Chapter VI

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSIONS

6.1. Introduction

6.2. Summary of Findings

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6.4. Conclusion
6.1. Introduction

In this chapter, the researcher has presented the summary of findings, suggestions and conclusion of the study. Investors are always faced with dilemma in choosing between Stock market and Bullion. The researcher has studied the stock market trends and bullion trends from year 2001 to 2015 with the help of secondary data collected from various sources. In this study, the researcher has studied the Risks, Returns, Price Trend and Forecast, Compound Annual Growth Rate (CAGR) and used Unit Root test, Johansen co-integration tests, pair-wise Granger Causality Test to filter the data and employed different statistical tools for analysis. The analysis based on 16 hypothesis and tested with statistical tools.

6.2. Summary of Findings

The major findings of the study are presented below

The second chapter “Review of Literature” reviews the existing literature related to the Risk Return Analysis of Bullion and Equity Market, investor’s performance on gold and silver investments and the like. It is found from the review that many of the studies are general and concept based and none of the study is related to the present study. The chapter covers various concepts like risk and return relationship in stock market and commodity prices, Investor’s Preference and Risk and Return Analysis of

The third chapter “Origin and Growth of Bullion and Equity Market in India” deals with the history of bullion and equity market and growth of bullion and equity market in India. It is found that the Code of Hammurabi (around 1700 BC) provided a legal framework for investment, establishing a means for the pledge of collateral by codifying debtor and
creditor rights in regard to pledged land. Punishments for breaking financial obligations were not as severe as those for crimes involving injury or death. In the early 1900s purchasers of stocks, bonds, and other securities were described in media, academia, and commerce as speculators. By the 1950s, the term investment had come to denote the more conservative end of the securities spectrum, while speculation was applied by financial brokers and their advertising agencies to higher risk securities much in vogue at that time. Since the last half of the 20th century, the terms speculation and speculator have specifically referred to higher risk ventures. It is also found that there are number of investment opportunities available in India such as Savings Account, Bank Fixed Deposit, Public Provident Fund, National Saving Certificate, Post office Savings, Government Securities, Equity Share Market, Commodity Market, Forex Market, Mutual Fund, Bond and Debenture, Life Insurance, Real Estate (Property) and Gold and Silver.

It is also found that the Bombay Stock Exchange is the oldest exchange in Asia. It traces its history to 1855, when four Gujarati and one Parsi stockbroker would gather under banyan trees in front of Mumbai’s Town Hall. The location of these meetings changed many times as the number of brokers constantly increased. The group eventually moved to Dalal Street in 1874 and in 1875 became an official organization known as "The Native Share & Stock Brokers Association". On 31 August 1957, the BSE became the first stock exchange to be recognized by the Indian
Government under the Securities Contracts Regulation Act. In 1980, the exchange moved to the Phiroze Jeejeebhoy Towers at Dalal Street, Fort area. In 1986, it developed the BSE SENSEX index, giving the BSE a means to measure overall performance of the exchange. In 2000, the BSE used this index to open its derivatives market, trading SENSEX futures contracts. The development of SENSEX options along with equity derivatives followed in 2001 and 2002, expanding the BSE's trading platform.

It is also found that The National Stock Exchange (NSE) is India's leading stock exchange covering various cities and towns across the country. NSE was set up by leading institutions to provide a modern, fully automated screen-based trading system with national reach. The Exchange has brought about unparalleled transparency, speed & efficiency, safety and market integrity. It has set up facilities that serve as a model for the securities industry in terms of systems, practices and procedures. NSE has played a catalytic role in reforming the Indian securities market in terms of microstructure, market practices and trading volumes. The market today uses state-of-art information technology to provide an efficient and transparent trading, clearing and settlement mechanism, and has witnessed several innovations in products & services viz. demutualisation of stock exchange governance, screen based trading, compression of settlement cycles, dematerialisation and electronic transfer of securities, securities lending and borrowing, professionalisation of trading members, fine-tuned
risk management systems, emergence of clearing corporations to assume counterparty risks, market of debt and derivative instruments and intensive use of information technology.

It is also found that the maximum supply of Gold in the year 2012 is 4454 tones and demand in the year 2014 is 4300 tones, highest gold price movements at London Market Rs.28919.04 (10 Grams) for the year 2012-13, United States got first place by holding 8,133.5 tones of gold and Germany got second place by holding 3,381.0 tones of gold, SPDR Gold Shares holding maximum number of Gold (672.7 Tones) followed by ETF Securities Gold Funds is 215.2 tonnes of Gold and the New York Stock Exchange, United States has holding maximum capitalization (USD 19,223 billion) as of January 2015 followed by NASDAQ, United States holding (USD 6,831 billion).

