

Appraising Relationship Of Selected Macro-Economic Variables On Mutual Funds

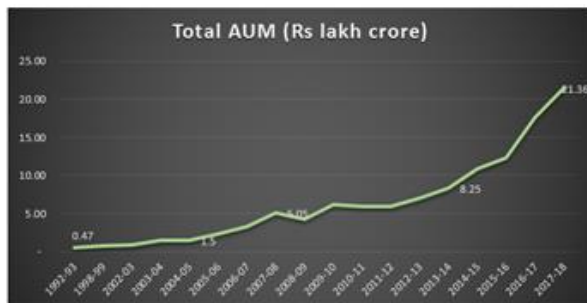
Mandakini Garg, Dr. Shobhit, Dr. Shishir Srivastava

Abstract: In the era of financial intermediation, investors are more inclined and attracted towards financial products rather than physical assets. Mutual funds have created their own space among various available alternatives like shares, debentures, bonds etc. of financial market. Growth of Asset under Management (AUM) has registered a compound annual growth rate of 25% over the last five years (2013-2018) as compared to aggregate growth of bank deposits of scheduled banks (11%). Demand for mutual funds has grown many folds in few years i.e. 1.6 crores investor accounts were accounted in 2017-18 as compared to 59 lakhs accounts in 2015-16. But still, there is a huge scope to grow as its contribution to India's GDP is only 14% as compared to USA (101%), UK (58%) etc in financial year 2017-2018. India has a huge potential for investment but there are certain macro economic variables like Gross domestic product, inflation, gold prices, SENSEX etc which directly or indirectly affect the movement of financial market. Macro economic variables are systematic risk which cannot be controlled by any internal or external authority and they are dependent on many factors like global crisis, crude oil, inflation, currency rates etc. Sometimes, investors are inclined towards investment in financial market, but due to uncontrollable factors and uncertainty in economic conditions, they refused to do so. This research paper attempts to identify the relationship between macro-economic variables and AUM of mutual fund industry. With the help of this research, we will be to identify the factors which are directly or indirectly impacts the growth of mutual fund industry.

Index Terms: Mutual fund, Assets under management, Gross domestic product, inflation, gold prices, Sensex

1 INTRODUCTION

Mutual funds act as an investment tool for small investors. Indian mutual fund industry started in 1964 and is contributing a major share in financial market till today. It has grown tremendously in last two decades in terms of AUM base and number of folios.



(source: <https://economictimes.indiatimes.com/mf/analysis/25-years-of-private-sector-mutual-funds-key-milestones/articleshow/65038546.cms>)

Fig 1: Growth of AUM of mutual fund industry of India

Even the compound annual growth rate of mutual fund industry has grown terrifically in last 10 years i.e. from 15% in 2008 to 22.9% in 2018. This increase depicts the inclination of investors towards mutual funds. And this inclination is escalating everyday as they offer opportunity to invest in diversified portfolio under the direction of professionally managed team. It is economical for investors to enter financial market with the help of mutual funds.

(Source: <https://www.equitymaster.com/5minWrapUp/charts/index.asp?date=01/14/2019&story=1&title=The-Rapid-Growth-of-the-Indian-Mutual-Fund-Industry>)

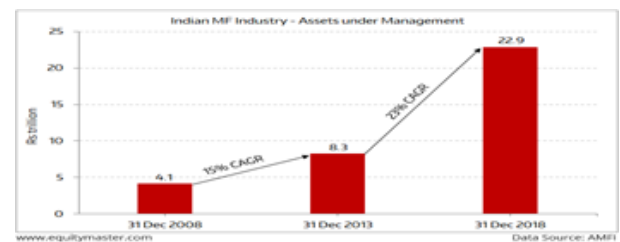


Fig 2 CAGR of Mutual fund industry in terms of AUM

Performance of mutual fund industry as a whole is dependent on micro and macro factors in an economy. Micro factors are unsystematic risk which can be controlled by the individual companies. Macro economic factors are uncontrollable factors of an economy. There is huge volatility in the financial market due to movement in various macro-economic variables. If GDP is increasing or decreasing, it directly impacts the movement of financial market. If we compare contribution of mutual fund industry in India's GDP, it is very low as compared to developed nations. Still, India is far behind to meet the numbers of developed nation. With the help of below figure, it can be easily understood.



