



# INTERNATIONAL RESEARCH JOURNAL OF HUMANITIES AND INTERDISCIPLINARY STUDIES

( Peer-reviewed, Refereed, Indexed & Open Access Journal )

DOI : 03.2021-11278686

ISSN : 2582-8568

IMPACT FACTOR : 5.828 (SJIF 2022)

## Reckoning the Ascendancy of Current and Capital Account on Indian Stock Market

**Deepanshi Aggarwal**

Research Scholar,

Department of Commerce,

M. D. University, Rohtak (Haryana, India)

E-mail: [deepanshiaggarwal123@gmail.com](mailto:deepanshiaggarwal123@gmail.com)

DOI No. **03.2021-11278686** DOI Link :: <https://doi-ds.org/doilink/03.2022-98187641/IRJHISIC2203009>

### **Abstract:**

*The Stock market is often viewed as the measure of a nation's overall economic advancement. It is ordinarily contended that prices of the stock market and the real macro-economic elements are associated, to a larger extent in the emergent and evolving economies like India. So, the current study endeavors to consider the effect of current and capital account on the stock market prices of both Nifty50 and BSE100. The research is entirely dependent on secondary sources of information. For the data analysis, Correlation as well as Multiple Regression models were employed. The span of the study is from 2001 to 2020. After analysis, it is found that independent variables represent 69.9 percent variation in Nifty50 and 70.8 percent variation in BSE100 individually, which is significant. But Capital account is relatively far more substantial in elucidating the changes in both Nifty50 and BSE100 with B (Standardized value) .017 and .018 correspondingly. Additionally, the Capital account affects reasonably more to BSE100 with the  $\beta$  value .847 as compared to .842 in Nifty50.*

**Keywords:** Balance of Payment, Nifty, Macroeconomic variables, Current Account, Capital Account, BSE100.

### **Introduction:**

The Primary as well as Secondary or Stock Market are two crucial constituents of a resourceful capital market structure. The stock market is closely knotted with the economic lifecycle of a country. Devoid of a stock exchange, the community's savings – the robustness of economic advancement and productivity- would go unused and these services can only be provided proficiently by the stock market. Accordingly, it is no embellishment to state that stock markets are not only a convenience but an absolute need in today's industrial society. Thus resourceful capital market is necessary for economic growth and development.

A resourceful market is one in which entire available figures are quickly absorbed by all stakeholders and mirrored in stock market prices. It makes funds available for viable company operations while draining resources from companies that are not properly governed or manufacture outmoded items. India experienced a significant economic crisis in early 1991. The cause of this catastrophe may be traced back to sloppy macroeconomic administration, which resulted in huge and tenacious macroeconomic imbalances. This spectacle the importance of macro-economic elements and their stabilization for the good fortune of the country. Macroeconomic considerations govern the future of investment, as they reflect the richness of any economic system. As a result, stock prices are influenced by macroeconomic considerations in any nation's economy.

So, the current study endeavors to determine the extent of the effect of selected macroeconomic variables on the stock market prices of both Nifty50 and BSE100.

#### **REVIEW OF LITERATURE:**

**Sharma and Mahendru (2010)** in their research study scrutinized the relationship of BSE and macro-economic variables. The macro-economic variables chosen for this research study were exchange rate, inflation rate, foreign exchange reserves and gold price. The relationship between the independent and dependent variable is evaluated through the Multiple regression model and revealed that exchange rate and gold prices significantly affected the stock prices as compared to the other two independent variables.

**Subramanian (2015)** analyzed the relationship of BSE Sensex with Inflation, GDP, interest rate, index of industrial production etc. for the period Dec 2005 to June 2012 and concluded that all the macroeconomic variables chosen are affecting the BSE Sensex.

**Kumar and Rathee (2015)** in their research study analyzed the impact of balance of payment on the index of NSE and BSE. The research is entirely dependent on secondary sources of information. With the help of Correlation and Multiple Regression Analysis the data has been evaluated and concluded that the Current account is the principal independent variable of NSE. Moreover, the effect of the Capital account is considerable in the BSE100.

