

“The Impact of Emerging and Developed Stock Markets on the Performance of the Nigerian Stock Exchange”

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ABSTRACT

Towards the end of the fourth quarter in 2007, the Nigerian Stock market witnessed a steady rise. Globally however, this period was the beginning of a recession. In the first week of March 2008 the All Share Index of the Nigerian Stock Exchange (NSE) reached a peak at 66,370.2 points. By April 3rd 2009, the index had collapsed by 69.94%: a trend that was also experienced in other emerging. This study examined the impact of emerging and developed stock markets on the performance of the Nigerian stock exchange in the context of the global economic crisis. For this purpose, five day weekly data were collected from 10th December 2007 to 3rd April 2009. The data were stock market closing indices collected for three African Emerging markets (South Africa, Egypt and Tunisia) and three developed stock markets (US, UK and Japan) from online secondary sources. The Autoregressive Distributed Lag (ADL) model adapted from Marashdeh, 2005 was estimated to analyze the impact of the selected stock markets on the Nigerian Stock Exchange. For the emerging stock markets, it was found that, besides the Tunisian stock market, the Egyptian stock market (and to an extent the South African stock market) had a possibility of spreading market disturbances to the Nigerian stock Exchange. For the developed stock markets, evidence was found that the UK market could have adverse contagious effect on the Nigerian stock exchange while the Japanese stock market may not. For the US, the evidence found was unstable.

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1. INTRODUCTION

In the 1980s, many emerging markets' opened their stock market to foreign investors. By the 1990s, most of these countries in Asia, Latin America and Russia faced severe financial crises (see Yang *et al*, 2002 for instance on stock market integration and financial crises: the case of Asia). These events have helped in stimulating a debate about the benefits of stock market integration and more generally the debate about the benefits of globalization (see Stiglitz, 2002).

The global economic melt down which originated from *Developed Markets* towards the beginning of the fourth quarter in 2007, has continued to have wide spread impact on *Emerging markets* across the globe and the *stock market* is not left out. Available data showed that between 5th March 2008 and 3rd April 2009, the All Share index of the Nigerian Stock Exchange (NSE) dropped from 66,370.2 to 19,954.15 points: a decline of 69.94% in just one year. The sharp decline is reflective of the declines in major stock markets in the same period and calls for investigations of the effects of stock market integrations on the NSE.

The objective of the study is to evaluate the impact of emerging and developed Stock Markets on the Nigerian Stock Exchange. The study is organized into five (5) sections. Section one presents the introduction of the study, while section two presents the conceptualization, theoretical and empirical literature review. In section three, the research methodology is presented and the analysis and interpretation of the result are presented in the fourth section. Finally, section five presents the summary and conclusion.

2. REVIEW OF LITERATURE

2.1 Conceptualization

Collins and Biekpe (2004) in their study conceptualized Emerging Stock Markets using five indices: market capitalization ratio to GDP, market value traded as a ratio to GDP, market turnover, number of listed companies and the IFCI (International Finance Corporation Investibles) composite index. They noted that emerging stock markets are markets that are dynamic and have increasing possibilities of improving upon the five indices earlier mentioned closer to those of the Developed Stock Markets. The following African countries were listed as having stock markets that are emerging: Egypt, Ghana, Kenya, Nigeria, South Africa and Tunisia. Recent data from IFCI fact book confirms the position of these African Stock markets as Emerging.

According to Cerny (2004), a developed stock market for short, is any Stock Market that is known to drive (or influence to a great extent) the activities of other stock markets across the globe. Cerny identified these markets to include the US stock market, the UK stock market and Asian (i.e the Japanese) stock market. He provided evidence that the Asian stock markets opens first, followed by the European stock markets and then the US market. These markets are known to be highly capitalized and very volatile.

In looking at the cause of the global financial crisis of 2007 – 2009 (as it is often referred), Wikipedia.org offers the following explanation: “The **financial crisis of 2007–2009**, often referred to as "the credit crunch" or "credit crisis", began in July 2007 when a loss of confidence by investors in the value of securitized mortgages in the United States resulted in a liquidity crisis that prompted a substantial injection of capital into financial markets by the United States Federal Reserve, Bank of England and the European Central Bank. The TED spread, an indicator of perceived credit risk

in the general economy, spiked up in July 2007, remained volatile for a year, then spiked even higher in September 2008, reaching a record 4.65% on October 10, 2008. In September 2008, the crisis deepened, as stock markets world-wide crashed and entered a period of high volatility, and a considerable number of banks, mortgage lenders and insurance companies failed in the following weeks”.

