

A Comparative Study On The Performance Of Stock Market And Mutual Funds During Bullish And Bearish Period

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INTRODUCTION

India is one of the top five economies in the world in terms of market potential and is placed above countries like France, Italy, Russia and the United Kingdom. India is also ranked as the third biggest economy in Asia in terms of gross domestic product. All these make investment in India a lucrative option for the investors across the world. The investment market in India offers many possibilities for the investors as the level of purchasing power is improving over time. The investors stand to gain in each and every areas of business in India. However, the response from the outstation investors has been lukewarm as compared to other countries like China.

This study analyses the performance of Stock Market and Balanced Mutual Funds and Income Mutual Funds during bullish and bearish periods. Investors have a common perception that the Stock Market performs better during the bullish period whereas, Mutual Funds perform better during the Bearish period. This study also tries to analyze whether this perception of the investors is true. The bullish period chosen for study is from January 2007 to December 2007, and the bearish period chosen for study is from January 2008 to February 2009. The stock market performance is evaluated by means of rate of return given by NIFTY index. The performance of Balanced Mutual Funds and Income Mutual Funds is analyzed with the help of rate of return given by the best mutual funds in the market. Best mutual funds are selected based on the rating by Business World magazine. Along with rate of return, some other tools are also used for performance evaluation. The findings from this study will be helpful for the investors to know the performance of Stock Markets and Mutual Funds. This will help them to know whether mutual funds or stock market performs better during bullish and bearish period. This study would also help them to compare the performance of Balanced Mutual Funds and Income Mutual Funds during bull run period and bear run period.

THEORETICAL BACKGROUND

Mutual funds are open-ended investments that pool investors' money into a fund operated by a portfolio manager. This manager then turns around and invests this large pool of shareholder money in a portfolio of various assets, or combinations of assets. This may include investments in stocks, bonds, options, futures, currencies, treasuries and money market securities. Depending on the stated objective of the fund, each will vary in regard to content and risk. Mutual Funds are regulated by the Investment Company Act of 1940. The MF industry in India is governed by SEBI (Mutual Funds) Regulations, 1996 which lay the norms for the MF and Asset Management Companies(AMC). All MFs in India are constituted as Trusts. The Mutual Fund Industry in India comprises of 37 Asset Management Companies (AMCs) which currently manage assets worth more than ₹ 503,000 crores (approximately over US\$100 billion). With a modest beginning in the year 1963, the industry has witnessed Compounded Annual Growth Rate (CAGR) of 24.63% over the last 45 years. As in April 2009, 944 schemes are in operation and the Table 1 gives the break of schemes. It may be observed from the Table 1 that 63% of the total schemes are Open-end schemes and almost 99% of the total assets are managed by these funds. Though Liquidity/Money Market Funds constitute only 5.93% of the total number of schemes, yet they dominate the Mutual Fund Industry in India by managing 71.53% of the total assets. The next preferred category of funds is Income funds, which manage around 28% of the total assets. The preference for Liquid and Income funds is pointing towards the defensive/cautious investment style of the retail investors and fund managers for low risk and low return.

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Table 1: Break Up Of Schemes

SCHEMES	OPEN -END		CLOSED -END		INTERVAL		TOTAL	
	No. of Schemes	Amount in Crores	No. of Schemes	Amount in Crores	No. of Schemes	Amount in Crores	No. of Schemes	Amount in Crores
INCOME	163	1,98,759	224	145	64	14	454	1,98,918
EQUITY	245	1,811	47	3	2	22	294	1,836
BALANCED	30	125	5	—	—	—	35	125
LIQUID	56	5,06,807	—	—	—	—	56	5,06,807
GILT	34	511	—	—	—	—	34	511
ELSS-EQUITY	35	158	12	—	—	—	47	158
GOLD ETF	5	16	—	—	—	—	5	16
OTHER ETFs	12	77	—	—	—	—	12	77
FUND OF FUNDS	—	—	—	—	—	—	—	—
OVERSEAS	10	33	—	—	—	—	10	33
TOTAL	590	7,08,297	288	148	66	36	944	7,08,481