The Fourth chapter “Risk-Return Analysis of Investment in Bullion and Stock Markets in India” deals with analysis of risk and return of bullion and equity Market. The following are findings based on analysis of Risk-Return of Investment in Bullion and Stock Markets in India.

i. Gold is showing ups and downs in Annual Return within a narrow band while Sensex is showing high variations. Sensex is below Gold only in 4 times but the depth is very deep. This means Return on Gold is not very high as compared to Sensex but is steady.
ii. Gold is showing ups and downs in Annual Return within a narrow band while Nifty is showing high variations. Nifty is below Gold only in 4 times but the depth is very deep. This means Return on Gold is not very high as compared to Nifty but is steady.

iii. Gold is showing ups and downs in Annual Return within a narrow band while Silver is showing high variations. Silver is below Gold only in 4 times and depth is not very deep but was close to that of Gold. This means Return on Gold is not very high as compared to Silver but is steady.

iv. The synchronous movement between Silver and Sensex in the fifteen years 2000-2015. Sensex always yielded higher than Silver. There are 4 points at which return from Sensex went below Silver but the difference is not much. The peak performance is around 2009-2010.

v. Nifty has been showing higher returns most of the time. Nifty went below Silver 4 times out of which only once it was very low which is due to Sub-Prime crisis of 2008-09.

vi. The returns on both Nifty and Sensex shows synchronous movement except that Sensex seemed to be more sensitive, when it goes high, very high and goes low, very low. Years 2000-01, 2001-02, 2008-09 and 2011-2012 are the 4 points where Indian Stock market crashed to newer lows.
vii. The calculated value (-1.746) is less than the Table value (2.306). At 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate of Returns of the BSE Sensex and Gold.

viii. The calculated value (-1.799) is less than the Table value (2.306). At 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate of Returns of the Nifty and Gold.

ix. The calculated value (0.067) is less than the Table value (2.306). At 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate of Returns of Silver and Gold.

x. The calculated value (-1.59) is less than the Table value (2.306) at 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate of Returns of Silver and Sensex.

xi. The calculated value (-1.61) is less than the Table value (2.306) at 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate of Returns of Silver and Nifty.
xii. The calculated value (-0.07) is less than the Table value (2.306) at 5% level of significance, the Null hypothesis is accepted. Hence, it is inferred that there is no significant difference between the Mean of Rate Of Returns of Sensex and Nifty.

xiii. Gold has negative Beta with both Sensex and Nifty. It indicates that Gold bullion moves in the opposite direction of the both market indices.

xiv. Silver has Beta between 0 and 1 with both Sensex and NIFTY. It indicates that Silver bullion moves in the same direction as the market indices.

xv. Stock markets namely Sensex and Nifty are showing high values close to each other which is understandable.

xvi. The Standard Deviation of Return on Gold is lesser than that of Nifty. Standard Deviation of Return on Nifty is 35.81 and that of Gold is 12.72. This means that the investment in Gold when compared to Nifty, is safe and less risky. The Standard Deviation of Return on Silver is lesser than that of Nifty. Standard Deviation of Return on Nifty is 35.81 and that of Silver is 23.74.

xvii. Gold and Sensex (-0.08537) and Gold and Nifty (-0.13023) are negatively correlated. The other combinations are positively
correlated. Gold and Nifty are more negatively correlated. Nifty and Sensex (0.994383) are more positively correlated. The correlation between Silver and Nifty (0.024799) is least positive.

xviii. Indian stock market has been volatile from year 2001 due to fluctuations in various both local as well as global economic factors. The Sensex in 2001 experienced 8 year low value, the reason may be associated with the happenings of September 2001 attack on U.S twin towers.

xix. The decline in the value of Nifty in 2001 is on account of global economic recession. There is also a downward slope in the year 2008 reason being Sub-prime crises and the global meltdown. Nifty was down more than 1000 points in 2008.

xx. The prices of precious metals Gold and Silver were steady for a long time. Both move at a very lower rate close to each other for 10grams of Gold against 1kg of Silver. But in 2008, the Bullion prices of these precious metals started a sudden upward trend.

xxi. The trend of Sensex from 2001 to 2015 and extrapolating the trend to next five years till 2020. There is clear linear trend in the data and there is not very much deviation from the trend line. In 2005-07 periods, the upward deviation is sharp, followed by the fall of 2008.
The trend of Nifty from 2001 to 2015 and extrapolating the trend to next five years till 2020. There is clear linear trend in the data and there is not very much deviation from the trend line. In 2007, the upward deviation is sharp, followed by the fall of 2008.

