

A STUDY ON LONG TERM INVESTMENT DECISION IN TRADING INDUSTRY

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ABSTRACT

The project “LONG TERM INVESTMENT DECISION” gives the brief idea regarding the various investment options that are prevailing in the financial markets in India. With lots of investment options like banks, Fixed Deposits, Government bonds, stock market, real estate, gold and mutual funds the common investor ends up more confused than ever. Each and every investment option has its own merits and demerits. This project I have discussed about few investment options available. Any investor before investing should take into consideration the safety, liquidity, returns, entry/exit barriers and tax efficiency parameters. We need to evaluate each investment option on the above-mentioned basis and then invest money. Today investor faces too much confusion in analyzing the various investment options available and then selecting the best suitable one. In the present project, investment options are compared on the basis of returns as well as on the parameters like safety, liquidity, term holding etc. thus assisting the investor as a guide for investment purpose.

Keywords: Fixed Deposits, liquidity, returns

1. INTRODUCTION

Investment has different meanings in finance and economics. Finance investment is putting money into something with the expectation of gain, that upon thorough analysis, has a high degree of security for the principal amount, as well as security of return, within an expected period of time. In contrast putting money into something with an expectation of gain without thorough analysis, without security of principal, and without security of return is speculation or gambling. As such, those shareholders who fail to thoroughly analyze their stock purchases, such as owners of mutual funds, could well be called speculators. Indeed, given the efficient market hypothesis, which implies that a thorough analysis of stock data is irrational, all rational shareholders are, by definition, not investors, but speculators.

Investment is related to saving or deferring consumption. Investment is involved in many areas of the economy, such as business management and finance whether for households, firms, or governments.

To avoid speculation an investment must be either directly backed by the pledge of sufficient collateral or insured by sufficient assets pledged by a third party. A thoroughly analyzed loan of money backed by collateral with greater immediate value than the loan amount may be considered an investment. A financial instrument that is insured by the pledge of assets from a third party, such as a deposit in a financial institution insured by a government agency may be considered an investment. Examples of these agencies include, in the United States, the Securities Investor Protection Corporation, Federal Deposit Insurance Corporation, or National Credit Union Administration, or in Canada, the Canada Deposit Insurance Corporation.

Promoters and news sources that report on speculative financial transactions such as stocks, mutual funds, oil and gas leases, commodities, and futures often inaccurately or misleadingly describe speculative schemes as investment.

TYPES OF INVESTMENT OPTIONS

A brief preview of different investment options is given below:

Equities:

Investment in shares of companies is investing in equities.

Stocks can be brought/sold from the exchanges (secondary market) or via IPO's – Initial Public Offerings (primary market). Stocks are the best long-term investment options wherein the market volatility and the resultant risk of losses, if given enough time, are mitigated by the general upward momentum of the economy. There are two streams of revenue generation from this form of investment:-

Dividend: Periodic payments made out of the company's profits are termed as dividends.

Growth: The price of the stock appreciates commensurate to the growth posted by the company resulting in capital appreciation.

On an average an investment in equities in India has a return of 25%. Good portfolio management, precise timing may ensure a return of 40% or more. Picking the right stock at the right time would guarantee that your capital gains i.e. growth in market value of stock possessions, will rise.

Bonds: It is a fixed income (debt) instrument issued for a period of more than one year with the purpose of raising capital. The central or state government, corporations and similar institutions sell bonds. A bond is generally a promise to repay the principal along with fixed rate of interest on a specified date, called as the maturity date. Other fixed income instruments include bank deposits, debentures, preference shares etc.

2. REVIEW OF LITERATURE

ARTICLE: 1

Title: Review of Literature on Finance-Growth Nexus

Author: Reginald D Williams's

Source: SSRN Electronic Journal

This study discusses the current state of knowledge on the financial development and economic growth by reviewing the most decisive theoretical and empirical contributions. It is obvious that financial development is at least correlated with economic development and that a sound and refined financial system encourages the efficiency of investment and economic growth in a market economy. It is also observable that an inadequately functioning financial system can obstruct economic growth and development. The review highlights that most empirical studies focus on either testing the role of financial development in motivating economic growth or tentative direction of causality between these two variables. We review the cross-country and time series empirical literature in this study. It is evident that searching the relationship between financial development and economic growth is inconclusive across countries, regions, and methodologies employed.