Source: www.amfiindia.com

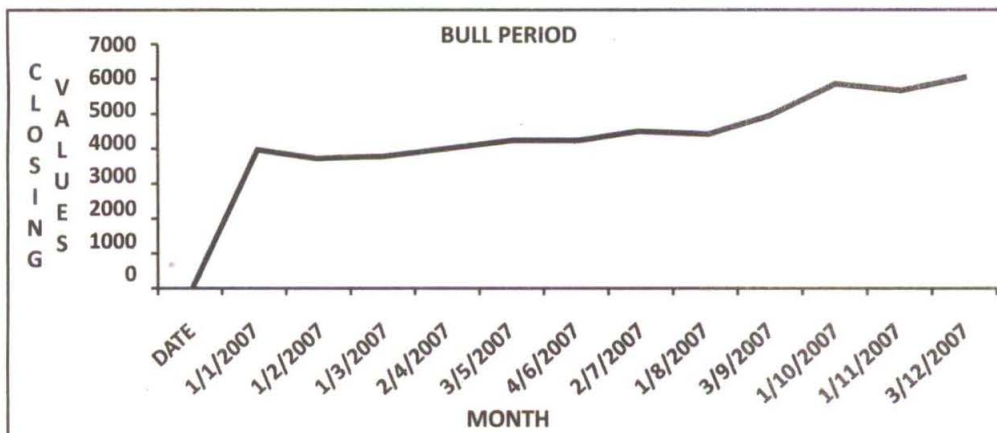
Stock Exchanges are an organized marketplace, either corporation or mutual organization, where members of the organization gather to trade company stocks and other securities. The members may act either as agents for their customers, or as principals for their own accounts. Stock exchanges also facilitate for the issue and redemption of securities and other financial instruments including the payment of income and dividends. The record keeping is central but trade is linked to such physical place because modern markets are computerized. The trade on an exchange is only by members and stock brokers do have a seat on the exchange. The two major stock exchanges in India are the Bombay Stock Exchange and the National Stock Exchange.

S&P CNX NIFTY

S&P (Standard and poor) CNX Nifty is a well diversified 50 stock index accounting for 22 sectors of the economy. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds. Nifty stocks represent about 63.98% of the total market capitalization of ₹1790.6 billions as on Jan. 30, 2009. S&P CNX Nifty is owned and managed by India Index Services and Products Ltd. (IISL), which is a joint venture between NSE and CRISIL. IISL is India's first specialized company focused upon the index as a core product. IISL has Marketing and licensing agreement with Standard & Poor's (S&P), who are world leaders in index services. Nifty stocks represent about 65.34% of the total market capitalization as on March 31, 2009.

The Exhibit 1 analyses the movement of NIFTY during the bull run period and bear run period selected for our study.

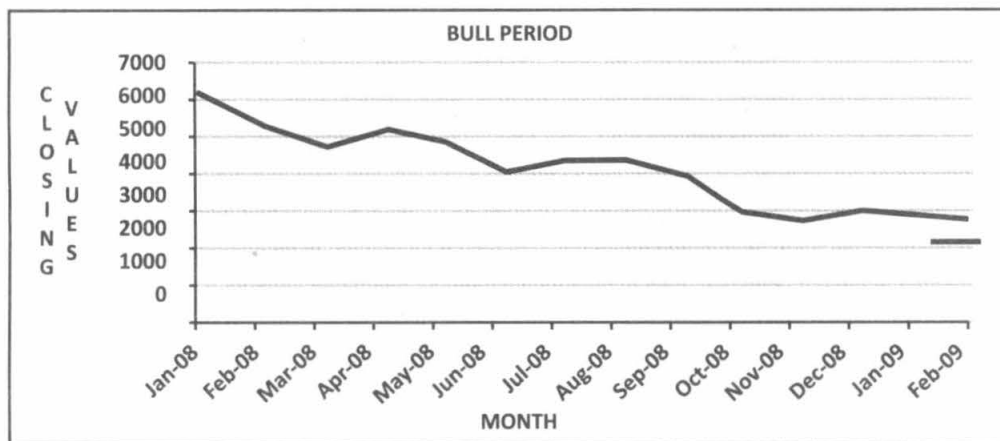
Exhibit 1: Movement of NIFTY- Bull Run Period {Jan, 2007 - Dec, 2007}



