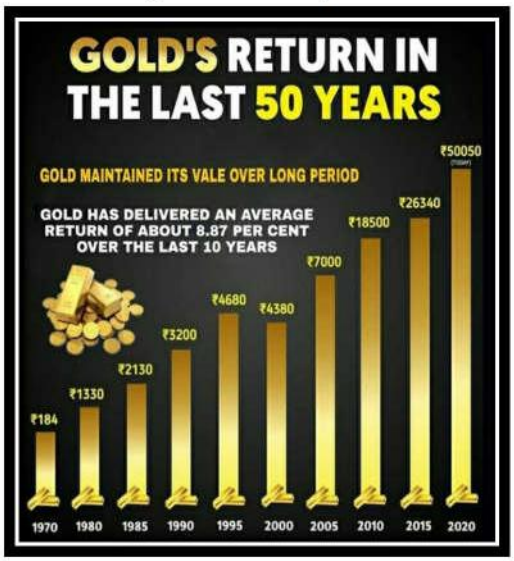
- Gold: Experienced a massive bull run from the early 2000s to 2011 due to global economic crises, rising inflation fears, and declining confidence in financial systems.
- Nifty: Indian equities entered a high-growth phase following economic liberalization, IT sector expansion, and globalization, despite significant dips during the dot-com bubble (2000) and the global financial crisis (2008).

➢ **2010s: Divergence in Performance**

- Gold: Peaked in 2011 but saw subdued performance for much of the decade, recovering during periods of economic uncertainty like the COVID-19 pandemic.

- Nifty: Outperformed gold in this decade, driven by technological innovation, corporate growth, and increased participation of retail investors.

Figure 3: Comparison of Gold with Sovereign Gold Bond.



Source : Author creation

- **1970s - Gold as a Hedge:**
- Gold prices surged from ₹184 per 10 grams in 1970 to ₹937 by 1980, driven by the collapse of the Bretton Woods system, high inflation, and geopolitical uncertainties.
- Sovereign bonds offered stable returns, with yields ranging between 5-8% in India, catering to risk-averse investors in a regulated financial environment.
- **1980s - Modest Growth in Bonds:**
- Gold prices continued their upward trajectory, reaching ~₹3,200 by 1990, fuelled by domestic demand and inflation.
- Sovereign bond yields increased to 9-11% as the government relied heavily on borrowing to fund fiscal deficits amid a closed economy.
- **1990s - Economic Reforms:**
- Gold prices grew moderately, from ₹3,200 in 1990 to ~₹4,400 in 2000, as financial market liberalization made equities more attractive.
- Bond yields peaked at ~12-14% in the early 1990s due to high fiscal deficits and inflation but gradually declined to ~8-10% by 2000 as monetary policy stabilized post-liberalization.
- **2000s - Globalization and Growth:**
- Gold rallied from ₹4,400 in 2000 to ₹18,500 by 2010, driven by rising commodity prices, the 2008 financial crisis, and a weakening dollar.
- Bond yields trended lower, averaging ~6-8% by the end of the decade, as inflation moderated and India integrated further into the global economy.

- **2010s - Diverging Performance:**
- Gold prices fluctuated, growing from ₹18,500 in 2010 to ~₹39,000 by 2019, influenced by geopolitical uncertainties and currency movements.
- Sovereign bond yields declined further, ranging between ~6-7% as monetary policies became accommodative, especially post the 2013 "taper tantrum."
- **2020s - Pandemic and Policy Shifts:**
- Gold reached record highs (~₹56,000 per 10 grams in 2020) during the COVID-19 pandemic as a safe haven asset, stabilizing around ₹60,000 by 2023.
- Bond yields fell to historic lows (~4-6%) during the pandemic, driven by rate cuts and liquidity measures but have since risen moderately to ~7% in response to global inflationary pressures.

Historical Impact

- **1970s–1980s: High Inflation and Uncertainty**
- Gold: Benefited significantly from global events like the collapse of the Bretton Woods system (1971), oil crises, and stagflation, which pushed up gold prices as investors sought inflation protection.
- Sovereign Bonds: Suffered from negative real returns in many countries, including India, as high inflation outpaced fixed coupon rates.
- **1990s: Stabilization and Growth**
- Gold: Showed subdued performance as global inflation rates declined and economic conditions stabilized after liberalization reforms in India.
- Sovereign Bonds: Provided steady returns as central banks focused on controlling inflation, making bond yields relatively attractive in real terms.
- **2000s: Economic Boom and Global Financial Crisis**
- Gold: Entered a major bull market due to rising inflation expectations, geopolitical tensions, and the global financial crisis of 2008. Investors turned to gold as a safe haven.
- Sovereign Bonds: Yields remained attractive but started to decline globally as central banks, including the Reserve Bank of India (RBI), adopted lower interest rate policies post-2008 to support economic recovery.
- **2010s: Declining Yields vs. Gold Resurgence**
- Gold: After peaking in 2011, gold prices saw a dip but rebounded during times of uncertainty (e.g., the 2020 COVID-19 pandemic).
- Sovereign Bonds: Bond yields continued to decline globally, including in India, due to prolonged low interest rates and monetary easing policies.