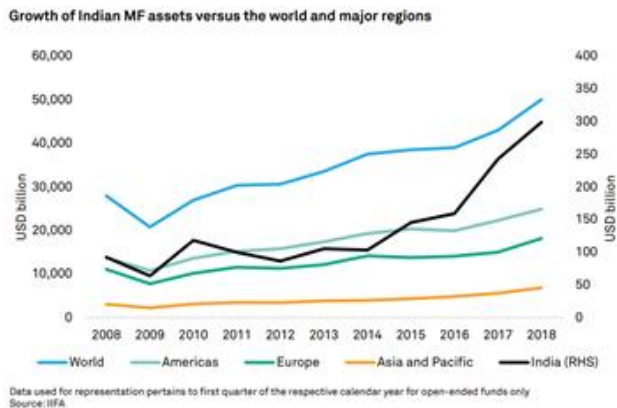
Source: World Bank
Note: India's figure is of FY17

Fig 3: Contribution of Mutual funds in GDP of India

There are many other economic variables like SENSEX,

- Mandakini Garg, Assistant Professor in PSIT, Kanpur and pursuing PhD from Amity university, lucknow ph: 9580956242 email: Mandakini_garg@yahoo.co.in
- Dr. Shobhit, Assistant professor in Amity University, lucknow , ph: 9415469880 email: Shobhit@lko.amity.edu
- Dr. Shishir Srivastava, Assistant Professor in FAA college, Sitapur, ph: 9839509312 email : shishir_2411@rediffmail.com

inflation, Gold price, GDP per capita, GNP per capita etc also impacts the market. Even Though the investment avenue likes mutual fund posses the favorable characteristics for investors then also their growth is influenced by the macroeconomic variables. Being a developing nation, there are many challenges and obstacles for Indian financial market to expand its horizon on a larger scale as compared to other developed nations.



(Source: <https://tradingqna.com/t/interesting-statistics-about-the-indian-mutual-fund-industry/46185>)

Fig 4: Growth of Indian Mutual fund assets and other major regions

1.1 Macro economic variables affecting the growth of mutual funds in India

As per the previous literature available on various sources indicates some common factors which are directly or indirectly influences the growth of mutual fund as an industry.

1.1.1 Gross Domestic product

GDP is important measuring unit for evaluating the financial health of an economy. It depicts the financial health of the nation. If GDP is growing is number, it influences the positive growth of an economy or vice-versa. High GDP indicates high earnings or low GDP signify the low earnings. So, investors are keen observer regarding the movement of GDP.

1.1.2 SENSEX

Sensex is indicative index for financial market. It includes two words "sensitive" and "index". It is used to understand the movement of financial market of an Indian economy. If the SENSEX is moving in upward direction, it indicates that the financial securities are giving positive returns or vice versa. So, value of Net asset value is dependent on the index value of Sensex.

1.1.3 Inflation

It refers to general increase in price level. Investments in mutual funds are linked with the level of inflation sustaining in an economy. Investors always try to invest in the securities through which they are able to meet and beat inflation. Selections of mutual fund schemes are chosen based on the returns.

1.1.4 Gold prices

Gold is an asset which helps to face the inflation. Whenever the price goes up, the investors hold the asset. Investors tend to invest in gold ETF, gold linked mutual funds schemes etc. to

reduce the volatility of financial market. Uncertainty of financial market is controlled by the holding of gold in different forms.

1.1.5 Gross Domestic Product per capita

GDP per capita means GDP per population. It indicates the paying capacity of the population towards the various investment avenues. If GDP per capita is rising as per the growth of population, then it is favorable for financial market or vice-versa. As per previous literature, there is a co-integration between the GDP per capita and investment in Mutual funds.

1.1.6 Gross National product per capita

GNP indicates total production within the boundary of the nation. It excludes the income by foreign residents. It focuses towards the national income. If national income is growing in positive manner, then it will initiate the more investments in financial market.