Source: www.nseindia.com

Hence from the Table 1 and Exhibit 1, we can find that the stock market was bullish during January 2007 to December 2007.

Exhibit 2: Movement of NIFTY- Bear Run Period {Jan, 2008 - Feb, 2009}



Source: www.nseindia.com

From the above exhibit, it can be seen that the value of NIFTY has dropped from 6144.35 to 2763.65. Thus, it shows that the market was bearish for the period during January 2008 to February 2009.

REVIEW OF LITERATURE

The aim of the study is to describe and analyze whether the Stock Market or Mutual Funds perform better during Bull Run period and Bear Run period. In line with this aim, the literature review is done to clarify the underlying concepts in Stock Markets and Mutual Funds. Many studies have been done in case of mutual funds and stock market operations in India. But this study has drawn insights from the following studies;

Allen and Carolinian (2003) in their article "Positioning in India's asset management industry", have concluded that for the last five years, there has been proliferation of International and Domestic providers of Mutual Funds. He says that this increased growth is due to the increasing cash flows among innovative young companies throughout India. He also says that mutual funds products are growing in complexity, which is an indicator of investor sophistication in India. **Diekmeyer and Peter (2003)** in the article "The Other Red Hot Emerging Market" analyzed the changing scenario of Indian Stock Markets. He says that India is becoming important in the international stage and more and more foreign asset management companies are starting their businesses in India. The Indian markets, which were perceived as corrupt and backward with few prospects, are now being targeted by the whole world for safe and profitable investments. He says that this growth in Indian economy is due to the growing strength of its IT industry and growing military and trade ties with the United States. **Diekmeyer and Peter (2003)** in their study "Private Progress" say that private mutual funds have been consolidating and gaining ground. They now manage three-quarters of the 1 trillion rupees (\$22 billion) that Indians have entrusted to the industry, up from 47% a year ago. He says that in a country where the government remains the chief manager of money- running the biggest banks, insurance companies and pension funds, this is a remarkable change. So far, the industry has focused on bond or cash funds, which account for 80% of assets. Largely, this is because most investors are risk-averse, and want something like a bank deposit, with safe principal and a regular income. The increasing growth of Private Mutual Funds are resulting in cut-throat competition and shoddy products in Indian Market. **Varsha Kulkarni and Nivedita Deo (2003)** have done a study of Mutual Funds under the title "Correlation And Volatility In An Indian Stock Market" have examined the volatility of Indian stock market in terms of correlation of stocks and have quantified the volatility using the random matrix approach. They have first discussed the trends observed in the pattern of stock prices in the Bombay Stock Exchange for the three-year period 2000-2002. Random matrix analysis is then applied to study the relationship between the coupling of stocks and volatility. The study uses daily returns of 70 stocks for successive time windows of a length of 85 days for the year 2001. They compared the properties of matrix *C* of correlations between price fluctuations in time regimes characterized by different volatilities. **Jaydev (1996)** evaluated performance of two schemes during the period, June 1992 to March 1994 in terms of return/ benchmark comparison, diversification,