**Barakat, Elgazzar and Hanafy (2016)** in their study analyzed the influence of macro-economic variables of the stock market of Egypt and Tunisia. The macro-economic variables chosen for the study were: Interest rate, Inflation, exchange rate, money supply etc. for the period of Jan 1998 to Jan 2014. The study concluded that all the macro variables chosen for the study impacted the stock market index of Egypt but in the case of Tunisia only inflation didn't show any impact on the stock market.

**Garg and Kalra (2018)** in their study depicted the association amid selected macroeconomic variables and stock prices for the period 1991 to 2017. The macro-economic variable like the

Average Inflation rate, unemployment rate, exchange rate, GDP etc was selected. With the application of Correlation Analysis, the data has been evaluated and concluded that all macro-economic variables impacted positively expect Inflation and Unemployment rate on stock prices.

**Keswani and Wadhwa (2019)** in their research study scrutinized the influence of macro-economic variables on the Stock performance of BSE and NSE. The variables chosen for the study were disposable revenue, interest rates, government policies, exchange rate and inflation rate for the period 2006-2016. The influence was analyzed through Correlation Analysis, Regression Analysis as well as Granger Causality and showed that disposable income, government policy and exchange rate significantly impacted share prices.

**Damani and Damani (2020)** examined in their research study the influence of key macro elements on BSE. The selected elements were Money supply, RBI exchange rate, Gold prices, WPI, FII, fiscal deficit etc. from Jan 2016 to July 2019. Multiple Regression analysis was used to evaluate the data and revealed that gold price, exchange rate, FII, WPI and money supply are the major elements impacting BSE.

**Aziz, Marwat and Mustafa (2021)** in their research examined the association of the stock market and macro-economic factors of Pakistan. The factors chosen for the study were exchange rate, treasury bill rate, Industrial production and Inflation etc. for the period Jan 2011 to Nov 2017. Results of the study showed that Inflation and Money supply inversely affect the stock market whereas industrial production affects directly.

#### RESEARCH OBJECTIVES:

1. To analyze the effect of Current Account on Nifty50 and BSE100.
2. To analyze the effect of Capital Account on Nifty50 and BSE100.

#### RESEARCH HYPOTHESES:

Based on a review of literature and research objectives following null hypotheses are developed:

1. **HO1:** There is no statistically significant effect of the Current Account on Nifty50 and BSE100.
2. **HO2:** There is no statistically significant effect of Capital Account on Nifty50 and BSE100.

#### RESEARCH METHODOLOGY:

1. Selected Research Variables: Out of various macroeconomic variables, the present study focused on the Current Account and Capital account under Balance of Payment.
  - Current Account: It records all real receipts and payments in the short term. It contains the imports and exports of both visible and invisible items.
  - Capital Account: It records financial transfers. Example: International Capital Transfers, movement of gold, interests, grants, payments on private account etc.

Presently, two principal stock exchanges are:

- National Stock Exchange (NSE): Established in 1992. It is the initial exchange in India to come up with contemporary and entirely computerized electronic dealing. In the study stock index used for NSE is Nifty 50.
- Bombay Stock Exchange (BSE): Established in 1875, It is the oldest exchange in India. In the study stock index used for BSE is BSE100.

So, the present study is emphasized on both the stock exchanges.

2. The span of the study: The study has been conducted for the period 2001 to 2020.
3. Source of Data: The current study is entirely dependent on secondary sources of information.

The required data associated with current and capital account has been gathered from the:

- Handbook of Statistics
- Bulletin of Reserve Bank of India

Data regarding Nifty50 and BSE100 have been collected from the official websites of the National Stock Exchange and Bombay Stock Exchange.

4. Data Analytical Tools and Techniques: Correlation and Multiple Regression Models were applied to analyze the data.
  - "Correlation analysis deals with the association between two or more variables" (Simpson and Kafka). Similarly, an effort is made to evaluate the linkage of independent variables – Current and Capital Account and dependent variables – Nifty50 and BSE100.
  - Multiple regression states "Association between a criterion variable and two or more predictors variable" (Aron and Aron, 2003). In the same way, an attempt is made to inspect the effect of independent variables- Current and Capital Account on dependent variables- Nifty50 and BSE100.

#### DATA ANALYSIS AND INTERPRETATION:

- a. Multiple Regression Analysis of Predictor Variables on Nifty50
- b. Multiple Regression Analysis of Predictor Variables on BSE100.