The trend of Gold price (per 10gm) from 2001 to 2015 and extrapolating the trend to next five years till 2020. There is linear trend in the data but there is significant deviation in the trend line. From 2004 to 2010, Gold price is increasing steadily.

The trend of Silver from 2001 to 2015 and extrapolating the trend to next five years till 2020. The price per kilogram of silver till 2009 was very steady. After that the Silver price rocketed to new highs till 2012-13.

The Sensex shows negative only two years, 2002 and 2008. There is no change from 2002 as compared to 2003. The peak growth is in year 2015. Next peak is 2010. The biggest downfall is 2009 due to sub-prime crisis.

xxvii. Gold shows negative only in the recent three years 2013 onwards. It peaked in 2012-13, 2008-09 and 2011-14. The reason for 2008-09 peaks was the sub-prime crisis.

xxviii. Silver is one precious metal next to Gold always associated with economic growth world-wide in all civilizations. But there is a big price difference between Gold and Silver.

xxix. The Bombay Stock Exchange sensitivity Index was at 21120.12 as on year 2014 (one year back). The value of Sensex year 2015 was at 29361.50.

xxx. The compounded growth rate in return delivered by the sensex, nifty and gold for a 3 years, 5 years, 10 years and 15 years investment period.

xxx. The National Stock Exchange Index of Fifty was at 6276.95 on the year 2014 and at 8901.85 on the year 2015. The nifty compounded annual growth rate in return is 41.82% for a year investment horizon. It is also observed that the price of gold (per 10 grams) was at 1326.50 US $ on the year 2014 and at 1214 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is -8.48%. It is also observed that the price of silver (per 1 gram) was at 21.27 US$ on the year 2014 and at 16.53
US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is -22.28 per cent.

The Bombay Stock Exchange sensitivity Index was at 18861.54 as on the year 2013 (three years back). The value of Sensex on the year 2015 was at 29361.50. The Sensex compounded annual growth rate in return is 15.87 per cent for a year investment horizon. It is also observed that the National Stock Exchange Index of Fifty was at 5693.05 on the year 2014 and at 8901.85 on the year 2015. The Nifty compounded annual growth rate in return is 16.05 per cent for a year investment horizon. It is observed from analysis that the price of gold (per 10 grams) was at 1588.50 US $ on the year 2014 and at 1214 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is −7.89 per cent. It is also observed that the price of silver (per 1 gram) was at 28.95 US $ on the year 2014 and at 16.53 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is −17.02 per cent.

The Bombay Stock Exchange sensitivity Index was at 17823.40 as on the year 2011 (Five years back). The value of Sensex on the year 2015 was at 29361.50. The Sensex compounded annual growth rate in return is 10.50% for a year investment horizon. It is also observed
that the National Stock Exchange Index of Fifty was at 5333.25 on the year 2011 and at 8901.85 on the year 2015. The nifty compounded annual growth rate in return is 10.78% for a year investment horizon. It is also observed that the price of gold (per 10 grams) was at 1411 US $ on the year 2011 and at 1214 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is -2.96%. It is also observed that the price of silver (per 1 gram) was at 33.49 US$ on the year 2011 and at 16.53 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is -13.17%.

xxxiv. The Bombay Stock Exchange sensitivity Index was at 6713.86 as on the year 2005 (Ten years back). The value of Sensex on the year 2015 was at 29361.50. The Sensex compounded annual growth rate in return is 15.89% for a year investment horizon. It is also observed that the National Stock Exchange Index of Fifty was at 2447.94 on the year 2005 and at 8901.85 on the year 2015. The nifty compounded annual growth rate in return is 13.78% for a year investment horizon. It is also observed that the price of gold (per 10 grams) was at 435.45US $ on the year 2005 and at 1214 US $ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is 10.79%. It is also observed
that the price of silver (per 1 gram) was at 7.35 US$ on the year 2005 and at 16.53 US$ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is 8.44%.

