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Do Macro Economic Variables and Nifty 50 Move Together?

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Abstract

The stock market moves in contagion with many variables at macro level from the economy. The changing patterns and trends in inflation, interest rates, exchange rates and related parameters for an economy may create an impact on the stock market movements. In the present study, we have attempted to analyze that whether the macroeconomic variables (exchange rate, foreign direct investment, foreign exchange reserves, index of industrial production and wholesale price index) move in line with National Stock Exchange's index (Nifty 50). Johansen Co-integration analysis along with Vector Auto Regression model has been used on a monthly data from January 2009 to March 2018 to interpret the results. It ha s been found that there is no co-integration between the variables in the long run.

Keywords: Co-Integration, Macroeconomic, Nifty 50, VAR

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1. Introduction

Ross (1976) gave a theory known as Arbitrage Pricing Theory which stated that returns for a given variable may be influenced by macroeconomic variables in existence. In context to this relationship many researchers have attempted to gauge the long run and short run association between macroeconomic variables and stock market movements. Sadhu et. al (2013) found movement from stock market to oil prices but not vice versa in long run. Srivastava (2010) deduced that domestic macroeconomic variables (WPI and interest rates) were stronger than global factors in determining stock market movements. However, the results varied with different data sets and variety of macroeconomic parameters taken in various research studies. The behavior of stock market movements along with macroeconomic factors still has ample scope for research and many variables may still be inculcated to widen the horizon of study in this area. In the present study, five relevant parameters (exchange rates, foreign direct investment, foreign exchange reserves, index of industrial production, whole price index) have been taken with nifty 50 (as benchmark for stock market movement) to find out association between them in the long run.

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2. Review of Literature

Year of Study	Author (s)	Excerpts
2012	Elly & Oriwo	The study investigated using regression analysis impact of macroeconomic variables (lending rate, inflation rate, 91 days T-bills rate with Nairobi Stock Exchange index. There was a weak positive relationship between inflation and market performance. On the other hand 91 days T-bill depicted a negative correlation during March 2008–2012 (monthly).
2014	Srinivasan & Karthigai	The domestic gold prices were not found significant in forecasting stock prices in India. There was no causal linkage between gold prices and stock prices or vice versa in the short run. Using autoregressive distributed lag bounds testing approach and granger causality test from June 1990 to April 2014 (monthly) it was concluded that there were no significant association between variables.
2017	Aggarwal & Saqib	Nifty 50 was found to be significantly affected by US GDP, S&P 500, gold prices, Indian WPI, fiscal deficit and exchange rate. Multiple regression results from 2001–2016 (monthly) showed the impact of macroeconomic variables on the Indian stock market.
2010	Dharmaraj	S & P CNX Nifty index movements were found to be influenced by FIIs during 2006–2009 (monthly). However, the stock market volatility showed lesser impact from FIIs. Using linear regression model and Pearson correlation results were found indicating dependence. The study had broken the data into different structures based on bull phase, recessionary phase, swinging phase to name a few to minutely locate the impact of FIIs.
2011	Mishra & Singh	The study analyzed the data of monthly stock returns from BSE and NSE as dependent variables with inflation, exchange rate, IIP, FII and interest rates as independent factors. It was depicted that from November 1998 to July 2008 (monthly) Generalized Additive Model (GAM) was better fitted than OLS (Ordinary Least Square Method) for predicting returns of stock markets from the selected macroeconomic variables.
2008	Liu & Shrestha	Macroeconomic variables (money supply, industrial production, inflation, exchange rate and interest rates) were tested for co-integrating relationship between indices of China's stock market during January 1992 to December 2001 (monthly). It was found using JJ, OLS and GARCH model that the variables were move together in the long run. IP and MS had positive relationship but rest of the variables showed negative relationship.
2001	Lee et al.	Malaysian stock market was tested for both short and long run relationship with macroeconomic variables (interest rates, money supply, industrial production, inflation, exchange rates and trade balance). It was found that both stock market indexes was co-integrated with other variables in both short and long run using co-integration analysis (VAR model during 1987–1997.
2002	Gallagher & Taylor	The study analyzed stock price behavior with demand and supply macroeconomic shocks during 1949–1997 with appropriate structural breaks. VAR model had been used to conclude that the demand shocks resulted into temporary effects while supply side showed a permanent impact. .
1989	Schwert	The association between monthly stock returns with other variables (bond returns, inflation, interest rate, industrial production and money growth) were tested between 1857 to 1987 using squared standard deviations (similar to ARCH model). It was found that during the Great Depression (1929–1939) stock market volatility went unusually high.

