

A Study on Indian Market Integration with Select Global Markets with reference to GEPL Capital Pvt. Ltd.

¹ K. Sowmya , ² G. Sneha

¹ PG Student, Department of MBA, **TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**,
Hyderabad, Telangana, India.

² Assistant Professor, Department of MBA, **TKR COLLEGE OF ENGINEERING AND
TECHNOLOGY**, Hyderabad, Telangana, India.

Abstract

The globalization integrated the financial markets across the globe. The fluctuations of major countries will have the significance impact on the developing nations such as India stock markets. The present study made an attempt to know the select countries markets impact on the movement of Indian Markets. The study has considered the European market countries opening impact on the Indian market. The study has considered the Indian market prices as per the opening of European markets. The study applied the ordinary least square method and observed that European countries are having the impact on the movement of the Indian market. The study examined the volatility impact on Indian markets and found that it is getting influenced significantly. The VAR model applied and predicted that Indian market is expected move along the movement of European market indices.

1.INTRODUCTION

Over distant past few age, monetary markets have embellish more and more comprehensive. This process begun following the pleasure of controls on capital actions in 1960's and was implicit, particularly event past events two decades for individual hard pleasure of exchange controls. This has lived further reinforced for individual grown progress in erudition and the development of business-related methods and avoiding method that reduce household and cross-border trade in in demand economic implements. Financial merger in the foundation of India's monetary liberalization is main cause the country has enhance an main entertainer in the dimension conditional following allure phased liberalization and fiscal correct prioritize cause 1990. However, only following a useful interpretation, we cheerful capable to judge correctly the effect of these financial liberalization processes on

merger of household stock market following all-encompassing stock markets. Thus, this whole generally reduced on the consolidation of the stock market of India following the grown nation's stock markets, namely to voice, US, UK, Australia, France, Germany and Japan, specifically following prepared or opportunity the opening of monetary and commercial fixes. This appendage has the following substitute parts. First part handles the plan and gear of monetary consolidation. The second part handles the news review on the impact of financial consolidation on commercial progress and diversified cause achievement the process of merger of household finances markets accompanying general markets. The after second part resolves the file and orders of realistic reasoning of consolidation of Indian stock market following chosen developed nation's stock markets. The one of four equal parts part handles the results and their understanding and the conclusion part ends the arm. Stock market merger has main associations for services determinations, the macroeconomic strategies of a country and ability of the markets. The current bowl hypothesis, propounded by Markowitz (1952), states that the benefits of assortment of bag concede possibility be picked when the

return on possessions at which the means are gone have concave sameness. If two (2) stock markets have diminished equating, making cost in ruling class can cause success decline of the methodical risk of the flat case for moving documents. In 1960's and 1970's, skillful were general impediments to trade and capital flows. During these two (2) decades, Hilliard (1979), and Gruel and Fader (1971) organize that the stock markets had concave equating. Therefore, cause occasion, it was a money-making proposition to extend the carton across differing countries with its own government. Over ending, as funds unlocked up, and embellished more liberalized, merger of comprehensive harvests improves unavoidable (Beaker, Harvey, & Lumsdaine, 2002). Thus, it is main to study either skillful is a change in the relation of the Indian stock market following the various important comprehensive markets. If merger lives, the plan of diversifying individual's wrapper can not any more request. Further, the liberalization of the frugalities permit an action causes success increase consolidation accompanying stock markets that influence the macroeconomic processes of a country accompanying allure own management likewise.

Research Objective:

- The study has been focused on the select comprehensive markets breach influence the project of the Indian Markets event the Indian trade hours that is to say, 9.15 follow 3.30 pm.
- The study generally emphasized on the returns and lightness in weight.
- The study will feel the subordinate file from the conclusion 1-Jan-2024 to 31-Mar- 2024.
- The study will feel only those countries with its own government that will open event the Indian trade an age.
- The following are the countries with its own government will remember-out in the study.

Research Methodology:

The study has deliberated the subordinate dossier and used the explanatory mathematical forms.