ARTICLE: 2

Title: Financial Development and Economic Growth

Source: Journal of Economic Literature, vol. 35, pp. 688-726.

Author: Levine, Ross

This report aims at furthering the research on HGFs from a management perspective. The report includes a comprehensive literature review of the last 30 years of academic papers and reports published on HGFs, looking specifically at empirical research on the leaders (defined as either individual entrepreneurs or the top management teams [TMTs] in HGFs).

The review of 134 published studies between 1985 and 2013 reveals only 30 empirical studies with data on the founding entrepreneurs or TMTs of HGFs. Among the 30 studies, the review indicates that HGFs are more often founded and/or managed by a larger management team than more general firm samples. Further, managers of HGFs seem to more often be highly educated and exhibit prior industry and leadership experience but not necessarily prior entrepreneurial experience. Studies on the innovation-growth relationship suggest that different types of innovativeness may be differentially related to rapid growth. While some studies have revealed that R&D and product innovations are important for rapid growth, in many other studies, they exhibit no relationship with rapid growth. However, measures of market innovativeness or contact with markets and customers often seem to be distinguishing features of HGFs. The review indicates tension in the current literature in that some studies argue that HGFs need to establish formal managerial structures to manage growth, while other studies argue that the "the capacity to adapt" is more important. Given that the evidence to date has primarily been based on small-sample cross-sectional studies in certain industrial contexts and settings, this evidence must be taken as tentative.

RESEARCH GAP:

Long-term investments challenge decision makers to look into the far future. Existing future studies often build upon a rational idea of decision making that does not help to explain why decision makers anticipate the future.

OBJECTIVES:

- To make an analysis of various long term investment decisions.
- To compare the returns given by various investment decisions.
- To cater the different needs of investors.
- To have a reasonable understanding about the investment industry.

3. RESEARCH METHODOLOGY

Need For The Study

Investment Planning is important because it helps you to derive the maximum benefit from your investments. Your Essentially, Investment Planning involves identifying your financial goals throughout your life, and prioritizing them. For example, if you want to invest for funding your vacation next year, don't choose an investment vehicle that has a three-year lock-in. Similarly, if you want to invest for your daughter's marriage after 10 years, don't invest in 1yr bonds for the next 10 years. Instead, choose an option that matches your investment horizon.

Scope Of The Study:

You can take investment decision only after analyzing entire process of investment that starts with funds contribution and ends with getting expectations fulfilled. The investment decision rules allow you to formalize the process and specify what condition or conditions need to be met to accept the project. You will take decision only after ensuring that the required expectations in terms of returns are ensured at any cost.

The study is conducted to understand the functioning of Equities in India Equity market.

Methodology

- **DATA COLLECTION**
- Secondary Data: Secondary data is collected from referring books and websites of India. Secondary data is collected from internet, newspapers, magazines, etc.
- **METHOD OF SAMPLING**
- Convenience sampling is used for collecting the information for the research. Convenience sampling is a type of non-probability sampling technique. Non probability sampling focuses on sampling technique that is based on the judgement of the researcher. A convenience sampling is simply one where the units that are selected for inclusion in the sample are the easiest to access.
- **DATA ANALYSIS & TABULATION**
- Process of data can be categories into:
- Editing - Coding
- Classification - Tabulation

TOOLS FOR DATA ANALYSIS

Variance : Variance (σ^2) in statistics is a measurement of the spread between numbers in a data set. That is, it measures how far each number in the set is from the mean and therefore from every other number in the set.