xxxv. The Bombay Stock Exchange sensitivity Index was at 4247.04 as on the year 2001 (Fifteen years back). The value of Sensex on the year 2015 was at 29361.50. The Sensex compounded annual growth rate in return is 13.61% for a year investment horizon. It is also observed that the National Stock Exchange Index of Fifty was at 1448.26 on the year 2001 and at 8901.85 on the year 2015. The nifty compounded annual growth rate in return is 12.73% for a year investment horizon. It is also observed that the price of gold (per 10 grams) was at 266.70 US$ on the year 2005 and at 1214 US$ on the year 2015. The compounded annual growth rate in return generated by Gold for a year investment period is 10.52%. It is also observed that the price of silver (per 1 gram) was at 4.43 US$ on the year 2005 and at 16.53 US$ on the year 2015. The Compounded Annual Growth Rate in return generated by Gold for a year investment period is 9.07%.
xxxvi. The Investment in Nifty has delivered the highest return (41.82%) for the one year investment period (2014-15). Sensex gets the second rank (CAGR in returns at 39.02%) followed by Gold with -8.48% and silver is -22.28% CAGR in returns.

The Fifth chapter “Analysis of Factors Influencing the Risk and Return on Gold and Sensex in India” deals with analysis of risk and return of bullion and equity market and factors influencing the price movements in bullion and equity. The following findings are based on the analysis of risk return and price movements of gold and sensex in India.

i. The calculated value 2.49018 is lesser than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting intercept and without trend. Hence, the study accepts the hypothesis and decides that the time series of call money rate is Non-Stationary. It is also observed that the calculated value -3.12803 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting intercept and with trend. Hence, it is decided that the time series of call money rate is non-stationary and therefore the null hypothesis accepted.

ii. The calculated value -1.59575 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is
decided that the time series of Crude Oil Price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.17264 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Crude Oil Price is non-stationary and therefore the null hypothesis accepted.

iii. The calculated value 0.81476 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.09878 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted.

iv. The calculated value 0.4591 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Exchange Rate is non-stationary and
therefore the null hypothesis accepted. It is also observed that the calculated value 2.03653 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted.

v. The calculated value 1.60607 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.48481 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted.

vi. The calculated value 3.25797 is less than the test critical values at levels 5 per cent and 10 per cent when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Forex Reserve is non-stationary and therefore the null hypothesis accepted at level 1% where the value is 3.5006 and the null
hypothesis is accepted at level of 5% and 10%. It is also observed that the calculated value 3.16873 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Forex Reserve is non-stationary and therefore the null hypothesis accepted.

vii. The calculated value 1.82404 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.875682 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted.

viii. The calculated value 2.16888 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted. It is also
observed that the calculated value-0.47121 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted.

ix. The calculated value 1.39944 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.62916 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted.

x. The calculated value 6.48214 is more than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting intercept and without trend calculations. Hence, it is decided that the time series of Net FII is non-stationary and therefore the null hypothesis rejected. It is also observed that the calculated value 6.65112 is more than the test critical values at all three levels,
namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Net FII is non-stationary and therefore the null hypothesis rejected.

xi. The calculated value 0.81143 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis rejected. It is also observed that the calculated value -1.6862 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted.

xii. The calculated value -2.8891 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Call money is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 3.49027 is less than the test critical values at two levels, namely, 1% level and 5% level when interpreting Intercept and with trend calculations. At the critical value, 10 per cent level is
less than the calculated value is 3.15516. Hence, it is decided that the
time series of Call money is non-stationary and therefore the null
hypothesis accepted at 1 per cent level and 5 per cent level and the
hypothesis is rejected at 10 per cent level.

xiii. The calculated value 2.35505 is less than the test critical values at all
three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and without trend calculations. Hence, it is
decided that the time series of Crude Oil Price is non-stationary and
therefore the null hypothesis accepted. It is also observed that the
calculated value 2.11576 is less than the test critical values at all three
levels, namely, 1% level, 5% level and 10% level when interpreting
Intercept and with trend calculations. Hence, it is decided that the time
series of Crude Oil Price is non-stationary and therefore the null
hypothesis accepted.

xiv. The calculated value 0.9793 is less than the test critical values at all
three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and without trend calculations. Hence, it is
decided that the time series of CRR is non-stationary and therefore
the null hypothesis accepted. It is also observed that the calculated
value 2.14006 is less than the test critical values at all three levels,
namely, 1% level, 5% level and 10% level when interpreting
Intercept and with trend calculations. Hence, it is decided
that the time series of CRR is non-stationary and therefore the null hypothesis accepted.