2.2 THEORETICAL LITERATURE

2.2.1 The Vector Autoregression (VAR) Model

The VAR system rests on the general proposition that economic variables tend to move together over time and also to be autocorrelated (Johnston and DiNardo, 1997). The VAR is commonly used for forecasting systems of interrelated time series and analyzing the dynamic impact of random disturbances on the system of variables. The VAR approach side steps the need for structural modeling by modeling every endogenous variable in the system as a function of the lagged values of all the endogenous variables in the system.

The mathematical form of a VAR is:

$$y_t = A_1 y_{t-1} + \dots + A_p y_{t-p} + B x_t + \varepsilon_t \quad 2.1$$

where y_t is a k vector of endogenous variables, x_t is a d vector of exogenous variables, A_1, \dots, A_p and B are matrices of coefficients to be estimated, and ε_t is a vector of innovations that may be contemporaneously correlated with their own lagged values and uncorrelated with all of the RHS variables. The VAR model however does not model the influence of current x_t on y_t . it only models the influence of past values of x (i.e lagged values of x) on y .

2.2.2 Autoregressive Distributed Lag (ADL) Model

The ADL model focuses on the relation of a dependent variable y_t on its lagged values and current and lagged values of one or more explanatory variables.

The simplest example of an ADL scheme is:

$$y_t = m + \alpha_1 y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + \varepsilon_t \quad 2.2$$

Here the current value of y depends on the current and all previous values of x and ε .

Alternatively, this relation shows that the current value of x has an effect on the current and future values of y . The ADL (p,q) scheme gives a richer lag structure that still retains the specification of just one explanatory variable:

2.3 EMPIRICAL LITERATURE

Kolari and Min (2002), examined the long- run relationship and short-run dynamic among the US, Japanese and 10 Asian stock markets with particular attention to the 1997- 1998 Asian financial crisis. The study employed Vector Auto regression (VAR) technique of the generalized impulse response analysis to estimate short-run dynamic causal linkages across stock markets. The data consist of daily stock index closing prices of two developed stock markets and ten Asian emerging markets (Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand, Taiwan and US). The sample period is from 2nd January 1995 to 15th May 2001 (i.e 1662 daily observation). The study found that in Asia both long-run cointegration relationships and short run causal linkages among these markets strengthened during the financial crisis than before the crisis. And that these markets have generally been more integrated after the crisis than before the crisis. The study also found that the U.S stock market exerted substantial influence on most Asian stock markets in all three sample periods. They conclude that the degree

of integration among countries tends to change overtime, especially around periods marked by financial crises.

In another study, Click and Plummer (2003) examined stock market integration in Indonesia, Malaysia, the Philippines, Singapore and Thailand (these five countries are the original member of the Association of Southeast Asian Nations and now includes Brunei, Cambodia, Laos, Myanmar and Vietnam) in the aftermath of the Asian financial crises. The paper specifically considered whether these five ASEAN countries are cointegrated. Using daily stock index data in local currency from 1st July 1998 through 31st December 2002 (i.e. 1175 observations), the empirical results showed that ASEAN were cointegrated after the Asian financial crisis. And that, the results are consistent whether daily data or weekly data are used or, whether analyzed in local currency, the US dollar or the Japanese Yen. This finding brings to focus that such studies could be done using index denominated in local currency or dollar denominated and the findings would still yield very close results.

Marashdeh (2005) examined the linkages among four emerging stock markets in the MENA region (namely Egypt, Turkey, Jordan and Morocco) with developed stock markets represented by the US, UK and Germany stock markets. The study employed monthly stock market data covering 115 months for the period Dec 1994 to June 2004. The stock prices were expressed in local currencies. The Augmented Distributed Lag (ADL) model was adopted to evaluate the impact of these stock markets on one another. Using Egypt as a dependent variable, the study found that U.S and U.K markets have significant influence on the MENA stock markets as well as having a significant long run relationship with the Egyptian stock market. When Turkey was used as a dependent variable, it was found that Egypt and Morocco had a significant influence on Turkey. For Jordan, only Egypt and Turkey had long-run impact on the Jordanian bourse. Lastly for Morocco, the results showed that both

Egypt and Turkey have long-run impacts on Morocco. However it was found that the stock market in Turkey affected the stock market in Morocco negatively.