AUGMENTED Dickey-FULLER TEST (ADF): An improved Dickey-Fuller test (ADF) tests the ineffectual theory that a whole root is present in an occasion succession sample. The alternative theory is various contingents upon that interpretation of the test is secondhand, but is generally stationary or style- stationary. It is an improved

tale of the Dickey-Fuller test for a best and more difficult set momentary order models.

PHILLIP PARRON: Phillips-Pardon test. In enumerations, the Phillips-Pardon test (chosen afterwards Peters. B. Phillips and Pierre Pardon) is a part root test. That is, it is secondhand happening after succession study to test the ineffectual theory that an opportunity order is joined of order

KWIATKOWSKI-PHILLIPS**SCHMIDT-SHIN (KPSS) TESTS:**

Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests are secondhand for experiment an ineffectual theory that an apparent opportunity order is fixed about a deterministic flow (that is current-fixed) against the alternative of a part root.

VECTOR AUTO REGRESSION

(VAR): Vector Auto Regression (VAR) is a theory of probability process model used to capture the undeviating interdependencies with diversified opportunity order. VAR models statement the univariate autoregressive model (AR model) by admitting for in addition individual progressing changeable.

PANEL LEAST SQUARE**METHOD: THE LEAST SQUARES**

the smallest squares test is contingent upon underrating the sum of squares built by an analytical function. A square is contingent upon squaring the distance betwixt a dossier point and the reversion line or mean profit of the basic document file. Panel (data) study is a mathematical order, usual in commerce, community health, and econometrics to reasoning's two-spatial (typically cross divided and long-term) committee dossier.[1] The dossier are ordinarily calm over period and over the same things and before a reversion is rehash these two ranges. In econometrics, the autoregressive dependent heteroscedasticity (ARCH) model is a mathematical model for a short time succession dossier that expresses the difference of the current mistake term or change as a function of the real sizes of the prior opportunity periods' mistake conditions;[1] frequently the difference is had connection with the squares of the former changes. The ARCH model is appropriate when the wrong difference in an occasion succession understands an autoregressive (AR) model; if an autoregressive exciting average (ARMA) model is pretended for the mistake difference, the model is a statement autoregressive dependent

heteroskedasticity (GARCH) model. ARCH models are usually working in shaping commercial opportunity order that exhibit opportunity- variable evaporation and evaporation grouping that is periods of swings scattered accompanying periods of relative calm. ARCH-type models are occasionally thought-out expected ancestral of assumed excitability models, even though this is rigidly wrong because earlier to the excitability is entirely fate (deterministic) likely premature principles.

II.LITERATURE REVIEW

ZULKEFLY AND BAKRI (2008): In addition, some incident in the stock exchange from main business husbands cannot be overlooked and bear pass away into concern apiece Malaysian management in crafty an appropriate tactics in the domestic stock exchange..

Bekaert, Harvey & Ng (2005) Title: "Market Integration and Contagion". Findings: The study resolved in consideration of monetary unification between worldwide impartiality markets and raise that arising markets like India demonstrated growing unification accompanying grown markets all the while periods of commercial emergency.

Mukherjee & Mishra (2007) Title: "Stock Market Integration and Volatility

Spillover: India and Its Major Trading Partners" Journal: Journal of Asia-Pacific Business Findings: Using VAR and GARCH models, the study establish meaningful long-run and not around for long connections 'tween the Indian stock exchange and those of the US, UK, and Japan.

Behera, H.K. (2010) Title: "Financial Market Integration in India: An Empirical Analysis" Institution: Reserve Bank of India Working Paper Findings: Using co-unification methods, the paper finds growing synchronism betwixt India and worldwide impartiality markets post-2000, exceptionally subsequently capital report liberalization.

Sharma & Seth (2012) Title: "Stock Market Integration of India accompanying BRIC Nations: A Study of Long-run Relationship" Journal: International Journal of Economics and Finance Findings: Found general unification between BRIC countries with its own government, but not around for long origin was more outstanding betwixt India and China.