xv. The calculated value 0.92325 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.39605 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations, its observe. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted.

xvi. The calculated value 1.48481 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations, its observe. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.25942 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted.
xvii. The calculated value 3.29442 is less than the test critical values only at 1% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series data is non-stationary and therefore the null hypothesis accepted at 1 per cent level and the time series of Forex Reserve is stationary and therefore the null hypothesis is rejected at 5 per cent level and 10 per cent level. It is also observed that the calculated value 3.5991 is less than the test critical values only at 1% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Forex Reserve is non-stationary and therefore the null hypothesis accepted at 1 per cent level and the time series of Forex Reserve is stationary and therefore the null hypothesis is rejected at 5 per cent level and 10 per cent level.

xviii. The calculated value 1.43253 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted. It is also observe that the calculated value 1.17687 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted.
xix. The calculated value 1.23295 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.85741 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted.

xx. The calculated value 1.46044 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.79574 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted.

xxi. The calculated value 5.08605 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected. It is also observed that the calculated value 5.27447 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected.

xxii. The calculated value 1.43307 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.52617 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted.

xxiii. The calculated value 2.49018 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Call Money is non-stationary and
therefore the null hypothesis accepted. It is also observed that the calculated value 3.12808 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Call Money is non-stationary and therefore the null hypothesis accepted.

xxiv. The calculated value 1.59575 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Crude Oil Price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.17264 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Crude Oil Price is non-stationary and therefore the null hypothesis accepted.

xxv. The calculated value 0.81476 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.17812 is less than the test critical values at all three levels,
namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted.

xxvi. The calculated value 0.4591 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.03653 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted.

xxvii. The calculated value 1.60607 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.31625 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting
Intercept and with trend calculations. Hence, it is decided that the
time series of Food Inflation is non-stationary and therefore the null
hypothesis accepted.

xxviii. The calculated value 3.25797 is less than the test critical values at all
three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and without trend calculations. Hence, it is
decided that the time series of Forex Reserve is non-stationary and
therefore the null hypothesis accepted. It is also observed that the
calculated value 3.16873 is less than the test critical values at all three
levels, namely, 1% level, 5% level and 10% level when interpreting
Intercept and with trend calculations. Hence, it is decided that the
time series of Forex Reserve is non-stationary and therefore the null
hypothesis accepted.

xxix. The calculated value 1.82404 is less than the test critical values at all
three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and without trend calculations. Hence, it is
decided that the time series of Inflation is non-stationary and
therefore the null hypothesis accepted. It is also observed that the
calculated value 0.875682 is less than the test critical values at all
three levels, namely, 1% level, 5% level and 10% level when
interpreting Intercept and with trend calculations. Hence, it is decided
that the time series of Inflation is non-stationary and therefore the null hypothesis accepted.

xxx. The calculated value 2.16888 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.47121 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted.

xxxii. The calculated value 1.39944 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.62916 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the
The time series of Interest Rate is non-stationary and therefore the null hypothesis accepted.

xxxii. The calculated value 6.48214 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected. It is also observed that the calculated value 6.66112 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected.

xxxiii. The calculated value 0.81143 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.6862 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the
The time series of Sensex is non-stationary and therefore the null hypothesis accepted.

xxxiv. The calculated value 2.69145 is greater than the test critical values only at 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Call Money Rate is stationary and therefore the null hypothesis rejected at 10 per cent level and the time series of Call Money Rate is non-stationary and therefore the null hypothesis is accepted at 1 per cent level and 5 per cent level. It is also observed that the calculated value 3.34069 is greater than the test critical values only at 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Call Money Rate is stationary and therefore the null hypothesis rejected at 10 per cent level and the time series of Call Money Rate is non-stationary and therefore the null hypothesis is accepted at 1 per cent level and 5 per cent level.

xxxv. The calculated value 1.88452 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Crude Oil Price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.54168 is less than the test critical values at all three levels.
levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Crude Oil Price is stationary and therefore the null hypothesis rejected.

xxxvi. The calculated value 0.86022 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.17812 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of CRR is non-stationary and therefore the null hypothesis accepted.

xxxvii. The calculated value 0.57211 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations, its observe. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.23311 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level
when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Exchange Rate is non-stationary and therefore the null hypothesis accepted.