Predictor Variables: Current and Capital Account

Outcome Variables: Nifty50 and BSE100.

**TABLE 1A- Descriptive Statistics**

	Mean	Std. Deviation	N
National Stock Exchange	6107.0375	3744.20464	20
Current Account	-105142.7500	188339.51115	20
Capital Account	288758.5000	185816.80527	20

(Researchers Calculation)

**TABLE 1B- Descriptive Statistics**

	Mean	Std. Deviation	N
Bombay Stock Exchange	6192.0220	3851.81637	20
Current Account	-105142.7500	188339.51115	20
Capital Account	288758.5000	185816.80527	20

(Researchers Calculation)

TABLE 1A and 1B represent the Descriptive statistics. Descriptive Statistics defines the traits of the data. Similarly, TABLE 1A and B show the Mean and Standard deviation of predictor as well as outcome variables i.e Current account, Capital account and National Stock Exchange Bombay Stock Exchange.

**TABLE 2A - Correlation**

		National Stock Exchange	Current Account	Capital Account
Correlation	National Stock Exchange	1.000	.001	.830
	Current Account	.001	1.000	-.117
	Capital Account	.830	-.117	1.000
Sig. (1-tailed)	National Stock Exchange	.	.499	.000
	Current Account	.499	.	.311
	Capital Account	.000	.311	.

(Researchers Calculation)

TABLE 2A demonstrates the coefficient of correlation. The value of correlation between NSE and Current Account is .001 in addition value of correlation between NSE and Capital Account is .830. The significant value between NSE and Current Account is .499 and between NSE and Capital Account is .000. These values conclude that the Correlation between NSE and the Current Account is Low, Positive and Not Significant whereas the Correlation between NSE and Capital Account is High, Positive and Significant.

**TABLE 2B- Correlation**

		Bombay Stock Exchange	Current Account	Capital Account
Pearson Correlation	Bombay Stock Exchange	1.000	.006	.835
	Current Account	.006	1.000	-.117
	Capital Account	.835	-.117	1.000
Sig. (1-tailed)	Bombay Stock Exchange	.	.490	.000
	Current Account	.490	.	.311
	Capital Account	.000	.311	.

(Researchers Calculation)

**TABLE 2B** demonstrates the coefficient of correlation. The value of correlation between BSE and Current Account is .006 in addition value of correlation between BSE and Capital Account is .835. The significant value between BSE and Current Account is .490 and between BSE and Capital Account is .000. These values conclude that the Correlation between BSE and the Current Account is Low, Positive and Not Significant whereas the Correlation between BSE and Capital Account is High, Positive and Significant.

**TABLE 3A- Model Summary**

Model	Value of R	Value of R <sup>2</sup>	Value of Adjusted R <sup>2</sup>	Standard. Error of the Estimate	Change Statistics				
					Value of R <sup>2</sup> Variation	Value of F Variation	df1	df2	Value of Sig. F Variation
1	.836 <sup>a</sup>	.699	.663	2172.49156	.699	19.718	2	17	.000

a. Predictors: (Constant), Capital Account, Current Account

b. Outcome Variable: National Stock Exchange

**(Researchers Calculation)**

**TABLE 3A** depicts Model Summary. Under it, R<sup>2</sup> value infers the total variation arises in the dependent variable due to independent variables (Predictors). The Value of R<sup>2</sup> equals .699 or 69.9 percent. It indicates 69.9 percent variation arises in NSE is due to Current and Capital Account.

**TABLE 3B- Model Summary**

Model	Value of R	Value of R <sup>2</sup>	Value of Adjusted R <sup>2</sup>	Standard Error of the Estimate	Change Statistics				
					Value of R <sup>2</sup> Variation	Value of F Variation	df1	df2	Value of Sig. F Variation
1	.841 <sup>a</sup>	.708	.673	2201.71596	.708	20.576	2	17	.000

a. Predictors: (Constant), Capital Account, Current Account

b. Outcome Variable: Bombay Stock Exchange

**(Researchers Calculation)**

**TABLE 3B** depicts Model Summary. Under it, the value of R<sup>2</sup> equals .708 or 70.8 percent. It indicates 70.8 percent variation arises in BSE is due to Current and Capital Account.