Williams (2008) examined the fluctuation of prices on the Nigerian stock exchange from 31 December 2007 to 5 September 2008. The focus of the paper was to examine the influence of US stock market (DJIA), Japan (NIKKEI) and South Africa (JSE) on the Nigerian stock exchange (NSI). The study which employed Autoregressive Distributed lag model found that the JSE and the NIKKEI do not significantly explain the variation in the NSI and that the DJIA at lag four positively influenced 3.7 percent of the variation in the NSI. The granger causality test provided evidence of a short run two – way relationship between the NSI and the DJIA. The major strength of the study is that it provides an empirical evidence for the use of the autoregressive distributed lag model in modeling how other stock markets can influence the performance of the Nigerian stock exchange.

This paper therefore builds on the study of Marashdeh (2005) and Williams (2008) by including Nigeria in the model and extending the sample size over the period of the recent global financial crisis. It further employs cointegration test to examine whether the Nigerian stock exchange is integrated with the selected stock markets.

3. RESEARCH METHODOLOGY

To conduct this study, secondary data was collected on a 5-day weekly basis for Nigeria's All Share Index along side three emerging stock markets (i.e. Case30-Egypt, Tunindex-Tunisia, and JSE -South Africa); and United States (Dow Jones Industrial Average-DJIA), United Kingdom (FTSE 100) and Asian stock market(s) (NIKKEI 225), from www.sbaresearch.com (for Nigeria, Tunisia and Egypt), www.reuters.com (for US, UK and Asia) and www.jse.co.za (for JSE). Other sources of data include BBC website/news, www.nigerianstockexchange.com, JSE website, *the Economist* magazine, CNN news and Nigerian dailies. The stock prices were closing prices and were local currency denominated. The five-day weekly data were collected from 10th December 2007 to 3rd April 2009 i.e. a sample size of 345 days (or 68 weeks). The choice of 5-day weekly data was because the Nigerian stock market operates on a 5-day (Monday to Friday) basis.

3.1 RESEARCH HYPOTHESIS

The following hypotheses was tested as a means of carrying out the objectives of the study

Hypothesis One:

H₀: Emerging Stock Markets do not significantly explain the price movement in the Nigerian stock Market

Hypothesis Two:

H₀: Developed Stock Markets do not significantly explain the price movement in the Nigerian stock Market

3.2 MODEL SPECIFICATION

To test these hypotheses, the study employed the Autoregressive Distributed Lag (ADL) framework adapted from Marashdeh (2005) and Williams (2008). The ADL model is specified as follows:

$$NSE_t = C + \alpha_1 NSE_{t-1} + \dots + \alpha_n NSE_{t-k} + \beta_0 JSE_t + \beta_1 JSE_{t-1} + \dots + \beta_n JSE_{t-k} + \Phi_0 TNSE_t + \Phi_1 TNSE_{t-1} + \dots + \Phi_n TNSE_{t-k} + P_0 CASE_t + P_1 CASE_{t-1} + \dots + P_n CASE_{t-k} + \varepsilon_t \quad (3.1)$$

$$NSE_t = C + \alpha_1 NSE_{t-1} + \dots + \alpha_n NSE_{t-k} + g_0 FTSE_t + g_1 FTSE_{t-1} + \dots + g_n FTSE_{t-k} + h_0 DOW_t + h_1 DOW_{t-1} + \dots + h_n DOW_{t-k} + k_0 NIKKEI_t + k_1 NIKKEI_{t-1} + \dots + k_n NIKKEI_{t-k} + v_t \quad (3.2)$$

Emerging markets = JSE, TNSE and CASE (i.e. S/Africa, Tunisia and Egypt respectively). Developed markets = DOW, FTSE, and NIKKEI (i.e. United States, United Kingdom and Japan respectively). ε_t and v_t are their residuals respectively. While α_n , β_n , Φ_n , P_n , g_n , h_n and k_n are parameters to be estimated, \mathbf{m} and \mathbf{f} represents the intercept (i.e the transformed mean of NS) of the model. The Scharwtz information criterion was used to determine the lag length.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Impact of Emerging and Developed Stock Markets on the NSE

To determine the extent to which emerging and developed stock markets influences the performance of the NSE, the ADL model is applied.