3. Research Methodology

The present study has used secondary data on monthly basis for exchange rate, foreign direct investment, foreign exchange reserves, index of industrial production, wholesale price index and nifty 50 for testing association between them in the long run. The data of all variables has been taken from January 2009 to March 2018 from the websites of Reserve Bank of India, Department of Industrial Policy & Promotion and National Stock Exchange. Co-integration analysis may be applied with an assumption that the data is stationary at I(1), meaning that the data should be non-stationary at level and should turn stationary at first difference. So, as a preliminary condition unit root test was conducted with the help of Augmented Dickey Fuller test in eViews9 at level and at first difference (with intercept, trend and

without trend). After satisfying the assumption of data to be stationary at I(1), Johansen Co-integration analysis was carried on raw data (level) to find out long run association between variables. VAR model was applied at first difference of the data as there were no co-integrating vectors found between the models. Wald χ^2 was applied with significant co-efficient(s) found in regression model through VAR to test their co-movement in the short run.

4. Results and Findings

4.1 Unit Root Testing

The primary requirement for applying Johansen Co-integration analysis is that the data must be non-stationary at I(0). Augmented Dickey Fuller test has been used with the help of eViews9 in three conditions; intercept, with trend and without trend. Table 1 below depicts the results for unit root testing of all variables at level. (E stands for exchange rate, F stands for FDI, Fx stands for foreign exchange reserves, Iip stands for index of industrial production, N stands for Nifty 50 and wpi stands for wholesale price index).

4.1.1 Unit Root Statistics (Level)

The null hypothesis for the unit root test (ADF) stands as: *All data are stationary*. The test failed to reject null hypothesis in case of FDI (with intercept and with trend) but the same could not be accepted without trend. In case of foreign exchange reserves, the test again failed to reject null hypothesis (with trend). However, it stood rejected (with intercept and without trend). Further, in case of index of industrial production, the test failed to reject null hypothesis (without trend). But, the same was rejected (with intercept and with trend). Therefore, it may said for all the six variables in the study that the data are non-stationary at I(0). Hence, we go ahead with testing them at first difference; I(1) for unit root.

4.1.2 Unit Root Statistics (First Difference)

Table 2 shows the statistics related to unit root test (ADF) with first difference of data. It has been found in case of all variables that the null hypothesis could not be rejected (except for Iip with trend; taken to be stationary with intercept and without trend) at 5% level of significance. Hence, it may be inferred

Table 1. Augmented Dickey Fuller test results at level (significance level; 5%)

Variable	Intercept	p-value	Trend	p-value	Without Trend	p-value
E	−0.811048	0.811	−2.353455	0.401	0.991656	0.914
F	−5.80445	0.000*	−8.359008	0.000*	−0.288902	0.579
Fx	−0.35722	0.911	−4.290159	0.004*	2.146456	0.992
Iip	−2.823196	0.058	−2.819566	0.194	−2.017962	0.042*
N	−0.659986	0.851	−2.585133	0.288	2.525156	0.997
wpi	−1.319449	0.618	−1.026794	0.935	−0.311351	0.571

Table 2. Augmented Dickey Fuller test results at first difference (significance level; 5%)

Variable	Intercept	p-value	Trend	p-value	Without Trend	p-value
E	−8.053127	0.000*	−8.014953	0.000*	−7.9655516	0.000*
F	−8.418216	0.000*	−8.375606	0.000*	−8.443569	0.000*
Fx	−26.63194	0.000*	−7.125084	0.000*	−26.38579	0.000*
Iip	−3.184564	0.023*	−3.349395	0.064	−2.8753003	0.004*
N	−10.28759	0.000*	−10.23627	0.000*	−9.699465	0.000*
wpi	−10.16728	0.000*	−10.42218	0.000*	−10.21383	0.000*