**TABLE 4A- ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	186127066.228	2	93063533.114	19.718	.000 <sup>b</sup>
Residual	80235232.817	17	4719719.577		
Total	266362299.044	19			

a. Dependent Variable: National Stock Exchange

b. Predictors: (Constant), Capital Account, Current Account

(Researchers Calculation)

TABLE 4A portrays ANOVA. The 'p-value of F- statistics in the last column is .000 which indicates that the value of  $R^2$  is significant. So, we can say that the model is substantial in forecasting the response variable (NSE).

TABLE 4B- ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	199484894.265	2	99742447.132	20.576	.000 <sup>b</sup>
Residual	82408403.859	17	4847553.168		
Total	281893298.124	19			

a. Dependent Variable: Bombay Stock Exchange

b. Predictors: (Constant), Capital Account, Current Account

(Researchers Calculation)

TABLE 4B portrays ANOVA. The 'p-value of F- statistics in the last column is .000 which indicates that the value of  $R^2$  is significant. So, we can say that the model is substantial in forecasting the response variable (BSE).

TABLE 5A- Coefficients

Model	Value of		Value of $\beta$	t	Sig.
	B	Std. Error			
(Constant)	1416.904	933.534		1.518	.147
Current Account	.002	.003	.099	.740	.469
Capital Account	.017	.003	.842	6.280	.000

a. Dependent Variable: National Stock Exchange

(Researchers Calculation)

TABLE 5A elucidates **the value of B (Unstandardized coefficient)** which depicts the contribution of every independent variable in affecting the dependent variable when the other independent variable is held constant.

- Current Account: The B value is .002 which indicates that with the increase in the value of the current account by 1 unit (1 Billion) NSE increases by .002 units only when the effect of the capital account is neutralized.
- Capital Account: The B value is .017 which indicates that with the increase in the value of

capital account by 1 unit (1 Billion) NSE increases by .017 units only when the effect of the current account is neutralized.

TABLE 5A also elucidates **the  $\beta$  (Standardized Value)** which clarifies the extent of deviation in S.D dependent variable in retort to one S.D deviation in the explanatory variable.

- **Current Account:** The  $\beta$  Value is .099 which directs that with the increase in the value of the current account by one S.D, NSE increases by .099 S.D only when the effect of the capital account is neutralized.
- **Capital Account:** The  $\beta$  Value is .842 which directs that with the increase in the value of capital account by one S.D, NSE increases by .842 S.D only when the effect of the current account is neutralized.

**TABLE 5B- Coefficients**

Model	Value of		Value of $\beta$	t	Sig.
	B	Std. Error			
(Constant)	1347.803	946.092		1.425	.172
Current Account	.002	.003	.105	.796	.437
Capital Account	.018	.003	.847	6.415	.000

a. Dependent Variable: Bombay Stock Exchange

(Researchers Calculation)

TABLE 5B elucidates **the value of B (Unstandardized coefficient)**.

- **Current Account:** The B value is .002 which indicates that with the increase in the value of the current account by 1 unit (1 Billion) BSE increases by .002 units only when the effect of the capital account is neutralized.
- **Capital Account:** The B value is .018 which indicates that with the increase in the value of capital account by 1 unit (1 Billion) BSE increases by .018 units only when the effect of the current account is neutralized.

TABLE 5B also elucidates **the  $\beta$  (Standardized Value)**.

- **Current Account:** The  $\beta$  Value is .105 which directs that with the increase in the value of the current account by one S.D, BSE increases by .105 S.D only when the effect of the capital account is neutralized.
- **Capital Account:** The  $\beta$  Value is .847 which directs that with the increase in the value of capital account by one S.D, BSE increases by .847 S.D only when the effect of the current account is neutralized.



### **HYPOTHESES TESTING:**

1. **HO1:** There is no statistically significant effect of the Current Account on Nifty50 and BSE100.  
The value of 'p' regarding the Current account in **TABLE 5A** is .469 and in **TABLE 5B** is .437 which is greater than .050. As a result, the proposition is accepted. Hereafter, it is determined that the Current account is not significantly affecting Nifty50 and BSE100.
2. **HO2:** There is no statistically significant effect of Capital Account on Nifty50 and BSE100.  
The value of 'p' regarding Capital account in **TABLE 5A** is .000 and in **TABLE 5B** is .000 which is lesser than .050. As a result, the proposition is not accepted. Hereafter, it is determined that the Capital account is significantly affecting Nifty50 and BSE100.