For the emerging markets, the estimation of the impact of Emerging Stock markets on the NSE showed that only the Egyptian bourse (CASE 30) at lag 4 significantly explained the variation in the NSE (but significant only at 10% level). The R^2 Adjusted was found to be 14.59% and the DW statistics showed no evidence of autocorrelation. Generally, the Emerging markets significantly explain the variation in the NSE as the F-stat indicates that the model has a goodness of fit at 5% level. The Eviews result is presented in table 3.1 of the appendix:

The model was then re-estimated (after excluding the non statistically significant variables). The R^2 Adjusted improved by 2.4% to 16.99%. The CASE index then became significant at 5% level, while the DW value of 2.002 confirms that there is no serial correlation among the residual of the independent variables. Generally, the F-stat was found to be 24.14 with a probability value of 0.000. This implied that information spilling out of the Egyptian bourse four days ago significantly and positively explains current variation of NSE. The model in equation form is shown below:

$$NSE_t = -40.68 + 0.323NSE_{t-1} + 0.147NSE_{t-2} + 0.346CASE_{t-4} \text{ ----- reduced (3.1)}$$

P value (0.0000) (0.0062) (0.0483)

T-stat (6.02) (2.75) (1.98)

DW = 2.002, R^2 Adjusted = 16.99, F-Stat = 24.14 (*p value is 0.000*)

The estimation for the impact of the developed markets (when lagged to 5) on the Nigerian Stock Market; showed that NSE_{t-1} , NSE_{t-2} , $FTSE_t$, $NIKKEI_{t-2}$ and $NIKKEI_{t-5}$ significantly explain present variation of NSE going by their individual t-statistics. Generally, the f-stat showed that the model had a goodness of fit as the computed F- value was significant at 5%. The R-Square however was low as R-Squared adjusted value was 16.4%. The Durbin Watson Statistics value was about 2 (precisely 1.997) indicating that there is no serial or autocorrelation. The result is presented in table 3.1 of the appendix:

The model was then re-estimated after dropping the insignificant parameters. Though the R-Square improved to 17.8%, the NIKKEI index became insignificant. The summarized model is presented below:

$$NSE_t = -40.26 + 0.331NSE_{t-1} + 0.159NSE_{t-2} + 0.707FTSE_t + 0.156NIKKEI_{t-2} + 0.162NIKKEI_{t-5} \quad (3.2)$$

<i>p-value</i>	(000)	(0.0032	(0.012)	(0.167)	(0.148)
<i>t-stat</i>	(6.17)	(2.96)	(2.53)	(1.38)	(1.45)

R^2 Adjusted = 17.8%, DW = 1.985, F – stat = 15.66 (p value 0.000)

The model showed that the information/ market news that spills out of the NSE two days ago is significant in explaining its present performance. The result is significant at 5% level as the t-stat computed values were greater than their tabulated values at 5% level.

Current information spilling out of the FTSE index was also found to significantly explain the current variation of the NSE. The result was as well significant at 5% as the t- computed value is greater than the t- tabulated value at 5% level.

The NIKKEI index however failed the significant test at 5% level of significant going by its individual t-statistic.

The entire index however positively impacts on the NSE and they generally had a goodness of fit as shown by the computed F-statistics of about 15.66 (which is significant at 5% level). The Durbin – Watson (DW) statistic was also about 2 (i.e. 1.985) implying that, the indices are not serially correlated.

4.2 Test of the Hypotheses

The two hypotheses tested in this study are presented below:

Table 4.4.1: Hypothesis One

Hypothesis One	F- calculated	F- tabulated	F - pvalue	Critical value
F – statistic values	3.509	1.88	0.000	0.05
H₀ : Emerging Stock Markets do not significantly explain the price movement in the Nigerian stock Market	H₀ (null hypothesis) REJECTED			
H₁ : Emerging Stock Markets significantly explain the price movement in the Nigerian stock Market	H₁ (alternative Hypothesis) ACCEPTED			

Source: Researcher's computation

The result implied that emerging stock markets significantly explained the price movement observed in the Nigerian stock exchange over the sample period.