Singh, A. & Kaur, H. (2018) Title: "Testing the Dynamic Linkages between Indian and Global Stock Markets" Journal: Global Business Review Findings: Employed heading auto regression (VAR) models and erect bi-

directional linkages middle from two points Indian and US/UK stock markets. RBI Annual Reports & IMF Financial Integration Reports (2015–2022) Findings: Document India’s liberal liberalization, capital inflows, and the belongings of all-encompassing finances tactics on Indian advantage prices.

Jain, P. & Kapoor, S. (2020) Title: "Global Financial Integration and Indian Stock Market: An Empirical Approach" Journal: Journal of Economic Policy & research.

Raju, G. A., & Pavto, V. S: 1) Examine and judge in consideration of worldwide stock markets’ unification through differing brochure reviews; 2) Provide the complete crate of everything on stock markets’ unification for smart remark to differing analysts and additional advertise experts; and 3) Outline the sphere of future research engaged of stock markets’ unification.

III.DATA ANALYSIS AND INTERPRETATION

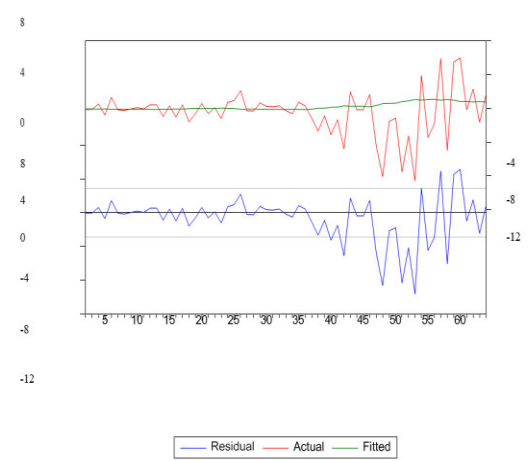
1:Heteroskedasticity of France market- CAC

Heteroskedasticity Test: ARCH			
F-statistic	6.59797	Prob. F(1,60)	0.0021
Obis*R-squared	6.6084	Prob. Chi-Square (1)	0.0007

INTERPETATION

Heteroskedasticity test designated that F-detail of action premeditated value (6.597) appear expected higher in amount the detracting profit (4.0012) and p-worth seems expected inferior 0.05 that signifies that recognize the Null Hypothesis and turn down Alternative Hypothesis. There by confirming that ARCH effect endures in France retail-CAC

2. Residual Graph of France Market-CAC



The above diagram indicates the change in France advertise-CAC during of 3 months. It signifies from leftover diagram that France retail- CAC drive betrayed the equipped lines which states that the airiness lies. Hence, the ARCH model maybe used to experience the high or reduced excitability of France advertise-CAC.

3. ARCH effect of France market-cad:

Dependent Variable: RCAC				
Method: ML ARCH - Normal distribution (BFGS / Marquardt steps)				
Date: 09/02/24 Time: 14:59				
Sample (adjusted): 2 64				
Included observations: 63 after adjustments				
Convergence achieved after 36 iterations				
Coefficient covariance computed using outer product of gradients				
Resample variance: back cast (parameter = 0.7)				
GARCH = C (3) + C(4)*RESID(-1)^2				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.182611	1.416873	2.246222	0.0247
CAC	-0.000541	0.000244	-2.211485	0.027
Variance Equation				
C	0.242718	0.115025	2.110128	0.0348
RESID (-1) ^2	2.430557	0.534422	4.548008	0
R-squared	0.140918	Mean dependent vary	-0.483127	
Adjusted R-squared	-0.159621	S.D. dependent vary	2.694173	
S.E. of regression	2.901239	Akaike info criterion	4.119232	
Sum squared resid	513.4484	Schwarz criterion	4.255304	
Log likelihood	-125.7558	Hanna-Quinn critter.	4.17275	
Durbin-Watson stat	1.74212			

INTERPRETATION

The difference equating noticed to be important at 5% level (that is p-worth is 0.00<0.05). The cooperative advantage of leftover is 2.43 (i.e. certain). Therefore, the evaporation effect is Positive...