2 REVIEW OF LITERATURE

It has been learned through relevant studies that certain macro-economic variables are linked to the performance of mutual fund industry. Financial market is swayed by systematic risks which are uncontrollable. Global dynamics like foreign direct investments, foreign institutional investors/ investments, foreign exchange risk/volatility, gold prices, trade agreements etc. infuses the growth of financial market. On the other hand, fiscal factors like interest rate, inflation, money supply, tax rate etc. sometimes create hurdles in the smooth functioning of financial market. Giri et al, (2017) identifies that macro-economic factors are associated with the movement of financial market. GDP is directly linked with the upsurge and down surge of the financial market. Investors invest according to the trend of the real GDP in the economy. Bali et al, (2014), further highlights the relationship between macro-economic variables and growth of mutual funds AUM. Beta being an uncontrollable factor is very significant in deciding the growth of the financial products Beta of the stock is influenced by significant movement of any macroeconomic variable in the economy. In addition to this and according to the study conducted by Krishnamurthy (2014), inflation is directly linked with the investment in equity mutual funds. If there is a high inflation, it reduces the investment corpus of the investors or vice-versa. Inflation diminishes risk aversion capacity among investors, and they start diverting themselves from high risk securities to low risk bearing securities. Ferreira (2007), also highlighted the importance of financial and economic growth of the nation. There is a positive relationship between mutual fund performance and economic development of the nation. Strong regulatory control always induces investors to invest more in financial market. Makan (2012), suggests that there is a positive correlation between SENSEX and FII. His study lays emphasis on the performance of stock market and economic development of an economy. Megaravalli (2017), stated the stock indices have direct co-integration with inflation. These both variables have long term implications and their integration can be analyzed for longer span of time. Inflation is the major component in taking decisions.

2.1 Problem Statement

The main problem lies in understanding the relationship of various macro economic variables and AUM of mutual fund industry. Further, understanding the role of various macro economic variables in captivating the investment decisions taken by the individual investors.

2.2 Research Questions

The study identifies the relationship between the various macro economic variables and asset under management of mutual fund industry. The objectives of the research are listed below:

Objective 1: To study the relationship between Gross domestic product and Asset under management of mutual fund industry.

Objective 2: To study the relationship between Sensex and Asset under management of mutual fund industry.

Objective3: To study the relationship between inflation and Asset under management of mutual fund industry.

Objective4: To study the relationship between gold prices and Asset under management of mutual fund industry

Objective5: To study the relationship between GDP per capita and Asset under management of mutual fund industry

Objective6: To study the relationship between gross national income per capita and Asset under management of mutual fund industry

2.3 Purpose of Study

Major developed economies have witnessed a significant relationship among the macroeconomic variables and growth of mutual fund industry. Almost, all developed nations have a positive correlation between macro-economic variables and growth of AUM of mutual fund industry. In developing nation, macro economic variables play a very prominent role in growth of financial industry. These factors are uncontrollable factors of an economy. In India, as a researcher we can easily signify the impact of various macroeconomic factors on the growth of financial market. Mutual fund being a part of financial market is also directly linked with the growth of financial market. As per previous historical data, it was observed that any economic events affect the investment corpus of investors. The study aims at identifying the relationship of various macro-economic variables like GDP, inflation, gold prices, Sensex, GDP per capita, GNI per capita etc on AUM of Indian Mutual Fund industry.

3 RESEARCH METHODS

3.1 Conceptual Framework of Study

Macroeconomic variables influences the growth of AUM of mutual fund industry directly or indirectly. Investors are affected by the movement of an economy and their investment decisions rely heavily on the economic situation of the country. The Conceptual framework is presented below with the help of a diagram.