Table 4.4.2: Hypothesis Two

Hypothesis Two	F- calculated	F- tabulated	F - pvalue	Critical value
F – statistic values	3.889	1.88	0.000	0.05
H₀ : Developed Stock Markets do not significantly explain the price movement in the Nigerian stock Market	H₀ (null hypothesis) REJECTED			
H₁ : Developed Stock Markets significantly explain the price movement in the Nigerian stock Market	H₁ (alternative Hypothesis) ACCEPTED			

Source: Researcher's computation

The result also implied that developed stock markets significantly explained the price movement observed in the Nigerian stock exchange over the sample period.

5. SUMMARY AND CONCLUSION

The recent global economic melt down has adverse effect on national economies brought about by the inter linkages of markets. The literature suggests that, as a subset of the financial market, the stock market can be a source of contagion. This study evaluated the impact of emerging and developed stock markets on the Nigerian stock market. The aim was to suggest the pattern of integration that would minimize shocks to the Nigerian economy through the stock market.

The Autoregressive Distributed Lag (ADL) model was applied to estimate the impact of the emerging and developed stock markets on the Nigerian stock market. For the emerging markets it was found that the Egyptian stock market influenced the Nigerian stock market significantly at lag 4. Though the model had a general goodness of fit, the South African and Tunisian markets were not significant at their individual t-statistics level.

For the developed stock markets, it was found from that the developed stock markets significantly explained the variation of the Nigerian stock market. By the individual t-statistics however, only the UK and Japanese stock market were found to be significant. Dropping the insignificant variables and re-estimating the ADL model in a reduced form, showed that only the UK stock market (at its current value) significantly explain the price movement of the Nigerian stock market.

The implication for Nigeria's stock market integration with the African emerging markets is that while the Egyptian market can influence the NSE in the short run, volatility from the South African JSE can be transmitted to the NSE through the CASE index.

On the other hand, the major implication for Nigeria's stock market integration with the developed stock markets is that while shocks from the UK FTSE100 would spread almost immediately to Nigeria through the Stock Exchange, shocks from Japan would exercise little delay of up to two or five days. The issue of contagion from the FTSE would therefore be considered more seriously than that from the Japanese NIKKEI 225 index. Evidence from the U.S Dow Jones was mixed.

The interconnection of global financial markets has consequences for national economies. This study evaluated the impact of emerging and developed stock markets on the Nigerian stock exchange in the context of the global financial crisis. The study found that the recent down ward fluctuation experienced by the Nigerian stock market was to an extent explained by the linkage of the NSE with selected African emerging and developed stock markets. The study concluded that integration of the Nigerian stock exchange to both emerging/developed stock markets is associated with possibilities of adverse and positive contagion. Hence, caution should be applied by individual/institutional investors when investing in the stock market.

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APPENDIX

Table 3.1: ADL Model of Emerging Stock markets on the NSE: Estimated (3.1)

Dependent Variable: D(NSE)

Method: Least Squares

Sample(adjusted): 12/18/2007 4/03/2009

Included observations: 339 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-49.39213	32.72653	-1.509238	0.1322
D(NSE(-1))	0.317212	0.056169	5.647505	0.0000
D(NSE(-2))	0.175570	0.058767	2.987537	0.0030
D(NSE(-3))	-0.011311	0.059518	-0.190040	0.8494
D(NSE(-4))	-0.065898	0.058844	-1.119867	0.2636
D(NSE(-5))	-0.016073	0.056109	-0.286457	0.7747
D(JSE)	0.069382	0.059996	1.156461	0.2484
D(JSE(-1))	0.031511	0.062166	0.506878	0.6126
D(JSE(-2))	-0.003947	0.062632	-0.063020	0.9498
D(JSE(-3))	0.039738	0.062209	0.638791	0.5234
D(JSE(-4))	0.063126	0.062365	1.012200	0.3122
D(JSE(-5))	-0.052045	0.062982	-0.826346	0.4092
D(TNSE)	0.894777	1.352294	0.661673	0.5087
D(TNSE(-1))	-0.466142	1.333055	-0.349680	0.7268
D(TNSE(-2))	0.102925	1.358770	0.075749	0.9397
D(TNSE(-3))	0.897208	1.354863	0.662213	0.5083
D(TNSE(-4))	-0.475102	1.358468	-0.349734	0.7268
D(TNSE(-5))	1.118379	1.325927	0.843470	0.3996
D(CASE)	-0.017131	0.192681	-0.088907	0.9292
D(CASE(-1))	0.125475	0.196201	0.639524	0.5229
D(CASE(-2))	0.023976	0.195417	0.122693	0.9024
D(CASE(-3))	-0.070122	0.194541	-0.360446	0.7188
D(CASE(-4))	0.327988	0.192533	1.703546	0.0895
D(CASE(-5))	0.262956	0.190233	1.382282	0.1679
R-squared	0.203995	Mean dependent var		-101.7644
Adjusted R-squared	0.145875	S.D. dependent var		598.7918
S.E. of regression	553.3969	Akaike info criterion		15.53819
Sum squared resid	96468160	Schwarz criterion		15.80906
Log likelihood	-2609.724	F-statistic		3.509843
Durbin-Watson stat	2.010552	Prob(F-statistic)		0.000000