Limitations of the study

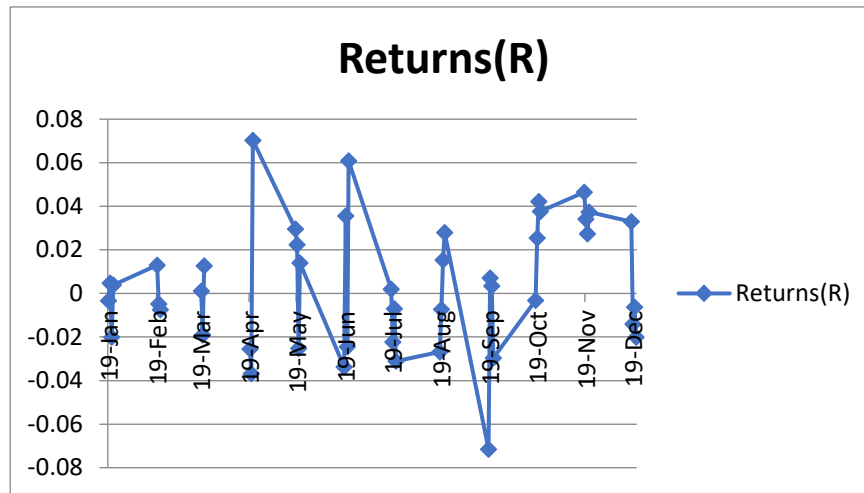
- The study was limited to only six investment options.
- Most of the information collected is secondary data.
- The data is compared and analyzed on the basis of performance of the investment options over the past three years.
- While considering the returns from mutual funds only top performing schemes were analyzed.

4. DATA ANALYSIS & INTERPRETATION

PERFORMANCE ANALYSIS OF RETURNSGOLD RETURNS AT A GLANCE

| Date | Price | Returns(R) | $\frac{R}{R}$ | $\frac{R}{R \square R}$ | $\frac{R^2}{R \square R}$ |
|--------|----------|------------|---------------|-------------------------|---------------------------|
| Mar-23 | 1,602.70 | 0.003821 | 0.004281 | -0.00046 | 2.12151E-07 |
| Feb-23 | 1,596.60 | -0.020142 | 0.004281 | -0.02042 | 0.000502771 |
| Jan-23 | 1,626.10 | 0.037320 | 0.004281 | 0.03304 | 0.001091456 |
| Dec-22 | 1,567.60 | 0.037665 | 0.004281 | 0.03338 | 0.001114469 |
| Nov-22 | 1,510.70 | -0.029674 | 0.004281 | -0.03396 | 0.001152966 |
| Oct-22 | 1,556.90 | 0.027996 | 0.004281 | 0.02372 | 0.000562403 |
| Sep-22 | 1,514.50 | -0.031092 | 0.004281 | -0.03537 | 0.001251253 |
| Aug-22 | 1,563.10 | 0.060952 | 0.004281 | 0.05667 | 0.003211557 |
| Jul-22 | 1,473.30 | 0.014041 | 0.004281 | 0.00976 | 9.52553E-05 |