Inferential Statistics:

Table 1: Correlation Matrix:

Year wise before COVID-19.

- **Gold & Sensex**

The P value is 0.683 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Gold & Sensex.

		SENSEX	NIFTY	GOLD
SENSEX	Pearson Correlation			
	Sig. (2-tailed)	-	-	-
	N			
NIFTY	Pearson Correlation	-.027		
	Sig. (2-tailed)	.908	-	-
	N	21		
GOLD	Pearson Correlation	.095	-.140	1
	Sig. (2-tailed)	.683	.546	
	N	21	21	21

- **Gold & Nifty:**

The P value is 0.546 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Nifty & Gold.

Month wise after COVID-19.

- **Gold & Sensex.**

The P value is 0.741 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Gold & Sensex post covid era.

- **Gold & Nifty.**

The P value is 0.312 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Gold & Nifty.

- **Sovereign Gold Bond & Sensex:**

The P value is 0.944 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Sovereign Gold Bond & Sensex.

- **Sovereign Gold Bond & Nifty.**

The P value is 0.416 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Sovereign Gold Bond & Nifty.

- **Gold & Sovereign Bond.**

The P value is 0.172 which is more than 0.05 and 0.01, so we fail to reject the null hypothesis and we can say that there is no relationship between Gold & Sovereign Gold Bond.

Table 2: Correlations Matrix.

		SENSEX	NIFTY	GOLD	S BOND
SENSEX	Pearson Correlation				
	Sig. (2-tailed)	-	-	-	-
	N				
NIFTY	Pearson Correlation	.268			
	Sig. (2-tailed)	.108	-	-	-
	N	37			
GOLD	Pearson Correlation	-.056	-.171		
	Sig. (2-tailed)	.741	.312	-	-
	N	37	37		
S BOND	Pearson Correlation	-.013	.149	-.247	
	Sig. (2-tailed)	.944	.416	.172	-
	N	32	32	32	

CONCLUSION:

In this study we provide evidence regarding relationship between gold & Indian stock market. We employ Pearson correlation using yearly & monthly data of Gold, Sovereign Gold Bond, Sensex & Nifty during last fifteen years. Based on the results of analysis, we find no relationship between any of the two parameters among Gold, Sovereign Gold Bond, Sensex & Nifty.

BIBLIOGRAPHY:

Gilmore, Claire & Mcmanus, Ginette & Sharma, Rajneesh & Tezel, Ahmet. (2009). The Dynamics of Gold Prices, Gold Mining Stock Prices and Stock Market Prices Comovements. Research in Applied Economics. 1. 10.5296/rae. v1i1.301.

Bhuyan A K, Dash A K, A dynamic causality analysis between gold price movements and stock market returns: Evidence from India. J Manag Res Anal 2018;5(2):117-124

Arfaoui, Mongi & Rejeb, Aymen. (2017). Oil, gold, US dollar and stock market interdependencies: a global analytical insight. European Journal of Management and Business Economics. 26. 278-293. 10.1108/EJMBE-10-2017-016.

Mukhuti, Somnath and Bhunia, Amalendu, (2013), Is it true that Indian gold price influenced by Indian stock market reaction? E3 Journal of Business Management and Economics., 4, issue 8, p. 181-186,

https://EconPapers.repec.org/RePEc:etr:series:v:4:y:2013:i:8:p:181-186.

Narang, S.P. & Singh, Dr. Raman. (2012). Causal Relationship between Gold Price and Sensex: A Study in Indian Context. Vivekananda Journal of Research. 1. 33-37.

Bhunia, A. (2013). Cointegration & causal relationship among crude price, domestic gold price & financial variables- An evidence of BSE & NSE.

Bhunia, Amalendu and Pakira, Sanjib, (2014), Investigating the impact of gold price & exchange rates on sensex : An evidence of India, European Journal of Accounting, Finance & Business, 2, issue 1, p. 1-11,

https://EconPapers.repec.org/RePEc:scm:ejafbu:v:2:y:2014:i:1:p:1-11. Mansoor,

Muhammad & Shahbaz, Muhammad & Imran, Muhammad & Jabbar, Mehwish & Ain, Qurat. (2013). Relationship between Gold and Oil Prices and Stock Market Returns. Acta Universitatis Lodziensis Folia oeconomica. 9.