**Nigerian All Share Index, South Africa, Tunisia and Egypt:
Closing Stock Price Index - 10 Dec 2007 to 3 April 2009**

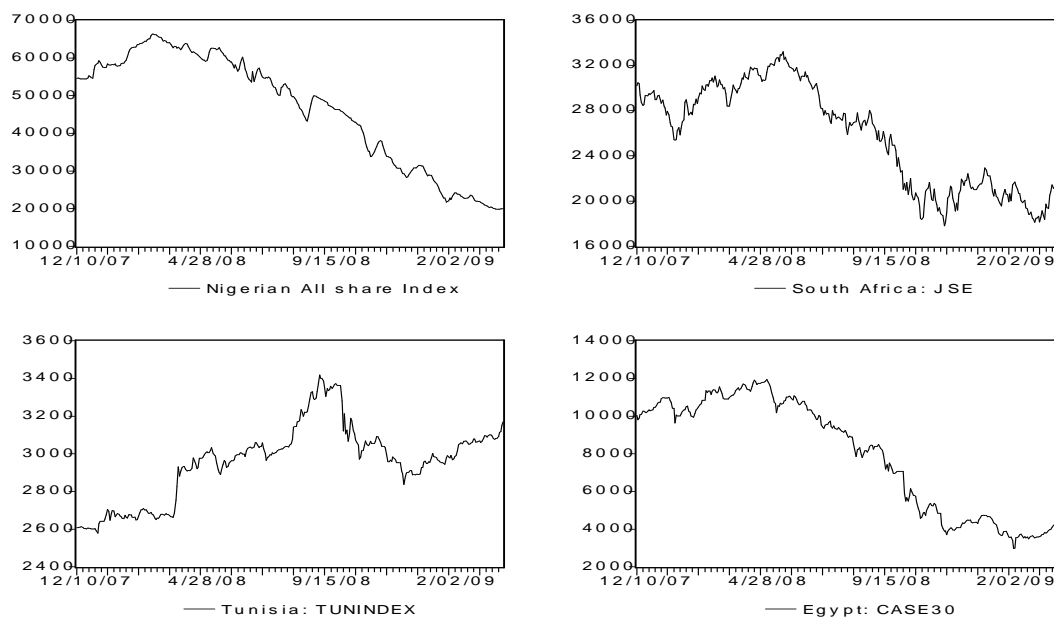


Figure 2: Nigerian Stock Market Trend and Selected Stock Market Trend for Emerging Stock Markets

Table (3.2): ADL Model for Developed Stock Markets on the NSE: Estimated (3.2)

Dependent Variable: D(NSE)