| | | | | | |
|--------|----------|-----------|----------|-------------------------|-------------|
| Jun-22 | 1,452.90 | 0.070276 | 0.004281 | 0.06600 | 0.004355372 |
| May-22 | 1,357.50 | 0.012757 | 0.004281 | 0.00848 | 7.20491E-05 |
| Apr-22 | 1,340.40 | -0.007405 | 0.004281 | -0.01189 | 0.000136568 |
| Mar-22 | 1,350.40 | -0.020105 | 0.004281 | -0.02039 | 0.000501139 |
| Feb-22 | 1,375.30 | -0.006286 | 0.004281 | -0.01057 | 0.000111864 |
| Jan-22 | 1,384.00 | 0.027392 | 0.004281 | 0.02311 | 0.000534126 |
| Dec-21 | 1,347.10 | 0.042082 | 0.004281 | 0.03780 | 0.001428951 |
| Nov-21 | 1,292.70 | 0.003493 | 0.004281 | -0.00079 | 6.20556E-07 |
| Oct-21 | 1,288.20 | 0.015370 | 0.004281 | 0.01109 | 0.000120967 |
| Sep-21 | 1,268.70 | -0.007044 | 0.004281 | -0.01132 | 0.000128254 |
| Aug-21 | 1,277.70 | -0.024508 | 0.004281 | -0.02879 | 0.000828781 |
| Jul-21 | 1,309.80 | -0.025209 | 0.004281 | -0.02951 | 0.000870831 |
| Jun-21 | 1,343.70 | -0.036774 | 0.004281 | -0.04106 | 0.001885529 |
| May-21 | 1,395.00 | -0.018983 | 0.004281 | -0.02126 | 0.00045214 |
| Apr-21 | 1,421.10 | -0.004839 | 0.004281 | -0.00912 | 8.31891E-05 |
| Mar-21 | 1,426.00 | 0.004791 | 0.004281 | 0.00051 | 2.60541E-07 |
| Feb-21 | 1,421.20 | -0.014034 | 0.004281 | -0.02031 | 0.000335425 |
| Jan-21 | 1,439.40 | 0.034126 | 0.004281 | 0.02985 | 0.000890725 |
| Dec-20 | 1,391.90 | 0.025492 | 0.004281 | 0.02121 | 0.000449897 |
| Nov-20 | 1,357.30 | 0.007123 | 0.004281 | 0.00284 | 8.07837E-06 |
| Oct-20 | 1,347.70 | -0.007292 | 0.004281 | -0.01157 | 0.000133941 |
| Sep-20 | 1,357.60 | -0.020254 | 0.004281 | -0.02654 | 0.000704120 |
| Aug-20 | 1,388.50 | 0.035653 | 0.004281 | 0.03137 | 0.000984203 |
| Jul-20 | 1,340.70 | 0.020320 | 0.004281 | 0.01804 | 0.000257238 |
| Jun-20 | 1,314.00 | -0.025584 | 0.004281 | -0.02986 | 0.000892119 |
| May-20 | 1,348.50 | 0.001039 | 0.004281 | -0.00324 | 1.05088E-05 |
| Apr-20 | 1,347.10 | 0.013009 | 0.004281 | 0.00873 | 7.62063E-05 |
| Mar-20 | 1,329.80 | -0.003373 | 0.004281 | -0.00765 | 5.85769E-05 |
| Feb-20 | 1,334.30 | 0.032900 | 0.004281 | 0.02862 | 0.000821037 |
| Jan-20 | 1,291.80 | 0.046418 | 0.004281 | 0.04213 | 0.001975321 |
| Dec-19 | 1,234.50 | -0.003149 | 0.004281 | -0.00743 | 5.52082E-05 |
| Nov-19 | 1,238.40 | -0.071455 | 0.004281 | -0.07574 | 0.005735995 |
| Oct-19 | 1,333.70 | -0.026781 | 0.004281 | -0.03106 | 0.000964819 |
| Sep-19 | 1,370.40 | 0.002028 | 0.004281 | -0.00245 | 6.02108E-06 |
| Aug-19 | 1,367.90 | -0.033764 | 0.004281 | -0.03805 | 0.001447438 |
| Jul-19 | 1,415.70 | 0.029600 | 0.004281 | 0.02532 | 0.000641052 |
| Jun-19 | 1,375.00 | 0.083274 | 0.004281 | 0.07899 | 0.006239933 |
| May-19 | 1,269.30 | -0.053750 | 0.004281 | -0.05803 | 0.003367575 |
| | | | | $\Sigma(R - \bar{R})^2$ | 0.046147777 |



Average Returns (\bar{R}) = 0.004281

Variance—

$$= \frac{1}{N-1} \sum_{i=1}^N (R_i - \bar{R})^2$$

$$= \frac{1}{47-1} (0.04615)$$

$$= 0.001 \text{ Standard Deviation} = \sqrt{\text{Variance}} = \sqrt{0.001} = 0.03187$$