selectivity and market timing skills. He concluded that the schemes failed to perform better than the market portfolio. Diversification was unsatisfactory. The performance did not show any signs of selectivity and timing skills of the fund managers. **Gupta and Sehgal (1997)** evaluated mutual fund performance over a four year period -1992-96. The samples consists of 80 mutual fund schemes. They concluded that the mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison; performance of one period to the next and their risk return characteristics. **Narayan and Ravindran (2003)** studied the performance of Indian Mutual Funds in a bear market using relative performance index, risk-return analysis, Treynor's ratio, and measure of Sharpe's, Jensen and Fama. **Sondhi (2004)** studied the financial performance evaluation of equity oriented mutual funds on the basis of type, size and ownership of mutual funds using the measure of absolute rate of return, comparison with benchmark (BSE100) and the return on 364 days T-bills and risk adjusted performance measures (Sharpe's, Treynor, Alpha and Fama). **Dr. D.N Rao (2008)** has analysed the performance of balanced and income mutual funds in comparison to the stock market with the help of benchmark index and Sharpe ratio.

The literature review has revealed that performance measures of Mutual Fund include rate of return, benchmark comparison, risk-adjusted returns (Treynor's and Sharpe's indices) stock selectivity abilities and market timing skills of the fund managers.

OBJECTIVES OF THE STUDY

- ❖ To compare the performance of Stock Market and Mutual Funds during Bull Run period and Bear Run period.
- ❖ To analyze the performance of Balanced Mutual Funds and Income Mutual Funds during Bear Run period and Bull Run period.

METHODOLOGY

The type of research used in this study is Analytical research. In analytical research, the authors have used facts or information already available, and analyze these to make a critical evaluation of the material. In this study, the data were taken from the website of NSE and BSE and from the websites of the respective Mutual Fund companies. This data is then analyzed to compare the performance of Mutual Funds and the Stock Market.

SOURCES OF DATA

All the data is secondary and was obtained from AMFI {Association of Mutual Funds of India} website, respective home pages of Asset Management Companies, Bombay Stock Exchange and National Stock Exchange.

Mutual Funds selected for study are based on the ratings of performance given by Business Magazines like Business World and Outlook Money. The best Mutual Funds among Balanced and Income schemes were chosen for the study. The Mutual Funds selected under Balanced and Income schemes are as follows:

Balanced Mutual Funds	Income Mutual Funds
1. HDFC Prudence Mutual fund	1. SBI Magnum MIP
2. SBI Magnum Balanced	2. Templeton MIP
3. Kotak Balance Mutual Fund	3. Prudential ICICI MIP
4. Tata Balance Mutual Fund	4. FT India MIP
5. Birla Sunlife 95	5. Reliance MIP

PERIOD OF THE STUDY

The time frame chosen for the study is past two years (Jan-2007 To Feb-2009) as this period witnessed bullish and bearish trends. Based on trend of stock market, the two year period was divided into Bull Run Period (Jan-2007 to Dec-2007) and Bear Run Period (Jan-2008 To Feb 2009)

TOOLS USED FOR THE ANALYSIS

1. COMPOUNDED ANNUAL GROWTH RATE(CAGR)

It is the growth rate of an investment expressed on an annualized basis .It takes into effect the effect of compounding. Net Asset Values (NAV) of Balanced and Income Mutual fund schemes and the Stock Market Index values of each

quarter were used to find the CAGR of Mutual Funds and Stock Market.

2. STANDARD DEVIATION

Standard Deviation of returns of various investments were used to calculate the risk involved in various investments.

3. SHARPE RATIO

The Sharpe ratio or Sharpe index or Sharpe measure or reward-to-variability ratio is a measure of the excess return (or Risk Premium) per unit of risk in an investment asset or trading strategy. It is calculated as follows

$$S = \frac{R - R_f}{\sigma} = \frac{E[R - R_f]}{\sqrt{\text{var}[R - R_f]}}$$

where R is the asset return, R_f is the return on a benchmark asset, such as the risk free rate of return, $E[R - R_f]$ is the expected value of the excess of the asset return over the benchmark return, and σ is the standard deviation of the asset excess return.