xxxviii. The calculated value 1.50795 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.73036 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Food Inflation is non-stationary and therefore the null hypothesis accepted.

xxxix. The calculated value 3.1722 is greater than the test critical values at 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series data is stationary and therefore the null hypothesis rejected at 5 per cent and 10 per cent level and the time series of Forex Reserve is non-stationary and therefore the null hypothesis is accepted at 1 per cent level. It is also observed that the calculated value 3.19532 is greater than the test critical values at 10% level when interpreting Intercept and with trend
calculations. Hence, it is decided that the time series of Forex Reserve is stationary and therefore the null hypothesis rejected at 10 per cent level and the time series of Forex Reserve is non-stationary and therefore the null hypothesis is accepted at 5 per cent level and 1 per cent level.

xl. The calculated value 1.59274 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.16183 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Inflation is non-stationary and therefore the null hypothesis accepted.

xli. The calculated value 2.10968 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 0.59846 is less than the test critical values at all three
levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Gold price is non-stationary and therefore the null hypothesis accepted.

xlii. The calculated value 1.43579 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 2.72857 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and with trend calculations. Hence, it is decided that the time series of Interest Rate is non-stationary and therefore the null hypothesis accepted.

xl iii. The calculated value 6.46047 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected. It is also observed that the calculated value 6.63872 is greater than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting
Intercept and with trend calculations. Hence, it is decided that the time series of Net FII is stationary and therefore the null hypothesis rejected.

xliv. The calculated value 1.06089 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level when interpreting Intercept and without trend calculations. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted. It is also observed that the calculated value 1.9708 is less than the test critical values at all three levels, namely, 1% level, 5% level and 10% level. Hence, it is decided that the time series of Sensex is non-stationary and therefore the null hypothesis accepted.

xliv. The Trace Rank Test value I(0) 17.6002 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations, Hence, it is decide that the hypothesis for I(0) that there exists co-integration between Sensex and Exchange rate and therefore the Null Hypothesis is rejected. It is also observed that the Maximum Eigen Statistic value for I(0), 17.2658 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations and Hence it is decide that the null hypothesis that there
exists co-integration between Sensex and Exchange rate and therefore the null-hypothesis is rejected.

xlvi. There is no co-integration for Trace Value and Max-Eigen value as well at 5% level for I(0) and I(1). So there is no co-integration between Sensex and Inflation.

xlvii. The Trace Rank Test value I(0) 27.35998 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is co-integration between sensex and crude oil. Therefore the null-hypothesis is rejected. It is also observed that the Maximum Eigen Statistic value for I(0), 22.87162 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is co-integration between sensex and crude oil. Therefore the null-hypothesis is rejected.

xlviii. The Trace Rank Test value I(0) 7.686708 is lesser than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is no co-integration between sensex and Gold Price. Therefore the null-hypothesis is accepted. It is also observed that the Maximum Eigen Statistic value for I(0), 6.331850 is lesser than the Test critical values.
at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is no co-integration between sensex and gold price. Therefore the null-hypothesis is accepted.

xlix. The Trace Rank Test value I(0) 10.11150 is lesser than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is no co-integration between sensex and Interest Rate. Therefore the null-hypothesis is accepted. It is also observed that the Maximum Eigen Statistic value for I(0), 9.251664 is lesser than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is no co-integration between sensex and Interest Rate. Therefore the null-hypothesis is accepted.

1. The Trace Rank Test value I(0) 21.58368 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is co-integration between sensex and Exchange Rate. Therefore the null-hypothesis is rejected. It is also observed that the Maximum Eigen Statistic value for I(0), 17.48930 is greater than the Test critical values at 5% level when interpreting linear deterministic trend and lag interval is 1 to 7 calculations. Hence it is decided that there is co-
integration between sensex and and Exchange Rate. Therefore the null-hypothesis is rejected.

li. There are four variable pairs accepted by Pairwise Granger Causality Tests. This means there is no causality relations between the variable pairs (Crude Oil, Sensex), (Call Money, Sensex), (Sensex, Forex Reserve), and (Gold price, Net FII).

lii. Multiple - regression –Sensex as dependant variable also the predictor variables of Gold bullion, Forex reserve, Food inflation and Exchange rate are significant because both of their p-values are 0.000. However, the p-value for crude-oil, CRR and call money rate is greater than the common alpha level of 0.05, which indicates that it is not statistically significant.