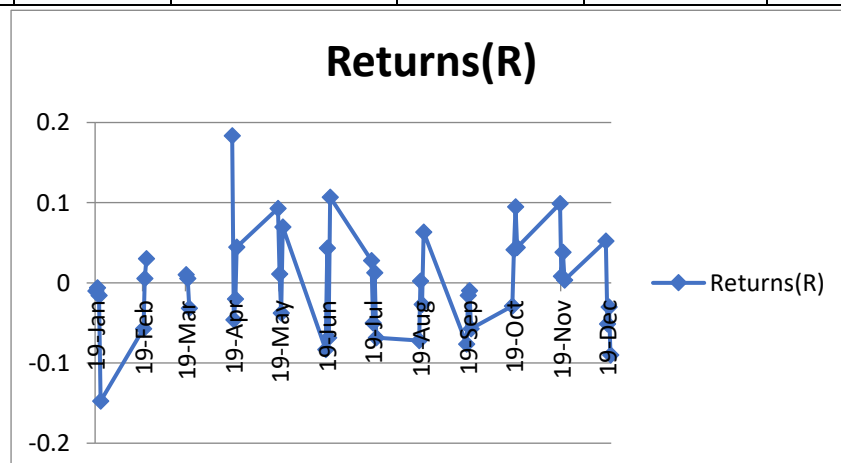
Interpretation

The above table shows that, gold returns value, i.e. average returns is 0.004281, variance is 0.001, and standard deviation is 0.03187 for the period of 2018 to 2023.

SILVER RETURNS AT A GLANCE

| ate | Price | Returns(R) | \bar{R} | $R - \bar{R}$ | $(R - \bar{R})^2$ |
|--------|--------|------------|-----------|---------------|-------------------|
| Mar-23 | 14.331 | -0.147520 | 0.000466 | -0.14799 | 0.020100583 |
| Feb-23 | 18.811 | -0.089920 | 0.000466 | -0.09039 | 0.008189607 |
| Jan-23 | 20.472 | 0.003695 | 0.000466 | 0.00323 | 1.04255E-05 |
| Dec-22 | 20.404 | 0.044139 | 0.000466 | 0.04367 | 0.002107361 |
| Nov-22 | 19.626 | -0.057383 | 0.000466 | -0.05785 | 0.003346478 |
| Oct-22 | 20.699 | 0.063470 | 0.000466 | 0.06300 | 0.003969554 |
| Sep-22 | 19.583 | -0.068549 | 0.000466 | -0.06902 | 0.004763074 |
| Aug-22 | 20.877 | 0.106961 | 0.000466 | 0.10649 | 0.011341111 |
| Jul-22 | 19.053 | 0.069690 | 0.000466 | 0.06920 | 0.00479200 |
| Jun-22 | 15.942 | 0.044760 | 0.000466 | 0.04429 | 0.002182 |
| May-22 | 15.259 | -0.031544 | 0.000466 | -0.03201 | 0.001024611 |
| Apr-22 | 15.756 | 0.030141 | 0.000466 | 0.02967 | 0.00088058 |
| Mar-22 | 15.295 | -0.015639 | 0.000466 | -0.01811 | 0.000259374 |
| Feb-22 | 15.538 | -0.030208 | 0.000466 | -0.03067 | 0.000940923 |
| Jan-22 | 18.020 | 0.038185 | 0.000466 | 0.03770 | 0.001421212 |
| Dec-21 | 15.433 | 0.095005 | 0.000466 | 0.09454 | 0.008937618 |
| Nov-21 | 14.094 | -0.009488 | 0.000466 | -0.00995 | 9.90755E-05 |
| Oct-21 | 14.209 | -0.026944 | 0.000466 | -0.02741 | 0.0007513 |
| Sep-21 | 14.623 | 0.012813 | 0.000466 | 0.01235 | 0.000152459 |