Table 3. Johansen co-integration results

Hypo-thesized No. of CE(s)	Eigen Value	Trace Statistic	Critical Value	p-value
None	0.316965	104.0609	95.75366	0.011
At most 1	0.270977	64.41515	69.81889	0.125
At most 2	0.1506944	31.54592	47.85613	0.637
At most 3	0.076122	14.55906	29.79707	0.807
At most 4	0.050309	6.3248	15.49471	0.657
At most 5	0.09154	0.956434	3.841466	0.328

that all data were stationary at first difference; I(1) meaning that Co-integration analysis may be applied on data.

4.2 Co-Integration Statistics

The data at I(0) were opened in VAR window to locate the lag length criteria (2) for running the co-integration analysis. The null hypothesis for running Johansen co-integration stood as; *there is no co-integrating vector in the data sets*. Table 3 shows the Eigen values and trace statistics obtained from Johansen Co-integration analysis in eViews9. It may be observed from the p-values corresponding to co-efficient as reflected in the test that none of the vectors were found to be co-integrated. Therefore, the test failed to reject the null hypothesis. Hence, Vector Error Correction Model could not apply and Vector Auto Regressive Model was to be run.

4.3 VAR Model

Further, as no co-integrating vectors could be found with the help of Johansen co-integration test, VAR model was applied on the first difference of data. Estimating the output through VAR 78 co-efficient were found (Table 4) in different equations out of which 11 were found to be significant at 5% level of significance. These co-efficient further called for testing for whether they moved together in determining the dependent lags.

Table 4. Co-efficient from VAR model equations

Co-efficient	t-statistic	p-value	Co-efficient	t-statistic	p-value
C1	2.695	0.073	C40	−0.23	0.817
C2	−0.891	0.373	C41	0.23	0.818
C3	−1.424	0.154	C42	0.697	0.486
C4	0.269	0.788	C43	−0.231	0.818
C5	−0.551	0.581	C44*	−3.287	0.001
C6	0.651	0.515	C45*	−4.766	0.000
C7	−1.369	0.172	C46*	−4.046	0.001
C8	−0.883	0.378	C47*	−2.571	0.010
C9	−1.009	0.313	C48	−0.039	0.968
C10	0.251	0.802	C49	−1.241	0.215
C11	−0.385	0.700	C50	0.006	0.994
C12	1.256	0.209	C51	−0.252	0.801
C13	0.755	0.450	C52	0.345	0.730
C14	−0.957	0.339	C53	−1.082	0.279
C15	0.506	0.611	C54	−1.774	0.076
C16*	−4.912	0.000	C55	0.238	0.811
C17*	−2.437	0.015	C56	−1.051	0.293
C18	−0.055	0.956	C57	0.327	0.744
C19	−0.356	0.722	C58	−0.099	0.921
C20	0.141	0.888	C59	−0.838	0.402
C21	0.179	0.858	C60	−0.614	0.539
C22	−0.175	0.861	C61	−0.367	0.714
C23	−0.41	0.682	C62	−0.495	0.620
C24	0.351	0.726	C63	1.38	0.167
C25	−0.488	0.626	C64	−0.339	0.734
C26	0.468	0.639	C65*	1.975	0.049
C27	1.159	0.247	C66	−0.371	0.711
C28	−0.009	0.992	C67	0.385	0.700
C29	0.036	0.971	C68	−1.028	0.304
C30	0.29	0.772	C69	−0.918	0.359
C31*	−7.594	0.000	C70	0.011	0.991
C32	−0.722	0.471	C71	−0.619	0.536
C33	0.379	0.705	C72	−0.041	0.967
C34	−0.212	0.832	C73	−0.677	0.498
C35	0.07	0.944	C74*	2.229	0.026
C36	0.637	0.525	C75	−1.748	0.081
C37	−1.698	0.091	C76*	5.792	0.000
C38	0.655	0.513	C77	−0.972	0.331
C39	1.637	0.102	C78*	2.49	0.013

4.4 Wald χ^2 Statistics

Table 5. Wald χ^2 results

Test Statistic	Value	Df	p-value
Chi-square	183.633	11	0.000

The null hypothesis for testing the co-efficient found in VAR model stood as; all co-efficient moves in line for predicting the dependent lags. Table 5 shows the statistics for Wald χ^2 which had been run with 11 co-efficient shown with the help of VAR model. The p-value here in the test indicated that all the co-efficient which were reflected through VAR model have been found to be significant at 5% level of significance meaning that they all moved together in the short run.