Method: Least Squares

Sample(adjusted): 12/18/2007 4/03/2009

Included observations: 339 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-53.20327	32.17703	-1.653455	0.0992
D(NSE(-1))	0.316842	0.056277	5.630064	0.0000
D(NSE(-2))	0.185960	0.059107	3.146185	0.0018
D(NSE(-3))	-0.005799	0.059912	-0.096794	0.9230
D(NSE(-4))	-0.067450	0.059294	-1.137558	0.2562
D(NSE(-5))	-0.008463	0.056286	-0.150363	0.8806
D(FTSE)	0.902396	0.444907	2.028280	0.0434
D(FTSE(-1))	0.131191	0.480248	0.273174	0.7849
D(FTSE(-2))	-0.415556	0.482715	-0.860873	0.3900
D(FTSE(-3))	-0.152201	0.484157	-0.314363	0.7535
D(FTSE(-4))	-0.109723	0.480385	-0.228406	0.8195
D(FTSE(-5))	-0.257755	0.457820	-0.563004	0.5738
D(NIKKEI)	-0.059307	0.159909	-0.370876	0.7110
D(NIKKEI(-1))	0.041076	0.171516	0.239490	0.8109
D(NIKKEI(-2))	0.363334	0.173278	2.096823	0.0368
D(NIKKEI(-3))	0.263993	0.173963	1.517521	0.1301
D(NIKKEI(-4))	0.211974	0.167392	1.266330	0.2063
D(NIKKEI(-5))	0.254215	0.137985	1.842337	0.0664
D(DOW)	-0.143241	0.233675	-0.612991	0.5403
D(DOW(-1))	-0.258453	0.249287	-1.036769	0.3006
D(DOW(-2))	-0.196162	0.257938	-0.760501	0.4475
D(DOW(-3))	-0.271988	0.263060	-1.033938	0.3020
D(DOW(-4))	-0.048559	0.256452	-0.189350	0.8499
D(DOW(-5))	-0.109735	0.247617	-0.443162	0.6580
R-squared	0.221171	Mean dependent var		-101.7644
Adjusted R-squared	0.164305	S.D. dependent var		598.7918
S.E. of regression	547.3938	Akaike info criterion		15.51638
Sum squared resid	94386603	Schwarz criterion		15.78725
Log likelihood	-2606.026	F-statistic		3.889285
Durbin-Watson stat	1.997389	Prob(F-statistic)		0.000000

Nigerian All Share Index, FTSE 100, DOW JONES and NIKKEI225
Closing Stock Price Index: 10 Dec 2007 to 3 April 2009

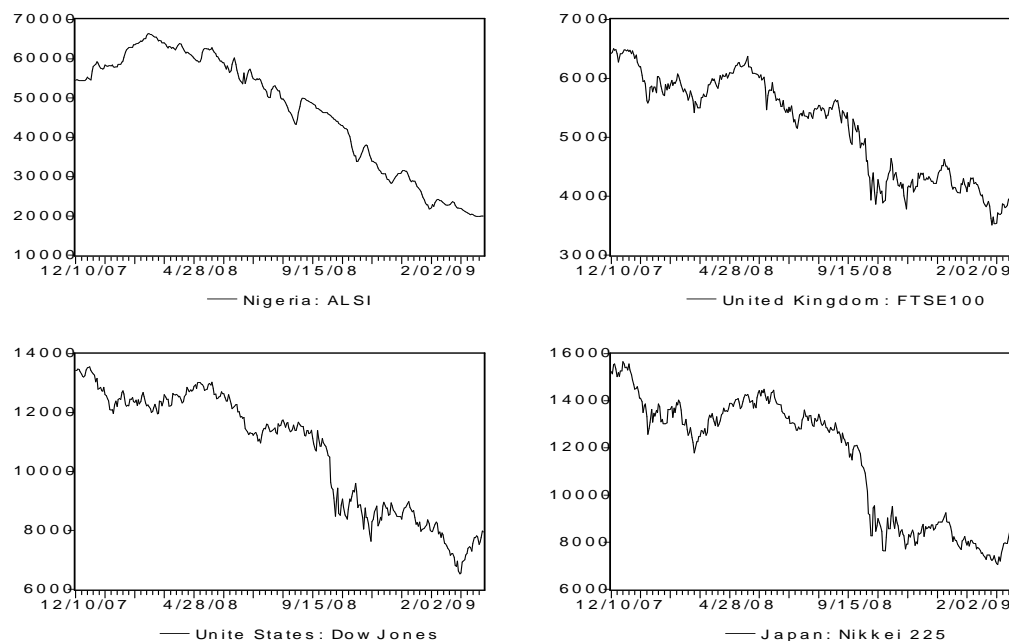


Figure 2: Nigerian Stock Market Trend and Selected Stock Market Trend for Developed Stock Markets