| | | | | | |
|--------|--------|-----------|----------|-------------------------|-------------|
| Aug-21 | 14.438 | -0.068518 | 0.000466 | -0.06898 | 0.004758534 |
| Jul-21 | 15.5 | -0.037506 | 0.000466 | -0.03797 | 0.001442089 |
| Jun-21 | 18.104 | -0.020189 | 0.000466 | -0.02063 | 0.000347245 |
| May-21 | 18.402 | 0.005519 | 0.000466 | 0.00505 | 2.55187E-05 |
| Apr-21 | 18.312 | 0.005486 | 0.000466 | 0.00502 | 2.52008E-05 |
| Mar-21 | 18.203 | -0.006207 | 0.000466 | -0.00665 | 4.42652E-05 |
| Feb-21 | 18.324 | -0.051151 | 0.000466 | -0.05182 | 0.002664304 |
| Jan-21 | 19.204 | 0.008441 | 0.000466 | 0.00797 | 6.35974E-05 |
| Dec-20 | 19.06 | 0.041387 | 0.000466 | 0.04092 | 0.001874521 |
| Nov-20 | 18.382 | -0.015801 | 0.000466 | -0.01827 | 0.0002646 |
| Oct-20 | 18.645 | 0.002088 | 0.000466 | 0.00202 | 3.32038E-06 |
| Sep-20 | 18.607 | -0.049943 | 0.000466 | -0.05041 | 0.002541046 |
| Aug-20 | 19.48 | 0.043582 | 0.000466 | 0.04312 | 0.002058997 |
| Jul-20 | 18.75 | 0.010985 | 0.000466 | 0.01052 | 0.00011065 |
| Jun-20 | 18.568 | -0.046062 | 0.000466 | -0.04653 | 0.002184829 |
| May-20 | 19.368 | 0.010296 | 0.000466 | 0.00983 | 9.66306E-05 |
| Apr-20 | 19.211 | -0.057253 | 0.000466 | -0.05772 | 0.003331429 |
| Mar-20 | 20.235 | -0.010043 | 0.000466 | -0.01051 | 0.000110448 |
| Feb-20 | 20.42 | 0.052050 | 0.000466 | 0.05138 | 0.002640332 |
| Jan-20 | 19.512 | 0.098896 | 0.000466 | 0.09843 | 0.009688383 |
| Dec-19 | 15.936 | -0.028648 | 0.000466 | -0.02911 | 0.000847628 |
| Nov-19 | 18.406 | -0.076343 | 0.000466 | -0.07681 | 0.005899585 |
| Oct-19 | 19.762 | -0.072147 | 0.000466 | -0.07241 | 0.005243691 |
| Sep-19 | 21.139 | 0.027763 | 0.000466 | 0.02730 | 0.000745121 |
| Aug-19 | 20.620 | -0.083202 | 0.000466 | -0.08367 | 0.007000342 |
| Jul-19 | 20.312 | 0.093101 | 0.000466 | 0.09263 | 0.008581215 |
| Jun-19 | 20.582 | 0.183411 | 0.000466 | 0.18294 | 0.026551063 |
| May-19 | 15.972 | -0.102142 | 0.000466 | -0.10261 | 0.010528355 |
| Mar-29 | 19.789 | 0.150647 | 0.000466 | 0.15020 | 0.020554282 |
| | | | | $\Sigma(R - \bar{R})^2$ | 0.200436339 |