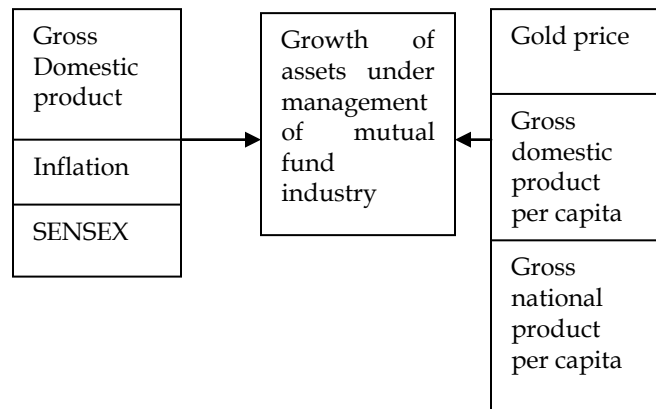


Fig 5: Conceptual framework of the study

3.2 Sampling and Data Collection

In order to identify the dependency of macroeconomic variables and mutual funds, data from 2000-2018 was taken into consideration. Data from different sources was summarized for research. Exploratory research was conducted with the help of secondary data i.e. available literature.

3.3 Sampling Methods

It is secondary based research. As, data was collected from various authenticated sources were collected. The selection of various variables was based on various previous literatures available.

3.4 Sampling technique

Multiple regression analysis is used to test the relationship among the variables and AUM of the industry.

3.5 Hypothesis

H1: There is relation between Gross domestic product and Asset under management of mutual fund industry.

H2: There is relation between Sensex and Asset under management of mutual fund industry.

H3: There is relationship between inflation and Asset under management of mutual fund industry.

H4: There is relationship between gold prices and Asset under management of mutual fund industry.

H5: There is relationship between GDP per capita and Asset under management of mutual fund industry.

H6: There is relationship between gross national income per capita and Asset under management of mutual fund industry.

3.6 Data Analysis and Interpretation

The data is analyzed with the help of multiple regression models. The data is tested with SPSS tool. The data from 2000-2018 will be used for further analysis. The table below depicts key information regarding demographic profile of the respondents.

Table 01: The table depicts the model summary of the three factors

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.951 ^a	.904	.885	211295.422

a. Predictors: (Constant), GNI Per Capita (US \$), Gold prices(Rs.), GDP per capita(in dollars)

$$Y = -896749849 - 55.280x_1 + 418.983x_2 - 1822.110x_3$$

Model Summary : -(R Square) .904, taken as a set, the prediction of GNI Per Capita (US \$), Gold prices (Rs.), GDP per capita (in dollars) accounts for 90.4% approx of the variance in AUM.

Table 02: The table highlights the details of ANOVA value

ANOVA				
Model		df	F	Sig.
1	Regression	3	47.147	.000b
	Residual	15		
	Total	18		

a. Dependent Variable: Average Asset under Management (IN CRORES)
 b. Predictors: (Constant), GNI Per Capita (US \$), Gold prices(Rs.), GDP per capita(in dollars)

Test using level of Significance $\alpha = .05$
 The overall regression model was significant F (3, 15) =47.147, P<.001 and R2=.904

Table 03: The table shows the significant value

Coefficients				
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	-896749.85	159313.681	0
	Gold prices(Rs.)	-55.28	18.961	0.011
	GDP per capita (in dollars)	418.983	889.851	0.645
	GNI Per Capita (US \$)	1822.11	1075.297	0.111

a. Dependent Variable: Average Asset under Management (IN CRORES)
 Results

- As shown in Gold prices variable that its P value is less than .05 hence Gold prices has a significant amount of explain variance in AUM.
- As shown in GDP per capita variable that its P value is less than .05 hence GDP per capita has not significant amount of explain variance in AUM.
- As shown in GNI Per Capita variable that its P value is more than .05 hence GNI Per Capita has not significant amount of explain variance in AUM.

Regression Model: -

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3$$

Where Y is Dependent Variable.