liii. Multiple - regression – Gold as dependant variable also the predictor variables of Gold bullion, Forex reserve, Food inflation, Exchange rate, crude-oil, CRR are significant because both of their p-values are 0.000. However, the p-value for interest rate, crude-oil and call money rate is greater than the common alpha level of 0.05, which indicates that it is not statistically significant.
6.3. Problems and Suggestion of the Study

The study is aimed to study the risk return analysis of investment in bullion and equity in India with help of secondary data collected from various sources. Based on the analysis and findings of the study, the researcher has identified some of the issues related to the study area. The researcher has suggested the following suggestions to solve these problems.

i. It is known fact that many of the investors are illiterates in the field of financial market and therefore it is suggested that the institutions including SEBI, BSE and NSE must conduct awareness programme especially in rural areas on periodical basis to motivate the people for making investment in both bullion and equity market.

ii. It is also suggested that the investors must invest only in long term investment options and they must wait for longer period for getting more return.

iii. It is also suggested that the investors should continuously watch the market movements before making any investments because market has huge volatility if any kind of changes in the socio-political and economic areas.

iv. It is also suggested that the investors should get technical advice from the market experts before deciding the portfolios to minimize the risk and maximize the return.
v. It is also suggested that the educational institutions must introduce a short term course related to financial market’s operations for the benefit of younger generations who are the future for the nation.

vi. It is also suggested that the investors should have faith on the fundamental and technical aspects of the both country and company before making investment instead of considering the sentimental aspects.

vii. Gold market is very volatile today. This research clearly shows that investment in Siler is better option than Gold. Historically Gold has surprised investors by sudden ups and sudden steep downs hurting investor community very deeply and therefore it is suggested that the investors should have more caution while making investment in bullion market

viii. Silver is showing excellent returns. In olden days Silver too was valued almost equal to Gold. Silverware was symbol of prosperity in cultures around the world. When Gold was the used as currency in olden days, Silver took second place to be used as money. Silver is second only to oil as the world's most useful commodity. Silver has thousands of essential industrial uses. Silver is the most electrically conductive, thermally conductive, and reflective metal on the planet that has no known substitutes and therefore it is suggested that investment in silver more profitable.
ix. It is also suggested that the investors should study the strength and weakness of the various investment options available in the country before making investment.

6.4. Conclusion

There are a number of investment options available. In a country like India, people invest in gold, silver, post-office savings, term deposits and the like. The major factor that one must consider before investing is return. The return should be more than the rate of inflation otherwise there is no point of making such an investment. There is a theory which says that to get more return, one should take more risk. If the investor follows some basic principles, the chances of failure are reduced to a large extent. The return which a person can get in financial market for long term can be very very high.

While saving is a part of income that the people put away regularly, it does not necessarily provide returns and it can only meet the short-term needs. Investing on the other hand, provides returns and helps to grow capital, which in turn, will help to fulfil the financial goals of the investors. Everyone needs some motivation to get started to investment. It is more tempting to spend what one has today than put it away for the future. The People needs for today seem far more pressing than tomorrow. Investment helps to create a financial cushion for the family. The financial security
depends on how much one can invest and how efficiently do so. Investments can help to build a corpus so that one can generate a large cash reserve. A large cash reserve means no anxiety about the financial security and more empowerment. Investing regularly in financial markets over the long term has the potential to help to build a sizeable corpus to fulfil this purpose. In order to create wealth each one needs investment options that add an element of growth to one’s money.

There are investment options available to make investment and these investment options are primarily classified into two namely long-term investment options and short-term investment options. It is known fact that the investment involves huge return and risk. The investors should realize the results of risk involve and ready to bear it and accordingly make their investment. Generally, investment in commodities provides moderate return with low risk compared to investment in equity. India is a country where the number of people involving investment in commodity markets is more than that of investment in equity market. It is also well known fact that the risk involved in any investment is difficult to predict because of various factors including internal and external. The present study provides an opportunity to study the relationship between risk and return in the field of bullion and equity market investment. The findings of the study will help the stakeholders to review their policies and decision making process to improve the flow of financial markets operations in the country. The present study
will pay the way to undertake more studies in the field of financial market in general and bullion and equity market in particular. Some of the topics are

i. A study on the problems of investors in Bullion Market in India

ii. A Comparative study on the problems of equity investor and bullion investor in India

iii. A Study on the risk return of equity market and forex market in India


v. A study on the investors perception towards investment in various products