Average Returns (\bar{R}) = 0.000466

Variance —

$$= \frac{1}{N} \sum_{i=1}^N (R_i - \bar{R})^2$$

$$= \frac{1}{48} \cdot 1(0.200436339)$$

$$= 0.00420$$

$$\text{Standard Deviation} = \sqrt{\text{Variance}}$$

$$= \sqrt{0.00422} = 0.065$$

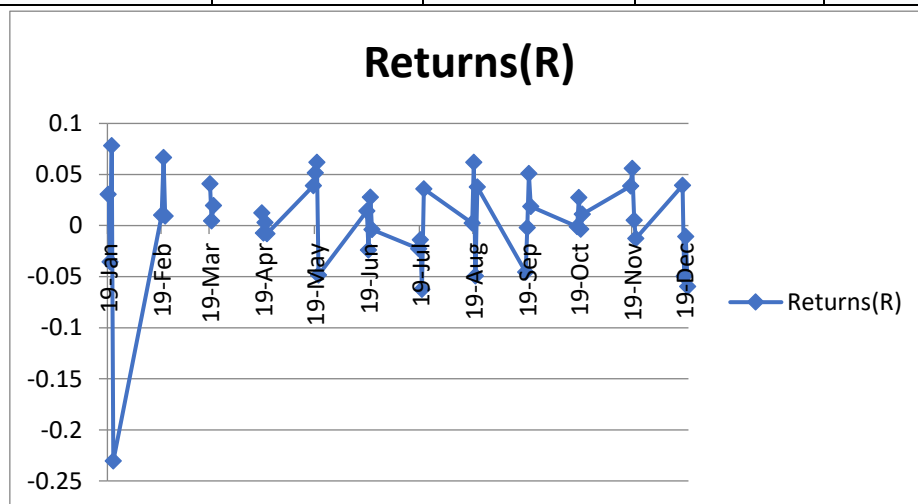
Interpretation

The above table shows that, Silver returns value, i.e. average returns is 0.000466, variance is 0.00420, and standard deviation is 0.065 for the period of 2018 to 2023.

SENSEX RETURNS AT A GLANCE

| Month | Price | Returns(R) | \bar{R} | $R - \bar{R}$ | $(R - \bar{R})^2$ |
|--------|-----------|------------|-----------|---------------|-------------------|
| Mar-23 | 29,468.49 | -0.230533 | 0.004250 | -0.23478 | 0.05512321 |
| Feb-23 | 38,297.29 | -0.059577 | 0.004250 | -0.06383 | 0.004073938 |
| Jan-23 | 40,723.49 | -0.012853 | 0.004250 | -0.01910 | 0.000292526 |
| Dec-22 | 41,253.74 | 0.011275 | 0.004250 | 0.00702 | 4.93437E-05 |
| Nov-22 | 40,793.81 | 0.018566 | 0.004250 | 0.01232 | 0.000151873 |
| Oct-22 | 40,129.05 | 0.037802 | 0.004250 | 0.03355 | 0.001125767 |
| Sep-22 | 38,667.33 | 0.035747 | 0.004250 | 0.03150 | 0.000992069 |
| Aug-22 | 37,332.79 | -0.003957 | 0.004250 | -0.00821 | 6.73624E-05 |
| Jul-22 | 37,481.12 | -0.048573 | 0.004250 | -0.05282 | 0.00279028 |
| Jun-22 | 39,394.64 | -0.008046 | 0.004250 | -0.01230 | 0.000151204 |
| May-22 | 39,714.20 | 0.019490 | 0.004250 | 0.01324 | 0.00019529 |
| Apr-22 | 39,031.55 | 0.009274 | 0.004250 | 0.00502 | 2.52373E-05 |
| Mar-22 | 38,672.91 | 0.078200 | 0.004250 | 0.07397 | 0.005471206 |
| Feb-22 | 35,867.44 | -0.010736 | 0.004250 | -0.01499 | 0.000204579 |
| Jan-22 | 36,256.69 | 0.005202 | 0.004250 | 0.00097 | 9.45387E-07 |
| Dec-21 | 36,068.33 | -0.003480 | 0.004250 | -0.00773 | 5.97588E-05 |
| Nov-21 | 36,214.30 | 0.050875 | 0.004250 | 0.04663 | 0.00219392 |
| Oct-21 | 34,442.05 | -0.049275 | 0.004250 | -0.05352 | 0.002864921 |
| Sep-21 | 36,207.14 | -0.062568 | 0.004250 | -0.06682 | 0.004464594 |
| Aug-21 | 38,645.07 | 0.027615 | 0.004250 | 0.02336 | 0.000545904 |
| Jul-21 | 37,606.58 | 0.061829 | 0.004250 | 0.05738 | 0.003292305 |
| Jun-21 | 35,423.48 | 0.002862 | 0.004250 | -0.00139 | 1.92597E-06 |
| May-21 | 35,320.38 | 0.004608 | 0.004250 | 0.00036 | 1.28206E-07 |
| Apr-21 | 35,180.36 | 0.066478 | 0.004250 | 0.06203 | 0.003872079 |
| Mar-21 | 32,968.68 | -0.035553 | 0.004250 | -0.03980 | 0.001584313 |
| Feb-21 | 34,204.04 | -0.049520 | 0.004250 | -0.05377 | 0.00289121 |
| Jan-21 | 35,965.02 | 0.056030 | 0.004250 | 0.05198 | 0.002681125 |
| Dec-20 | 34,056.83 | 0.027375 | 0.004250 | 0.02313 | 0.000534789 |