β_0 is a constant
 X1=GDP per capita
 X2=Gold prices
 X3=GNI per capita

Hence the Model looks like:

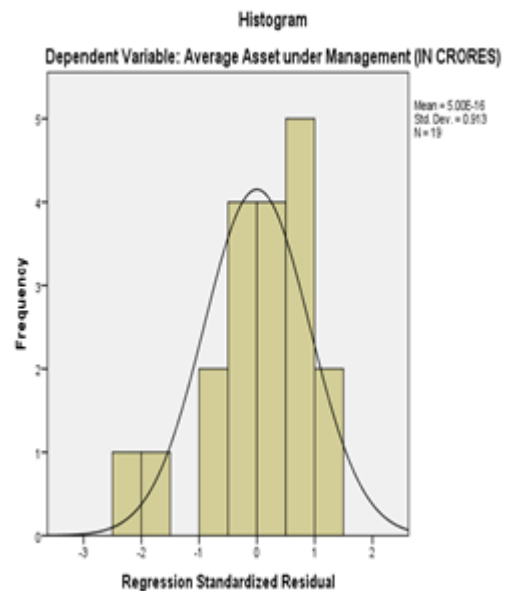
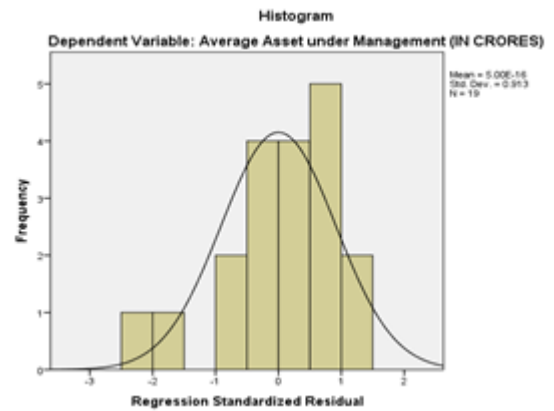


Table 04: The table depicts the model summary of the three factors

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939a	0.882	0.858	234848.322

a. Predictors: (Constant), Inflation (%), GDP growth rate(%), Sensex(index)

Model Summary:-(R Square) .882, taken as a set, the prediction of GDP, Sensex, Inflation accounts for 88.2% approx of the variance in AUM.

Table 05: The table highlights the details of ANOVA value

ANOVA				
Model		df	F	Sig.
1	Regression	3	37.212	.000b
	Residual	15		

Total	18
-------	----

a. Dependent Variable: Average Asset under Management (IN CRORES)

b. Predictors: (Constant), Inflation (%), GDP growth rate(%), Sensex (index)

Test using level of Significance $\alpha = .05$

The overall regression model was significant $F(3, 15) = 37.212, P < .001$ and $R^2 = .882$

Table 06: The table shows the significant value

		Coefficients		
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	443081.4	252183.5	0.099
	GDP growth rate (%)	-87067.7	36615.19	0.031
	Sensex (index)	68.475	6.721	0
	Inflation (%)	-50394.8	20003.95	0.024

a. Dependent Variable: Average Asset under Management (IN CRORES)

Test each prediction at $\alpha = .05$

- As shown in GDP variable that its P value is less than .05 hence GDP has a significant amount of explain variance in AUM.
- As shown in Sensex variable that its P value is less than .05 hence Sensex has a significant amount of explain variance in AUM.
- As shown in Inflation variable that its P value is more than .05 hence Inflation has a significant amount of explain variance in AUM.

Hence the Model looks like:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3$$

Where Y is Dependent Variable.

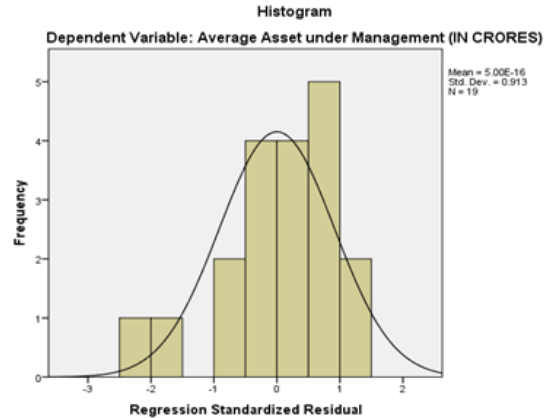
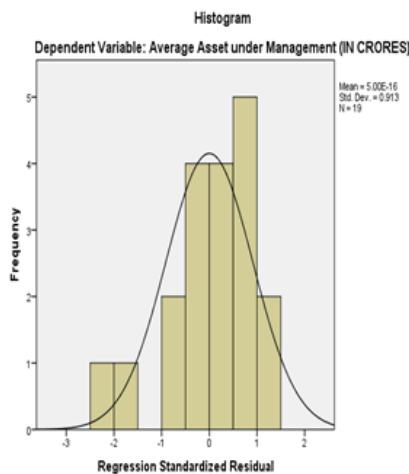
β_0 is a constant