5. Conclusion

In line with Srinivasan and Karthigan (2014); Kumari (2011); Siddiqui and Seth (2015) the study concludes that there is no long run association between the macro economic variables and stock index movements. However, in the short run there were some co-efficient found to be strong enough from exogenous variables which may be able to forecast the endogenous variables in the model. However, the study is not far from limitations.

It may be possible that the results may be better with structured breaks. Also, factors like gold and silver prices, oil prices, consumer price inflation etc. may be taken for further study.

6. References

1. Aggarwal Priyanka and Saqib Najia. Impact of macro economic variables of India and USA on Indian stock market. International Journal of Economics and Financial Issues, 2017; 7(4):10–14. http://www.econjournals.com/index.php/ijefi/article/view/4794.
2. Aijaz Urooj, Faisal Muhammad and Meraj Saad. Impact of oil and gold prices on stock market index, Journal of Business Strategies. 2016; 10(2):69–84. http://hdl.handle.net/123456789/665.
3. Al-Khazali M, Osamha and Soo Pyun Chong. Stock process and inflation: New evidence from the pacific basin countries. Review of Finance and Accounting. 2004; 22(2):123–40. https://link.springer.com/article/10.1023/B:REQU.0000015853.16564.e3.
4. Bahmani-Oskooee Mohsen and Saha Sujata. On the relation between stock prices and exchange rates: a review article, Journal of Economic Studies. 2015; 42(4):707–32. https://doi.org/10.1108/JES-03-2015-0043.
5. Chakrabarty Ranajit and Sarkar Asima. The effect of economic indicators on the volatility of Indian stock market: Using independent component regression, Journal of Contemporary Research in Management. 2013; 8(4):1–22. https://psgim.ac.in/journals/jcrm/article/view/260/250.
6. Das Niladri and Pattanayak JK. The Effect of Fundamental Factors on Indian Stock Market: A Case Study of Sensex and Nifty, The IUP Journal of Applied Finance. 2013; 19(2):84–99. https://ideas.repec.org/a/icf/icfjaf/v19y2013i2p84-99.html.
7. Dharmaraj C. Measuring the Impact of Foreign Institutional Investments on S&P CNX Nifty - A Pragmatic Study, Anvesha. 2003; 4(1):45–56.
8. Elly Ochieng Duncan and Oriwo Adhiambo Eunice. The relationship between macroeconomic variables and stock market performance in Kenya, DBA Africa Management Review. 2012; 3(1):38–49. https://www.researchgate.net/publication/325082981_The_relationship_Between_Macro_Economic_Variables_and_Stock_Market_Performance_in_Kenya.
9. Ewing T and Bradley. Macroeconomic news and the return of financial companies, Managerial and Decision Economics. 2002; 23(8), 439–446. https://doi.org/10.1002/mde.1093.
10. Gallagher Liam and Taylor P Mark. Permanent and Temporary components of stock prices: Evidences from assessing the macroeconomic shocks, Southern Economic Journal AIB/INFORM Collection. 2002; 62(2):345–62. https://doi.org/10.2307/1061676.
11. Gan Christopher, Lee Minsoo, Hua Hwa Au Yong and Zhang Jun. Macroeconomic Variables and Stock Market Interactions: New Zealand Evidence, Investment Management and Financial Innovations. 2006; 3(4):89–101. https://www.researchgate.net/profile/Minsoo_Lee2/publication/260752958_Macroeconomic_Variables_and_Stock_Market_Interactions_New_Zealand_Evidence/links/552f52df0cf2d495071aac58.pdf.
12. Habib Mohsina and Ul Islam Khalid. Impact of macroeconomic variables on islamic stock market returns: Evidence from NIFTY 50 Shariah Index, Journal of Commerce and Accounting Research. 2017; 6(1):37–44. http://www.publishingindia.com.