| | | | | | |
|--------|-----------|-----------|----------|-------------------------|-------------|
| Nov-20 | 33,149.35 | -0.002120 | 0.004250 | -0.00619 | 3.80729E-05 |
| Oct-20 | 33,213.13 | 0.061875 | 0.004250 | 0.05742 | 0.003297581 |
| Sep-20 | 31,283.72 | -0.014080 | 0.004250 | -0.02033 | 0.000335994 |
| Aug-20 | 31,730.49 | -0.024126 | 0.004250 | -0.02838 | 0.000805208 |
| Jul-20 | 32,514.94 | 0.051528 | 0.004250 | 0.04728 | 0.002035213 |
| Jun-20 | 30,921.61 | -0.007200 | 0.004250 | -0.01145 | 0.000131059 |
| May-20 | 31,145.80 | 0.041025 | 0.004250 | 0.03677 | 0.001352395 |
| Apr-20 | 29,920.40 | 0.010057 | 0.004250 | 0.00581 | 3.37238E-05 |
| Mar-20 | 29,620.50 | 0.030520 | 0.004250 | 0.02627 | 0.000689992 |
| Feb-20 | 28,743.32 | 0.039319 | 0.004250 | 0.03507 | 0.001209721 |
| Jan-20 | 27,655.96 | 0.038665 | 0.004250 | 0.03441 | 0.001204361 |
| Dec-19 | 26,626.46 | -0.000989 | 0.004250 | -0.00524 | 2.74433E-05 |
| Nov-19 | 26,652.81 | -0.045735 | 0.004250 | -0.04999 | 0.002498543 |
| Oct-19 | 27,930.21 | 0.002306 | 0.004250 | -0.00214 | 3.78038E-06 |
| Sep-19 | 27,865.96 | -0.020603 | 0.004250 | -0.02485 | 0.000619689 |
| Aug-19 | 28,452.19 | 0.014270 | 0.004250 | 0.01002 | 0.000100408 |
| Jul-19 | 28,051.86 | 0.038969 | 0.004250 | 0.03472 | 0.001205378 |
| Jun-19 | 26,999.72 | 0.012440 | 0.004250 | 0.00821 | 6.70826E-05 |
| May-19 | 26,667.96 | 0.041448 | 0.004250 | 0.03720 | 0.001383682 |
| Mar-19 | 25,606.62 | 0.010448 | 0.004250 | 0.00620 | 3.84095E-05 |
| | | | | $\Sigma(R - \bar{R})^2$ | 0.112957497 |



Average Returns (\bar{R}) = 0.004250

Variance —

$$= \frac{1}{N-1} \sum_{i=1}^N (R_i - \bar{R})^2$$

$$= 1/48-1(0.11296)$$

$$= 0.00240$$

$$\text{Standard Deviation} = \sqrt{\text{Variance}} = \sqrt{0.00240} = 0.0490$$

Interpretation

The above table shows that, Sensex Returns, i.e. average returns is 0.004250, variance is 0.00240, and standard deviation is 0.0490 for the period of 2018 to 2023.

5. CONCLUSION

- Bonds continue to give reasonable returns but it is no longer leads in the comparative rankings. Right now equity looks the best bet, with real state coming in second. The question is how long will this last? If it is a short-term phenomenon, going through the hassle of switching over from debt may not be worth it. If it' s a long-term situation, assets should be moved into equity and real estate. This may be long-term situation. The returns from the market will be good as long as profitability increases.
- Since the economy is just getting into recovery mode, that could hold true for several years. Real estate values, especially in suburban areas or small towns could improve further. The improvement in road networks will push up the value of far-flung development. There is also some attempt to amend tenancy laws and lift urban ceilings, which have stunted the real estate market.

6. REFERENCES

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