X1=GDP

X2=Sensex

X3=Inflation

$$Y = 443081.428 - 87067.671x_1 + 68.475x_2 - 50394.835x_3$$



4 FINDINGS

To establish the relationship between macro economic variables and AUM of mutual fund industry, multiple regression analysis at 5% significance level was used for data analysis. Researcher would be confident at 95% for decision making for rejecting or fail to reject null hypothesis. Hypothesis 1 studies the relationship between GDP and AUM of mutual fund industry. After application of multiple regression analysis, the significant value is 0.031. This value is less than p-value; hence it establishes the relationship between the two variables. Hence, hypothesis is failed to reject. Hypothesis 2 focused on the relationship between SENSEX and AUM of mutual fund industry. After, validating the data related to SENSEX and AUM, it was observed that there is positive co-relation between SENSEX and AUM. It is clear that (p value=0. is less than 0.05, hence it can be concluded that they both move in the same direction i.e. they either positively or negatively. It fails to reject the hypothesis. Hypothesis 3 state the relationship between inflation and AUM of mutual fund industry. After applying the tool, the result obtained it less than the p-value (significant value is 0.024 is less than 0.05). This result fails to reject the hypothesis. Hence, it may be concluded that they are positively correlated. Hypothesis 4 state the relationship between gold prices and AUM of mutual fund industry. The significant value of the result is 0.011 and p-value is 0.05. Again, the result is favorable according to the hypothesis. In lieu of this result, hypothesis is fail to reject hence, concluded that there is direct relationship between the two variables. Hypothesis 5 state the relationship between GDP per capita and AUM of mutual fund industry. As per multiple regression method, significant value is 0.645 and p-value is 0.05. The significant value is higher than the p-value. Hence, it may be concluded that hypothesis is rejected and there is no relationship between the two variables. Hypothesis 6 state the relationship between GNP per capita and AUM of mutual fund industry. Significant value obtained after applying test is 0.111 and p-value is 0.05. With the obtained result, hypothesis is rejected establishing the fact that there is no relationship between the two.

Summary

Hypotheses	Result
H1: There is relation between Gross domestic product and Asset under management of	Fails to reject

<i>mutual fund industry.</i>	
<i>H2: There is relation between Sensex and Asset under management of mutual fund industry</i>	<i>Fails to reject</i>
<i>H3: There is relationship between inflation and Asset under management of mutual fund industry.</i>	<i>Fails to reject</i>
<i>H4: There is relationship between gold prices and Asset under management of mutual fund industry.</i>	<i>Fails to reject</i>
<i>H5: There is relationship between GDP per capita and Asset under management of mutual fund industry</i>	<i>Rejected</i>
<i>H6: There is relationship between gross national income per capita and Asset under management of mutual fund industry.</i>	<i>Rejected</i>

5 CONCLUSION

India is very prominent market for financial investments. As there are many opportunities which attract the investors to invest in financial market. But there exist numerous macro-economic variables which are directly linked with movement in financial market. With the help of this research paper, an attempt is made to depict how macro-economic factors like GDP, Gold prices, Inflation and SENSEX play a significant role in controlling the development chart of the financial market. As per the statistical data the AUM of mutual fund industry has leapfrogged from the level of Rs113005 (in crores) in 2000 to Rs2270693 (in crores) to 2018. The increased openness of the economy to global markets brings in more uncertainties in terms of both internal and policy impacts on the financial markets and its participants. Indian markets have been observing the increased visible impact of global interest rate changes, output, growth cycles, and trade-related issues in the recent past. Indian mutual funds being a substantial player in the capital markets (equity and debt), they are being driven by the local and global economic factors, hence, fund managers are required to identify the linkages, and plan their strategies of investments accordingly.