The Sharpe ratio is used to characterize how well the return of an asset compensates the investor for the risk taken. When comparing two assets each with the expected return $E[R]$ against the same benchmark with return R_b , the asset with the higher Sharpe ratio gives more return for the same risk. Investors are often advised to pick investments with high Sharpe ratios. However, like any mathematical model, it relies on the data being correct. Sharpe ratios, along with Treynor ratios and Jensen's alphas, are often used to rank the performance of portfolio or mutual fund managers. Risk free rate of return is computed using the coupon (interest) offered by Government of India's long-term debt securities during the period 2007-09. The coupon rates are available on Reserve Bank of India's website (www.rbi.org.in) and the average Risk free rate has been computed to be 8%.

ANALYSIS AND DISCUSSION

Analysis is done by calculating the returns of Balanced and Income Mutual Funds with the help of the respective NAV's. The stock market return is calculated from the closing values of Nifty for each quarter.

1. RETURNS OF BALANCED MUTUAL FUNDS FOR BULL RUN & BEAR RUN PERIOD

Table 2: Returns of Balanced Mutual Funds during Bull Run Period [Jan 2007-Dec 2007]

Name of fund	Return for Quarter1[%]	Return for Quarter2[%]	Return for Quarter 3[%]	Return for Quarter 4[%]	Average return for the period
HDFC Prudence	-13.28	84.20	38.33	98.51	42.70
Magnum Balanced	-19.57	81.06	57.91	31.57	30.18
Kotak balance	-15.06	71.28	12.98	152.04	39.76
Tata balanced	-9.8	97.85	54.78	115.85	53.78
Birla Sunlife 95	-5.86	99.86	64.20	89.31	51.40

Source:
www.amfiindia.com

Table 3: Returns of Balanced Mutual Funds during Bear Run Period [Jan 2008-Feb 2009]

Name of Fund	Quarter 1[In %]	Quarter 2[In %]	Quarter 3 [In %]	Quarter 4[In %]	Jan 2009- Feb 2009	Average return for the period
HDFC Prudence	-63.17	-38.09	15.64	-54.34	-51.03	-43.30
Magnum Balanced	-64.29	-40.03	-1.19	-50.33	-42.42	-43.67
Kotak balance	-82.04	-33.68	2.62	-49.44	-36.95	-49.00
Tata balanced	-65.35	-37.57	-5.78	-49.40	-30.66	-42.26
Birla Sunlife 95	-68.19	-34.97	-6.62	-31.33	-38.17	-40.38

Source: www.amfiindia.com

From the above Table-2, we can find that all the Mutual Fund schemes were offering a reasonable rate of return during bull period. Tata Balanced Mutual Fund has highest rate of return among Balanced Mutual Funds. On an average, we can find that all the Balanced Mutual Funds were providing a rate of return of about 43%. From the above table 3, it is clear that all the Balanced Mutual funds are having a negative rate of return during the Bear Run Period. This shows how the market affects the rate of return of investments. Birla Sunlife 95 has been performing better among this group as it has low negative rate of return

2. COMPARING PERFORMANCE OF BALANCED MUTUAL FUNDS AND STOCK MARKET

The following Table 4 indicates the performance of Balanced Mutual Funds:

Table 4: Performance of Balanced Mutual Funds

PERIOD	RETURN	RISK	RETURN/RISK	SHARPE RATIO
BULL RUN	43.56	8.42	5.17	4.22
BEAR RUN	-43.722	2.88	-15.18125	-17.95

Source: Compiled by authors

The following Table 5 indicates the performance of stock market.

Table 5: Performance Of Stock Market

PERIOD	STOCK MARKET INDEX	RETURN (AVERAGE RETURN)	RISK	RETURN/RISK	SHARPE RATIO
BULL RUN	NIFTY	53.18	9.48	5.61	4.76
BEAR RUN	NIFTY	-49.69	3.00	-16.56	-19.23

Source: Compiled by authors

(a) BULL RUN PERIOD

(a1) The average returns (CAGR) of balanced funds is lower than that of the Market. The Market has outperformed the Balanced Funds in terms of return during Bull Run period.