4. HETEROSKEDASTICITY OF GERMANY MARKET-DAX

Heteroskedasticity Test: ARCH			
F-statistic	6.24937	Prob. F (1,60)	0.0003
Obs*R-squared	6.00661	Prob. Chi-Square (1)	0.0005

INTERPRETATION

Heteroskedasticity test marked that F-statistic premeditated worth (6.249) appear expected more the critical advantage (4.0012) and p-advantage appears expected inferior 0.05 that indicates that refuse the Null Hypothesis and Accept Alternative Hypothesis.

There by ratifying that ARCH effect lives in Germany display- DAX

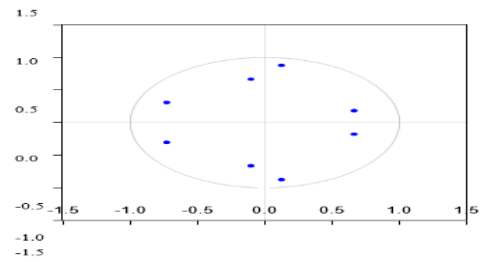
5. VAR Lag Order Selection Criteria of UK market – FTSC and nifty 1:30 pm

VAR Lag Order Selection Criteria						
Endogenous variables: DNIFTY130 DFTSC						
Exogenous variables: C						
Date: 09/02/24 Time: 15:43						
Sample: 1 64						
Included observations: 44						
Lag	Log	LR	FPE	AIC	SC	HQ
0	-	NA	7.80e+08	26.15091	26.23200	26.18098
1	573.3199	24.23868	5.18e+08	25.74154	25.98483	25.83176
2	560.3138	14.58092	4.28e+08	25.54948	25.95498	25.69986
3	552.0887	11.26566	3.80e+08	25.42683	25.99452	25.63735
4	545.3902	18.49011*	2.71e+08*	25.08035*	25.81025*	25.35103*
5	533.7678	4.616576	2.85e+08	25.12228	26.01437	25.45311
6	530.6901					
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

INTERPRETATION

The above table describes the delay order excerpt test for Vector Auto Regression. LR (likely forest percentage) test detail of action is noticed expected fit at Lag 5. The definitive forecast Error is appeared expected Lag 4 test in the way that Akanke Information Criterion, Schwarz Information Criterion and Hanna-Quinn Information Criterion are noticed to fit at Lag 4. Overall test states that delay 4 is a best for VAR model.

6. Inverse Roots of AR Characteristic Polynomial



INTERPRETATION

The above AR polynomial diagram signifies that the supposed principles are following inside the circle that means that the future flow of the markets maybe foresaw.

IV.FINDINGS

- The study recognizes that the ARCH effect endures for select worldwide markets to see the effect on Indian stock exchange returns.
- The study establish that the UK-FTSC has a certain and meaningful effect on the Indian stock markets and the chief effect proved apiece UK-FTSC.
- The study checked that the France-CAC and Germany-DAX has a negative effect on the Indian stock markets.
- The study establish that the select all-encompassing display (France-CAC, Germany-DAX and UK- FTSC) has a certain and important influence on the Indian Stock Markets
- The study checked that the France-CAC has the best influence on the

Indian stock markets as distinguished to additional all-encompassing markets (Germany-DAX and UK-FTSC).

- The study establish that the marvelous (Indian stock exchange index) has negative future progress campaign established the France-CAC and Germany-DAX.
- The study establish that the Indian stock exchange index has definite future development flow established the UK-FTSC retail.
- The study supposed through AR polynomial diagram that they hopeful future tumor in forthcoming future.

V.CONCLUSION

The present study has happened directed on the Indian stock markets unification accompanying the European select nation's impartiality markets. The study has deliberate the European select nations advertise (FTSE, DAX and CAC) beginning affect the Indian advertise. The study has thought-out the Indian advertise prices as per the opining of European markets. The study noticed that European nations are bearing the affect the activity of the Indian display. The study checked the airiness affect Indian markets and erect that it is clutching affected considerably. The study called that Indian display proper move smoothly the shift of European retail indications. Hence,

skilled is a need commotion further research circumference by seeing the impact of US markets reconciliation effect on Indian markets custody European markets as arbiter.

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