6 ACKNOWLEDGMENT

Firstly, I would like to thank God, for providing me with a healthy and positive mind. Secondly, I will be thankful to my parents for trusting me throughout my journey. My father (Mr. Kailash Nath Garg), my mother (Mrs. Bina Garg), my brother (Mr. Mudit Garg) and my Sister in law (Mrs. Mitali Garg)-I owe it all to them. I would like to express my gratitude to my Guide Dr. Shobhit for his trust and continuous support for my PhD work. I would also like to thank my co-guide Dr. Shishir Srivastava for guiding me in every possible manner. My special thanks to my best friend Ms. Priyadarshini Agarwal for encouraging and motivating me for doing PhD. This paper wouldn't be possible without support of my colleague Ms. Shivani and Ms. Khushnuma. I would like to express my gratitude to Amity University Uttar Pradesh for supporting my research.

7 REFERENCES

[1] Brian Reid, S. S. (2004, march). Mutual fund and economic developments in 2003. INVESTMENT COMPANY

- INSTITUTE , 10 .
- [2] Chauhan, C. M. (2012). A Study of the Effect of macroeconomic variables on stock market: Indian perspective. new delhi: Munich Personal RePEc Archive.
- [3] Dr. Ruta Khaparde, A. B. (2014). INVESTORS' OUTLOOK TOWARDS MACROECONOMIC FACTORS CAUSING STOCK MARKET VOLATILITY. International Journal of Research in Management & Technology , 4 (1), 24-34.
- [4] Fiza Qureshi, A. M. (2017). Mutual funds and stock market volatility: An empirical analysis of Asian emerging markets. Emerging Markets Review , 176-192.
- [5] flows, A. a. (2007). Timo Korkeamaki, Vesa Puttonen, Tom Smythe. International Journal of Bank Marketing , 25, 434-451
- [6] G. DINESH KUMAR, M. D. (2016). A STUDY ON THE EFFECT OF MACROECONOMIC VARIABLES ON INDIAN MUTUAL FUNDS. bangalore: Alliance Business Academy.
- [7] Gil-Lafuente, H. A. (2016). Studying of the Factors Affecting on the Mutual Fund by Individual Investor in Iran, Malaysia, Turkey and US. Modern Applied Science , 10, 218-231.
- [8] Hamid Reza Khedmatgozar, P. H. (2013). Mutual fund performance evaluation: a value efficiency analysis approach. International journal of Electronic Finance , 1-18.
- [9] Harsh Purohit, P. S. (2012). INDIAN MUTUAL FUND INDUSTRY AND THE VARIABLES INFLUENCING TO INVEST IN MUTUAL FUND MARKET: AN EMPIRICAL STUDY OF INVESTORS BEHAVIOUR. Indian Journal of Commerce & Management Studies , 3 (3).
- [10] Hümeýra BURUCU, F. Y. (2011). THE DYNAMICS BETWEEN MUTUAL FUNDS FLOWS AND STOCK RETURNS: EMPIRICAL EVIDENCE FROM THE TURKEY MARKETS. INTERNATIONAL JOURNAL OF ECONOMICS AND FINANCE STUDIES , 3, 95-109.
- [11] Ingrid-Mihaela Dragotă, D. T.-C. (2016). DETERMINANTS OF DEVELOPMENT OF THE MUTUAL FUND INDUSTRY. A SOCIO-CULTURAL APPROACH. PRAGUE ECONOMIC PAPERS, 25, pp. 476-493.
- [12] Júlio Lobão, A. L. (2016). The relation between mutual fund flows, stock returns and macroeconomic variables: evidence from Portugal. Portuguese Journal of Finance, Management and Accounting , 54-75.
- [13] KARIUKI, E. C. (2014). EFFECT OF MACRO ECONOMIC VARIABLES ON FINANCIAL PERFORMANCE OF MUTUAL FUNDS INDUSTRY IN KENYA. NAIROBI.
- [14] Khalid, A. M. (2017). Combining Macroeconomic Stability and Micro-based Growth: The South East Asia/Asia Pacific experience. The Lahore Journal of Economics , 135-152.
- [15] Kiran Kumar Kotha, B. S. (2016). Macroeconomic Factors and the Indian Stock Market: Exploring Long and Short Run Relationships. International Journal of Economics and Financial Issues , 1081-1091.
- [16] Kotishwar, A. (2017). Selected Economic Variables Impact on Mutual Fund Subscription and Redemption – A Study. International Journal of Applied Business and Economic Research , 15, 215-223.
- [17] Madan Sabnavis, V. M. (2019). Indian Mutual Funds Industry. careratings.
- [18] Ms. Sweta Goel, D. M. (2012). A REVIEW OF