(a2) Balanced Funds have Risk (Standard deviation of Returns) lower than that of the Market. Balanced Funds have outperformed the Market in terms of Risk during the Bull Run period.

(a3) Balanced Funds have Return per Unit Risk lower than that of the Market. Balanced Funds have underperformed the Market in terms of Return Per Unit Risk during the Bull Run period.

(a4) Balanced Funds have Sharpe Ratio lower than that of the Market. The Market has outperformed the Balanced Funds in terms of Risk adjusted Return during the Bull Run period.

(b) BEAR RUN PERIOD

(b1) Balanced Funds have returns (CAGR) higher than that of the Market. The Balanced Funds have outperformed the Market in terms of return during the Bear Run period.

(b2) Balanced Funds have Risk (Standard deviation of Returns) lower than that of the Market. Balanced Funds have outperformed the Market in terms of Risk during the Bear Run period.

(b3) Balanced Funds have Return per Unit Risk higher than that of the Market. Balanced Funds have outperformed the Market in terms of Return Per Unit Risk during the Bear Run period.

(b4) Balanced Funds have Sharpe Ratio higher than that of the Market. Balanced Funds have outperformed the Market in terms of Risk adjusted Return during Bear Run period.

3. RETURNS OF INCOME MUTUAL FUNDS FOR BULL RUN & BEAR RUN PERIOD

(i) RETURNS OF INCOME MUTUAL FUNDS FOR BULL RUN PERIOD

The Table 6 depicts the returns of Income Mutual Funds during the Bull Run Period. From the Table 6, we can find that the average rate of return given by Income Mutual funds was about 12%. Thus, we can conclude that the rate of return given by Income Mutual funds is lower than that of Balanced Mutual Funds. FT India MIP Mutual Fund is offering the

Table 6: Returns of Income Mutual Funds during Bull Run Period [Jan 2007-Dec2007]

Name of mutual funds	QUARTER 1 [In %]	QUARTER 2 [In %]	QUARTER 3 [In %]	QUARTER 4 [In %]	AVERAGE RETURN
SBI Magnum MIP	-2.18	2.11	17.44	14.75	9.8
Templeton MIP	-4.3	26.24	24.35	23.88	16.34
Prudential ICICI MIP	-2.77	14.75	12.55	30.10	13.05
FT India MIP-Plan B	-3.94	24.82	24.35	23.88	16.35
Reliance MIP	-11.61	10.59	14.089	22.01	7.76

Source: www.amfiindia.com

highest rate of return among this group of Income MF.

(ii) RETURNS OF INCOME MUTUAL FUND FOR BEAR RUN PERIOD

The Table 7 depicts the returns of Income Mutual Funds during Bear Run Period. This is calculated based on their NAV's.

Table 7: Returns of Income Mutual Funds during Bear Run Period [Jan 2008-Feb 2009]

Name of mutual funds	QUARTER 1 [In %]	QUARTER 2 [In %]	QUARTER 3 [In %]	QUARTER 4 [In %]	AVERAGE RETURN
SBI Magnum MIP	-2.18	2.11	17.44	14.75	9.8
Templeton MIP	-4.3	26.24	24.35	23.88	16.34
Prudential ICICI MIP	-2.77	14.75	12.55	30.10	13.05
FT India MIP-Plan B	-3.94	24.82	24.35	23.88	16.35
Reliance MIP	-11.61	10.59	14.089	22.01	7.76

Source: www.amfiindia.com

From the above table, we can find that all the Income Mutual Funds except Reliance MIP were giving negative returns during Bear Run Period. However, we can also find that Income MFs are having lower negative rate of return than Balanced Mutual Funds. Thus, Income Funds are performing better than Balanced Mutual funds during the Bear Run Period.

4. COMPARISON OF PERFORMANCE OF INCOME MUTUAL FUNDS AND STOCK MARKET

Here the performance of Income Mutual Funds is analyzed with the help of returns and risk. The risk return relationship is also analyzed with the help of Sharpe Ratio.