13. Indumathi M and Pakutharivu N.... A Study on the impact of volatility in exchange rate of Indian Rupee versus Dollar on Indian capital market. Summer Internship Society, Dec. 2013; IV(2):47–62.
14. Kumari Jyoti and Mahakud Jitendra. Relationship between conditional volatility of domestic macroeconomic factors and conditional stock market volatility: Some further evidence from India, Springer Japan, Asia-Pacific Finan Markets. 2014; 22:87–111. https://doi.org/10.1007/s10690-014-9194-7.
15. Kumari Jyoti. Stock returns and inflation in India: An empirical analysis. The IUP Journal of Monetary Economics. 2011; IX(2):39–75. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2510329.
16. Lee Lee Chong, Boon Tan Hui and Baharumshas Ahmad Zubaidi. The stock market, macroeconomic fundamentals and economic growth in Malaysia, Asia Pacific Journal of Economics and Business. 2001; 5(2):44–55. https://www.econbiz.de/Record/the-stock-market-macroeconomic-fundamentals-and-economic-growth-in-malaysia-chong-lee-lee/10001680466.
17. Liu Ming-Hua and Shrestha M Keshab. Analysis of the long-term relationship between macroeconomic variables and the Chinese stock market using heteroscedastic co- integration, Managerial Finance. 2008; 34(11):744–55. https://doi.org/10.1108/03074350810900479.
18. Mangala Deepa and Rani Anita. Revisiting the dynamic relationship between macroeconomic fundamentals and stock prices: An evidence from Indian stock market, International Journal of Financial Management. 2015; 5:53–63. https://doi.org/10.21863/ijfm/2015.5.3.017.
19. Minimol MC and Makesh KG. Effect of international financial flows on Indian stock market indices: A time series analysis, Splint International Journal of Professionals. 2017; 4(6):63–74. https://search.proquest.com/openview/220710f51bcb7fb7896889257abdeb35/1?pq-origsite=gscholar&cbl=2044944.
20. Mishra Sagarika and Singh Harminder. Do macro-economic variables explain stock-market returns? Evidence using a semi-parametric approach, Journal of Asset Management. 2011; 13(2):115–27. https://doi.org/10.1057/jam.2011.11
21. Panwar Vivek and Nidugala Ganesh. Indian Stock Market Reaction to Interest rate and Inflation announcements. 19th International Scientific Conference on Economic and Social Development Melbourne; 2017. p. 424–34.
22. Patel A Samveg. Causal relationship between stock market indices and gold price: Evidence from India. The IUP Journal of Applied Finance, 2013; 19(1):99-110. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2207807.
23. Schwert G William. Why does stock market volatility change over time? The Journal of Finance. 1989; XLIV(5):1015–152. https://doi.org/10.1111/j.1540-6261.1989.tb02647.x.

24. Siddiqui Saif and Seth Neha. Do global oil price changes affect indian stock market returns? Journal of Management and Public Policy. 2015; 6(2):29–41. https://doi.org/10.2139/ssrn.2695450.
25. Srinivasan P and Karthigai Prakasan. Gold price, stock price and exchange rate Nexus: The case of India. IUP Journal of Financial Risk Management, 2014; XI(3):52–63.
26. Srivastava Aman. Relevance of macro economic factors for the Indian stock market, Decision. 2010; 37(3):69–89. http://www.academia.edu/4064583/Relevance_of_Macro_Economic_factors_for_the_Indian.
27. Thenmozhi M and Srinivasan N. Co-movement of oil price, Exchange rate and stock Index of major oil Importing Countries: A Wallet Coherence Approach, The Journal of Developing Areas. 2015; 50(5):85–102. https://doi.org/10.1353/jda.2016.0036.

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"Do Macroeconomic Variables and Nifty 50 Move Together?"

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