PERFORMANCE INDICATORS OF MUTUAL FUNDS.

ResearchersWorld -Journal of Arts, Science & Commerce , 3 (4), 100-107.

- [19]Nair, R. K. (2014). Indian mutual fund market - A tool to stabilize Indian economy. International Journal of Scientific and Research Publications , 4 (11), 1-8.
- [20]Patel, S. (2012). The effect of Macroeconomic Determinants on the Performance of the Indian Stock Market. NMIMS Management Review , xxii, 117-127.
- [21]Priyanka Aggarwal, N. S. (2017). Impact of Macro Economic Variables of India and USA on Indian Stock Market. International Journal of Economics and Financial Issues , 7 (4), 10-14.
- [22]Ramazanpour, M. M. (2013). The Effect of Economic Factors on the Efficiency of Mutual Funds in Iran Seyedeh Javaneh Ahmadi Tulamy. Technical Journal of Engineering and Applied Sciences , 1707-1711.
- [23]Ruma Dey, S. B. (2015). FII, MUTUAL FUND AND SOME MACRO ECONOMIC VARIABLES: IS THERE ANY RELATIONSHIP IN PRESENT INDIAN CONTEXT? International Journal of Business and Administration Research Review , 298-304.
- [24]Sierra, J. (2012). Consumer Interest Rates and Retail Mutual Fund Flows. Ontario, Canada: Financial Markets Department , Bank of Canada.
- [25]SIREESHA, P. B. (2013). EFFECT OF SELECT MACRO ECONOMIC VARIABLES ON STOCK RETURNS IN INDIA. International Journal of Marketing, Financial Services & Management Research , 2, 197-209.
- [26]Song, F. K.-S. (2013). Determinants of mutual fund flows. Managerial Finance , 41 (1), 10-25.
- [27]Srinivasan Krishnamurthy, D. P. (2014). Inflation and equity mutual fund flows. North Carolina State University.
- [28]Sushil Kumar Gupta, D. A. (n.d.). IMPACTS OF ECONOMIC EVENTS ON PERFORMANCE OF MUTUAL FUNDS: EVIDENCE FROM INDIA. ELK Asia Pacific Journals , 1-17.
- [29]Tom Fong, A. S. (2017, August). DETERMINANTS OF MUTUAL FUND FLOWS TO HONG KONG EQUITIES. HONG KONG INSTITUTE FOR MONETARY RESEARCH. TuranG.Bali, S. , (2014). Macroeconomic risk and hedge fund returns. Journal of Financial Economics , 1-19.
- [30]Wayne E. Ferson, M. S. (2012). The factor structure of mutual fund flows. International Journal Portfolio Analysis and Management, 1, 112-143.
- [31]Yadav, P. R. (2014). Factors Affecting Selection, Performance, Opportunities and Challenges of Mutual Funds in India. Journal of General Management Research , 1 (2), 39-52.
- [32]Zu, Y. (2016). The Role of Mutual Funds in the Real Economy. Melbourne.
- [33]A. K. GIRI, P. J. (2017). THE IMPACT OF MACROECONOMIC INDICATORS ON INDIAN STOCK PRICES: AN EMPIRICAL ANALYSIS. Studies in Business and Economics no. 12(1)/2017. DE GRUYTER.
- [34]TuranG.Bali, S. , (2014). Macroeconomic risk and hedge fund returns. Journal of Financial Economics , 1-19.