Mishra, P.K. & J.R.Das, & Mishra, Santosh. (2010). Gold Price Volatility and Stock Market Returns in India. American Journal of Scientific Research. 9. 47-55.

Bhunia, A., & Das, M. (2012). Association between gold prices & stock market returns: empirical evidence from NSE. Journal of Exclusive Management Science. https://jems.net.in/wp-content/uploads/2018/01/ASSOCIATION-BETWEEN-GOLD-PRICES-AND-STOCK-MARKET-RETURNS-EMPIRICAL-EVIDENCE-FROM-NSE.pdf

Al-Ameer, M., Hammad, W., Ismail, A., & Hamdan, A. (2018). The Relationship of Gold Price with the Stock Market: The Case of Frankfurt Stock Exchange. International Journal of Energy Economics and Policy, 8(5), 357–371.

https://www.researchgate.net/publication/329573680_The_Relationship_of_Gold_Price_with_the_Stock_Market_The_Case_of_F

Seifoddini, J., Roodposhti, F. R., & Kamali, E. (2017). Gold-Stock Market Relationship: Emerging Markets versus Developed Markets. EMAJ: Emerging Markets Journal, 7(1), 17–24. https://doi.org/10.5195/emaj.2017.126

Mukhuti, S. (2018). Impact of Gold Price on Stock Market Return – An Econometric Analysis of BSE and NSE. International Journal of Management Studies, V (4(7)), 01. https://doi.org/10.18843/ijms/v5i4(7)/01

Patel, S. (2013, January 28). Causal Relationship between Stock Market Indices and Gold Price: Evidence from India. Ssrn.com.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2207807

Tripathy, N. (2016). A Study on Dynamic Relationship between Gold Price and Stock Market Price in India. European Journal of Economics, Finance and Administrative Sciences, Issue 88.

https://www.researchgate.net/publication/306262190_A_Study_on_Dynamic_Relationship_between_Gold_Price_and_Stock_Market_Price_in_India

Ram Raj G, & Anbu, S. (2020). A Study on Dynamic Relationship between Indian Gold Price and Sensex. TEST ENGINEERING and MANAGEMENT, 82, 5910–5915.

https://www.researchgate.net/publication/344224774_A_Study_on_Dynamic_Relationship_between_Indian_Gold_Price_and_Sensex

Hlupo, Patience. (2017). The relationship between gold prices & equity market performance: Evidence from the Zimbabwe stock exchange.2394-7926.

Mohd, D., & Kumar, P. (2016). Analysis of Relationship Between Performance of Stock Market Index and Gold Price with Special Reference to Year 2016-17. Think India Journal, 22(14), 6356–6369. https://thinkindiaquarterly.org/index.php/think-india/article/view/14322

Ahmed, Farhan & Kashif, Muhammad & Feroz, Farjad. (2016). Dynamic Relationship between Gold Prices, Oil Prices, Exchange Rate and Stock Returns: Empirical Evidence from Pakistan. NUML International Journal of Business & Management. 12.

Bhunia, A. (2020). Is Gold Price Related to the Sensex During 2014 - 2019? An Econometric Analysis [Review of Is Gold Price Related to the Sensex During 2014 - 2019? An Econometric Analysis]. Indo-Asian Journal of Finance and Accounting, 1(1), 27–34.

Syahri, Alfi & Robiyanto, Robiyanto. (2020). The correlation of gold, exchange rate, and stock market on Covid-19 pandemic period. Jurnal Keuangan dan Perbankan. 24. 10.26905/jkdp.v24i3.4621.

Subrata, R. O. Y. (2020). Gold & Stock Relation: Investors Reaction During Covid-19 Outbreak. Revista Economica, 72(3), 103–126.

https://ideas.repec.org/a/blg/reveco/v72y2020i3p103-126.html

Kaur,Kaur, Dr. S. ,Deepinder. (2017, November 20). Dynamic relationship between gold prices & Indian stock market – An empirical analysis.

Srivastava, Anup & Singu, Hari Babu. (2016). Causal Relation Between Gold and Stock Returns In India: A Study. The International Journal Research Publication's Research Journal of Social Science and Management. 6. 6-9.

Bhunia, A., & Mukhuti, S. (2013). The impact of domestic gold price on stock price indices-An empirical study of Indian stock exchanges.