Table 8: Performance of Income Mutual Funds

PERIOD	RETURN(AVERAGE RETURN)	RISK	RETURN/ RISK	SHARPE RATIO
BULL RUN	12.66	3.124	4.0525	1.4917
BEAR RUN	-5.088	2.55	-1.9953	-5.1325

Source: Compiled by authors

Table 9: Performance of Stock Market

PERIOD	STOCK MARKET INDEX	RETURN (AVERAGE RETURN)	RISK	RETURN/RISK	SHARPE RATIO
BULL RUN	NIFTY	53.18	9.48	5.61	4.76
BEAR RUN	NIFTY	-49.69	3.00	-16.56	-19.23

Source: Compiled by authors

(a) BULL RUN PERIOD

(a1) Income Funds have returns (CAGR) lower than that of the Market. The Market has outperformed the Income Funds in terms of return during Bull Run period.

(a2) Income Funds have Risk (Standard deviation of Returns) lower than that of the Market. Income Funds have outperformed the Market in terms of Risk during Bull Run period.

(a3) Income Funds have Return per Unit Risk lower than that of the Market. The Market has outperformed Income Funds in terms of Return Per Unit Risk during Bull Run period.

(a4) Income Funds have Sharpe Ratio lower than that of the Market. The Market has outperformed the Income Funds in terms of Risk adjusted Return during Bull Run period.

(b) BEAR RUN PERIOD

(b1) Income Funds have returns (CAGR) higher than that of the Market. The Income Funds have outperformed the Market in terms of return during Bear Run period.

(b2) Income Funds have Risk (Standard deviation of Returns) lower than that of the Market. Income Funds have outperformed the Market in terms of Risk during the Bear Run period.

(b3) Income Funds have Return per Unit Risk higher than that of the Market. Income Funds have outperformed the Market in terms of Return Per Unit Risk during Bear Run period.

(b4) Income Funds have Sharpe Ratio higher than that of the Market. Income Funds have outperformed the Market in terms of Risk adjusted Return during the Bear Run period.

MAJOR FINDINGS

- ✿ Investment during Bull Run Period can give maximum returns but at the same time, they have high rate of risk.
- ✿ Market has outperformed Balanced Mutual Funds in terms of return during the Bull Run Period.
- ✿ Stock Market is subject to more risk than Balanced Mutual Funds during the Bull Run Period.
- ✿ Balanced Funds have higher returns than Stock Markets during the Bear Run Period.
- ✿ Balanced Funds have lower risk than Stock Markets during the Bear Run Period.
- ✿ Stock Market provides more return than Income Mutual Funds during the Bull Run Period.
- ✿ Stock Market is subject to more risk than Income Funds during the Bull Run Period.
- ✿ Income Funds have higher returns than Stock Markets during the Bear Run Period.
- ✿ Income Funds have risks lower than that of the Stock Market during the Bear Run Period.
- ✿ Income Mutual Funds outperform the Balanced Mutual funds during the Bear Run Period.
- ✿ Balanced Mutual Funds outperform Income Mutual Funds during the Bull Run Period.

CONCLUSION

The Indian stock market is subject to many unexpected fluctuations. It has high risk element in it. But at the same time for tactful and foresighted investors, it provides huge gains in terms of returns and capital appreciation. The Mutual fund industry makes it possible for even the common man to fulfill his dream of investing in stock markets and gaining good returns. For the common man, Mutual Funds are less riskier than Stock Market due to the investment being handled by professionals of investment companies. To conclude, we would say that Stock Market performs better than Mutual Funds during the Bull Run Period whereas, Mutual funds perform better than Stock Markets during Bear Run Period. Thus, the common perception that investors have regarding Mutual Fund performance and Stock Market performance is being proved true through this project work. On comparing Balanced Mutual Funds and Income Mutual Funds, we find that Income Mutual Funds perform better than Balanced Mutual Funds during Bear Run Period.

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