### **FINDINGS AND CONCLUSION:**

The study specified that independent variables represent 69.9 percent variation in Nifty50 and 70.8 percent variation in BSE100 individually, which is significant. But Capital account is relatively far more substantial in elucidating the changes in both Nifty50 and BSE100 with B (Standardized value) .017 and .018 correspondingly. Additionally, the Capital account affects reasonably more to BSE100 with the  $\beta$  value .847 as compared to .842 in Nifty50. Furthermore, if the selected independent variables are unchanged, other elements may affect the dependent variables to the extent of 1416.904 and 1347.803 units individually. Based on the above-mentioned, it is inferred that the Current account is not significantly impacting Nifty50 and BSE100 while the Capital account affects it significantly.

### **SUGGESTIONS:**

In light of the foregoing findings, it is suggested that the Indian government attempt to formulate plans and policies that can entice additional overseas funds equal to the ideal frontier, thereby initiating the procedure of further infrastructural growth of the country and flagging the way for rapid nation's advancement leading to the renovation of India into global economic supremacy proficient in providing the preferred level of commercial and societal amenities to its general public. Furthermore, the outcomes of this empirical examination disclose new-fangled figures that develop the visions of researchers, financiers and others. In addition, further macroeconomics elements which affect the stock market can be taken for novel study to provide an improved image of the macroeconomics viewpoint regarding stock market performance.

### **REFERENCES:**

1. Aziz, T., Marwat, J., & Mustafa, S. (2021). Macroeconomic Uncertainty and Stock Market Uncertainty: Some Further Evidence From Pakistan. *Review of Pacific Basin Financial Markets and Policies*, 2150014.
2. Barakat, M. R., Elgazzar, S. H., & Hanafy, K. M. (2016). Impact of macroeconomic variables

- on stock markets: Evidence from emerging markets. *International journal of economics and finance*, 8(1), 195-207.
3. Bhalla, V.K. (1982). *Investment Management: Security Analysis and Portfolio Management*. Eighteenth. S. Chand & Company Ltd.
  4. Damani, H., & Damani, M. (2020). Macro-Economic Variables & its Impact on Stock Market Prices. *International Journal of Advanced Science and Technology*, 29, 2553-2568.
  5. Garg, K., & Kalra, R. (2018). IMPACT OF MACROECONOMIC FACTORS ON INDIAN STOCK MARKET. *Parikalpana: KIIT Journal of Management*, 14(1).
  6. Keswani, S., & Wadhwa, B. (2019). Effect of macroeconomic variables on stock market: a conceptual study. *International Journal of Management, IT and Engineering*, 7(10), 85-106.
  7. Khana, P.O. & Jain, T.R. (2015). *Managerial Economics*. VK Global Publication Pvt. Ltd.
  8. Kumar, N., & Rathee, S. (2015). An Analytical Study of the Impact of Balance of Payment on Indian Stock Market. *PACIFIC BUSINESS REVIEW INTERNATIONAL*, 8(6), 10-16.
  9. Mishra Satpathy, I., Sahoo, A. P., & Patnaik, B. C. M. (2021). Impact of Macroeconomic Variables on Stock Market-A Study Between India And America. *European Journal of Molecular & Clinical Medicine*, 7(11), 4469-4486.
  10. Sharma, G. D., & Mahendru, M. (2010). Impact of macro-economic variables on stock prices in India. *Global Journal of Management and Business Research*, 10(7).
  11. Subramanian, M. (2015). A Study on Impact of macroeconomic variables in the stock market. *SSRG International journal of Economics and management Studies (SSRG-IJEMS)* vol, 2.

**WEBSITOLOGY:**

12. [www.bseindia](http://www.bseindia)
13. [www.nseindia](http://www.nseindia)
14. [www.rbi.gov.in](http://www.rbi.gov.in)
15. [www.investopedia.com](http://www.investopedia.com)